MEDICAL PROFESSIONS IN INTERNATIONAL PERSPECTIVE

NURSE

Edited by
Małgorzata Nagórska

WYDAWNICTWO UNIWERSYTETU RZESZOWSKIEGO

MEDICAL PROFESSIONS
IN INTERNATIONAL PERSPECTIVE

NURSE

MEDICAL PROFESSIONS IN INTERNATIONAL PERSPECTIVE

NURSE

Edited by
Małgorzata Nagórska

WYDAWNICTWO
UNIWERSYTETU RZESZOWSKIEGO
RZESZÓW 2022

Reviewers
Doc. HENRIETT EVA HIRDI PhD
Prof. PhDr. LUCIA DIMUNOVA PhD

Proofreading
TIMOTHY DOWNEY

Technical preparation and typesetting
AGNIESZKA SZCZEPAŃSKA-PĄCZEK

Technical correction
EWA KUC

Cover design
PIOTR KOCZĄB

ISBN 978-83-7996-995-1 (on-line version)
ISBN 978-83-7996-998-2 (print version)

1926

WYDAWNICTWO UNIWERSYTETU RZESZOWSKIEGO
35-959 Rzeszów, ul. prof. S. Pigonia 6, tel. 17 872 13 69, tel./fax 17 872 14 26
e-mail: wydaw@ur.edu.pl; https://wydawnictwo.ur.edu.pl
wyd. I; format B5; ark. wyd. 17,70; ark. druk. 15; zlec. red. 110/2021
Printing and binding: Drukarnia Uniwersytetu Rzeszowskiego

CONTENTS

NOTES ABOUT THE AUTHORS

Linda Alondere MA (Ed), MHS
Head of Medicine Department and Nursing Department, Docent at Riga Medical College of the University of Latvia. Lecturer at Faculty of Medicine of the University of Latvia.

José Carlos Carvalho PhD
PhD in Nursing Sciences. Specialist Nurse in Mental Health and Psychiatric Nursing Coordinator Professor at Nursing School of Porto, Portugal (*Escola Superior de Enfermagem do Porto* – ESEP). President of the Pedagogical Council at Nursing School of Porto. Researcher at the Center for Research in Health Technology and Services (CINTESIS) - University of Porto, Portugal. Founding member and member of the Portuguese Society of Mental Health Nursing (ASPESM).

Raul Alberto Carrilho Cordeiro PhD
PhD in Health and Science Technologies – Human and Social Development, Specialist Nurse in Mental Health and Psychiatric Nursing, Coordinator Professor at Polytechnic Institute of Portalegre, Portugal. Invited Professor at Klaipeda State University of Applied Sciences (KVK). Lithuania, Peer Reviewer of the Science Fund of the Republic of Serbia, Executive Member on Board of North Alentejo Health Administration System (NHS), Portugal, Member of I&D Centers: Comprehensive Health Research Centre (CHRC), Portugal, VALORIZA - Research Center for Endogenous Resource Valorization, Portugal, CINTESIS, Center for Research in Health Technology and Services, Portugal.

Birutė Gostevičienė MSc
Dean of Health Care Faculty and Lecturer of Nursing Department at Vilniaus kolegija/University of Applied Sciences. Master of Nursing and Rehabilitation. Member of Lithuanian Nurses with University Education Association, Lithuania.

Roxana Hainagiu
Advisor Ministry of Health of Romania, Head of Public Affairs and International Relations at the Order of Nurses of Midwives of Romania. European Affairs and international relations specialist.

Sachiko Horita RN, MN
Research associate of Environmental Health Nursing, Human Health Sciences, Graduate School of Medicine, Kyoto University, Japan. Member of the Japan Society of Nursing Research, the Japan Academy of Nursing Science, and the Japanese Society of Sleep Research.

Ilya Kagan RN, BsN, MA, PhD
Senior Lecturer, Head of the Accelerated programme for non-nursing BA graduates at the Nursing Department of Steyer School Health Professions, Sackler Faculty of Medicine, Tel Aviv University, Israel. Member, Steering Committee, The Israeli Society for Quality in Health Care, Israeli Medical Association; Member, The International Society for Quality in Health Care (ISQua), Europe; Member, Sigma Theta Tau International (STTI), The Phi Mu Chapter (UK), England, Europe; Member, Sigma's European Regional Communications Taskforce, Sigma Theta Tau International (STTI).

Prof. Neziha Karabulut RN, PhD
Professor at the Health Sciences Institute, The Nursing Faculty of the Atatürk University, Erzurum, Turkey. Head of the Department of Surgical Nursing. She also attended SUNY Cobleskill in 2007 and YALE University school of nursing in 2013. Member of Turkish Nurses Association (TNA) and Association of Urology Nurses (AUN). Member of an editorial board of Caucasian Journal of Science.

Jelena Kuznecova RN, MHS
Lecturer at Riga Medical College of the University of Latvia. Acting Assistant at Faculty of Medicine of Riga Stradiņš University, Medical Education Technology Centre, Department of Clinical Skills and Medical Technologies, Riga, Latvia. Nurse at Riga Eastern Clinical University Hospital, Neurology and Neurosurgery Clinical Centre; Member of Latvian Nurses Association.

Małgorzata Lesińska-Sawicka RM, MN, PhD
Assistant professor at the Department of Nursing of the State University of Applied Sciences in Piła Poland. Head of the Department of Nursing. Member of the Polish Nursing Association (PTP) and European Transcultural Nursing Association (ETNA).

Tina Levec BA, BA
Deputy Head of the Department of Prosthetics Faculty of Health Sciences, University of Ljubljana, Slovenia. Member of the Quality Assurance Committee of the Faculty of Health Sciences. Lector of the English language in the field of healthcare sciences.

Prof. Dragana Milutinović RN, PhD
Professor in Nursing at the Faculty of Medicine, University of Novi Sad, Serbia. Guest nurse lecturer at two universities: the Josip Juraj Strossmayer University of Osijek, Croatia and the University of Montenegro. President of the Scientific Board of Serbian Nurses and Midwives Association, editorial board member of national journal: *Nursing Word and m*ember of the UDINE Nursing international network.

Małgorzata Nagórska RM, BMid, MA, PhD
Assistant professor at the Institute Medical Sciences, Medical College of the University of Rzeszow, Poland. Head of the Department of Social Sciences. Specialist in Obstetrics Nursing. Member of the Polish Midwives Association (PTP), Polish Sociological Association (PTS) and European Transcultural Nursing Association (ETNA). Member of an editorial team of the *European Journal of Clinical and Experimental Medicine (EJCEM)*.

Isuzu Nakamoto RN, RPHN, MS, PhD
PhD in Environmental Health Nursing, Human Health Sciences, Graduate School of Medicine, Kyoto University, Japan. Member of the Japan Society of Nursing Research (International Activity Promotion Committee), the Japan Academy of Nursing Science, the Japanese Society of Nursing Art and Science, the Japan Society for Chronobiology and the Japanese Society of Physiological Anthropology (Young Investigator Committee).

Sara Nissim RN, BsN, MA, PhD
Director of the Wolfson School of Nursing, affiliated to Tel Aviv University, Israel. Former Head of Nursing of Zefat Academic College. A Nursing Leader and a nationally and international expert in Cultural Diversity and Transcultural Nursing. Member of board and reviewer of the Journal of Transcultural Nursing and member Steering Committee and treasurer of ETNA (European Transcultural Nursing Association).

Karin Lee Ovadia RN, BScN, MA, MW
Nurse Manager, Delivery Room, Asaf Harofeh Medical Center, Israel. Head Midwife at the Delivery Rooms in the Shamir Medical Center in Zrifin, Israel. Member of the Association of Israeli Midwives. Infection Control Nurse, previously Head of the Association of Infection Control Nurses in Israel.

Ljubiša Pađen BSc, MSc, PhD
Senior lecturer in Nursing at the Department of Nursing, Faculty of Health Sciences, University of Ljubljana, Slovenia. Registered Nurse in Slovenia and United Kingdom. Member of the Nurses and Midwives Association of Slovenia, Slovenian Wound Management Association, European Wound Management Association,

Tissue Viability Society (United Kingdom) and Tuning CALOHEE nursing group 2016-2019. He is also a member of Expert Advisory Committee for Nursing at the Ministry of Health of Republic of Slovenia.

Manca Pajnič RN, MA, PhD
Deputy Head of Department of Nursing, Faculty of Health Sciences, University of Ljubljana, Slovenia. Head of Nursing Chair. Lecturer of Gerontological Nursing and Perioperative Nursing Care course. Member of the Nurses and Midwives Association of Slovenia (Zbornica – Zveza), European Transcultural Nursing Association (ETNA), and Tuning CALOHEE nursing group 2016-2019.

Prof. Irena Papadopoulos PhD, MA (Ed.), BA, DipNEd, DipN, RN, RM, ND-NCert, FHEA
Founder and Head of the Research Centre for Transcultural Studies in Health, Middlesex University London, United Kingdom. Founding member and President of European Transcultural Nursing Association (ETNA). Co-Founder of the EU funded IENE (1-10) programme (Intercultural Education for Nurses in Europe), founder of the ICCCOS programme (International Culturally Competent and Compassionate On-line Surveys), and founding member of the CARESSES project (Culture-Aware Robots and Environmental Sensor Systems for Elderly Support).

Assoc. Prof. Katalin Papp RN, MA, PhD
Associate professor at the Faculty of Health, University of Debrecen, Hungary. Secretary Chamber of Hungarian Health Care Professionals. Founding member of European Transcultural Nursing Association (ETNA).

Simona Paulikienė PhD
Associate Professor of Nursing Department at Vilniaus kolegija/University of Applied Sciences, Lithuania. Former Head of the Partnerships and Practical Training Division of Health Care Faculty at Vilniaus kolegija/University of Applied Sciences. Member of Lithuanian Educational Research Association.

Sawako Sasai RN, RPHN, RMW, MN
Doctoral student of Environmental Health Nursing, Human Health Sciences, Graduate School of Medicine, Kyoto University, Japan. Member of the Japanese Society of Public Health.

Assoc. Prof. Dragana Simin RN, PhD
Associate professor in Nursing at the Faculty of Medicine, University of Novi Sad, Serbia. Head of the Department of Nursing. Member of the Serbian Nurses and Midwives Association and editorial board member of the national journal: *Nursing Word.*

Assoc. Prof. PhDr. Andrea Solgajová RN, PhD
Head of the Department of Nursing, Faculty of Social Sciences and Health Care, Constantine the Philosopher University in Nitra, Slovakia. Specialist in Nursing Care for Adults and Specialist in Community Care. Supervising educator for nurse lectors, neurological clinic, Faculty Hospital, Nitra, Slovakia. Member of the National Commission on Education of Nurses and Midwives. Research representative for Slovakian the European Nursing Research Foundation (ENRF).

Mircea Timofte
The President of the Order of Nurses of Midwives of Romania, since 2008, previously acting as vice-president of the same organization. He also holds the position of Chief Nursing Officer within the Romanian Ministry of Health. The President of the European Nursing Council, beginning with March 2019. Specialist in Emergency Care Nursing.

Prof. PhDr. Valerie Tothova PhD
Professor in Nursing at the University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, Czech Republic and serves as the Vice-Dean of Science and Research, and is the head of the Institute of Nursing, Midwifery, and Emergency Care. President of the Association of University Educators of Non-Medical Health Professions in the Czech Republic, Member of European Transcultural Nursing Association (ETNA), International Association for Human Caring (IAHC) and Czech Association of Nurses (CAS).

Sayaka Uiji RN, RPHN, MN
Doctoral student of Environmental Health Nursing, Human Health Sciences, Graduate School of Medicine, Kyoto University, Japan. Research Fellowship for Young Scientist (DC1) of Japan Society for the Promotion of Science. Member of the Japan Society of Nursing Research, the Japan Academy of Nursing Science, the Japanese Society of Nursing Art and Science, the Japanese Society for Chronobiology and the Japan Society of Physiological Anthropology.

Prof. Tomoko Wakamura RN, RPHN, MHomeEc, PhD
Professor of of Environmental Health Nursing, Human Health Sciences, Graduate School of Medicine, Kyoto University, Japan. Member of Director of the Japan Society of Nursing Research, Member of Councillor of Japan Academy of Nursing Science, Member of Councillor of the Japanese Society of Nursing Art and Science, the Japanese Society for Chronobiology, and Member of Councillor of the Japaneas Society for Sleep Reserach, Member of Director of the Japan Society of Physiolgical Anthropology and Editor of *the Journal of Physiological Anthropology*. Member of the American Academy of Sleep Medicine.

Renata Vettorazzi RN, BSc Org, IBCLC
Lecturer in Department of Nursing, Faculty of Health Sciences, University of Ljubljana, Slovenia. Coordinator of the International Examination Commission for Lactation Counselors (IBCLC) for Slovenia. A board member of the Slovenian Breastfeeding Committee at UNICEF Slovenia and The Association of Lactation and Breastfeeding Consultants of Slovenia.

PhDr. Dana Zrubcová RN, PhD
Vice-dean for Education Faculty of Social Sciences and Health Care, Constantine the Philosopher University in Nitra Slovakia. Assistant professor at the Department of Nursing, Faculty of Social Sciences and Health Care, Constantine the Philosopher University in Nitra, Slovakia. Specialist in Nursing Care in Psychiatry and Specialist in Community Care. Nursing Supervising educator for nurse lectors, psychiatric clinic, Faculty Hospital, Nitra, Slovakia. Member of presidium of the Slovak Chamber of Nurses and Midwives (SK SaPA). Member of the National Commission on Education of Nurses and Midwives.

LIST OF ABBREVIATIONS

AEI	Visiting Approved Education Agency for Quality Assurance in Higher Education (*slov. NAKVIS –Nacionalna agencija Republike Slovenije za kakovost v visokem šolstvu*)
AI	Artificially Intelligent
ALES	Academic Staff and Graduate Education Entrance Exam
APHNMN	Act on Public Health Nurses, Midwives, and Nurses
APN	Advanced Practice Nurse
ARA	American Relief Administration
AZMU	American Zionist Medical Unit of Hadassah
BA	Bachelor
BA	Bachelor of Arts
BMid	Bachelor of Midwifery
BSc	Bachelor Sciences
BScN	Bachelor of Sciences in Nursing
BWS	Belgrade Women's Society
CAN	Czech Association of Nurses (*cz.Česká společnost sester*)
CAN	Czech Nurses' Association (*cz Česká asociace sester*)
CARESSES project	Culture-Aware Robots and Environmental Sensor Systems for Elderly Support project
CDPC	Centre for Disease Prevention and Control
CHHP	Chamber of Hungarian Health Care Professionals
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CKPPiP	Centre for Postgraduate Education of Nurses and Midwives (*pol.Centrum Kształcenia Podyplomowego Pielęgniarek i Położnych*)
CN	Certified Nurses
CNS	Certified Nurse Specialist
COVID-19	Coronavirus disease 2019
CP	Credit Points
CPD	Continuing Professional Development
CPLP	Community of Portuguese Speaking Countries
CSS	Circle of Serbian Sisters
CZ	Czech Republic
CZK	Czech crown
CZR	Czechoslovak Republic

DipNEd	Diploma in Education
DipN	Diploma in Nursing
DN	Dental nurse
EBN	Evidence Based Nursing
EBSCO	Elton Bryson Stephens Company
ECTS	European Credit Transfer System
EEA	European Economic Area
EfCCNa	European federation of Critical Care Nursing associations
EFN	European Federation of Nurses
FHEA	Fellow of Higher Education Authority
EJCEM	European Journal of Clinical and Experimental Medicine
EMA	European Midwives Association
ETNA	European Transcultural Nursing Association
EU	European Union
EU POWER	European Power Programme
FTE	Full Time Equivalent
GCE	General Certificate of Education level
GHQ	General Headquarters
GON	Gynecological-obstetric nurse
GP	General Practice
HORATIO	European Psychiatric Nurses
HMA	Health Management and Administration
HNA	Hungarian Nursing Association
IAHC	International Association for Human Caring
ICCCOS	International Culturally Competent and Compassionate On-line Surveys
ICN	International Council of Nurses
ICNP®	International Classification for Nursing Practice
ICND	International Classification of Nursing Diagnoses
ICND/NANDA	International Classification of Nursing Diagnoses/ North American Nursing Diagnosis Association (NANDA)
ICNI	International Classification of Nursing Interventions
IENE (1-10)	Intercultural Education for Nurses in Europe
ISCED	International Standard Classification of Education
JEPCMA	Jan Evangelista Purkyně Czechoslovak Medical Association (*cz. Československa lékařská společnost Jana Evangelisty Purkyně*)
JNA	Japanese Nursing Association
KMSZT	The Chamber of Nurses and Healthcare Technicians
KMSZTS	Chamber of Nurses and Medical Technicians in Serbia (*serb. Komora medicinskih sestara i tehničara Srbija*)
KU	Klaipeda University
LNA	Latvian Nurses Association
LNO	Lithuanian Nurses' Organization

LPN	Licensed Practical Nurse
LUHS	Lithuanian University of Health Sciences
MA	Master of Arts
MEXT	Ministry of Education, Culture, Sports, Science and Technology
MHCR	Ministry of Health of the Czech Republic
MHLW	Ministry of Health, Labor and Welfare
MOH	Ministry of Health
MPH	Master of Public Health
MN	Master Science in Nursing
MSc	Master of Science
NANDA	North American Nursing Diagnosis Association
NDNCert	National District Nurse Certificate
NEAQA	National Entity for Accreditation and Quality Assurance in Higher Education (*serb. Nacionalno telo za akreditaciju i obezbeđenje kvaliteta u visokom obrazovanju*)
NERP	Nursing Education, Research & Practice
NIPIP	Main Chamber of Nurses and Midwives (*pol. Naczelna Izba Pielęgniarek i Położnych*)
NP	Nurse Practitioner
NHS	National Health Service
NMC	Nursing and Midwifery Council
NRVQ	National Register of Vocational Qualifications
OECD	Organization for Economic Cooperation and Development
PHARE	Poland and Hungary: Assistance for Restructuring their Economies
PhD	Doctor of Philosophy
PhDr.	Philosophy Doctor (degree between MS and PhD in some countries)
PHN	Public Health Nurse
PLN	Polish zloty, polish currency
PN	Pediatric nurse
PSPZ	Polish Association of Professional Nurses (*pol. Polskie Stowarzyszenie Pielęgniarek Zawodowych*)
PTP	Polish Nursing Association (*pol. Polskie Towarzystwo Pielęgniarskie)*
PTP	Polish Midwives Association *(pol. Polskie Towarzystwo Położnych)*
PTS	Polish Sociological Association (*pol. Polskie Towarzystwo Socjologiczne)*
RCN	Royal College of Nursing
RM	Registered Midwife
RN	Registered Nurse
QAIMNS	Queen Alexandra Imperial Military Nursing Service
SCI index	Serbian Citation Index
SEN	State Enrolled Nurse
SK SaPA	Slovak Chamber of Nurses and Midwives *(slo. Slovenská komora sestier a pôrodných asistentiek*)

SK SZP	Slovak Chamber of Middle Health Workers (*slo. Slovenská komora stredných zdravotníckych pracovníkov)*
SLONDA	Slovenian Nursing Diagnoses
SRN	State Registered Nurse
UINARS	National Association of Nurses - Technicians of Intensive Care, Anesthesia and Resuscitation of Serbia (*serb. Udruženje medicinskih sestara-tehničara intenzivnih nega-anestezije i reanimacije Srbije*)
UKCC	United Kingdom Central Council for Nursing, Midwifery and Health Institution
UMSTBS	Association of Nurses-Technicians and Midwives of Serbia (*serb. Udruženje medicinskih sestara-tehničara i babica Republike Srbije*)
UN	United Nations
WHO	World Health Organization
WWI	World War I
WWII	World War II
VU	Vilnius University
YMCA	Young Men Christian Association
YWCA	Young Women Christian Association

PREFACE

Nursing is a progressive art such that
to stand still is go to backwards.
Florence Nightingale

Today, nurses are the largest group among the medical professions, they are also autonomous members of the therapeutic team and play a key role in the health care system.

Vocational nursing is over 160 years old, and the conventional date of its creation is 1860, when Florence Nightingale, the forerunner of world nursing, founded the first secular nursing school at St. Thomas' Hospital in London. Since then, nursing has come a long way, from an auxiliary profession to full professionalization. The evolution of nursing has led nurses to hospitals, schools and clinics, made them face many problems, but also triggered inspiration in others, in different situations. However, the most significant thing in this nursing journey over the centuries is primarily the care for the patient. All the activities undertaken by nurses and for nursing have at their centre mankind - healthy, sick, at risk of illness, etc., people who makes nursing develop and does not allow it to stop. This dynamism has made nurses highly specialized, respected members of medical and healthcare teams over the decades.

The idea of preparing this book was born some time ago, but the real inspiration for its publication was the pandemic caused by SARS-CoV-2 and its effects, including for nurses who risked their lives to help their patients, for which many of them made the highest sacrifice.

When the World Health Organization declared 2020 the year of nurses and midwives, no one predicted how difficult the examination would soon be for these two professional groups together with other health care professionals. The year 2020 went down in history as the year of the COVID-19 pandemic, but also once again showed how important a place nursing occupies in the lives of people, nations and the world.

This publication that I have had the pleasure to edit presents the past and present of nursing in 14 countries. The chapters have a similar structure, so you can learn about the history of the nursing profession in individual countries, changes in the education system, nursing organizations and magazines, as well as the current

situation in nursing. The work also takes on particular importance because there has not yet been a publication that shows in such a comprehensive way the dynamism of changes in nursing in many different countries. With a multifaceted approach to nursing, I hope that this book will serve not only nurses and nursing students, but also all those who are interested in this unique profession.

I would like to take this opportunity to thank all the Authors who accepted the invitation and contributed to the creation of this interesting narrative. I have been lucky enough to meet most of you and collaborate on various projects. Thank you for all these years together and the inspiration I have always drawn from you. Thank you also for your commitment and enthusiasm in the creation of this book.

We dedicate this book to all Nurses in the world who help their patients every day.

I hope you enjoy reading it.

Małgorzata Nagórska

Valerie Tothova

NURSING IN CZECH REPUBLIC

1. Brief history of nursing

The origins of organized care for ill people could be seen in the 10th century in areas that would become known as Czechia; at this time, the first hospices were established in the area that would become Prague, today, the capital of the Czech Republic. Civil nurses, working in these early hospices, helped with the basic needs for the destitute and ill. Various religious orders and congregations played a similar role, establishing the first spitals alongside their monasteries [1].

Agnes of Bohemia – the sister of the Czech king Václav I – was a significant figure in the early origins of Czech nursing. She established several monasteries in Prague – the first being established in 1233, at St. Haštal's, which also included a spital. Agnes was the first woman to establish a Czech nursing order – the order of the Knights of the Cross with the Red Star [2]. In later years, Agnes of Bohemia came to be considered the founder of Czech nursing [3]. Other orders that established spitals and engaged predominantly in nursing care included the nuns of the Order of St. Charles Borromeo, of the Order of the Knights of Malta, of the Order of Elizabeth and Brothers of Mercy [1].

The development of nursing was greatly influenced by the development of medicine. Physicians needed assistants who would assist in carrying out their instructions. That need quickly led to the professional education of nurses. As Jarošová [4] states, physicians needed educated staff to assist them. The origin of nursing schools, and the education of women in general, was significantly influenced by the strong emancipation movement in the second half of the 19th century [1]. The first Czech Nursing School was established in Prague in 1874. Its existence was considerably influenced by Karolína Světlá, a great Czech writer and leader in the women's movement [5]. The Czech nursing school provided nurses with a professional education in theory and practice and was under the guidance of Czech physicians who also lectured at the Faculty of Medicine of Charles' University. Attending nursing school usually took five months and consisted of a single course. The course was concluded by an exam, and the graduates received a diploma. The nursing school was short-lived; it ceased to exist after eight graduating classes, probably for national and financial reasons [1,6]. According to Florence Nightingale, the school offered a modern nursing education. In her book, which was translated into Czech, she highlighted the vital role of women as health care providers [7]. It must be emphasized that the Prague nursing school was the first nursing school in the Austria-Hungary territory and it influenced, to some degree, the development of nursing throughout Central

Europe by calling attention to the need for a systematic education of nurses as nursing responsibilities became more and more challenging [3].

After the establishment of the first nursing school, qualitative changes in the development of nursing gradually occurred in the Czech region. Although the social and legal position of nurses was still poor, women confidently accepted the fact that they could carry out the duties of the profession and were very proud of it. As Kutnohorská [2] states, Czech nurses ranked among the first to strive for the professionalization of nursing. At that time, nursing care was focused on activities in the hospital on the one hand and on primary health care on the other. In hospitals, patients were cared for by nuns and civil nurses under very adverse conditions [1]. Hospital nursing was focused on satisfying the needs of patients, assisting with specific medical interventions, and the operation and management of hospital wards. Professional nursing was in an early stage; nonetheless, qualified nursing activities were needed not only in hospitals but also in the socially, culturally, and medically underdeveloped areas. After the first Czech Nursing School ceased to exist, the responsibility for nurse training and education returned to local clinics for many years [2].

In 1914, the Austrian Ministry of the Interior issued a decree declaring that nursing care of patients as a profession. The decree recognized the significance of nursing care and legalized the establishment of nursing schools [2]. The nursing studies were to be concluded by an exam, and the graduates were to receive the title of "certified nurse" [3]. Within the authority of the decree, the Czech Civil State Nursing School was opened in Prague in 1916 [1]. The school was highly professional. In 1920, during the First Czechoslovak Republic, three experienced American nurses were invited to Prague to develop both theoretical and practical lessons and to train the first graduates to work as nurses-teachers for practical training. American nurses significantly increased training intensity. They used Florence Nightingale's book as the fundamental textbook. From 1920–1923, the American, Miss Marion G. Parsons was the director of the school. Sylva Macharová became the first Czech director of the school in 1923 [8]. In the same year as the founding of the Czech nursing school, i.e., in 1916, a German Nursing School was also opened in Prague [2]. At the time, there was a considerable German-speaking population living in the First Czechoslovak Republic - 23.4% [9].

The foundation of the First Czechoslovak Republic (CZR) in 1918 brought about an essential change in the social position of women. These mirrored the changes in social standards and cultural needs, which were also naturally reflected in changes in education. At the time of the establishment of the Republic, nurses were already taking classes in the Czech state nursing school. The above mentioned Austrian ministerial decree from 1914 also allowed religious corporations to establish schools. The Czech-German School of St. Francis of Assisi in Opava was one of the first; two other schools were established in Hradec Králové: Nursing School of the Grey Nuns of the 3rd Order of St. Francis and the Professional School for

Female Professions of the Poor School Nuns de Notre Dame. In Prague, the Nursing School of the Sisters of Mercy of St. Charles Borromeo was also established [2].

At the time of the foundation of the CZR, nurses fell into one of three categories: nuns (caregivers), nurses without education, and trained and certified nurses. Nurses without education had usually had some specialized training but had not taken certified courses. Certified nurses worked in inpatient wards or as surgical technologists, as nurses at X-ray stations, in laboratories, or in outpatient departments. They were usually expected to work as nurses in charge or "charge nurses." The core nursing staff in the hospitals consisted of nuns, and certified nurses were not always warmly welcomed. They often faced difficulties and challenges trying to change habitual, and often bad practices. Young civil certified nurses tried to apply what they had learned in nursing school into practice, which meant they were in frequent conflict with the routines of uncertified nurses.

New working methods required significantly more nurses with better professional preparation, more aids, more time, more money, new work organization, and notably greater attention and more in-depth understanding of medical practices [1]. For these same reasons, the new methods could not be quickly implemented everywhere. At some clinics, certified nurses got strong support from physicians who realized that an educated nurse could be a great asset for the physician. Professor MUDr. Ladislav Syllaba from the clinic of internal diseases in Prague was ranked among the biggest supporters of certified nurses and fought for the affirmation of professional nursing. He often emphasized that a modern nurse should be a fair, vigilant, and accurate observer of the patient and of all the patient's functions and act as a good assistant in examinations and therapeutic interventions [10].

In that period, certified nurses played an essential role in the development of nursing. The first graduates from the CZR nursing school founded the Association of Nursing School Graduates and considered it their duty and mission to do everything they could to strengthen the nursing profession [3]. The main goal of the Association consisted of recruiting and educating nurses, which was implemented in different forms. The Association focused on raising the professional level of nurses by organizing lectures and professional courses. Almost all nurses were interested in the success of the association and became enthusiastic fighters for their rights. They wanted to gradually move to a time when only professionally educated nurses worked in hospitals [1]. Certified nurses were very active within the Association; they organized congresses at which nurses discussed important nursing issues and conceptual ideas to enhance the quality of nursing care and, at the same time, to improve the position of nurses. They formulated these aspirations into practical resolutions, which they submitted after each congress to the Ministry of Health and Physical Education. Within the Association, certified nurses also strengthened their contacts with the International Council of Nurses in Geneva. In 1933, the Association of Certified Nurses in the CZR was admitted as a regular member of the International Council of Nurses (ICN). That membership constituted both a great honor and a significant

obligation to the certified nurses of the CZR and started considering nursing to be an independent discipline [11]. They submitted a new memorandum to the ministry, formulating the requirements that would ensure and direct further development of nursing in the CZR. The Association members strongly advocated for civil nurses to get higher positions. They also expressed the opinion that one nurse should care for 6 patients in an inpatient ward. They published these demands in the *Československá nemocnice* (Czechoslovak Hospital) journal [12]. Certified nurses gradually came to terms with the fact that untrained nurses could not be abruptly dismissed from health care services [13]. The Association also pressed for the proposal of a standardized nursing unit having a 30-bed maximum. In 1937, the *Diplomovaná sestra* (Certified Nurse) [3] journal was established in which nurses could publish professional articles and express opinions regarding the development of nursing and nursing requirements as part of an independent discipline [1].

The positive development of Czechoslovak nursing was violently interrupted by World War II. The activities of the Association and the journal were stopped; no new nursing schools were opened, but lessons in the existing schools continued. Nonetheless, we can still observe the relative progress of organized hospital nursing care despite the horrors of war. Organizational rules and job descriptions for nurses in all positions, i.e., shift nurses, ward nurses, and charge nurses were developed. The physicians started recognizing the nurse as essential coworkers needed to ensure high-quality professional patient care. Thus, the war situation and the associated increased need for nurses, paradoxically, positively influenced the development of hospital nursing [3].

Until 1973, Czechoslovak nurses did not have a professional organization; however, starting in 1960, they could work in individual sections of the Jan Evangelista Purkyně Czechoslovak Medical Association (*Československá lékařská společnost Jana Evangelisty Purkyně*) (JEPCMA) [14]. In 1951, the Zdravotnická pracovnice (Health Care Worker) trade union journal was established and gradually became a professional journal. Starting in 1970, the journal added a supplement called *Československé ošetřovatelství* or Czechoslovak Nursing [3].

In 1973, the Czech Association of Nurses (*Česká společnost sester*) (CAN) was established within JEPCMA [15]. It soon started cooperating with the Slovak Association of Nurses, which had been established in 1972. Based on that cooperation, the Czechoslovak Association of Nurses (*Československá společnost sester*) was founded – that important step made it possible to apply for ICN membership, which, after extensive preparations, was realized in 1981. In 1982, the application was granted, and the Czechoslovak Association of Nurses was admitted into the ICN [16]. The membership lasted until 1993 [2], at which time Czechoslovakia split into the Czech and Slovak Republics, and each country sought and was granted membership into the ICN, separately.

The post-revolution years of 1989 and 1990 brought significant changes in almost all fields. In 1990, the Professional Trade Union of Health Care Workers

(*Profesní odborová organizace zdravotnických pracovníků*) was established as a professional organization unifying health care workers and protecting their professional, trade union, economic, and social rights. Other associations established at that time include Nurses' Clubs (Kluby sester) (2), which merged with the ČSS in 1991, and the name was changed to the Czech Nurses' Association (*Česká asociace sester*) (CNA). However, it was ultimately decided to register the CNA as a new organization. Thus, the CAN registered again, under its original name. It took nine years, until 2000, before both organizations finally merged, with the merged organization keeping CNA as its official name [16]. In 2016, another professional organization called the Association of Nurses with University Degree (*Spolek vysokoškolsky vzdělaných sester*) was established, with the aim of supporting scientific nursing within the practice of the nursing profession.

Since 1990, efforts trying to force the establishment of a chamber of nurses have repeatedly emerged. Despite all these efforts, nurses still have not found political support, and the chamber has yet to be established. At present, activities working toward the establishment of a Chamber of General and Pediatric Nurses (*Komora všeobecných sester*) are again underway; however, this time, they are supported by many of the deputies of the Czech Parliament.

Publishing in the nursing discipline has intensified since 1990. Professional and scientific journals for nursing topics have gradually increased. In 1991, the first issue of the Czech Nurse (*Sestra*) journal came out, and in 2005, the first issue of the Florence journal was published. Both journals were intended for nurses dealing with nursing theory and practice. The Nurse journal stopped being published in June 2014. Presently, in the Czech Republic (CZ), there are three scientific journals in which nurses can publish the results of their research. Two scientific journals *Contact* and the *Central European Journal of Nursing and Midwifery,* both are registered in the Scopus database. Two other journals, Profession Online (*Profese Online*) and Nursing (*Ošetřovatelství*) are a peer-reviewed journals [2, 3].

2. System of education for nurses

During World War II, but primarily after its end, the need for qualified nursing staff increased dramatically (3). The network of state nursing schools quickly expanded - in 1946, the CZR had 29, and by 1947, it had risen to 40 [17].

It is important to stress that the schools affiliated to religious orders established in the interwar period kept preparing nurses after World War II. The number of nursing schools supported by religious orders was extended by the German nursing schools of the congregation of the Daughters of the Most Holy Savior in the cities of Znojmo (Moravia), Ústí nad Labem (Bohemia), and Košice (Slovakia). In the interwar period, nursing schools in Ostrava, Brno (Moravia), and in Turčianský sv. Martin (Slovakia) were also opened [2].

All nursing schools existing at that time were considered primary nursing schools that prepared nurses for actual nursing care [2]. Education of nurse-teachers was provided at the Higher Nursing School, which opened in Prague in 1946; its second branch prepared nurses for managerial positions in nursing. The school was considered very progressive for its time [3].

The positive development of the primary system of education for nurses ended in February 1948 when Czechoslovakia ultimately adopted the Soviet educational system, which, of course, affected nursing education too. Nursing schools became secondary schools and started educating young people, aged 15–19 years, for the nursing profession [18]. That educational style of preparing nurses existed until the CZ joined the European Union in 2004. In 1960, university studies for nurses started at the Faculty of Arts and at the Faculty of Medicine of Charles' University in Prague. The studies were intended for teachers of nursing subjects at secondary nursing schools. In 1987–1994, the Faculty of Arts of Charles University in Prague offered a single-branch of studies regarding the care of patients, which was intended for head nurses and charge nurses [3].

Since 1960, the National Center of Nursing and Paramedical Health Care Workers in Brno has been offering further education to health care workers. Since its establishment, the Center has had several names - the current name dates from 2003 [2]. Continuing education includes workshops, topical courses, and specialized educational programmes.

1989 brought not only political but also social and economic changes in the Czechoslovak society. The educational system which had existed for several decades did not suit the requirements for health care of that time nor for the future, and it did not conform with nursing education offered abroad either. In the early nineties, the leading personalities in nursing started preparing the first post-revolution reform of health care education. The curriculum of nursing education at secondary nursing schools was changed, and at the same time, the preparation of educational programmes for certified nurses at higher nursing schools was developed. In 1996, three-year qualification studies were opened at higher nursing schools. The studies were intended for all graduates from secondary schools [3]. In 1992, a Bachelor studies program for nurses was started as well, but only for post-qualification studies after secondary nursing school. Additional Bachelor's study programmes were opened at the Faculties of Medicine in Prague, Hradec Králové, and Olomouc [2].

Regular Bachelor studies qualifications for general nurses were started for the first time in 2001 at two faculties, specifically at the Faculty of Health and Social Studies of the University of South Bohemia in České Budějovice and at the Faculty of Health and Social Studies of the University of Ostrava. In the CZ, the preparation of nurses qualification at universities started before joining the European Union or before the new act regulating the education of paramedical workers was passed. Act No. 96/2004 Coll., on the conditions of acquisition and recognition of qualification for the practice of paramedical health care professions was passed

in April 2004, based on the European legislative regulations for the education of health care workers [2]. According to the Act, professional qualifications for the practice of the profession of a BA general nurse can be acquired by passing an accredited Bachelor general nurses health care study discipline (a minimum of three years) and by passing in the Certified general nurse programme at higher nursing schools (a minimum of three years). According to the above stated Act, applicants for the medical assistant programme were admitted to studies at secondary nursing schools starting in the 2004/2005 academic year [19]. Accredited Bachelor study programs of nursing (general nurse) only exist at universities. When preparing for the bachelor's study program, both the regulations of the European Commission and the national legislative regulations are respected. The study program was also prepared in compliance with the European credit system. The above-stated regulations determine the number of hours of professional preparation required, which amounts to 4,600 hours in total, with 2,300 hours being practical education. Practical lessons take place under the guidance of a mentor at clinical workplaces and facilities for primary and hospital care. Each subject in the curriculum has a value of a specific number of credits which expresses the difficulty level of the subject. The student must acquire 180 credits during three years of studies. The study contents are based on the science of health, healthy individuals, and their relationship to the social environment. Nursing is focused on prevention, the care and development of a person's self-sufficiency, and the provision of individualized care through the nursing process [18].

According to the Bologna Process, a subsequent master's study programme in nursing was prepared; it takes two years, and the student acquires 120 credits during the studies. The contents of the first master's programmes were aimed at deepening the knowledge and skills in nursing, research, management, economy, medical law, and other medical disciplines. The first subsequent master's study programme also included three specialized qualifications (surgical, internal medicine, and intensive care) was opened in the CZ in 2005 at the Faculty of Health and Social Studies of the University of South Bohemia in České Budějovice. At present, all master's study programmes in the CZ provide specialized qualifications in the specific discipline of specialization education.

Since 2008, nurses can also study nursing in a four-year Doctoral study programme, which is accredited at three universities, specifically at the Faculty of Health and Social Studies of the University of South Bohemia in České Budějovice, at the Faculty of Medicine of the University of Ostrava, and at the Faculty of Medical Sciences of the Palacký University in Olomouc. Nurses working in an academic environment, as well as nurses from clinical centres, study in the Doctoral programme. In compliance with the University Act, nurses can acquire the academic degree of associate professor in nursing after passing the habilitation process (2006) (i.e., a process in which the applicant's pedagogical and scientific-publishing activities are evaluated and defended). Since 2009, nurses can even

become university professors after passing the professorial proceedings. The first faculty which obtained the right to implement both proceedings from the Accreditation Commission of the Czech Government was the Faculty of Health and Social Studies of the University of South Bohemia in České Budějovice. Since 2015, the Faculty of Medicine of the University of Ostrava has the right to habilitation proceedings as well, and in 2018, it also obtained the right to professorial proceedings from the National Accreditation Office of the CZ.

In 2017, Act No. 96/2004 was amended and § 5, stipulating the acquisition of professional qualification for the practice of the profession of a general nurse, was extended. According to the amended Act, additionally to the three-year Bachelor studies in the discipline of certified general nursing at higher nursing schools, the professional qualification can also be acquired by studying the discipline of a certified general nurse at a higher nursing school for a minimum of one year), in case of a health-care worker who has acquired a professional qualification for the practice of the profession of a practical nurse, paramedic, midwife, or pediatric nurse, provided he or she was admitted to a higher than the first year of education [20]. The above-stated amendment brought about a change in the name of the study discipline at secondary nursing schools; the name of the "health care assistant" was changed to "practical nurse."

3. The legal status of nursing

The Ministry of Health of the Czech Republic (MH CZ) is responsible for the regulation of general nursing education; it determines the methods and contents of education for the profession through legislative regulations [2]. In addition to legislative regulations from the MH CZ, university educations are also regulated by the Ministry of Education, Youth and Physical Education. Act No. 111/1998 Coll., on universities, as amended, specifies the mission and the obligations of universities, as well as the rules, conditions and methods of education, the admission process, the progress of studies and conclusion of studies, the acquisition of diplomas and degrees, and the process for accreditation and other rules related to university educations [20].

Act No. 96/2004 Coll., on the conditions of acquisition and recognition of qualifications for the practice of paramedical and health care professions, the MH CZ stipulates both the qualifications and the post-qualification specialized education of nurses [19]. The minimum requirements for professional qualifications for a general nurse are stipulated by Decree No. 39/2005 Coll. which specifies the minimum requirements for the study programme for acquisition of professional qualification for the practice of the paramedical health-care profession. The Decree stipulates the contents and the extent of the study programme and the resulting competencies to be acquired by students during their studies [21]. The minimum requirements for

the study programme are specified in compliance with Decree No. 55/2011 Coll., as amended, which standardizes the activities of health care workers and other professional workers. The Decree describes in detail the individual activities carried out by general nurses within the provision of nursing care for children, adolescents, adults and seniors in cases of acute and chronic health disorders, in cases of somatic and mental complaints, treated both in and out of hospitals. Nurses must be able to protect, maintain, return, and support the health of individuals and groups of persons. They should also support patient autonomy and self-reliance in physical and mental health functions while considering the mental, social, economic, and cultural differences of the affected persons [22].

Within continuing education, nurses can pass post-qualification specialization studies and, after passing them, they can acquire specialized qualifications for the practice of specialized activities. Government Decree No. 31/2010 Coll., as amended, defines the following educational programmes for the specialized education for general nurses:

- Intensive care
- Peri-operative care
- Nursing care in pediatrics
- Intensive care in pediatrics
- Nursing care in the field of internal medicine
- Nursing care in surgical branches
- Nursing care in psychiatry
- Perfusiology
- Home and hospice care
- Nursing care in geriatrics [23]

The contents of the educational programme and the scope of the theoretical and practical lessons are stipulated in the Bulletin of the MH CZ. The nurse can acquire specialized qualifications either by passing an educational programme in an accredited facility or by passing a master's programme at the university.

4. Nursing in numbers

Health care in the CZ is decentralized and market-oriented. Health care facilities are established by different components of the state administration, i.e., by the Ministry, the regions, and the municipalities. The system is funded through compulsory health insurance [24]. The availability and the quality of health care and health-and-social care services are conditioned by sufficient personnel capacity of physicians and of paramedical health care workers.

The data of the National Register of health service providers show that the personnel capacity of health services is not optimal in a number of segments. The situation is quite complicated in the case of general practitioners for adults and for

children and teenagers. The number of physicians in the health care system is approximately at the level of 42,000; workloads; as for general nurses and midwives, 82,000 active full workloads are currently shown. In the CZ, there are 4.0 physicians per 1,000 inhabitants, which is slightly above average in an international comparison of OECD countries. However, a significant problem exists relative to the uneven distribution of physician capacities in the system, i.e., in some places, the number of physicians is > 4.0 per 1,000 inhabitants, while elsewhere, it is lower, which can be interpreted as *below-average* from a European perspective [25]. The number of nurses per 1,000 inhabitants in the CZ is slightly lower than in the OECD countries (i.e., 7.8 general nurses per 1,000 inhabitants as opposed to 9 per 1,000 in OECD countries). The proportion of general nurses to physicians is lower than the OECD average as well. The number of nursing graduates per 100,000 inhabitants is 16, which is one of the lowest within OECD [26].

In the CZ, 800 to 900 students graduate from the general nurse bachelor's study programme, and 200 to 250 students graduate from certified general nursing programmes at higher professional schools each year. At the same time, graduates from secondary schools in the practical nurse discipline enter the health care system at about 1400 to 1500 per year [27]. When comparing the number of students at universities over the past ten years, we can state, based on statistical data, that the number increased until 2010, but then the number of students started to gradually decrease. While the numbers of students in health care, not only in medicine and pharmacy but also in nursing, have slightly increased over the same period [28]. Still, our health care system needs more nursing graduates; there is insufficient or decreasing capacity of general nursing and midwives in acute care wards.

According to the National Register, there are about 39,800 general nurses working shifts in the CZ (i.e., the full time equivalent (FTE) of about 35,000 nurses); 64% of general nurses (or about 35,600 nurses) work in acute care wards, which is an FTE of about 30,800). Roughly 71% (or about 4,190 nurses) work in shifts, which is an FTE of about 4,180) [25].

There is also a lack of general nurses in long-term health care and social services. As such, the number of general nurses should be strengthened in this segment as well. Demographic predictions show that in the years to come, the proportion of inhabitants above the age of 65 years will significantly increase, which will lead to higher rates of age-related illness and a greater need for long-term health and social care [25].

The number of staff in the health care system could be stabilized with the help of increased salaries and wages in addition to adequate motivational elements. Some of which have been implemented in the past 2–3 years. The nurses' salaries and wages have increased significantly since 2018; in 2019, the average salary for nurses was 43,865 CZK/month. Between 2018–2019, salaries for in-hospital care rose by about 14% year-on-year. Thus, the average monthly remuneration for nurses significantly exceeded the average remuneration for the general CZ population in

2019 (according to data from the Czech Statistical Bureau: 34,125 CZK/month). Compared to 2010, remuneration for nurses in 2019 rose by a cumulative growth index of +169%, while the average wage in the CZ rose by +143% [29].

In the near future, further measures must be adopted, and essential conceptual steps must be planned, leading to a stabilization of the number of general nurses and of other health care workers. This will be needed to ensure adequate care in all health care segments.

5. Challenges and prospects

The efforts of all the important personalities during the historical development of nursing have influenced the state of nursing today. Over the years, nursing has gradually developed into a scientific discipline; the nurse's role and position in society have undergone a dramatic change. These changes were systemic and included changes in the nursing curriculum and nursing education and training, and now in nursing research and publications. The sweeping social and political changes that took place in the CZ in the early nineties also brought about significant changes in Czech nursing. The nursing discipline was also strongly influenced by the CZ joining the European Union (EU). European legislative regulations quickly found there equivalent in Czech legislative regulations, which lead primarily to changes in the professional preparation of the nurse, and increased regulation of nursing as a profession. The professional preparation of nurses in the EU is unified, but we can see some differences in the nurse competencies, i.e., in some countries, the level of autonomy is lower; in other countries, it is higher. The CZ is one of the countries in which the nurse competencies have not changed significantly.

So leading personalities, professional organizations, and the department of nursing at the Ministry face a significant challenge: the goal is to substantially increase nurse competencies in nursing care. The lack of nurses and of other nursing staff must be addressed as well, so that everybody can carry out their activities in compliance with their educational level and that everybody involved receives fair financial remuneration. Additionally, more must be done to increase the attractiveness of the nursing profession by enticing those interested in the profession to pursue careers in nursing.

The development of each discipline is also influenced by research activities. It is crucial that research activities in nursing get more robust support in the CZ. Research activities should be in compliance with the development of nursing in the academic environment. The transfer of professional preparations of nurses at universities and higher schools in clinical practice leads to increasing numbers of nurses with sufficient knowledge of research methodologies and experience to proceed with their own research activities. It is, therefore, desirable to offer more opportunities to submit competitive proposals for research projects to the individual agencies.

In the next decade, the development of nursing in the CZ will be influenced by the Strategic Document of the CZ, Health 2030 (*Zdraví 2030*), which stipulates the following strategic goals:

1. Improve the health condition of the population
2. Optimize the health care system
3. Support science and research.

To meet the individual strategic goals, specific goals were defined and broken down into partial goals, which formulate specific steps and activities [25]. We believe that nurses need to be integrally involved in the implementation of these individual steps and activities. The involvement of nurses in meeting strategic goals will contribute to strengthening their position in the health care system. In compliance with the above-mentioned document and with other documents of the EU regarding ICN nurses and the WHO, the document called Nursing Concepts for the CZ is being prepared, which will also stipulate the strategic goals for the development of nursing in the CZ in the near and long-term.

Acknowledgements

Part of this study is a result of the research funded by the Czech Science Foundation as the project GA ČR 20-09470S "Health System of the First Czechoslovak Republic in the Context of National and Social Composition of the State – Center vs. Periphery".

References

1. Kafková, V. Z historie ošetřovatelství (From the history of nursing). Brno: IDVPZ, 1992
2. Kutnohorská, J. Historie ošetřovatelství (History of nursing). Praha : Grada, 2010.
3. Staňková, M. Základy Teorie Ošetřovatelství (Fundamentals of The Theory Of Nursing). Praha: Karolinum, 1996.
4. Jarošová, D. Vybrané kapitoly z teorie ošetřovatelství (Selected chapters from the theory of nursing). Ostrava: Repronis, 1999.
5. Plevová, I. A Kol. Ošetřovatelství I (Nursing I). Praha: Grada, 2011.
6. Mlýnková, J. První ošetřovatelská škola v dějinách ošetřovatelství (The first nursing school in the history of nursing). Florence, 2009, roč. 5, č. 9, s. 15-16.
7. Nightingalová, F. Kniha o ošetřování nemocných (Notes on nursing). Translated by: Paulina Králová. Praha: nakladatel J. Otto, 1874.
8. Rozsypalová,M., Staňková, M. Ošetřovatelství I/1 (Nursing I/1). Praha : Informatorium, 1999.
9. Tóth, A., Novotný, L., Stehlík, M. Národnostní menšiny v Československu 1918-1938 (National minorities in Czechoslovakia 1918-1938). Praha: Univerzita Karlova v Praze, Filozofická fakulta: Togga, 2012.
10. Syllaba, L. Vlastnosti moderní ošetřovatelky (Qualities of modern nurse). Zprávy Č. červeného kříže, 1922

11. Šulc, M. Úkoly Červeného kříže v ošetřovatelství (Roles of Red Cross in nursing). Zprávy Č. červeného kříže, 13, 1933, s. 102-104
12. Anzenbacherová, M. Ošetřovatelství (Nursing). Československá nemocnice, 5, 1935, s. 189-192
13. Dopis SDS všem zdravotním ústavům v ČSR (Letter of SDS to all health care institutes in ČSR). Československá nemocnice, 6, 1936, s. 154
14. KOLEKTIV AUTORŮ: Střední zdravotničtí pracovníci v Čsl.LSJEP (Secondary health care workers in Csl.MAJEP). *Zdravotnická pracovnice*, XVII, 1967, č. 7, s. 353 – 354.
15. Z činnosti České společnosti sester (From the activities of the Czech Nurse Association). *Zdravotnická pracovnice*, XXIII, 1973, č. 8, s. 450 – 452.
16. Škubová, J., Chvátalová, H.*: Sestra. O životní cestě ženy, která dala svému povolání nový smysl (The nurse. On the life journey of the women who gave a new meaning to her profession)*. NCO NZO, Brno, 2004.
17. Sborník jubilejního pracovního sjezdu diplomovaných sester (Proceedings from the jubilee working congress of certified nurses). Praha: Zemská ošetřovatelská škola v Praze, 1947
18. Tóthová, V., Sedláková, G.: Nursing education in the Czech Republic. *Nurse Education Today*, 2008, 28(1): 33-38
19. Zákon č. 96/2004 Sb., o podmínkách získávání a uznávání způsobilosti k výkonu nelékařských zdravotnických povolání a k výkonu činností souvisejících s poskytováním zdravotní péče [ve znění pozdějších předpisů] (Act No. 96/2004 Coll., on conditions of acquisition and recognition of qualification for practice of paramedical health care professions and for practice of activities related to provision of health care [as amended]. In: *Sbírka zákonů České repub*liky. 2004, částka 30, s. 1452-1479.
20. Zákon č. 111/1998 Sb. o vysokých školách [ve znění pozdějších předpisů] Act No. 111/1998 Coll., on universities [as amended]. In: *Sbírka zákonů České repub*liky. 2016, částka 53, s. 2490-2546.
21. Vyhláška č. 39/2005 Sb., kterou jsou stanovené minimální požadavky na studijní programy k získání odborné způsobilosti k výkonu nelékařského zdravotnického povolání pracovníků [ve znění pozdějších předpisů]. In: *Sbírka zákonů České repub*liky. 2011, částka 8, s. 189-211.
22. Vyhláška č.55/2911 Sb. o činnostech zdravotnických pracovníků a jiných odborných pracovníků [ve znění pozdějších předpisů] Decree No. 55/2911 Coll., on activities of health care workers and other professional workers [as amended]. In: *Sbírka zákonů České repub*liky. 2011, částka 20, s. 482-543.
23. Nařízení vlády č. 31/2010 Sb. o oborech specializačního vzdělávání a označení odbornosti zdravotnických pracovníků se specializovanou způsobilostí (Government Decree No. 31/2010 Coll., on disciplines of specialization education and identification of specialty of health care workers with specialized qualification). https://www.mzcr.cz/vzdelavaci-programy-specializacniho-vzdelavani-pro-nelekarske-zdravotnicke-pracovniky/# (access: 2020.11.06).
24. Barták, M. Ekonomika zdraví, Sociální, ekonomické a právní aspekty péče o zdraví (Economic of health; social, economic and legal aspects of care for health). Praha: Wolters Kluwer ČR, 2010
25. Zdraví 2030. Strategický rámec rozvoje péče o zdraví v ČR do roku 2030 (Health 2030. Strategic framework of the development of care for health in the Czech Republic until 2030). https://www.mzcr.cz/wp-content/uploads/wepub/18700/40551/Zdravi2030_FINAL16122019.pdf.pdf (access: 2020.10.22)
26. OECD. Health at a Glance 2019: OECD Indicators, OECD Publishing. doi: 10.1787/4dd50c09-en**.** (access: 2020.11.06).
27. Národní registr zdravotnických pracovníků (National Register of Health Care Workers). https://www.uzis.cz/index.php?pg=registry-sber-dat--narodni-registr-zdravotnickych-pracovniku
28. Půbalová, B. Počet studentů vysokých škol klesá. O které obory je největší zájem (The number of university students is decreasing. Which disciplines are the most popular)? https://www.

statistikaamy.cz/2017/10/17/pocet-studentu-vysokych-skol-klesa-o-ktere-obory-je-nejvetsi-zajem/ (access: 2020.11.06)
29. Bartůňková, M., Těšitelová, V., Klimeš, D., Dušek, L. Průběžné výsledky statistických šetření o platech a mzdách v resortu zdravotnictví za období 2019 až 1. čtvrtletí 2020: segment lůžkové péče (Interim results of statistical survey of salaries and wages in the area of health care for the period of 2019 to Q1/2020). https://www.uzis.cz/res/file/zpravy/20200626-tz-odmenovani/20200626-tz-odmenovani.pdf (access: 2020.11.06)

Katalin Papp

NURSING IN HUNGARY

1. Brief history of nursing

Until the late 18th century, religious and monastic orders provided practical training for their members in the care for the sick. With the development of hospital affairs, an increasing need was felt to offer organised education and training for nurses.

In 1805 the Director of Rokus Hospital in Budapest organized a course for civil (male and female) nurses, which was repeated occasionally. One year later Hungary's chief medical officer, instructed the chief medical officers of the counties that the chief physicians at hospitals and nursing facilities take charge of the training and preparation of nurses in their region. 30 years later a Nursing Institute was established – similar to the education of midwives – next to the University of Medicine, where male and female nurses would be educated on two year nursing courses [1].

Mukácsy M: Bandage makers [3]
(Hungarian National Gallery, Budapest)

1849 was very important period of the history of Hungary, there was the revolution. During that period Hungary's Governor Lajos Kossuth appointed his youngest sister, Zsuzsanna Kossuth Chief Nursing Officer of the Hungarian Army and at the same time Head of the National School of Nursing. The Chief of the Army Medical Corps instructed the commanders of military hospitals to provide for the training of volunteer nursing personnel. This lady established 70 hospital during the war. And recruited voluntary workers to look after the soldiers. His brother hgave a speech drawing people's attention how to make a bandage. This moment was captured by famous painter Mihály Munkácsy who painted this story on Tépéscsinálók picture in 1871 [2].

In 1849 Doctor János Balassa recommended the 1 year nursing course be offered for male and female students.

30 years later the Hungarian Women's Association decided to institute nursing education modelled on the Red Cross Movement.

At the end of the 19th century, the Red Cross organized the nursing training, as in many places of the world. The Hungarian Red Cross was formed, which then set up its Nursing School. This school offered two-level nursing education (2 years for trained nurses and 3-6 months courses for voluntary nursing personnel [4].

In 1906 the Hungarian Association of men and Women in Nursing was formed, which organised a two-level on-the-job training for non-qualified men and women in nursing. The Hungarian National Association of Nurses also was founded in 1906, at that time started on-the-job training [5].

In 1913 Mr. Gyula Dollinger is the famous orthopedic doctor proposed that nursing education should be reorganised and become a state responsibility.

The medical universities operating at this time started their own training programmes. In 1921, the first state nursing training was started at the University of Debrecen. At that time the University took the name of István Tisza former prime minister of Hungary. The first state nursing training was transformed into a school for nurses and health visitors with the help of the Rockefeller Foundation in 1927. However, the school was located at the University of Debrecen. The work of the school was directed by a committee in which representatives of the ministers of welfare, labour, religion and public education were involved as well. A 45-bed modern boarding school was available for the students. It had a two-year school curriculum. Even then, during the first year the curriculum was similar for nurses and health visitors. The training was also similar in the first part of the second year, but later on the nurses and health visitors received different training [6].

At the same time, preparations were made for the establishment of the second state training institute for nurses and health visitors. This school was established in 1927 in cooperation with the Royal Hungarian National Institute of Public Health.

Before 1945, unified, state-run education was provided only for midwives and health visitors. The education for nurses and other support staff took place in religious or state institutions, with courses of different durations and training levels. However it was more like a course type.

After the end of World War II, the Ministry of Welfare, and then the Ministry of Health, established in 1951, started centrally managed, coursework-based secondary health vocational education and training with considerable effort and resources. Moreover a unified system of training for non-medical health professionals was established in line with the practice of socialist countries [7].

In the history of health vocational training schools we distinguish three essential stages:

– In the first stage it was a course-type training
– In the second stage the course-type training remained, however they took place in institutions integrated into the school system
– In the third stage the training was based on the National Register of Vocational Qualifications training [7].

The first general nursing qualification after World War II operated from 1946 to 1953. From 1954, the training of nurses and midwives was renewed. In 1958, the health vocational training school appeared, where the training of nurses and midwives had already been separated. The general nursing qualification was modified in 1961, and the Ministry of Health was appointed to the compulsory nursing register. The Ministry of Health established the Office of Specialized Health Courses in 1962. The Office was created with the aim of ensuring the resupply of skilled workers in a coordinated way, at a unified level [8].

Professional organizations

The most important professional organisations for nurses in Hungary are Chamber of Hungarian Health Care Professionals (CHHP) and Hungarian Nursing Association (HNA).

Chamber of Hungarian Health Care Professionals (CHHP)

Tasks and roles of the professional regulatory body in Hungary

The Chamber of Hungarian Health Care Professionals (CHHCP) was established in 2004. The professional advocacy group, which represents more than 100 000 health care professionals who hold mandatory membership, was reorganised taking a bottom-up approach, along the lines of 93 local and 20 regional chapters.

CHHCP was established to provide professional and ethical support for the individual paramedical fields as they evolve into professions in their own rights and to independently address the issues affecting the paramedical professions.

CHHCP was also established to determine and represent the professional, economic and social interests of paramedical professionals, and to contribute, commensurately with its role and weight in society, to the development of health policy and to raising the standards of healthcare provided to the population.

CHHCP performs its duties by performing the tasks and exercising the authority invested in it by law. Training courses and professional conferences are held on county, regional and on national levels – independently or in partnership with other

organisations. The Chamber currently has 21 professional chapters at national level.

The Chamber plays a key role in the final exams of healthcare vocational training and in the supervision of further training for the continuous professional development of health care professionals.

The Chamber regularly participates, as an invited guest, in professional committees overseen directly by the Minister of Health, and in the work of collegiate boards operating in the various professional fields. Exercising its right of consultation, it has drawn up detailed recommendations regarding several draft laws and statutory amendments for the relevant government ministry. Besides this, it participates in the work of the Ethical Councils established at county and national level.

The establishment of the Chamber has raised the profile of issues concerning paramedical professionals and nurses in Hungary. CHHCP aims to operate effectively as a public body capable of engaging in useful dialogue with the Ministry of Health, municipalities, and health care institutions, medical and nursing organizations at national and international level.

Hungarian Nursing Association

Since 1989, the Hungarian Nursing Association has been the largest non-governmental professional advocacy organization in the Hungarian nursing society. It is an important task to have a stable base for the community of nurses working in the country. The activities of the association, the performance of professional tasks and developments, the efforts made for the moral recognition of nurses, and to represent the results that show the appreciation, importance and beauty of the work of nurses. The membership is voluntary. This Association is older than 30 years. The association has had its own newspaper since its inception.

Magazines

Magazines for nurses: *Nővér (Nurse), Hivatásunk (Our Profession), ÁpolásÜgy (Nursing).*

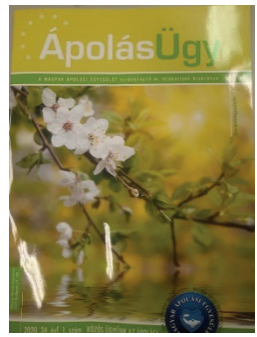
The NŐVÉR (NURSE) was first published in 1987 and is published 6 issues per year by the Chamber of the Hungarian Health Care Professionals. The NŐVÉR is a peer-reviewed scientific and educational nursing journal that publishes original articles with the aim of advancing and exchanging knowledge, skills and enabling readers to be informed about contemporary professional and research trends in the field of nursing and other health sciences. This Journal is a part of the Continuing Professional Development (CPD) of Hungarian health care professionals. NŐVÉR indexed and abstracted in EBSCO CINAHL (The Cumulative Index to Nursing and Allied Health Literature) Database.

Another professional magazine named HIVATÁSUNK (OUR PROFESSION) was published in 2006 by the CHHCP.

The ÁpolásÜgy is published by The Hungarian Nursing Association. This Association was established in 1989. This newspaper has been published 5 times

a year since 1992, the contents are training and information publications. The picture below shows the covers of the professional journals.

Nővér
Nurse



ÁpolásÜgy
Nursing

Hivatásunk
Our profession

Ryc. 1. Covers of nurses Journals

2. System of education for nurses

The most significant health vocational education and training reform was implemented in Hungary in 1968 [9, 10]. At that time, a large number of independent health vocational secondary schools and health vocational secondary school classes were established in the country. In 1975, three-year health vocational training school began with an entry age of 14. It is still divides the educational professionals. The question is whether a 14-year-old child can participate in caring for patients. The aim of the renewed health vocational training school and health vocational secondary school in nursing was to standardize general education and secondary professional qualifications. The institution, together with the high school diploma, provided the qualification of general nurse and general assistant. Moreover provided opportunities for higher education and employment. In the health vocational secondary schools the hours of professional subjects were the same as that of health vocational training schools. However, general knowledge subjects were of a higher number of hours. Employment with this degree was possible in all inpatient institutions (hospitals, clinics) as general nurses, and in all outpatient clinics and nursing homes as general assistants. However, there were differences in terms of specializations. Vocational training school graduates were able to work in 12 fields, while vocational secondary school graduates were able to work in 22 fields. The difference was mainly due to the general assistant specialization [11].

Vocational training schools

From 1975, 3-year health vocational training schools were opened, where the students studied full-time from the age of 14 and obtained general education and

general assistant education. After that they were then able to specialize as adult nurse, psychiatric nurse etc. in 10 months of training. They could also obtain a baccalaureate certificate in 2 or 3 years and a wider specialization became possible. The training lasted only 2 years in case someone did it while working. This training lasted until the mid-90s [6].

Health vocational secondary schools

From the mid-1960s, it was an opportunity to study in health vocational high school, which lasted full-time for 4 years, from the age of 14. It also gave a degree in general nursing and a general assistant. It was still possible to complete similar 10-month specialization trainings. This training lasted until the mid-90s. The history of health vocational secondary schools can be divided into three stages. The training always lasted 4 years, it was school-based, for 14-18 year olds.

1. The first pilot training started in 1963, and generally from 1965. The aim of the training was not unified. The institution gave the qualification of an outpatient assistant or infant carer with a high school diploma. They worked for different training purposes for about a decade, by the time they became part of the single-purpose general nursing and general assistant training.
2. From 1969, it became possible to obtain a qualification as a general nurse and as a paediatric nurse. From 1972, it became possible to obtain an outpatient assistant or infant carer qualification with a high school diploma.
3. At this stage unified training goal was implemented and a general nursing and a general assistant qualification was obtained with a high school diploma [8, 12].

Health vocational secondary schools had to meet a double requirement, in the same amount of time as general secondary schools or vocational training schools. It concerned both general education and professional special requirements. Due to the dual function there were deficiencies in both areas. However, health vocational secondary schools providing training in general nursing and general assistant have operated for more than 25 years.

The average length of weekly theoretical and practical education of the students could not exceed 36 hours. The daily practical training time - during the practical training period - was 60 minutes. Next to the vocational secondary school and vocational training school a 10-month (one academic year) training was implemented for those who were working. With the new form of training, the previous vocational qualifications were also adopted in the new system [13].

New foundations in health vocational education and training

A law from 1993 put the health vocational education and training on new foundations. One of the basic goals of the law was to build a training system that is better adapted to the needs of the labour market, and complimented each other. The other goal was to fund the first vocational qualification from state resources

or with state support. The terminology of training changed and became education provided outside the school system and education provided within the school system. The education and training provided within the school system remained in the framework of the vocational secondary school and the vocational training school. The education and training provided outside the school system was determined by special legislation and could be done by a wide variety of training places [14].

After the change of regime in Hungary (1993) the training of nurses and assistants in health vocational secondary schools, as well as the "specialization" trainings built on them, were classified into a new professional framework by establishing the National Register of Vocational Qualifications (NRVQ). The National Register of Vocational Qualifications contains the state-recognized vocational qualifications in Hungary. It has been considered one of the milestones in the repeated renewal of the Register when it was harmonized with International Standard Classification of Education (ISCED). In 2001, vocational qualifications were classified in a trade group structure. During this time, the health vocational secondary schools in the framework of the education and training provided within the school system was discontinued in 1997. The nursing training in the vocational secondary schools has been replaced by a three-year vocational education and training provided outside the school system based on graduation. Thereafter, all health vocational education and training was excluded from the school system. Various economic organizations participated in the implementation of the training, implementing health training as adult training [4].

There has been a significant change since the mid-90s. The 3-year vocational training school and the 4-year vocational secondary school were discontinued. Instead, vocational training started only after obtaining the secondary school leaving certificate at age of 18. The length of the training was 3 years. This training could not meet the needs with a sufficient number of qualified nurses and therefore an attempt was made to shorten it to 2 years. After joining the European Union in 2004, the 4600-hour training requirement was applied to secondary education as well, so the length of the training was again 3 years. The decision-makers found the training time too long, so it was reduced to 2 years, incorporating some basic subjects into high school education [1, 2].

Serious problems with the professional quality of health education arose in the early 2000s. As a result, the idea of introducing health education in the vocational secondary school system re-emerged. From September 2013, it is again possible to train nurses, infant and child nurses and emergency medical technicians in the school system. However, the vocational secondary education created differs from the model established in 1975. In the new model, in vocational secondary schools at grade 9-10 at least seventy percent, at grade 11-12 at least sixty percent of the time available for compulsory classes must be used to transfer knowledge of public education as defined in the National Curriculum. Thus, in the new vocational

structure, the student received a health orientation with a secondary school leaving certificate, which made possible to obtain a full vocational qualification.

The European Union has drawn up rules on the regulation of vocational training that have been in force in all the countries of the Union and have facilitated the mobility. Council of the European Communities in the Directive on the coordination of provisions concerning the activities of general nurses regulated the system and expectations of nursing education. The system was also created for the healthcare sector, which was published in 2005 and then modified in 2013 [1, 2].

Table 1. Changes in nursing education system

<table>
<tr><td>15 year</td><td>16 year</td><td rowspan="2">branch exam</td><td>17 year</td><td>18 year</td><td rowspan="2">compulsory certification exam</td><td>19 year</td><td>20 year</td><td></td></tr>
<tr><td>9 grade</td><td>10 grade</td><td>11 grade</td><td>12 grade</td><td>13 grade</td><td>14 grade</td><td></td></tr>
<tr><td colspan="2">576 lesson</td><td colspan="2">918 lesson</td><td>1224 lesson</td><td>1054 lesson</td><td></td></tr>
<tr><td colspan="2" rowspan="11">sectoral basic education</td><td colspan="2" rowspan="11">with general nurse and health assistant competences</td><td>practice nurse</td><td rowspan="5">final exam</td><td rowspan="5"></td></tr>
<tr><td>ambulance officer</td></tr>
<tr><td>health laborant</td></tr>
<tr><td>health assistant</td></tr>
<tr><td>rehabilitation therapist</td></tr>
<tr><td colspan="2">general nurse</td><td rowspan="6">final exam</td></tr>
<tr><td colspan="2">clinical labour professional assistant</td></tr>
<tr><td colspan="2">preoperative professional assistant</td></tr>
<tr><td colspan="2">radiograph professional assistant</td></tr>
<tr><td colspan="2">cytological assistant</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="4">graduation / final exam</td><td colspan="2">orthopaedic technician</td><td></td></tr>
</table>

The main principle of the regulation regarding the general qualification of nurses is that it requires at least 10 years of participation in general public education. After that, the professional programme had to be acquired within the framework of a special, full-time professional training. The programme included 3 years or 4 600 hours of theoretical training and clinical practice. The main elements of theoretical and practical education were: patient care, basic sciences and social sciences. In clinical education, patient care included:

– General and specialist medicine,
– General and specialist surgery,
– Child care and paediatrics,

– Maternity and infant care,
– Mental health and psychiatry,
– Elderly care and geriatrics,
– Home care.

According to the Directive of the European Council of 10 October 1989, at least one third of the required period of compulsory training must be completed in theoretical education and at least half in clinical practice.

A big change began in 2016 when the structure of training changed. After graduation, the students could become nursing assistants with 1 year of training, and then could become nurses with another year of training. This training lived for a short time, and from September 1, 2020, the secondary nursing training started with structural changes.

The table below shows well the changing process of the nursing/healthcare professional education since 2020. The last vocational high school education started in 2019 and will be ended in 2023. Since 2020 the new education form is starting in Hungary the named technical school. The health care professional's education also is continuing in this new programme. The total education period after the 8 years grammar school can be only 2 year, or 4 year, or 4+1 year and 4+2 year. The student will always decide and choose the length of her/his carrier.

College / University education

The first health college was launched in September 1975 as one of the faculties of the Institute of Postgraduate Medical Education, and operated as the only health college for the first decade and a half. The primary task of the college was to provide vocational training in various fields. On the one hand, the college of health provided professionals with a college degree in professional fields, and on the other hand, it provided a college qualification for leaders. Moreover, it provided vocational instruction of health care for the educational field. The training period was initially 2 years, but soon changed and became 4 years. The College of Health, which opened in 1975, joined the Semmelweis University 15 years later [8].

Since 1989, there has been the possibility of college-level nursing education at the medical faculties of medical universities. The first one started in Budapest, and then in 1993 the education started at the faculties of the medical universities of Debrecen, Pécs and Szeged, both full-time and part-time [15].

In 2000, the University of Pécs was the first to launch a university-level degree in nursing. Later on the other universities started their own education programmes.

With the implementation of the Bologna System from 2006, the basic training structure of health science training in higher education has also changed significantly [16].

The aim of the Bologna System was to create a common frame of reference within the intended European Higher Education Area and to promote unified interpretation and comparability of diplomas. With the introduction of two-cycle,

linear training, they wanted to make it possible to better align training cycles and to shorten the training period. They also wanted to create a unified higher education study using the European Credit Transfer System. The Diploma Supplement has been introduced as well. They called for a European co-operation in order to ensure a consistent high quality of higher education. Universities must also play a role in strengthening the competitiveness of European countries in order to strengthen European identity. In addition, they also play a role in facilitating labour market mobility on the basis of comparable diplomas.

The level of master's degree in health sciences in the Bologna System has also expanded significantly. The previous two university-level courses (certified nurse and certified health visitor) were gradually replaced by eight new ones in the renewed structure. The master's programmes in health sciences also made it possible to obtain a PhD degree in most fields of health sciences in the new system.

Educational fields/specialization in Nursing and Patient Care Bachelor (BSc) level:

- Nurse
- Dietician
- Physiotherapist
- Ambulance Officer (Paramedic)
- Midwife
- Voice, speech and swallowing therapist
- Occupational Therapist.

The length of the BSc education is 8 semesters (for full time and part time students)

Number of credits required to obtain the BSc degree: 240 credits.

Educational fields / specialization in Nursing MSc (APN) level:

- Community nurse
- Geriatric nurse
- Intensive nurse
- Emergency nurse
- Anaesthetic nurse
- Perioperative nurse [17].

The length of the MSc education is 3 semesters (for full time students)

Number of credits required to obtain the MSc degree: 90 credits.

With the MSc degree, nurses and health professionals wishing to continue their studies have the opportunity to study at a doctoral school, participate in a PhD programme, and obtain a doctoral degree. Unfortunately, not in nursing, but in the field of health sciences [17].

Nowadays the number of undergraduate students is decreasing rapidly, and the other big problem after the graduation cc. 50% of the graduated nurses do not register

themselves in the basic registration system. The system is the same with postgraduate nurses, a few years ago 800 postgraduate nurse received the diploma, nowadays only 300. Thus the number of the post graduated nurses decreasing 60% [18].

3. The legal status of nursing

Every health care professionals has to have a professional registration, the starting point is the basic registration after graduation. The State Health Centre registers every health care professional. It has been happening in Hungary since 1997 according the last Health Right. The basic registration is valid for 5 years. During the 5 years a professional has to show 150 credit points, they come from 3 options:

1. Practice (100credits),
2. Obligatory theoretical training (30credits),
3. Optional theoretical training (20 credits) [19].

The second registration is by the Chamber, since 2004 every health care professional has to be a member and has to be registered.

Hungary has more than 100 thousand health care professionals, from them cc. 50% are nurses. 98.5% is public employee, only 1.5 % are entrepreneurs [22]. The health care professionals are applied by the State Health Centre. The conditions of the application is written in the Labour Code. All the requirements are written in this Code and they are to apply to every worker. All the legal obligations and duties are fixed for every worker in Hungary. If the nurse is an employee she/he has a job description and contract direct with his/her employer.

Competences

The competences are coming from the education. They are written in the curriculum. The competence is different in different levels of education e.g. vocational training, BSc, MSc level. This relates to educational competences / skills. The big problem is that nurses educated at different levels do not have a specific scope of competences. Afew year ago, the Chamber presented a Competence list for 19 professional, compering the profession to each other and comparing the different level of the same professional e.g., certified nurse, BSc nurse and MSc nurse. These competences are written on more than 200 pages. The problem is the Health Ministry and the decision makers did not accept and this document is not accepted up to now.

What could be the solution?

The solution is the employers sign the job-description and contract with the workers. Generally the institute directors sign this contract. Every worker has a task-list, what they have to do. What are their rights and duties? And every health care professional has a contract with his/her employer. If the director changes then they have to renew and rewrite this documents and sign them the new director.

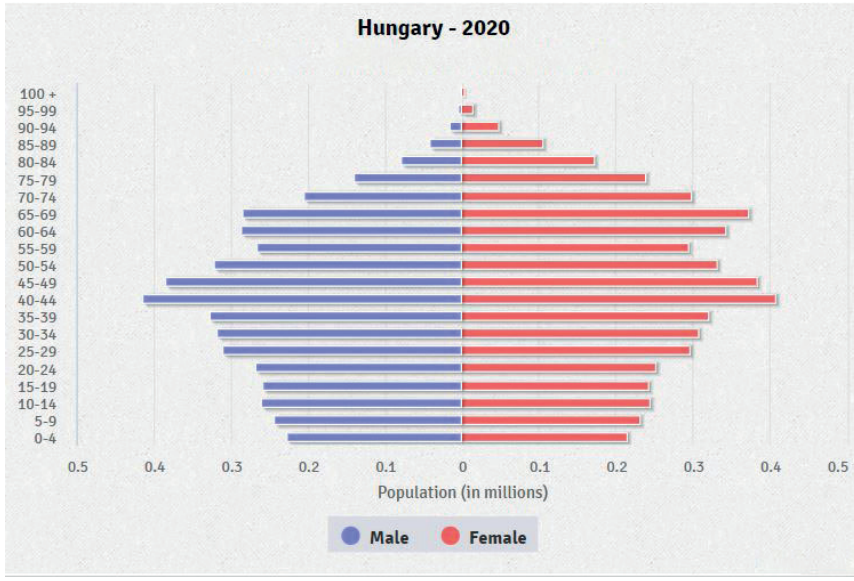
4. Nursing in numbers

Table 2. Demographic and socioeconomic context in Hungary, 2017

Demographic factors	Hungary	EU
Population size (mid-year estimates)	9 788 000	511 876 000
Share of population over age 65 (%)	18.7	19.4
Fertility rate	1.5	1.6
Socioeconomic factors		
GDP per capita (EUR)	20 300	30 000
Relative poverty rate (%)	13.4	16.9
Unemployment rate (%)	4.2	7.6

Source: State of Health in the EU Hungary Country Health Profile 2019 [4].

Life expectancy at birth in Hungary grew by more than four years between 2 000 and 2017 (from 71.9 years to 76.0 years), an increase slightly greater than the average across the EU (3.6 years). Despite this, in 2017 life expectancy at birth remained almost five years below the EU average, and the lowest among the countries of the Visegrád Group (Czech, Hungary, Poland and Slovakia) [4].



Source: https://www.cia.gov/library/publications/resources/the-world-factbook/geos/hu.html [20].

Health system

Hungary spends much less on health care than the EU average, both in absolute terms and as a share of GDP. In addition, only slightly more than two-thirds of health

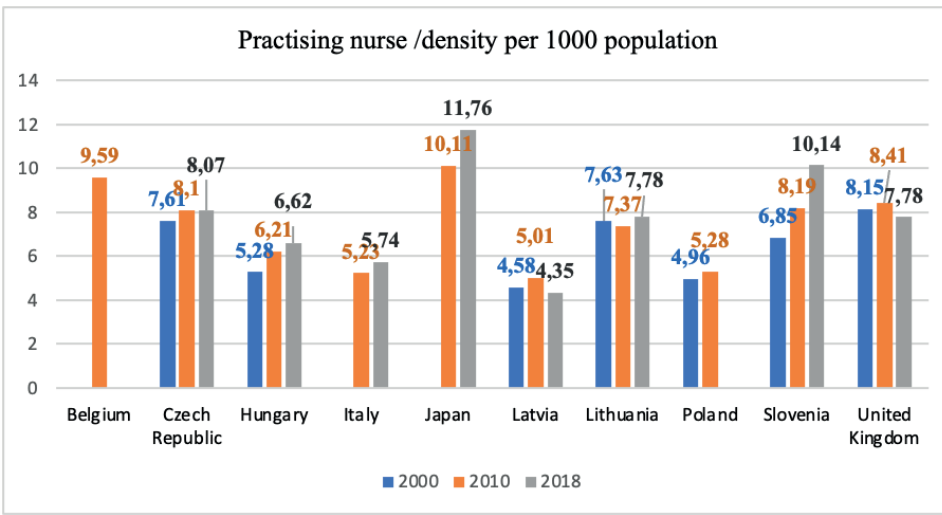
expenditure is publicly financed, resulting in levels of out-of-pocket payments that are double the EU average. Overall, the health system remains excessively reliant on hospital care, with primary care insufficiently equipped to a have a stronger role.

The Hungarian health system is chronically underfunded. Expenditure on health care is EUR 1 468 per capita (adjusted for differences in purchasing power), which is among the lowest in the EU. Health expenditure per capita has increased at about the same rate as GDP since 2010, so health spending as a share of GDP has remained relatively stable, fluctuating between 7.5% in 2010 and 6.9 % in 2017, still well below the EU average. The public share of health spending (government and compulsory insurance) accounts for only slightly more than two-thirds of total health expenditure in 2017, while out-of-pocket (OOP) spending accounts for 27%, almost twice the EU average of 16% [4].

Health status

Life expectancy in Hungary is lower than in most of its EU neighbours, and disparities across gender and socio-economic groups are substantial. Life expectancy at birth was 76.0 years in 2017, an increase of four years since 2 000, but still nearly five years below the EU average (80.9 years) [4].

This table shows the practising nurse's number in Hungary, but it is comparable with some other countries, which are described in this e-book. The results show the highest number of practising nurses compere to 1 000 population is in Japan, and Hungary among to these 10 countries has the 7th place.

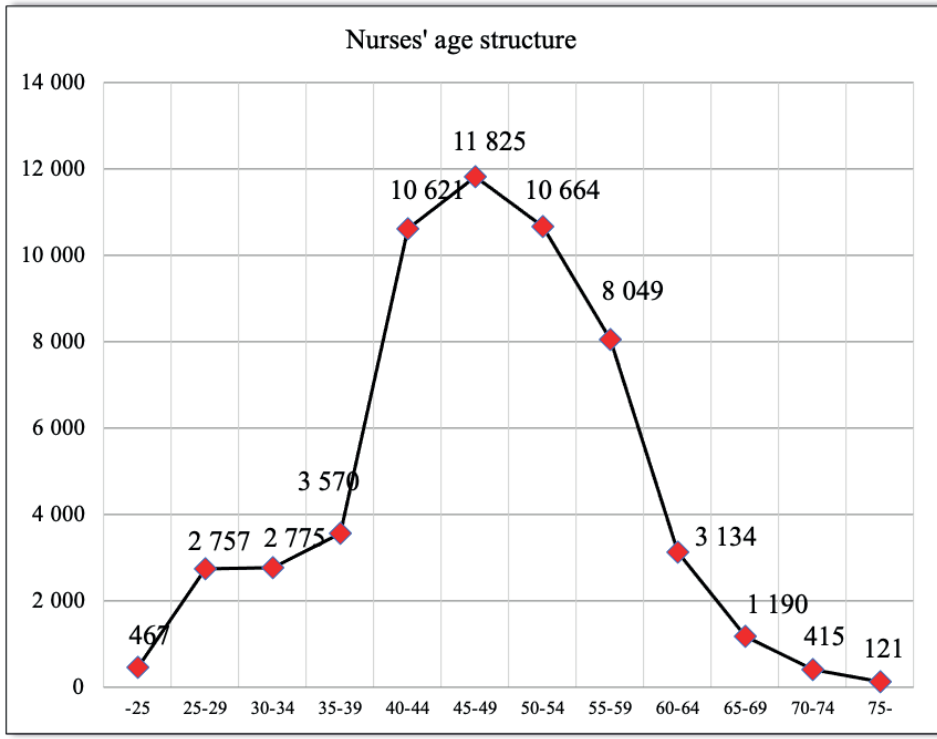


Source: OECD database https://stats.oecd.org/index.aspx?queryid=30175 [21].

The number of doctors and nurses in Hungary

Compared to the EU average, Hungary has fewer doctors (3.3 vs. 3.6 per 1 000 population) and fewer nurses (6.5 vs. 8.5). Workforce shortages have been exacerbated by an ageing health workforce and the emigration of many doctors (particularly specialists), which accelerated after the country's accession to the EU in 2004. Almost 5 500 doctors left the country to work in other EU countries or elsewhere between 2010 and 2016 (OECD, 2019). Emigration of nurses has also been substantial in recent years.

One of the problems of nursing is the aging of this professional group and the lack of generational replacements.



Source: Chamber of Hungarian Health care professionals (2020), (Total number: 55 588).

5. Challenges and prospects

The Hungarian health care professionals/nurses need the legal competence list as soon as possible. It will show the nursing implementations for different levels of educated nurses. This list must be valid in every health institute.

One option is the nurses will take a license exam from few nursing competences eg, catheterization, wound management, stoma-therapy, and intravenous implementations. The nurses can prove their high level of ability and skills.

The other problem is the lower number of nurses year by year. The number of applicants are less on every educational level. It comes from the lower number of the younger generation. For that reason the Chamber of Hungarian Health Care Professionals are working on the recruitment process. The Chamber made shorter and longer professionals films, with real health care professionals. They present their profession very authentically. The management of these films are well known. The regional chambers go to the secondary school and organise a campaign with the films, and with their personal influence. Many health care workers are working on the recruiting of the new students. The films are available: https://hivatasunk.hu/palyavalasztas-2021/.

The Hungarian healthcare system is facing a major transformation. The number of hospital active beds will be drastically reduced, in parallel with the expansion of chronic care practice. Patients requiring long-term care will either receive care in their own homes or in nursing homes. There is not enough space in the nursing homes currently in operation, there are long waiting lists in several institutions. The question to be decided in the future is whether this form of care will be managed by the health or social sector.

The biggest dream of the health care professionals is to establish the independent Health Ministry and within it an independent nursing department. This department can response for the nursing and for the education of the health care professionals. Also the other important thing would be establishing a research centre of nursing, it would organise the developing of the new implementations in nursing.

References

1. https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32013L0055 (access: 2020. 10. 18.)
2. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32005L0036&from=EN (access: 2020. 10. 18.)
3. Vida M. Művészet és orvostudomány a történelmi Magyarországon. (Art and medicine in historical Hungary) Magyar Képek Kiadó, 1994.
4. State of Health in the EU Hungary Country Health Profile 2019. https://www.oecd.org/publications/hungary-country-health-profile-2019-4b7ba48c-en.htm
5. Perkó M. Egy újpesti középiskola egy évszázados története II. rész. (A century-old history of a high school in Újpest II. section) *Nővér.* 2020; 33 (1): 3-12.
6. Sövényi Fné: Az ápolásfejlesztés koncepcionális elemei (Conceptual elements of nursing development) (*Nővér Supplement* 1994 augusztus)
7. 5.8000/1946. N. M. sz rendelete az általános betegápolási szakképzésről (Regulation on general vocational training in nursing). Népjóléti Minisztérium. 1946. 5.8000.
8. https://stats.oecd.org/index.aspx?queryid=30175 (access: 2020. 10. 12.)

9. 12/1962. (Eü.K. 7.) Eü. M. sz. utasítása a középfokú egészségügyi szaktanfolyamokkal kapcsolatos feladatok ellátására (Order to Secondary vocational training)
10. 1961. évi III. törvény a Magyar Népköztársaság oktatási rendszeréről (Act on the Education System of the Republic of Hungary)
11. 28/1962.(eü. K. 14.) Eü. M. sz. utasítása „egyes egészségügyi dolgozók továbbképzéséről" (Order on the „further training of certain health professionals"). Egészségügyi Közlöny 1962. 14. sz.
12. Sain H. Bánfai B. A kiterjesztett hatáskörű ápolói rendszer fogadtatása a Magyar társadalom megítélése tükrében (Opinions about APN nurses in the Hungarian society). *Nővér*. 2020; 33 (4): 9-17.
13. Az egészségügyi miniszter 44/1970. (Eü. K. 24.) EüM. Sz. utasítása Egészségügyi Központi Továbbképző és Szakosító Intézet létesítéséről (ETI). Egészségügyi Közlöny 1970. 24. sz.
14. Sövényi F. Stipkovics S. Az egészségügyi szakképzés rövid története (A brief history of health vocational training). *Nővér*. 2007; 20 (1): 4-78.
15. Perkó M. Egy újpesti középiskola egy évszázados története I. rész. (A century-old history of a high school in Újpest I. section) *Nővér*. 2019; 32 (6): 4-19.
16. Sövényi F. Perkó M. Fedineczné Vittai K. Az első állami ápolóképző iskola alapításának története (The history of the founding of the first public nursing school). *Nővér.* 2020; 33 (3): 4-19.
17. https://regi.tankonyvtar.hu/hu/tartalom/tamop412b2/2013-0002_az_egeszsegugyi_kepzesek_jogi_szabalyozasa/EJ/sejjs143g.htm (access: 2020. 09. 20.) (legal regulation of health training)
18. Oláh A., Máté O., Betlehem J., Fuller N. MSc képzés bevezetése Magyarországon (Introduction of MSc training in Hungary). *Nővér.* 28 (2): 3-10.
19. Emberi Erőforrás Minisztérium. A felsőoktatási szakképzések, az alap- és mesterképzések képzési és kimeneti követelményeiről, valamint a tanári felkészítés közös követelményeiről és az egyes tanárszakok képzési és kimeneti követelményeiről szóló 8/2013. (I. 30.) EMMI rendelet módosítás. 18/2016. (VIII. 5.) EMMI rendelet, 1-1310. (Ministry of Human Resources. On the training and output requirements for higher education, bachelor's and master's degrees)
20. https://www.cia.gov/library/publications/resources/the-world-factbook/geos/hu.html (access: 2020. 09. 20.)
21. OECD database https://stats.oecd.org/index.aspx?queryid=30175 (access: 2020. 09. 20.)
22. Chamber of Hungarian Health Care Professionals database (Magyar Egészségügyi Szakdolgozói Kamara database) http://www.meszk.hu/info.aspx?sp=66 (access: 2020. 09. 20.)

Ilya Kagan, Sara Nissim, Karin Lee Ovadia

NURSING IN ISRAEL

1. Brief history of nursing

The history of nursing in Israel begins in the early years of the 20th century, prior to the establishment of the state. At the end of the First World War, the health of the residents of the Jewish community, living in what was called Palestine, were poor. Despite the challenges of the period, the local community was able to organize and establish a medical system that met the needs of the Jewish population, who began to arrive in Israel. The first steps taken to organize healthcare services, were initiated by local community leaders, who asked for financial and medical support from the Jewish community in the United States. The clinical and administrative activities of nurses in the Land of Israel formed the basis for the establishment of the healthcare system of the young state, which was declared about thirty years later, in 1948. The role of nurses in this process was crucial since the Jewish nurses led a process, which would be responsible for developing a new local culture of a healthy community, health promotion and healthcare [1-3].

During the 1920s-1940s, the two main organizations that provided health services and trained nurses in Israel were the American Zionist Medical Unit of Hadassah (AZMU) (later the Hadassah Medical Organization) and the Hebrew Workers' (General) Sick Fund (later the Clalit Health Fund) led by the Labor Federation of Workers in Palestine (established in 1920). Hadassah Women's Zionist Organization of America, a volunteer women's organization, was founded in 1912. The organization first sent Hadassah nurses (also called "*Bnot Zion*" or "daughters of Zion") in 1913 and initiated a number of community programmes and health initiatives in Israel. Among the first services established by the Hadassah nurses were a community-based system of maternal and child health clinics (also called "*Tipat Halav*" - "a drop of milk") that serves mothers and delivers pediatric care to children from birth up to age of 6 untill today. In 1921, the Hadassah Organization and AZMU established the first healthcare centre in the Old City of Jerusalem. The service included guidance and counseling for pregnant women and mothers, and the distribution of food and pasteurized cow's milk to needy infants. This innovative initiative attracted mothers both from Jewish and Arab communities to come and receive additional health promotion services and assistance. At the same time, the Clalit Health Fund provided similar services to its insured members. Nurses, accompanied by the local doctors, gave most of the treatments and instructions. Between 1922-1924 "a drop of milk" stations spread to other cities [3,4]. The health system of the Jewish Yishuv (Settlement), and later of the young state, demonstrated

impressive achievements in international health measures an example of which was a significant decrease in infant mortality, attributed to the activity of these stations, from 108 deaths per 1,000 live births in 1927 to 48 deaths per 1,000 live births in 1948 and a further decrease later, as reported by [4]. The country's population grew rapidly and the "drop of milk" services were expanded from 100 to 300 in the early 1950's [4].

Additional health and medical services were provided in family medical clinics and hospitals in cities, settlements and kibbutzim (collective, agricultural based communities). As the hospitals ceased to operate regularly with the end of the Turkish Mandate in 1917, the first hospitals in a new format were established with the arrival of the American Zionist Medical Unit in Israel in 1918. Medical service providers collaborated and established joint medical centres throughout the country [1,2].

In 1918, the Hadassah Women's Organization laid the foundation for the first Hadassah nursing school in Jerusalem. The nursing education curriculum was based on programmes from the United States and Great Britain and was ground breaking in the Middle East. In order to deal with a continuing shortage of nurses, other nursing schools across the country were opened by AZMU in 1936 [1,2].

With the increase in the number of nurses, the need for representation of their professional and sectorial needs arose. In the 1930s, the first steps for establishment of a Nurses' Association were made. A group of nurses, who acted to represent the interests of nursing, joined the Labor Federation of Workers and formally founded the Israel Nurses' Union in 1947 [5]. While the Hadassah organization led to the training and recruitment of registered nurses (RN's), the Nurses Association also recruited, trained and approved licensed practical nurses (LPN). Since RN certification in the Hadassah nursing education system was granted according to the British regulations (a minimum of three years' training), immigrants from Europe were not recognized as registered nurses (due to one to two years of nursing training). Physicians in senior administrative positions who needed skilled nurses with low employment costs, acted to establish courses granting certification to practical nurses and contributed to the definition of their curriculum [1].

From the establishment of the state in 1948 until the 1990s, the number of nurses in hospital and community services grew. Nurses specialized in diverse clinical and managerial areas. Programmes for post-basic training were developed. The nursing education system grew and became academic. The Department of Nursing at Tel Aviv University was the first to open a Bachelor's degree programme in nursing in 1968. Later, a number of Master's and Doctoral (PhD) programmes in academic institutions were opened. In 2010's, a Nursing Practitioner education programme was developed and the first nurse practitioners in palliative and geriatric care were certified [6].

2. System of education for nurses

Since the founders of the Hadassah Nursing School were American nurses in origin, they promoted the ideas of "social feminism" – the elevation of the status of women in society by means of their education, thus affording them the opportunity to earn a profession and become independent. According to Bartal (2005), during the 1920s, nursing education programmes were designed primarily with the tendency to emphasize public and community medicine in view of the growing population due to waves of new immigrants to Palestine.

In general, the development of nursing education in Palestine in the period of British Mandatory Rule was affected by the belief that education could serve as a central catalyst ("change agent") for the newly established Jewish society that would help in "creating" a new kind of Jewish woman, who was not only busy with the traditional demands of a housewife [7]. Other significant influences on the development of nursing educational programmes in Palestine were the local conditions, the supervision of the British Mandatory Rule, the global development of the nursing profession, the nursing students' mentality (which depended upon their country of origin) and the accelerated development of medical service institutions throughout the country [8].

Henrietta Szold founded the Hadassah Women's Zionist organization in 1912 in the United States and there were only Jewish nursing schools until 1936, throughout the whole period of the British Mandatory Rule in Palestine [8]. The Hadassah nursing school was committed to fulfill the requirements of the British Mandatory Rule Regulations in order to receive governmental recognition, as follows [8]:

1. The recognition of the affiliated hospital as the "training centre";
2. Appropriate registration of nursing students and admission requirements;
3. A 3-year period of study;
4. Obligatory Examinations;
5. Qualification process based on the core curriculum;
6. Fluency in the language of study.

Every nursing student had to pass a final examination. This consisted of written, oral and practical examinations. The examination board was composed of licensed doctors, registered nurses and a deputy from the Health Division Department of the British Mandatory Government [8].

During the years 1936-1948 other Jewish nursing schools were established, mostly affiliated to hospitals, while the Hadassah nursing school served as a "role model" for others. The nursing students could live in dormitories and obtain steady work after graduation, and thus it was considered a good opportunity for young unmarried girls who did not have a family in Palestine (often new immigrants) to start an independent life [8].

The period after the establishment of the State of Israel, from 1948 until the 1960s, was a very intense time of constant struggle for survival in the face of wars

and huge waves of new immigrants. During 1948-1952, the Israeli population of 650,000 absorbed a similar number of new immigrants. Due to these circumstances, the nursing education had to contend and cope with a massive shortage of nurses. New accelerated and short-termed programmes for practical nurse`s qualification were widely opened, and the entrance requirements for Registered Nurses programmes were lowered. The mainstream of nursing education were diploma programmes (without a BA degree) and short practical nurses courses [9].

The first Israeli academic nursing programme was established in 1968 in Tel-Aviv University and was designed as a post-basic programme for registered nurses who sought to receive a BA degree. During the 1970s, nursing schools in Israel were financially separated from the hospitals thus earning their independence. As a result, their students were no longer obliged to serve as "cheap manpower" and to serve in the hospital wards day and night during their education programme, as was customarily accepted beforehand. This change led to improving clinical qualification by raising the standards to choose appropriate clinical wards for student's clinical practice. In many schools, university-guided committees were set up for curriculum revision and to upgrade the courses to meet academic requirements. These changes laid the groundwork for further affiliation of nursing schools into university units [9].

In 1994, the Nursing Division at the Israeli Ministry of Health was established as a management and regulatory body, with the goal to regulate and supervise the professional development and appropriate qualification of nurses [10]. Therefore, nursing in Israel is regulated by the Nursing Division led by the Chief Nurse of Israel. The role of the Nursing Division is to initiate and supervise national nursing policy including forecasting and planning the nursing work force needed. It is also responsible for the standardization of nursing education in Israel, the professional development of nurses and their registration.

The authorization to practice nursing is based on The Public Health Regulation (Nursing Staff in Clinics) [11] and the Public Health Regulations (Persons Practicing Nursing in Hospitals) [12]. Nurses are registered in the registry of nursing staff by the Nursing Division. To practice Nursing in Israel you have to be: "An Israeli citizen or resident who is over 18 years of age, who has demonstrated to the Director General's satisfaction that he received training in nursing and that he has a basic knowledge of the Hebrew language is entitled to be registered in the registry".

The licensing department in the Nursing Division is responsible for determining the mandatory core training to ensure the quality of the care provided by a licensed nurse, including a certified nurse with post-basic training, registering and managing those who are authorized to practice nursing. There are presently three levels of nurses practicing in Israel, all educated in different settings [10]:

1. Licensed Practical Nurses (LPNs), (training for this was suspended in 2007)
2. Registered Nurses (RNs) (this category consists of a unique group of BA holders from various disciplines, who have studied in a programme for a RN Diploma).
3. Bachelor of Sciences in Nursing, graduates from universities or colleges (BScN)

An RN diploma is the minimum requirement for nursing practice; a decade ago, the bachelor's degree in nursing became the minimal level for acceptance in various nursing positions. This decision accords with WHO Resolution No. WHA64.7 [13] requiring that nurses and midwives provide care based on a high level of knowledge and skills in order to maximize the physical, psychological, emotional and social wellbeing of individuals and families.

As mentioned before, nurse education programmes in Israel are uniform. However, at the end of their educational programme all nursing students must pass a mandatory licensing exam that authorizes them to work as nurses. After passing the exam, and in the course of their work, nurses may choose from a large array of advanced post-basic courses, which provide additional knowledge and authority in different fields, including obstetrics, emergency care, dialysis etc. Today, an increasing number of nurses acquire advanced degrees in nursing and related professions, thus enhancing the scholarly base of professional nursing [14]. Promotions in the workplace are usually predicated on the acquisition of at least one academic degree in nursing. Currently in Israel, nurses may hold various academic degrees, ranging from a baccalaureate degree, through a master's degree, and concluding with a PhD degree in nursing.

The Governmental Exam confers a Registered Nurse Certification regardless of the institution where the nurse was educated. All programmes are based on the Nursing Core Curriculum, which serves as the minimum standard of practice, and need to be studied in order to be recognized as eligible to take the Governmental Exam. The last time the core curriculum was revised was in 2019 [15]. The previous changes were in 2006, 2012, respectively, reflecting social, technological and professional changes over time.

The Nursing Division at the Israeli Ministry of Health is a regulator that is responsible for the development and release of the core curriculum for all nursing programmes and for the final Governmental Examination, and for accreditation of registered nurses. Each institution has to translate this core curriculum into courses, syllabuses, etc. The institutions, especially universities and colleges have a right to add hours/courses/subjects, to allocate credit hours for contents but not to diminish from the regulator's demands [10].

Today most nursing schools in Israel are affiliated to universities and colleges and run a 4-year nursing educational programmes for registered nurses, who graduate with BA/BSN degrees. Another programme that was intensively developed over the past two decades is an accelerated programme for non-nursing BA graduates (second career programme). A number of nursing schools run a 2.5 year-length diploma programme for BA graduates from any academic field in order to retrain them as registered nurses [15].

Nurses in Israel can advance professionally and educationally on three pathways:

– Clinical Path: after graduating, the nurse can obtain several post-basic courses related to the clinical field she is working in, and can fulfill various positions as

coordinator or consultant. She can then obtain a clinical MA degree in a specific area such as Geriatrics, and can advance professionally in a related clinical setting or engage in research on her specialty. Over the last 10 years, Israel is advancing more and more the degree of Nurse Practitioner, which requires at least an MA degree and two years study at the university. To date there are eight areas that a nurse can choose from: Palliative Care, Community Nursing, Surgery, Neonatal, Pain, Diabetes and so on.

- Management Path: after graduating the nurse advances in the clinical settings (hospital or community) through various clinical positions starting from Team leader, through Nurse Manager to Nursing Director. The nurse needs to have at least a master's degree in Nursing or Management and is obliged to have at least one post basic course related to the clinical field she is working in.
- Academic Path: Nursing education and training in Nursing Schools usually involves experience teaching graduate level nursing students. For this, there is a need for a post basic course in the area of teaching and patient education with a minimum of a master's degree. The nurse can then obtain a permanent position as a staff member in a Nursing School or College. To receive an academic position in one of the Nursing Departments of a university, there is a need for a Ph.D. and proof of research experience. A Ph.D. in Nursing can be obtained at one of the large universities in Israel: Haifa, Tel Aviv, Ben Gurion in the Negev.

3. The legal status of nursing

The legal status of nursing in Israel is atypical in that it is based on the National Medical Law which dates back to the days of the British Mandate in what was then Palestine. It has been updated and has continued to be so over the course of the years. In 2012 there was an attempt made to pass a nursing law, but with no success. It is interesting to note that in spite of the lack of a nursing law, one of the basic requirements specified is that to practice nursing one can have no criminal record of any sort.

The Head Nurse of the Nursing Division in MOH and the Director of the Ministry of Health are responsible for defining which nursing activities are permitted for registered nurses in the state of Israel [16]. These activities are divided into two categories:

Regular nursing activities: these are functions, which every registered nurse is qualified and expected to perform whenever and wherever necessary. They require a doctor's order or an accepted protocol authorized by a physician in the organization.

Irregular nursing activities: functions which are defined as medical (i.e. doctor's) activities, but which are delegated to nurses under certain circumstances. These activities are limited to the medical institution, where the nurse receives personal permission to perform the specific activity [16].

In order to change, or advance the practice of nursing with regards to any activity not defined under this system, a national committee, called the "Special Committee"' which meets yearly or biannually, and functions under the power of the Ministry of Health, must define an activity as a nursing activity or an irregular nursing activity. Most of the irregular activities are limited only to nurses who have specializations over and beyond basic R.N. training (Intensive Care, midwives or Geriatric nurses, for example).

In Israel, the vast majority of nurses work in the National Health Service or in the major Health Funds. As a result, legal defense for them is provided for them by their employer. In the case of the nurses working for the government, the Inbal Insurance Company is responsible for any legal charge made against a nurse in the course of performing her duties. The Clal Insurance Company covers all the nurses in the Kupat Holim Clalit, the largest Health Fund in the nation.

If a nurse in Israel commits a professional error resulting in severe injury or even death to a patient, the first step in the care of the case is an investigative committee whose members are appointed by the Ministry of Health. This committee is responsible for the first investigation of the case. The committee members include a lawyer from the Ministry and fellow professionals, both a nurse, appointed by the Chief of Nursing in the Ministry of Health, and at least one doctor. The results of the committee are legally binding and can be and often are, presented in court.

If the nurse should be suspected to be guilty of negligence in the opinion of the committee, the nurse is then called before a disciplinary committee of the State Commission. This committee has the authority to bar her from practicing nursing for a period of time or for life, if they should deem it to be so deserved. If there should be a suspicion of criminal intent, the case is moved to the criminal justice system to be tried there. Parallel to this, the family of the victim may also make a claim on the hospital in the civil court system for damages.

In 1996, Israel passed the Patients' Rights Act [17], a law, which does honor to the state, and serves a vital and important function, but has also changed much in the field of nursing. In particular, the right of the patient to have a record of every action, decision, reasons for the decision and so on, as well as the increase in the number of lawyers practicing in the field of medical law have meant that nurses have become more and more preoccupied with recording of the patients' care and so possibly the initial appearance of the phenomenon of defensive nursing. At the same time, more and more nurses have begun to study law, and are now practicing and contributing to a cyclical effect.

Beyond the legal basis, nursing practice is anchored in solid ethical values. It is important to note that the National Nurses Union published the Israeli Nursing Code of Ethics, which was revised and up-dated in 2018.

Israel is a law abiding country, a democracy and a liberal nation, where we hold the individual rights of our citizens to be sacred. This is most definitely reflected in the legalities of the field of nursing.

4. Nursing in numbers

Today, at the end of 2020, in Israel, there are 70,052 nurses, of whom 54,180 are under 65, 277 nurse practitioners (NPs) and another 127 are studying NP in various clinical areas [18,19]. From the perspective of policy making and managerial practice, nursing in Israel operates through formal and union leadership, and at three organizational levels – the national level, the institutional level (senior and middle management in healthcare organizations) and the staff level (nurse managers and staff nurses). Formal leadership is represented by the Nursing Division, which is a division of the Ministry of Health, whose responsibility is "to fulfil the role of formulating policy in the framework of the Ministry of Health state lines of action, as well as developing the nursing profession as an integral part of the health system" [10]. The Nursing Division memos are interpreted into annual work plans by the Nursing Divisions in hospitals and the community services. The responsibility of nursing directors in healthcare organizations is to implement policies through organizational procedures and protocols. The nurse managers and staff nurses are committed to provide nursing care and to perform managerial and educational activities according to these guidelines.

The Israel Nursing Association, as a professional union, plays an important role in promoting the shaping of nursing in terms of employment conditions and employee rights. To emphasize the impact, the organization put forward a candidate for the 16th Knesset (Israel parliament) who was elected as a member and ran a full term (2003-2006). The Nurses' Association publishes a scientific journal "A Nurse in Israel" twice a year, in Hebrew while the Association for Nursing Research in Israel publishes another on-line peer-reviewed journal "Body of Knowledge". Nurses also hold senior managerial positions outside the nursing system. Nurses run community health services in districts, lead academic departments, and hold senior positions in colleges and scientific foundations.

The Israeli Nursing Education System is based on the Nursing Division policy in MOH and is held in academic settings (13 Nursing departments in universities and academic colleges) and in 15 nursing schools near hospitals [10]. Most of the nurses in Israel undergo academic training and graduate as a registered nurse with a Bachelor's degree in nursing. The number of nursing graduates is growing year by year. Thus, from 2005 to 2019 the number of graduates increased from 1932 to 2814. The number of nursing students is also rising. In 2019, 3964 nursing students started their studies, as compared with 2,597 in 2016. As a result, the number of nurses per 1000 population increased from 5.96 in 2015 to 6.2 in 2019 [18,19].

5. Challenges and prospects

The nursing profession in Israel faces the same challenges that most western countries face: first of all, how to adjust to the everchanging reality of modern

medicine with all that follows from that. Secondly, how to define itself as a profession as it develops rapidly in new directions. Over and beyond this, the Nursing Division has set itself the goal of producing 4000 new nurses every year in order to bring the number of nurses per 1000 to 6.5, which is more in line with the standards accepted in the modern world today.

References

1. Bartal N. Nursing as a Female Profession in Palestine (1918-1948). Jewish Women: A Comprehensive Historical Encyclopedia. Jewish Women's Archive. Viewed on November 11, 2020. Available at: https://jwa.org/encyclopedia/article/nursing-as-female-profession-in-palestine-1918-1948
2. Shvarts S, Brown TM. Kupat Holim, Dr. Isaac Max Rubinow, and the American Zionist Medical Unit's Experiment to Establish Health Care Services in Palestine, 1918–1923. Bull. Hist. Med, 1998; 72(1): 28-46. Retrieved November 12, 2020, from http://www.jstor.org/stable/44451483
3. Shvarts S. The Development of Mother and Infant Welfare Centers in Israel, 1854-1954. J. Hist. Med., 2000; 55(4): 398-425. https://www.muse.jhu.edu/article/15215
4. Weiss D. "Milk drop" stations in Israel: historical view. Harefuah, 2019; 158, 12: 826-31 [In Hebrew].
5. Weiss D. (Unpublished). Two professions - two unions: The Nurses Union versus the Physicians' Federation, first years. [In Hebrew]
6. Ministry of Health MOH memo 6/2015: Nurse practitioner in hospital and community care. MOH, Jerusalem, Israel, 2015. [In Hebrew]
7. Raz H. The "Conversion" of Nursing by Jewish Orthodox Women in Israel. Philosophy, 2017; 7(4): 184-190.
8. Bartal N. Compassion and Competence: Nursing in Mandatory Palestine 1918–1948. Jerusalem, Yad Ben Zvi, 2005.
9. Bergman R. Janforum: Academization of nursing education: the Israeli experience. J Adv Nurs, 1986; 11(2): 225-229.
10. MOH. Ministry units: Nursing Division. Ministry of Health (MOH), Israel, 2020. Available at: https://www.health.gov.il/English/MinistryUnits/Nursing/Pages/default.aspx [In Hebrew]
11. Public Health Regulations (hospital nursing practitioners), 1988 [In Hebrew]
12. Public Health Regulations (nursing staff in clinics), 1981 [In Hebrew]
13. WHO. Resolution No. WHA64.7, 2011. Available at: https://apps.who.int/gb/e/e_wha64.html
14. Oren M, Ben Natan M. The Essence of Nursing in the Shifting Reality of Israel Today. OJIN, 2011;16 (2).
15. Nursing Division. Nursing Education Institutions. Ministry of Health (MOH), Israel, 2020. Retrieved 23, November 2020 from: https://www1.health.gov.il/nursing/study/programs-institutions/retraining/ [In Hebrew]
16. Nursing Division. Regular and irregular nursing activities. Ministry of Health (MOH), Israel, 2020. Retrieved 23, November 2020, from: https://www1.health.gov.il/nursing/work/toolkits/nursing-procedures/ [In Hebrew]
17. Israel. The Patients' Rights Act, 1996. Dated 1 May 1996 (Sefer Hakhukim, 5756, 12 May 1996, p. 327). IDHL, 1997; 48(2):187–193.
18. Nursing Division. Work plan 2020. Ministry of Health (MOH), Israel, 2020 [In Hebrew]
19. Nursing Division. Nursing Division Annual Plan for 2018. Ministry of Health (MOH), Israel, 2018 [In Hebrew]

Isuzu Nakamoto, Sachiko Horita, Sawako Sasai, Sayaka Uiji, Tomoko Wakamura

NURSING IN JAPAN

1. Brief history of nursing

Development of the profession

In the middle of the sixth century, Buddhism and Chinese medical science were introduced to Japan from China and had a large impact on the practice of medicine and nursing in Japan. Thereafter, in the eighth century, Empress Komyo established Seyaku-in, a free hospital for poor people, based on the spirit of mercy in Buddhism. In addition, the Empress established Hokke-ji in Nara with steam baths for sick people. According to a legend, she nursed them by herself by washing off their dirt [1].

No hospitals introduced Western medicine until the Meiji Government in 1868 because Japan was in national isolation in the Edo period. Therefore, until then, nursing did not exist. In the eighteenth century, midwifery began to emerge and was officially recognized as a profession by the Medical Regulation established in 1874. In 1899, the Enactment of the Midwives Ordinance was established and homogenized the examination, license, work, training, and education nationwide [2].

In 1877, the Seinan War, the last civil war in Japan, broke out. Sano T, who had observed Europe and knew about the Red Cross, then founded Hakuai-sha (later Japanese Red Cross) and rescued the wounded regardless of allegiance. At that time, many people worked without being educated in nursing and nurses were called in various ways. In 1915, the Enactment of the Nurses Ordinance was established following the Enactment of the Midwives Ordinance [2].

In 1941, the Enactment of the Public Health Nurses (PHNs) Ordinance was established and homogenized the license and examination, among others, nationwide. After the Japanese were defeated in World War II, PHNs of health centres focused on infectious diseases including tuberculosis and maternal and child health, and it was a blank period for home-visit nursing. In 1948, the Enactment of the Act on Public Health Nurses, Midwives, and Nurses (APHNMN) was established.

The beginning: The first schools

In 1885, the Yushi Kyoritsu Tokyo Hospital Training School for Nurses was established in Tokyo by the Japanese physician Takaki K as the first educational institution for nurses in Japan. In that school, Reade ME, who had received education of Nightingale-style nursing in America, taught sanitation and nursing. In 1886, the Kyoto Training School for Nurses, where Richards L, the first trained nurse in America, served as its director, and the nursing school attached to Sakurai

Girls' School (Tokyo), where Verch A served as its director, were established. In addition, graduates of the Kyoto Training School for Nurses provided home-visit nursing care to poor people who could not go to the hospital, and this was the first systematic home-visit nursing. Early Japanese nursing education was based on the Nightingale-style nursing education. The Nightingale-style nursing education is as follows: (1) it provides scientific and rational nursing education in close contact with doctors without receiving instructions from religious organizations [3]; (2) it is not enslaved to hospitals or doctors, and students are not subject to the workforce during their education; (3) a nurse leader will directly educate and train the students and treat them as professionals; and (4) it fosters mentally independent nurses who calmly choose what to prioritize for patients. However, this nursing education method declined without a successor after the foreign teachers returned to their home countries. In summary, early nursing schools were private schools, involving doctors who studied Western medicine and Christian missionaries and educated by nursing teachers. Nursing education at national training centres began in 1888 when nursing education attached to the Faculty of Medicine of Tokyo Imperial University was established. Initially, the education was commissioned to Verch A, a British woman from Nightingale School of Nursing; however, gradually, the professor of the Faculty of Medicine became the director of nursing education. This form has spread nationwide and became a common form of nursing education institutions until recently. Some hospitals educated nurses in their own way.

In 1890, nursing education was provided at the Japanese Red Cross Society. At that time, Director Hashimoto T of the Japanese Red Cross Society coached nursing education based on the education policy of the old Japanese army because he was reluctant to adopt Christianity in the Nightingale-style nursing education. In 1920, St. Luke's International Hospital Higher Nursing School, an American-style nursing school, was established in Tokyo. In addition, Buddhist nursing schools were established, inspired by Christian nursing schools, for example, Keika Nursing School (Kyoto) in 1893 and Shinshu Honganjiha Nursing School (Kyoto) in 1898 [4]. However, many individuals involved in nursing were raised in a clinical site rather than being educated and trained in these educational institutions. Basic nursing education was radically innovated in Japan after World War II.

The beginning: Professional organizations

The Association of Midwives, the Association of Nurses, and the Association of PHNs were established in 1927, 1929, and 1941, respectively. However, after World War II, they were integrated into the Japanese Association of Midwives, Nurses, and PHNs in 1946, which was renamed the Japanese Nursing Association (JNA) in 1951.

(4) The beginning: Magazines

The first nursing magazine was the "Nursing Women Magazine" (1899–1903) published by the Nursing Women Association. Thereafter, the "Nurse" (1931–1943) was published, which was intended to meet the publication of the journal, a condition

for Japan to join the International Council of Nurses. The first magazine after World War was the "Japanese Journal of Nursing," which was published under the guidance of the General Headquarters (GHQ). Thereafter, "The Japanese Journal of Nursing Art" (1955), "The Japanese Journal of Nurses' Education" (1968), and "The Japanese Journal of Nursing Research" (1968) were published and still exist today [1]. As of 2020, various magazines have been published by 47 nursing societies.

Table 1. Chronology of the Japanese nursing practice

1868	Meiji Restoration
1874	Medical regulation was established
1877	Hakuai-sha was founded (later Japanese Red Cross)
1885	Yushi Kyoritsu Tokyo Hospital Training School for Nurses was established
1886	Kyoto Training School for Nurses and the nursing school attached to Sakurai Girls' School were established
1899	Enactment of the Midwives Ordinance
1890	The Japanese Red Cross Society nurse conducted nurse education
1915	Enactment of the Nurses Ordinance
1920	St. Luke's International Hospital Higher Nursing School was established
1929	The Association of Nurses was established
1933	The 7th ICN Congress approved the membership of Japan's Imperial Nurses Association
1941	Enactment of the Public Health Nurse (PHNs) Ordinance
1942	Enactment of the National Medical Care Act
1945	The World War II ended. Japan was placed under the GHQ's control
1946	The Japanese Association of Midwives, Nurses, and PHNs was established (today's JNA)
1948	Enactment of the Act on Public Health Nurses, Midwives, and Nurses (APHNMN)
1951	Introduction of the associate nurse system
1952	Introduction of the first 4-year university course on nursing
1957	Introduction of a 2-year nursing education course
1992	Enactment of the Law to Promote Securing of Nursing Personnel
1979	Master's programme (Graduate School of Nursing) was established in Chiba University
1988	Doctor's programme (Graduate School of Nursing) was established in St. Luke's International Hospital University
1994	Introduction of Certified Nurse Specialist (CNS) System
1995	The Great Hanshin-Awaji Earthquake Introduction of the CN System
1998	Introduction of Certified Nurse Administrator System
2011	The Great East Japan Earthquake
2015	Introduction of Training System for Nurses to Perform Specific Medical Interventions

2. System of education for nurses

Nursing education system is roughly classified into two: “basic nursing education” and “nursing continuing education.” “Basic nursing education” is required for an aspiring nurse to take the national nurses’ licensure examination. “The nursing continuing education” is the education received after graduation from basic nursing education course.

(1) Historic background of the nursing and nursing education systems

1) From a medicine model to a nursing model

Education at national training facilities began with the opening of a nurse training facility at the Tokyo Imperial University School of Medicine, and nationwide, professors of the School of Medicine gradually became responsible of providing nursing education until recently when nursing education institutions have become a general form. As for basic nursing education from 1952 to 1967, most were taught mainly based on a medical model. The number of colleges of medical technology and nursing (3-year education system) at national universities increased from 1967 to 1989. A parallel model of medicine and nursing was used for education there. Education was provided in line with the activities of medicine and nursing at training sites in each clinical department. The clinical adaptation after graduation was easy. As for the nursing education in 1989–1996 when universities offering 4-year nursing courses had begun to increase, education based on a nursing science model has been provided. Subsequently, from 1996 to 2006, problems in nursing management, such as immature nursing skills of newly graduated nursing personnel, early quitting, and medical safety problems, became large and became a problem in the medical world.

Both the Ministry of Education, Culture, Sports, Science and Technology (MEXT)and Ministry of Health, Labor and Welfare (MHLW) have tackled these issues by strengthening the practical skills of nurses, and various study groups were held from 2002 to 2007, recognizing the importance of “collaboration between educational institutions and hospitals.”

2) Nursing system after World War II and the reform of the nursing education system

Under the rule of the GHQ, the Nursing Division was established in the GHQ Public Health and Welfare Bureau, and American nurses in the Nursing Division worked with Japanese nurses on a project-by-project basis to promote reforms in the nursing and nursing education systems.

Postwar Japanese nursing and nursing education systems were established, including the establishment of the Nursing Education Council, the national examination and licensing system, designated rules, and the Tokyo Nursing Education Model Academy (Tokyo). In 1949, in the first collaboration between the MEXT and MHLW, “Rules for Designating PHNs, Midwives, and Nursing Schools” was enacted, which became the starting point of the postwar nursing education system.

(2) System of education for nurses

1) Laws supporting the nursing education system: The Act on Public Health Nurses, Midwives, and Nurses (APHNMN)

The legal position for training nurses is the APHNMN. To qualify as a nurse, PHN, or midwife, he/she must pass a national examination conducted by the MHLW. Therefore, the nursing educational institution has the School Education Law and the APHNMN and the Rule for Designation of PHN, Midwife, and Nurse Schools and Training Schools (designated rule) limitation. Therefore, basic nursing education institutions such as universities are under the double restraint of the MEXT and the MHLW.

2) Main basic nursing education course

It is a characteristic of Japan that the curriculum of the "basic nursing education" diverges into many branches (Fig. 1). The qualifications for an individual to enter a nursing school vary according to each educational institution, and most individuals can enter a nursing school after graduation from high school.

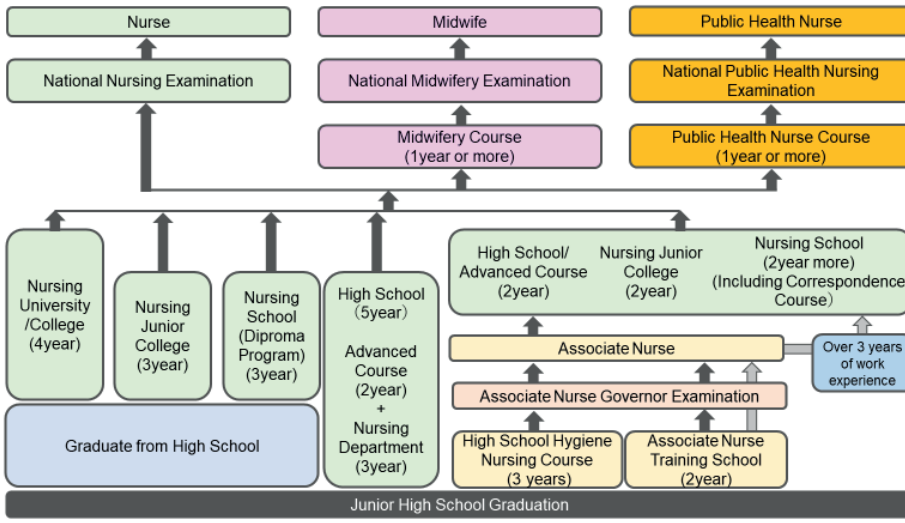


Figure 1. Basic nursing education courses

As a measure against the shortage of nurses, producing associate nurses and granting them the qualifications to work as nurses were considered. In 1957, a partial amendment of the designated rules established a 2-year nursing course allowing students to enter a nursing university or college after graduating from junior high school (See Fig. 1). The associate nursing system was established in response to the demands of society; however, there have been calls for suspension of associate nurse training immediately after the establishment of the associate nursing system until the present. Small- and medium-sized hospitals need associate nurses who are

ready to work in clinics, which could control labour costs. The opinion that it should be abolished in order to improve the status of nurses is at odds with their opinion.

Hence, having the ability to provide safe and reliable services is demanded from nurses to support several social needs, such as the diversification of health needs and medical technological change, and the "basic nursing education" system was further modified, making it a 4-year education system.

3) The contents of basic nursing education

The contents of basic nursing education were jointly stipulated by the MEXT and MHLW as designated qualifications for the national examination. Moreover, the MEXT and MHLW stipulated designated guidelines and standards for the contents of basic nursing education. In all educational institutions, education is planned based on the purpose of each educational institution based on the designated guidelines. Table 2 shows the standards for educational content at universities as an example of the designation rules scheduled to be implemented in 2022.

Table 2. The education contents based on the designation rules to be implemented in 2020

Content		Credits
Foundation studies	Basics of scientific thinking Understanding of humans, living, and society	**14**
Specialized basic studies	Human body structure and functions Disease mechanism and recovery promotion	**16**
	Health support and social security system	**6**
Specialization	Basic nursing	**11**
	Community • Home Care Nursing Theory	**6 (4)**
	Adult health nursing	**6**
	Gerontological nursing	**4**
	Child health nursing	**4**
	Maternal nursing	**4**
	Mental health and psychiatric nursing	**4**
	Nursing integration and practice	**4**
	Clinical training	**23**
	• Basic nursing	**3**
	Community • Home Care Nursing Theory	**2**
	Adult health nursing Gerontological nursing	**4**
	Child health nursing	**2**
	Maternal nursing	**2**
	Mental health and psychiatric nursing	**2**
	Nursing integration and practice	**2**
Total		**102 (100)**

One-credit course requires 45h of study

(3) Continuing education for nursing

1) Graduate school education

A study has reported that the nursing science has begun to get into a full swing from around 1975. In addition, the establishments of the nursing academic societies brought a major turning point in nursing research. Along with this tendency, graduate school education was started in research institutions of nursing science. The first master's degree course in Japan was provided by the Faculty of Nursing, Chiba University (Chiba) in 1979. The graduate school doctoral programme was established in 1988 at St. Luke's College of Nursing (Tokyo). As a doctoral programme of nursing at a national university, the doctoral programme of the Graduate School of Nursing, Faculty of Nursing, Chiba University (Chiba), was established in 1993 and was institutionally completed. According to the materials of the Japan Nursing University Council in 2017, there are 163 master's and 96 doctoral programmes [5]. There is an increasing number of researchers with doctoral and master's degrees in nursing.

2) Clinical training for newly graduated nursing personnel

The lack of nursing practice of newly graduated nursing personnel is a problem. According to the Law for Securing Human Resources in 2010, "it is necessary for nurses to find opportunities for practical training such as clinical training for nurses who are newly engaged in duties" was added, and the implementation of clinical training for new nurses became an obligation of each facility.

3) Qualification authorization system

As for the qualification authorization system, according to the MHLW's "nursing system study meeting report" (nursing system for the twenty-first century), an opportunity in April 1987 that specialized in nursing, upbringing of nursing managers was proposed. In response to this recommendation, the JNA established a committee in 1987 and began considering the establishment of a qualification certification system. The qualification certification system works by establishing a system committee, a certification committee, and a certification executive committee for each system. The specialist nurse system was established in 1994, the CN nurse system in 1995, and the certified nursing manager system in 1998 [6].

Advanced Nurse Practitioners (ANPs)

ANPs are recognized as having a high degree of specialization and excellent nursing practice ability. There are two types of ANPs: certified nurse specialists (CNSs) and nurse practitioners (NPs). To become a CNS, you must have acquired and completed the necessary credits in the master's degree course with the advanced practical nurse curriculum and have more than 5 years nursing practice. Furthermore, specialist nurses must pass the certification exam conducted by the JNA and have experience in a specific field of specialization, and even after certification, they must undergo a renewal examination every 5 years [7]. It functions as practice, education, consultation, adjustment, ethic adjustment, the study in the spot. For NPs, the authorization system is considered.

Certified Nurses (CNs)

By using nursing skills and knowledge in a specific nursing field, sending CNs who can provide high-level nursing care to subjects is essential in spreading and improving the quality of nursing care. In February 2019, the CN regulations were revised. The major pillars of the system revision were the start of new CN education, incorporating specific behavior training (Table 3) and the reorganization of CNs' fields of practice. There were 21 fields as of 2012; however, students will complete the programmes regarding those fields in 2026, and 19 fields of education will begin in 2020 [8].

Table 3. List of new CN fields (19 fields: education will start in 2020)

Fields			
Infection Control	Respiratory Nursing	Heart Failure Nursing	Breast Cancer Nursing
Radiation Oncology Nursing	Home Care	Nephrology Nursing	Dementia Nursing
Cancer Chemotherapy and Immunotherapy Nursing	Perioperative Nursing	Reproductive Health Care	Stroke Nursing
Palliative Care	Pediatric Primary Care	Dysphagia Nursing	Wound, Ostomy, and Continence Nursing
Critical Care	Neonatal Intensive Care	Diabetes Nursing	

CN Administrators

CN administrators maintain and improve the qualifications and standards of the nursing practice of nursing managers with the aim of providing high-quality organized nursing services to individuals, families, and residents with diverse healthcare needs. There are three steps (first, second, and third levels) in the curriculum [9].

(4) Training system for nurses to perform specific medical interventions

In 2020, when the aging rate is expected to exceed 30%, the MHLW stated that individual skilled nurses are not enough to further promote home healthcare. Training and securing nurses who can provide certain medical support (e.g., injection during dehydration and assessment of the degree of dehydration) (Table 4) according to the procedure manual without waiting for a doctor's order is necessary.

In 2015, a part of the APHNMN was revised, and training for nurses on specific skills was started. Based on the "procedure manual," nurses can identify specific situations so that they can assist in a certain medical treatment; therefore, establishing a training system that teaches nurses the ability to identify situations where they can assist according to the procedure manual is necessary. By standardizing this, we plan to systematically train nurses who will support home medical care in the future. As of March 31, 2020, the number of nurses who have completed training has exceeded 1600 [10].

Table 4. Specific medical interventions and their categories

Categories of specific medical interventions	Specific medical interventions
Respiratory system (airway management)	Adjusting the position of an oral tracheal tube or nasal tracheal tube
Respiratory system (mechanical ventilators)	Changing the mode settings for invasive positive ventilation
	Changing the mode settings for noninvasive positive ventilation
	Adjusting the dose of sedatives for persons under mechanical ventilation management
	Weaning from mechanical ventilation
Respiratory system (long-term respiratory therapy)	Replacing a tracheal cannula
Circulatory system	Operating and managing a percutaneous cardiopulmonary support device
	Removing temporary pacemaker leads
	Operating and managing a percutaneous cardiopulmonary support device
	Adjusting the assistance frequency of an intra-aortic balloon pump during weaning
Pericardial drainage catheter management	Removing a pericardial drainage catheter
Thoracic drainage tube management	Setting and changing suction pressure levels for a continuous low-pressure suction drainage system
	Removing a thoracic drainage tube
Abdominal drainage tube management	Removing an abdominal drainage tube, including the removal of a puncture needle placed within the abdominal cavity
Fistula management	Replacing gastrostomy tube, jejunostomy tube, or gastronomy button
	Removing a suprapubic catheter
Nutrition management (central venous catheter)	Removing a central venous catheter
Nutrition management (peripherally inserted central catheter)	Inserting a peripherally placed central catheter for injection
Wound management	Removing necrotic tissues with no blood circulation for the treatment of pressure ulcers or chronic wound
	Negative pressure wound therapy
Wound drainage tube management	Removing a wound drainage tube
Arterial blood gas analysis	Collecting a blood sample by direct arterial puncture
	Securing a radial artery line
Dialysis management	Operating and managing a hemodialysis machine or hemofilter for acute blood purification therapy
Administration of medications for nutrition and fluid management	Adjusting the dose of high-calorie intravenous fluid during the continuous infusion
	Correcting dehydration symptoms with intravenous fluid

Administration of medications for infections	Administrating temporary medications as needed to persons with signs of infection
Administration of medications for blood glucose control	Adjusting the dose of insulin
Postoperative pain management	Administering analgesics via an epidural catheter and adjusting the dose of analgesics
Administration of medications for hemodynamics	Adjusting the dose of catecholamine during the continuous infusion
	Adjusting the dose of sodium, potassium, and/or chloride during the continuous infusion
	Adjusting the dose of hypotensive drugs during the continuous infusion
	Adjusting the dose of intravenous fluid with carbohydrates or electrolytes during the continuous infusion
	Adjusting the dose of diuretics during the continuous infusion
Administration of medications for psychiatric and neurological symptoms	Administrating anticonvulsants (temporarily) as needed
	Administrating antipsychotics (temporarily) as needed
	Administrating anxiolytics (temporarily) as needed
Administration of medications for skin injury	Injecting steroids locally in the case of extravasation of chemotherapy or other agents and adjusting the dose of steroids

In addition, as continuous education is based on basic nursing education, education is provided in each facility such as a hospital (in-hospital education), as a continuous nursing education institution according to the National Institute of Health Sciences, Nursing Training, and Research of the MHLW. However, out-of-hospital education programmes sponsored by JNA do exist.

3. The legal status of nursing

The status of PHNs, midwives, and nurses as healthcare professionals was established by the National Medical Care Act enacted in 1942. In 1948, 3 years after the end of World War II, the APHNMN was enacted. This act enhances the qualifications of PHNs, midwives, and nurses and promotes the spread of medical care and public health [11]. The APHNMN stipulates that nurses must strive to improve their qualifications through clinical training and other means even after obtaining the license to practice (PHN or midwife) [12]. However, the act does not specify the specific content or number of hours of training, and there is no system for renewal of licenses.

(1) Nurse

In Japan, nurses are defined as "persons who, under a license from the MHLW, provide care and assistance in diagnosis and treatment for the injured, sick, or

postpartum women as their business" under the APHNMN [13]. The amendment to the law in 2006 created a name exclusivity provision in addition to the business exclusivity provision [14].

Nurses must have a broad understanding of the human condition, the ability to practice nursing in an evidence-based and systematic manner, and the ability to collaborate and cooperate with other professionals. Therefore, education in schools is provided to develop these abilities. The APHNMN legally mandates confidentiality by which nurses must not leak a person's confidential information to anyone during their work without a valid reason [15]. Previously, nurses were called different names based on gender; however, with the revision of the APHNMN in 2001, the names have been unified to be the same for both men and women since March 2002.

(2) Associate Nurse

Under the APHNMN, an associate nurse is a person licensed by the prefectural governor to work under the direction of a doctor, dentist, or nurse [16]. To obtain a license to practice as an associate nurse, a person must graduate from high school, complete 2 years of education, and pass the associate nurse examination [17].

(3) Public Health Nurse

According to the APHNMN, a PHN is a person licensed by the MHLW to engage in health guidance using the name of a PHN [18]. To obtain a PHN license, a person must pass the national nursing examination. Training for PHNs is provided at public health nursing schools (1-year programmes at vocational schools or junior colleges), and nurses who have completed their basic nursing education are eligible for training. Alternatively, enrolling in a college or vocational school for 4 years after graduating from high school allows both nurses and PHNs to qualify for the national examination [19]. PHNs who have passed the national examination and meet the requirements can apply for the qualifications of a school nurse (Type II) [20] and health supervisor (Type II) [21]. Previously, this work was performed only by women; however, after an amendment to the law in 1993, men could also perform this work.

(4) Midwife

Midwives should meet the national qualifications stated in the APHNMN. Legally, they may perform midwifery, provide health guidance to pregnant women, cut the umbilical cord, give enemas, and perform other related acts [22]. However, they may only perform midwifery in connection with a normal course of pregnancy and delivery on their own [23]. Midwives may perform services in hospitals, clinics, health centres, homes, and other settings and may open their own midwifery offices (midwifery clinics), as provided by law [24].

Upon passing the national examination, one is qualified to practice as a midwife. At some nursing colleges accredited as a designated midwifery school, students may be able to complete 4 years of university or college education and qualify to take the exam at the same time as a nurse by adding lectures and practical training on midwifery. Nowadays, an increasing number of universities are establishing

elective 4-year midwifery courses, and the number of midwifery majors and midwifery schools in junior colleges is decreasing. Even in those colleges, graduate schools (master's degree courses) and majors have begun to be established recently to educate midwives after graduating from nursing education due to the decrease in births and the inability to acquire enough midwifery skills for 4 years.

(5) Training system for nurses to perform specific medical interventions

In 2015, some amendments to the APHNMN were made, and a training system for nurses who have finished their training to perform specific medical intervention was initiated [25]. As of February 2020, 191 institutions have been designated to provide training in specific situations, including universities and hospitals. Those who complete the training will be issued with a certificate of completion of the specific act training. However, it is left to the discretion of each medical institution whether a nurse who has completed the programme can perform a specific action according to the procedure manual [26].

(6) Foreign nurses working in Japan

Foreign nurses working in Japan must pass the Japanese national examination. To qualify for the national exam, they must graduate from the nursing school and obtain a nursing license of their original countries and have a certain level of Japanese language ability [27].

4. Nursing in numbers

(1) Employment statistics

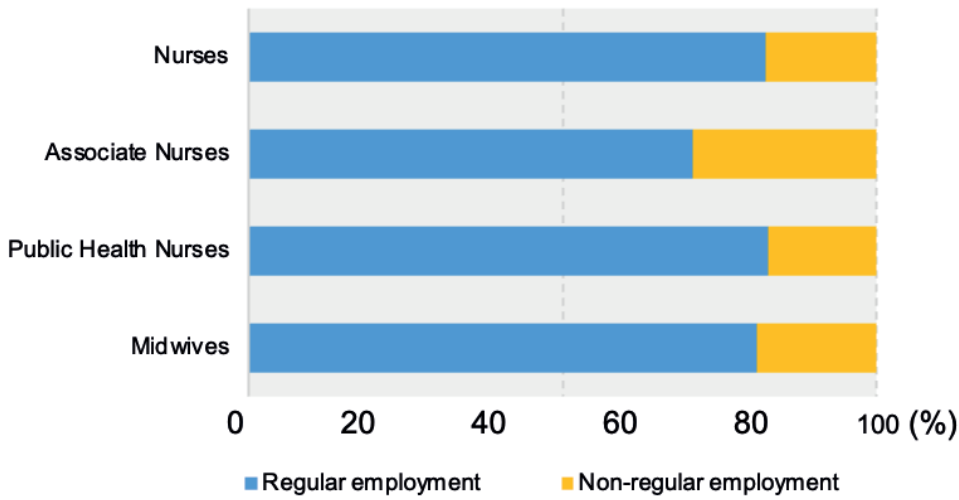


Figure 2. Nurse employment statistics (2018) [28]

According to the employment statistics, regular employment of nurses is the most common in all occupations (Fig. 2).

(2) The numbers of nurses

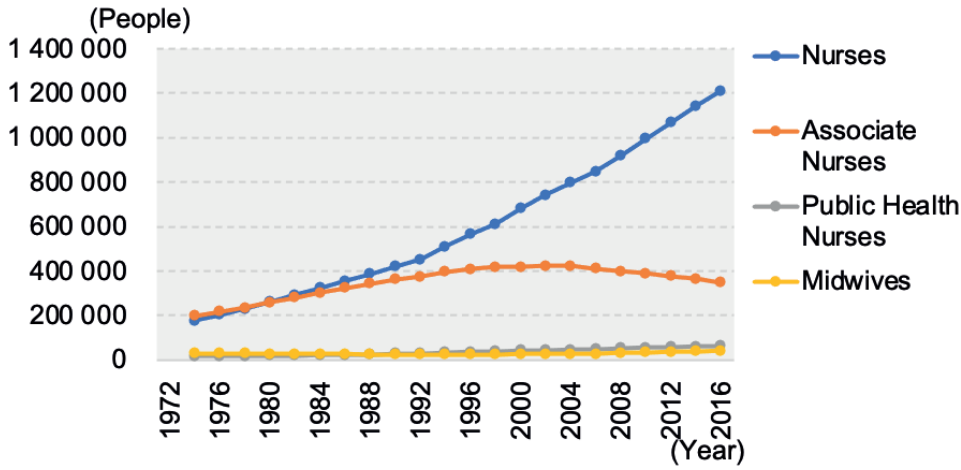


Figure 3. Changes in the number of employed nurses 2019 [29]

The number of nurses is increasing; however, the number of associate nurses is decreasing. Midwives and PHNs are almost flat (Fig. 3). According to statistical data in 2018, the number per 1,000 inhabitants was 9.6 for nurses, 2.4 for associate nurses, and 0.4 for PHNs [30]. There were 2.4 doctors per 1,000 inhabitants as of 2019 [31].

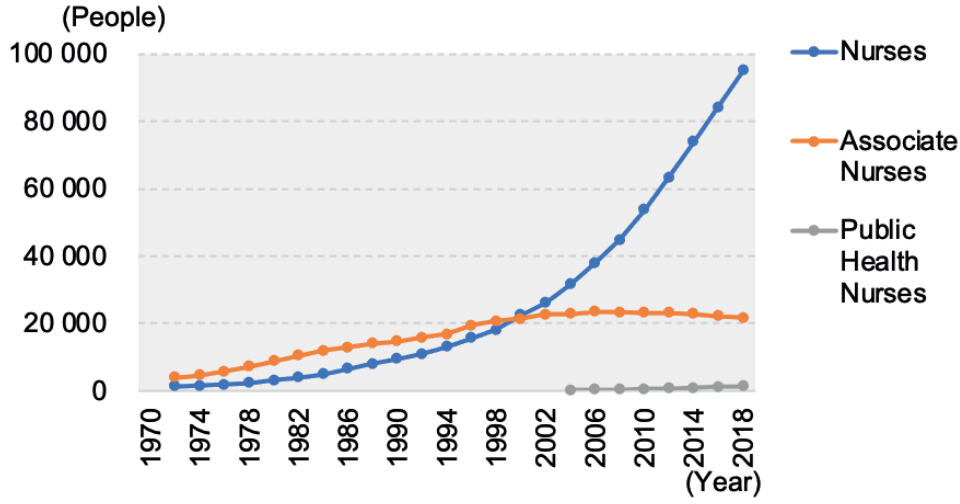


Figure 4. Changes in the number of males employed nurses 2019 [32]

Figure 4 showed the changes in the number of male nurses. Japanese male PHNs were produced from the national examination in 1994 (no data before 2004). Male midwives are not allowed in Japan.

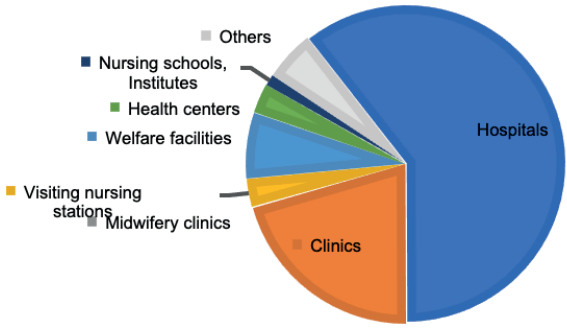


Figure 5. Number of nurses according to workplaces in 2016 [33].

Figure 5 showed the number of nurses by workplace. The welfare facilities included health facilities for the elderly, social welfare facilities, and welfare facilities for the elderly. Health centres included prefecture and municipal health centres. Hospitals, clinics, and visiting nursing stations are ranked high. Due to the revision of medical fees in 2006, a 7:1 nursing placement standard (one nurse for seven patients) has been established. Recently, the improvement of the regional medical system has become an issue due to the shortening of hospitalization days and the promotion of home medical care. There is a need for a system that allows limited manpower to play an active role in the region and human resource development for that purpose. Visiting nursing services play a central role in home medical care and long-term care, and the number of visiting nurses is approximately 50,000 as of 2018. Approximately 120,000 visiting nurses will be needed in 2025, and securing human resources is necessary.

(3) Change in the number of training schools for nursing

Currently, the number of nursing schools offering 3-year courses is the largest, followed by universities and schools offering 2-year courses (for associate nurses) [34]. The first 4-year nursing education system was offered at the Department of Nursing, Faculty of Home Economics, Kochi Women's University (Kochi) in 1952. Since the number of universities increased to six in 1975 [35], it has not changed for 12 years. Nursing universities or colleges and schools of nursing were gradually established; however, after 1986, the establishments of these institutions remained slow. Figure 6 shows the changes in the number of nursing schools since 1994.

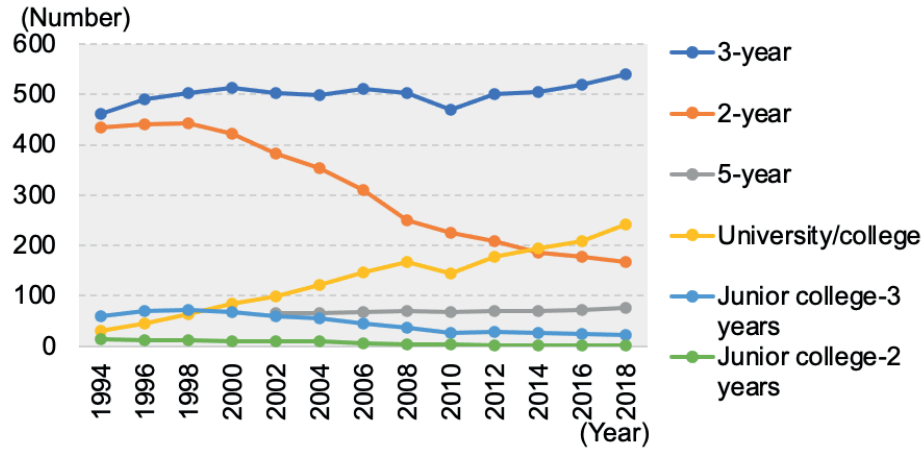


Figure 6. Changes in the number of nursing schools

The number of junior colleges offering associate nursing courses peaked in 1998, and the switch from junior colleges offering 3-year nursing courses to universities or colleges offering 4-year nursing courses has progressed. Figure 7 shows the changes in the number of associate nurse training schools [36]. Currently, most students enroll to higher educational institutions and qualify as nurses, rather than working in a clinical site immediately after graduating from high school.

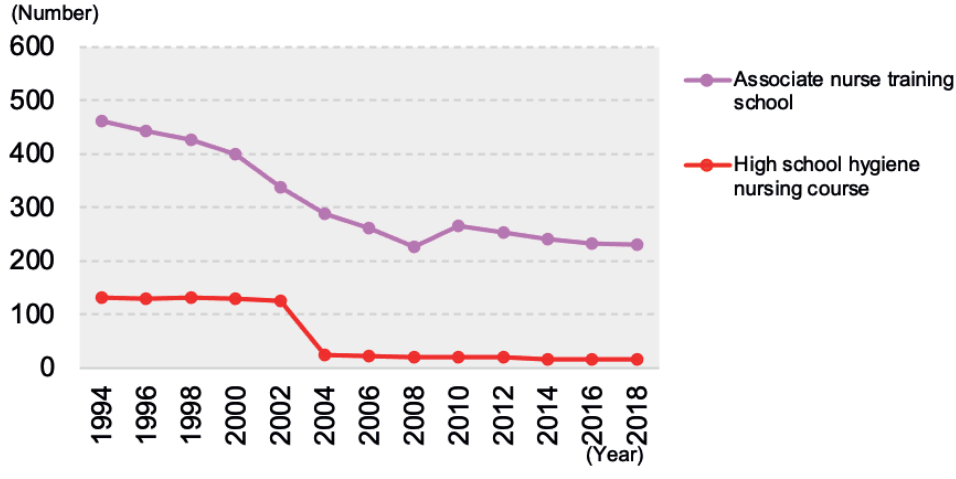


Figure 7. Changes in the number of associate nurse training schools

(4) Monthly payment

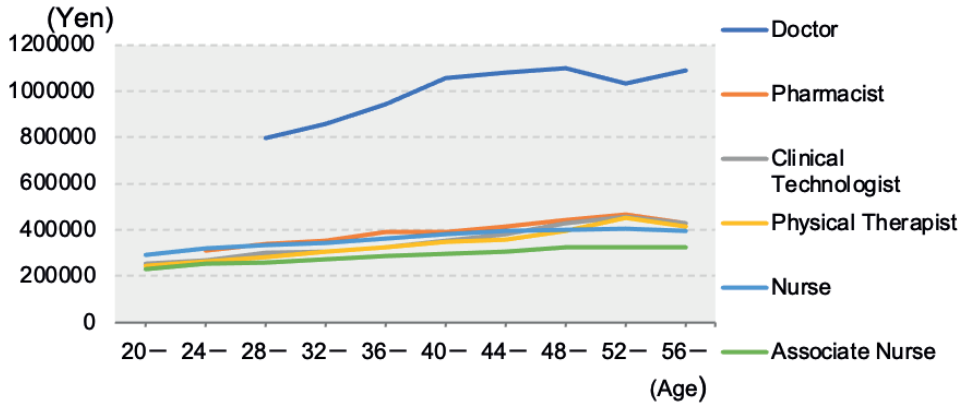


Figure 8. Average monthly payment by profession and age group in April 2019

Data with N < 20 has been excluded [37].

Finally, Figure 8 showed the changes in the average monthly income of major medical professionals by age.

5. Challenges and prospects

(1) Japanese Society

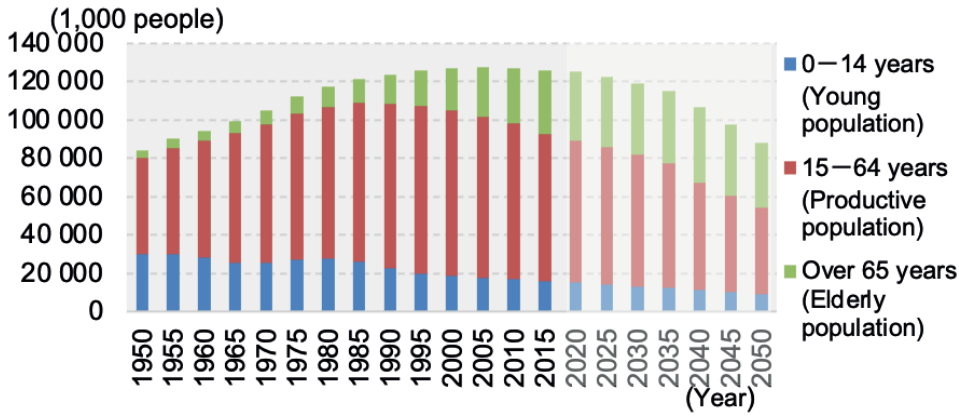


Figure 9. Changes in Japan's population [38]

Due to economic affluence and improvements in medicine and medical care, Japan has become the country with the highest average life expectancy and healthy

life expectancy in the world; however, this increase in the life expectancy (Fig. 9) has increased the number of elderly individuals requiring long-term care. Lack of time, difficulty in balancing work, separation from grandparents' generation due to nuclear family, increase in households only for the elderly, and mutual assistance in the community were deemed challenges. As a result, caring for the elderly became difficult for the family, which was traditionally practiced. Therefore, the care insurance policy was established in 2000, and the policy is based on the cooperation of the family, the government, and the local community.

In Japan, a universal healthcare system has been realized, and public medical insurance is applied to medical care necessary for maintaining life and health, such as recovery from illness and disability, delay in the progression of illness and disability, and maintenance of mental and physical functions.

(2) Working style of nurses

Many nurses in Japanese hospitals work in shifts. There are two types of shift work: two shifts and three shifts. In the case of three shifts, the working hours of each shift are 8 h, and in the case of two shifts, the length of night shift is generally 12 h and 16 h, with variations depending on the hospital. In a 2019 survey, 42.8% of the facilities had "three shifts," 20.9% had "two shifts," and 36.3% had "mixed two and three shifts" [39]. Each shift type has advantages and disadvantages such as securing rest time and long working hours, respectively.

In the case of three shifts, the working time is from 8:00 to 17:00 for day shift, from 15:30 to 0:30 for semi-night shift, and from 0:00 to 9:00 for night shift. In the case of two 16-h shifts, the day shift is from 8:00 to 17:00 and the night shift is from 15:30 to 9:00. Furthermore, in the case of two 12-h shifts, the long day shift is from 8:00 to 20:45 and the night shift is from 19:45 to 8:30. Shift rotation is fast, and there are not many continuous night shifts other than full-time night shift employees (Table 5).

Table 5. Example of a nurse's working schedule

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Three shifts	**D**	**D**	**N**	**E**	**E**	×	×	**E**	**D**	×	**D**	×	**D**	**N**
Two 16-h shifts	**D**		**N**		×		**N**		×	×	**D**	**D**	**D**		**N**		×
Two 12-h shifts	**D**	**LD**		**N**		×	×	**D**	**D**	×	**LD**		**N**		×		**D**

D, day shift; E, evening shift; LD, long day shift; N, night shift; ×, day-off

The JNA has established "Guidelines for Night Shift and Shift Work for Nursing Staff" for the safety and health of shift work nurses (Table 6).

Table 6. Guidelines on night shifts and shift work for nurses [40]

	Item	Standard
1	Interval between shifts	Provide 11 h or longer time between shifts
2	Total hours spent at work	Total hours spent at work are 13 h or less
3	Number of night shifts	Night shifts should basically be within eight times a month in a system of three shifts per day. If using another shift system, the number of work hours should be adjusted
4	Number of consecutive night shifts	Up to two consecutive night shifts
5	Number of consecutive working day	Five days or less
6	Time allocated for breaks	Provide 1 h or more in the middle of a night shift and a period according to the length and load of the shift during a day shift
7	Naps during night shifts	Provide an uninterrupted nap time in the middle of the night shift
8	Rest following a night shift (including days off)	Provide a rest period of 48 h or more after two consecutive night shifts. A rest period of 24 h or more is desirable after one night shift
9	Consecutive days off on weekends	Consecutive days off over Saturday and Sunday without night shift before or after should be ensured at least once a month
10	Direction of rotation	The roster should be forward rotating
11	Start of the morning shift	Avoid starting the morning shift before 7 AM

In the three-shift system, more than half of the hospitals failed to comply with items 1, 7, 8, and 10. In the two-shift system, more than half of the hospitals follow the guidelines, except for item 2 [41].

(3) Disaster Nursing

The history of disaster nursing was triggered by the Great Hanshin-Awaji Earthquake of 1995 and the sarin subway incident. In the Great Hanshin-Awaji Earthquake, many nurses in the affected and unaffected areas volunteered in places where nursing services are required, such as hospitals, clinics, health centres, and temporary housing. Many volunteers, including nurses, participated, and their co-ordination became a nursing job. Through this experience, many nurses recognized the need for disaster nursing. Since then, disaster nursing has been gradually incorporated into basic nursing education and postgraduate education and has established academic societies and dispatched support teams in Japan and overseas, spreading the practice of disaster nursing in the world.

Disaster nursing should be based in disaster areas and starting to deal with the injured and sick in places where there are inadequate medical facilities is necessary. In addition, the provision of basic needs such as clothing, food, and housing environment maintenance is required from nurses. The greater the damage, the more likely nurses who support the victims themselves are victims. Physical and mental stress becomes colossal [2].

(4) Coronavirus disease 2019 (COVID-19): Roles of Nurses

We would like to introduce some of the nursing activities in Japan while the end of the new coronavirus infection is not known and expected. PHNs perform several tasks to deal with the new coronavirus infection. The work of PHNs ranges from triaging suspected infections to hospitalization and coordination with family and work. Furthermore, they could work as epidemiological investigators. In the absence of close contact identification, the work of PHNs also included solving sensitive problems, including complex relationships. Therefore, performing such works alone is impossible for PHNs; therefore, we took measures such as sharing the work with other staff and hiring new employees.

Hospitals that have secured beds for outpatients with fever and COVID-19 were required to create a long-term working environment for mental healthcare for nurses in addition to building a system for infectious diseases. Dealing with nurses who complained of anxiety and considering the timing of rotation according to the individual is necessary.

(5) Issues and prospects in nursing education

Nursing is a profession for all people; therefore, education for human maturity is indispensable. In addition, we will acquire specialized knowledge and skills in advanced medical care and nursing, cultivate accurate judgment to meet the diverse needs of society, reflect on our own nursing practice, and research exploratively. Training human resources who can improve themselves is necessary. Therefore, there is a demand for a 4-year system in educational institutions for basic nursing education and improvement of the quality of education. In addition, to improve the quality of nursing, training highly nursing practice and institutionalizing continuous nursing education are expected.

References

1. Endo E, Uesaka R, Sakamoto M, Takahashi M, Nahara H, Watanabe K. History of Japanese nursing for nursing students. 1st ed. IGAKU-SHOIN, Japan, 1989. (Japanese)
2. Shigeno K, Yoshioka K, Hayashi C, Eki K, Tamada M, Iwamoto S, Yanagisawa S, Ohno K. Basic nursing 1; Introduction to nursing. 17th ed. IGAKU-SHOIN, Japan, 2020. (Japanese)
3. Hisama KK. Patterns of Japanese clinical nursing: a historical analysis. J Clinical Nursing. 2001; 10: 451-454.
4. Okayama Y. Nursing Education Begun at the Doshisha Hospital and Kyoto Training School for Nurses. J Kyoto Prefectural University of Medicine. 2010; 119(2): 89-98. (Japanese)
5. General Incorporated Association Japan Nursing University Council Database & General Incorporated Association Japan Private Nursing University Association University Management and Management, Committee Fact-finding survey at a nursing university 2017 situation survey, 2017. (Japanese)
6. Japanese Nursing Association. Advanced Practice Nurse. https://nintei.nurse.or.jp/nursing/qualification/about_institution(access:2020.10.06). (Japanese)
7. Japan Association of Nursing Programs in Universities. https://www.janpu.or.jp/kango/k08.html(access:2020.10.06). (Japanese)

8. Japanese Nursing Association. CNs. https://nintei.nurse.or.jp/nursing/qualification/cn(access:2020.10.06). (Japanese)
9. Japanese Nursing Association. Certified Nursing Manager. https://nintei.nurse.or.jp/nursing/qualification/cna(access:2020.10.06). (Japanese)
10. Ministry of Health, Labor and Welfare, Training System for Nurses Involved in Specific Acts. https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000077077.html(access:2020.10.06). (Japanese)
11. Article 1, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
12. Article 28, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
13. Article 5, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
14. Article 31,42, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
15. Article 42, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
16. Article 6, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
17. Article 8, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
18. Article 42, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
19. Article 7, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
20. Education Personnel License Act, https://elaws.e-gov.go.jp/search/elawsSearch/elaws_search/lsg0500/detail?lawId=324AC0000000147#687(access: 2020.10.05). (Japanese)
21. Industrial Safety and Health Act, https://www.jaish.gr.jp/anzen/hor/hombun/hor1-22/hor1-22-1-1-0.htm(access: 2020.10.05). (Japanese)
22. Article 3, 30, 37, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
23. Article 38, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
24. Article 2,19, Medical Care Act, https://elaws.e-gov.go.jp/search/elawsSearch/elaws_search/lsg0500/detail?lawId=323AC0000000205(access: 2020.10.06). (Japanese)
25. Article 37, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
26. Training System for Nurses to Perform Specific Medical Interventions, https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000077077.html(access: 2020.10.06). (Japanese)
27. Article 21, Act on the PHNs, Midwives and Nurses, https://www.mhlw.go.jp/web/t_doc?dataId=80078000&dataType=0&pageNo=1(access: 2020.10.05). (Japanese)
28. Ministry of Health, Labour and Welfare, https://www.mhlw.go.jp/toukei/saikin/hw/eisei/18/dl/gaikyo.pdf(access: 2020.10.05). (Japanese)
29. Some of the data can be viewed below. Japanese Nursing Association, https://www.nurse.or.jp/home/statistics/pdf/toukei01.pdf(access: 2020.10.05) (Japanese)
30. Ministry of Health, Labour and Welfare, https://www.mhlw.go.jp/toukei/saikin/hw/eisei/18/dl/gaikyo.pdf(access: 2020.10.05). (Japanese)
31. OECD Health Statistics 2019, https://www.jmari.med.or.jp/download/RE077.pdf(access: 2020.10.05) (Japanese)

32. Japanese Nursing Association, https://www.nurse.or.jp/home/statistics/pdf/toukei05.pdf(access: 2020.10.05) (Japanese)
33. Japanese Nursing Association, https://www.nurse.or.jp/home/statistics/pdf/toukei01.pdf(access: 2020.10.05) (Japanese)
34. Japanese Nursing Association, 2019/First year of Reiwa Nursing-related statistical data collection, Japan, 2020; 116-117. (Japanese)
35. Koyama M. Principles and history of nursing education. 1st ed. IGAKU-SHOIN, Japan, 2009. (Japanese)
36. Japanese Nursing Association, 2019 / First year of Reiwa Nursing-related statistical data collection, Japan, 2020; 116-117. (Japanese)
37. National Personnel Authority, https://www.jinji.go.jp/kyuuyo/minn/minnhp/min2019_index.html(access: 2020.10.05) (Japanese)
38. Statistics Bureau of Japan, https://www.stat.go.jp/data/nihon/02.html(access: 2020.10.05). (Japanese)
39. The results of the Japan Medical Labor Union Federation Night Shift Survey in 2019.
40. Japanese Nursing Association, https://www.nurse.or.jp/jna/english/pdf/safety-03.pdf(access: 2020.10.05)
41. A fact-finding survey on the dissemination of night shift / shift work guidelines, etc., 2015, Public Relations Department, JNA.

Linda Alondere, Jelena Kuznecova

NURSING IN LATVIA

1. Brief history of nursing

The development of the nursing profession in Latvia bears a long history. From ancient times, people have cared about maintaining their health and preventing diseases. The nursing profession arose in conjunction with the traditional patient care and treatment efforts. There are several groups of nurses historically known to have worked in Latvia, for example, grey nurses or begins (a grey nurse Menborha was mentioned in Latvia in 1295), deaconesses (or diaconal) nurses, merciful nurses, medical nurses [1, 2].

Along with the German crusaders conquering of the Baltic nations, the traditions of Western European medicine began to spread in the territory of Latvia. First hospitals were established in Riga, followed by remote communities. Their formation was supported by the Catholic Church. In 1220, Bishop Albert signed a document on the establishment of the Holy Spirit Hospital (Convent). Other hospitals established in Riga were named after St. Lazarus (for the treatment of lepers), St. George, and others, that were more alike shelters for orphans, homeless and the sick. With the establishment of hospitals and shelters, the necessity for caregivers of the sick emerged. At the end of the 13th century, the Convent of Grey Nurses or begins emerged in Riga. In 1488 the house of Grey Nurses' Shelter was built (the building, after reconstruction, can still be seen today in the Old Town of Riga). The Grey Nurses' movement in Riga existed until the end of the 15th century [1].

The name of the priest Vincent de Paul (1581-1660) is associated with the beginnings of the "salvation army" in France and Europe, as well as the usage of term "merciful nurse". The merciful nurses dedicated their work to the poor and the suffering, receiving respect and recognition of the general public not only in France but also in other countries, thus reaching the territory of Latvia (Latgale region) in the 18th century. Krāslava town is particularly associated with this movement. The activities and conduct of the nurses were strictly subjected to the rules laid down in the Regulation, drawn up in 1634 in Paris by one of the first merciful nurses, Ludwika de Marillac. In 1789, a women's monastery was built in town of Krāslava, and in September the charitable nurses of Vincent de Paul Association, called Lazarists, sometimes also Vincentines, came from Warsaw, Poland to Krāslava and began their charity work [3]. In the same year, Countess Auguste Platere Oginskis –1803 built the first hospital in Latgale region, tended by the merciful nurses. From 1793 to 1843, the School of Merciful Nurses operated under the auspices of the hospital, thus beginning the work of nurse education and upbringing. The nurses had to dress

alike: a grey dress with wide sleeves and a white fabric hat called a *cornette* [1, 3]. The girls were taught history, arithmetic, Polish language, as well as French and German, geography, general history, piano and guitar play. The nurses were responsible for teaching sewing and embroidery so that each girl knew how to complete household chores independently. In 1808, 42 young ladies lodged in Krāslava for upbringing and training [3].

The Deaconess nurse movement occurred in the territory of Latvia due to the flourishing of humane and Christian charity at the beginning of the 19th century. Consequently, deaconry societies established both hospitals and shelters. Members of the evangelical Lutheran denomination could become a deaconess nurse. The spread of this faith in Latvia distributed mostly in Kurzeme and Vidzeme regions. The largest institutions of deaconess nurses in the territory of Latvia were in Riga and Jelgava cities. In the territory of Latvia, in 1862, with the support of the Russian Empress Maria Alexandrovna (*Мария Александровна*), a deaconess society was founded in Riga. In honour of the Empress, the community was named "Society of Merciful Nurses Mari". The society organized a nursing school with a hospital and a shelter for maids and auxiliaries. In 1866, the first deaconess house in the Baltics was established in Riga – Maria Deaconess House. Jelgava city Deaconess House was founded in 1865 by the countess Elisabeth von Medem. Nursing education included both theoretical and practical units. The practical classes were held under the supervision of a doctor. There was a definite assumption about the merciful nurse, her education, work and position: they were considered as the most qualified caregivers to the sick and leading assistant to doctors [3].

In 1864, 16 countries formally acceded to the Geneva Convention for the Amelioration of the Condition of the Wounded in Armies in the Field. Imperial Russia, which at the time incorporated the territory of Latvia, acceded to the Geneva Convention in 1867. In the same year, the Russian Society for the Care of Wounded and Sick Soldiers was founded. At the end of the First World War, on November 18, 1918, Latvia was proclaimed an independent country. Two days after the proclamation of an independent Latvia, on November 20, 1918, the Latvian Red Cross was established, which was a unit of the International Committee of the Red Cross and acted in accordance with the resolutions of the Geneva International Conference of 1863, as well as on the grounds of the Geneva 1906 and The Hague 1907 Conventions. An important role in the implementation of reforms in Latvian medicine, and in the development of the Latvian Red Cross, was played by the government structures of the United States of America – American Relief Administration, the non-governmental American Red Cross, organizing the League of Red Cross Society in 1919, which was an association of the Red Cross national units, as well as Young Men Christian Association and the Young Women Christian Association. In October 1921, there were 18 American Red Cross ambulances operating in Latvia. In order to expand medical treatment, there was a necessity for merciful nurses, which in turn created the need to organize nursing schools in Latvia, that functioned according

to a state-approved programme and were under the responsibility of the Latvian Department of Health and the Ministry of Education. All merciful nursing schools complied with the Health Department, but in terms of their statutes, programmes and establishment, acted in accordance to the statutes of the Latvian Red Cross [3].

2. System of education for nurses

The courses established at Riga 1st Hospital in 1902 (Riga Midwifery School; currently – Riga 1st Medical College of the University of Latvia) are considered to be the first medical educational institution in the territory of Latvia [4]. In 1921, the School of Merciful Nurses was established under the auspice of the Latvian Red Cross Hospital of Riga. The aim of nursing education was to care for patients, which implied helping people to fight the disease; nurses had to recognize and interpret the aetiology of the disease, the clinic, preventive and control measures. Therefore, they had to acquire both theoretical knowledge in medicine and practical skills in clinical training. The educational programme for the merciful nurses included theoretical and practical units. Lectures were given not only by doctors, but also by merciful nurses with higher education, who had graduated from Bedford College in London, England. The graduates of this school had a high, internationally recognized standard of education. Nurses gave lectures on work ethics, feminine hygiene, infant care, patient care and social work. Practical classes, in turn, were organized in various hospital departments (for example, internal medicine, surgical, infection, children's departments), as well as in laboratories, operating theatres, pharmacies, X-ray rooms, kitchens, health care points. In 1927, the school curriculum was expanded with new disciplines: child psychology and general nutrition. The theoretical course included already 418 lessons. On May 30, 1930, the Board of the Latvian Red Cross Merciful Nursing Schools approved the minimum programme of the Latvian Merciful Nursing Schools. On October 15, 1932, Merciful Nursing School of the Latvian Red Cross was established in Jelgava city [3].

From 1933, the Latvian Red Cross merciful nursing schools began implementing a three-year training programme for nurses. The first two years were devoted to learning the theory, while the last, third, year was dedicated to practice in hospitals. By switching to a three-year training programme, Latvia achieved the highest level of merciful nurse education. At the time, only a few European countries trained merciful nurses with such a thorough education. On June 29, 1922, the Latvian Red Cross Merciful Nurse Union was established; the board involved the chairman of the union – nurse Marta Celmiņa (1880– 1937), the vice-chairman – nurse Elza Grīvāne (1892–1935), the secretary – nurse Justīne Kušķe (1892–1977), the cashier – nurse Serafima Dreikante, the deputy secretary – nurse Ernestīne Šampele, and the deputy cashier – nurse Ebba Krēmane. In 1925, the Union organized the Conference of the Merciful Nurses of Latvia, Estonia and Lithuania, establishing the Committee

of Merciful Nurses of the Baltic States with representatives from each country. From 1929 to 1940, with the support of the Union, the magazine "Merciful Nurse" was published, informing the nurses about the activities of the Union and events in the nursing profession in Latvia and abroad [3]. Four merciful nurses – Marta Celmiņa, Elza Grīvāne, Elza Nulle-Siecniece and Justīne Kušķe received the highest international award for their selfless work – the Florence Nightingale Medal [5].

During the Soviet era, there was another reorganization of medicine, public health care and patient care in Latvia. Changes took place in the nursing profession as well. In 1940, the admission requirements and the nursing study programme was revised. The nursing schools aimed to prepare theoretically and practically well-educated nurses for patient care and health protection. The duration of training for the acquisition of general nursing rights was two years. In order to acquire a specialty in the nursing profession, another study year was mandatory. It was not until after World War II, that the merciful nurses acquired the title "medical nurse". In the 1950s, the training of medical personnel intensified. Consequently, nurses were trained not only in nursing schools, but some hospitals performed also on-the-spot training for nurses. In 1982, a total of eight medical schools educated nurses in Latvia. Medical schools admitted students up to 30 years of age, with primary education, incomplete secondary education and full secondary education. Training was conducted in Latvian and Russian languages. Medical school graduates received both specialized and full secondary education [3].

In July 1989, the Supreme Council (Parliament) of Latvia declared Latvia's sovereignty and economic independence. In 1989, the First World Congress of Latvian Physicians was held in Riga. Due to the size of the congress and the scale of professional issues, this congress should be regarded as an unprecedented event in Latvia: out of 6,000 delegates, more than 1,000 were Latvian and foreign nurses. During the congress, the nurses proposed to establish a system of continuous professional development for nurses. After the congress, a sharp turn in the nursing profession began: contacts were established with exile Latvian nurses in theUnited States of America, doctors of philosophy and pedagogy, Professor Zaiga Priedis-Kalniņš, as well as with other foreign colleagues. Through the medium of the Baltic States Nurses Association, closer contacts were established with the Nordic countries, as well as work experience was exchanged with colleagues in Lithuania and Estonia. During the meeting of the Latvian, Lithuanian and Estonian nurses at the Baltic States Nurses Association in January 1990 in Riga, the issues of nursing education development and qualification improvement were contemplated [3].

For education purposes, a group of nurses was formed from the clinical training bases, and in 1990 the opportunity emerged to obtain higher education in the Department of Nursing at the Latvian Medical Academy (since 1998 – Riga Stradiņš University). The objective of the developed course programme was to advance student creative and clinical thinking and scientific base of nursing practice. The course programmes also had certain tasks: to acquire theoretical knowledge as

a guideline for professional conduct; to create an understanding of the nurse role in society, to develop scientific thinking of nurses, to train communication skills and principles of team work, to advance skills of independent learning. The developed programme reflected the needs of the health care system of Latvia and determined the guidelines for education, considering the opinion of potential employers [3].

At the beginning of the 1990s, the aim of nursing education in Latvia was to develop a nursing training programme that would be compatible (both in terms of scope, goals and content) with nursing education programmes in Western Europe (initially in the Nordic countries) and meet the requirements of European Union directives. For the nurses to acquire the necessary clinical experience in patient care, practical training in hospitals were organized under the supervision of qualified nurses. In order to receive a diploma for the acquired specialty, it was necessary to pass an examination [3].

Since 1993/1994 academic year, nursing studies are available for applicants with a secondary education only. Between 1995 and 1998, the Poland and Hungary: Assistance for Restructuring their Economies (PHARE) programme was implemented in Latvia. Within the project framework, a specific programme was developed for the improvement of nursing education in medical schools. Since 1995, all schools implementing nursing education, have adopted a unified state examination [3].

In 1994, for the first time in the history of Latvia, the first 20 nurses were registered as graduates of the Faculty of Nursing and received bachelor degree diplomas in Nursing. In 1998, with an objective to prepare nurses at the master degree level, a part-time master's study programme in Nursing was established at Riga Stradiņš University. This programme provided an opportunity to prepare nurses with higher knowledge and skills, capable of training future nurses, developing a higher professional level of nurses in health care facilities and educating the public on health promotion. After master studies nurses are entitled to enter doctoral study programme [3].

Nowadays, there are two separate nurse education pathways in Latvia. Firstly, a 3-year professional higher education study programme in Nursing at one of five medical colleges (former nursing schools) qualifies students to work as nurses. The programme entails at minimum of 1 year of theoretical studies and at least 1.5 years of practical studies [6]. According to the state standard, the volume of the first level professional higher education study programme in Nursing, implemented by medical colleges, is currently 120 credit points (hereinafter – CP) or 180 the European Credit Transfer and Accumulation System (ECTS) credits and the duration is 3 years (6 semesters) of full-time studies [7]. Secondly, since 1990, nurses can train through a 4-year bachelor study programme at Riga Stradiņš University or, since 2010, at the University of Latvia. These university programmes are intended to educate nurses who wish to pursue supervisory roles or managerial tasks on specialized wards. Nursing students train in one of primary specialties: anaesthesiology, intensive and emergency care nursing, paediatric care nursing, internal medicine, outpatient nursing, mental health nursing, surgical nursing, as

well as primary care or ambulatory care nurse. All nurses have to be registered in the Register of Medical Practitioners and Medical Support Persons maintained by the Health Inspection. After graduating nursing school, nurses usually start working under the supervision of a specialized (certified) nurse or a certified physician (e.g. in a general practitioner practice), and have to be certified by the Latvian Nurses Association, which is also responsible for re-certification every 5 years [6]. Nurses are also given the opportunity to learn one of the additional specialties, i.e. diabetes care nurse, oncology nurse, haemodialysis and kidney transplant nurse, physical medicine and rehabilitation nurse, transfusion nurse, neonatology nurse [8].

Currently, the role of nurses has changed significantly, requiring such additional competencies as the ability to independently diagnose when the patient care is needed, the capacity to independently consult and the capability to independently ensure, evaluate and analyse the quality of patient care [7]. Analysing the current professional and educational pathway of the nurse, it must be concluded that it is somewhat complicated (see Figure 1).

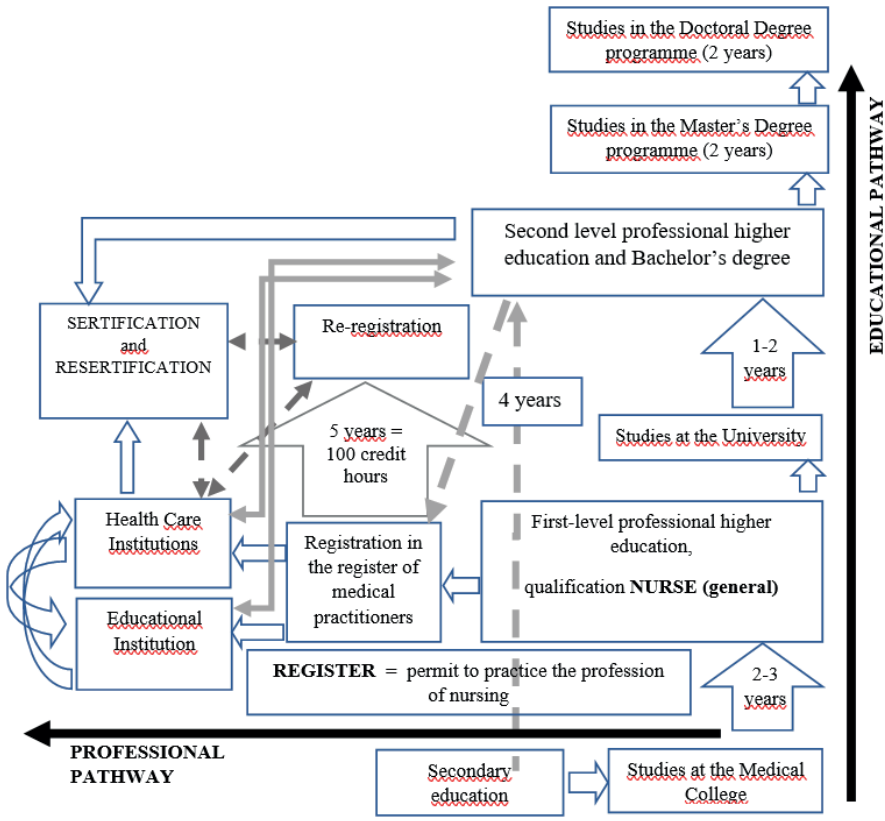


Figure 1. Acquisition of nurse education and professional activities in contemporary Latvia (analysis and summary by Alondere L.)

After graduating medical college, the qualification "nurse" is obtained and upon registration in the Register of Medical Practitioners the right to practice nursing is accessed. Currently, in order to re-register, a medical practitioner submits an application to the Health Inspection, attesting the acquisition or improvement of professional knowledge or skills in the amount of at least 100 academic hours during the registration period (five years), including the improvement of professional knowledge in emergency medical care [11].

In order for a nurse to work independently in a medical institution of a certain profile, for example, in therapy, surgery or family doctor's practice, the nurse needs an additional certificate of the respective specialty. The nurse obtains a speciality certificate only after graduating medical college (3 years of education) and additional 1-2 years at a university; or if entering a higher education institution immediately after obtaining secondary education, and studying for 4 years, thus obtaining a bachelor degree and the opportunity to certify. The certificate is issued for 5 years. In order to perform a re-certification, 100 continuing education points must be obtained during the validity period of the certificate, and professional activity must be performed during the validity period of the certificate in the basic speciality, additional speciality or therapeutic or diagnostic method specified in the certificate in Latvia or in any European Union member state, for no less than three years. If the re-certification deadline is overdue, a certification examination is mandatory [12].

Presently, the two-level education system for obtaining a nursing qualification is disproportionate and creates a burden for nurses, as nursing education is mainly provided by medical colleges, but after graduation it is necessary to continue studies at a university to obtain one of the basic specialities and attain a certification (additional 1-2 years at the university). The qualification transition process is also complicated and inflexible, which does not encourage nurses to start and continue their professional activities in the health sector. Analysing the situation collectively with the Latvian Nurses Association, it has been concluded that currently both the process of obtaining education and the mobility of nurses within the profession needs to be improved. Consequently, the Ministry of Health has determined the necessity to include in-depth competencies in the basic education of the nursing profession, which are applicable in all areas of nursing, for example, in the care of outpatients, therapeutic and surgical patients (currently they are acquired in addition to college education over 1 year of university studies). This implies the qualification of a nurse would be implemented only in the 4-year full-time study programme of the second level higher education, thus ensuring the wholesomeness, integrity and professional mobility in the labour market. The outlined changes will ensure that a person, after obtaining the qualification of a nurse (general nurse) and successively registering in the Register of Medical Practitioners, acquires the right to practice nursing, which will further enable to work independently in therapeutic, surgical and outpatient care [7].

3. The legal status of nursing

On July 8, 1993, the Latvian Nurses Association was founded in Latvia with the overall objective to promote the public health and improve nursing care in accordance with modern possibilities and requirements. It is a voluntary, public, professional organization that is actively advocating for a progressive transformation of public health care. The main tasks of the Association are promotion of the nursing education development, the restoration and strengthening of the esteem of nurses in society; increasing the nurse renumeration, improvement of working conditions and technical support; regulation of the legal status of the nursing profession; development of international relations; publishing of the Nurses Association journal "Merciful Nurse" and other informative materials, as well as renovation of the permanent residence of the organization. In 1993, members of the Nurses Association adopted the fundamental activities of the organization: to develop a model for nursing medical documentation; draft a professional standard for nursing practice; outline the nursing certification regulations. One of the accomplishments is inclusion of a chapter on the nursing profession in the Medical Treatment Law on October 1, 1997. Sections 44 and 45 of the Law states that a nurse is a medical practitioner who has acquired medical education and is registered in the Register of Medical Practitioners. In the profession, a nurse cares for patients according to obtained qualifications; participates in medical treatment; manages the patient care process; deals with the education of patients on health issues; performs vocational education work. At the suggestions of the members of the Nurse Union and the Association, in 1995 the Regulation of the Cabinet of Ministers on the certification of nurses entitled to practice was adopted, and the registration of nurses was approved. The inclusion of nurses in the registry took place gradually, covering all medical institutions of Latvia. The introduction of the nursing registration procedure in Latvia, was forecasted to increase the esteem of the nursing profession in the country. Registered persons acquired the right to practice nursing for five years. After this period, a re-registration of nurses is required to renew the right to practice. A registered nurse is licenced to practice in medical institutions of Latvia, as well as being entitled to receive information about the registry data. In independent Latvia, the speciality of nursing can be acquired in medical schools (currently medical colleges), but academic education (bachelor's and master's programmes) can be acquired at the Faculty of Nursing of Riga Stradiņš University, and the Faculty of Medicine of University of Latvia [3]. Currently, modifications have been made in the procedure for establishing, supplementing and maintaining the Register of Medical Practitioners and Medical Support Persons. The registry is a state information system, with the purpose to:

1. ensure the acquisition, accumulation and usage of information necessary for the development and implementation of health care policy;
2. provide the information necessary for the supervision of treatment;

3. supervise the maintenance of the professional qualification of medical practitioners;

administer the public information on registered medical practitioners and medical support persons. The manager and holder of the registry is the Health Inspection [11].

4. Nursing in numbers

The provision of health care services and the quality of care is the performance of functional duties in strict accordance with regulatory documents, i.e. the professional competence of the nurse, ability to work in a team, creation and provision of a positive and safe work environment. The quality of health care is characterized by health care standards and criteria, which in turn confirms the patient needs to be provided with good (high-quality) health care services [13]. Nurses, who form the largest group of health care professionals in all countries, play a central role in providing safe, high-quality, and efficient health care services. Statistical data confirms that the number of nurses in Latvia has been insufficient for a long time, but the number of registered working nurses has decreased by 21% over the last 10 years. Simultaneously, there is no generational change in the nursing profession [14].

In 1980, there were 11 569 nurses working in the health care sector: 46 nurses per 10 000 inhabitants, while in 1985 the number of nurses increased to 13 539, therefore already 52 nurses cared for 10 000 inhabitants [3]. In 2002, Latvia was among the countries with the lowest number of nurses amid certain European Union candidate states, i.e. 51.1 nurse per 10 000 inhabitants, while at the end of 2004 the number of practising nurses was 13 162, accounting for 56.8 nurses per 10 000 inhabitants [15]. Comparing the data of 2002 and 2004 with the statistics of the Centre for Disease Prevention and Control (CDPC) regarding the current situation, it must be concluded that the situation has generally deteriorated, as in 2015 there were 44.8 nurses per 10 000 inhabitants, in 2014 – 46.3 nurses, but in 2013 – 46.9 nurses [16]. In the 'old' EU Member States, the ratio is 95 nurses per 10 000 inhabitants [15].

According to the calculations of the Ministry of Health of the Republic of Latvia, the labour market needs an average of 290 nurses per year. At the beginning of the 21st century, an average of 450 nursing students have been admitted to medical colleges each year, but 44.2% of those admitted graduate and only an average of 51.9% of graduates start a professional career. Thus, only 22.8% of the enrolled students enter the labour market, which is an average of 106 nurses per year [17]. Forecasts for the number of nurses in the labour market are negative, as nurses working in the professional field tend to "age". In 2018, the number of practising nurses in the age group 60+ accounted for 20.2% [18], in comparison to June 30, 2009, when 16.1% of employed nurses were aged 60+, i.e. nurses who have reached retirement

age or will retire in subsequent years [19]. In 2018, the number of practising nurses under the age of 35 was only 14.5% [18].

In health care reform, nurses are one of the central groups, which is numerically the largest body of health professionals. At the beginning of 2014, some 9 148 nurses practised in Latvia, with a population of approximately 2million inhabitants [20]. The number of nurses practising in Latvia still tends to decrease not only in absolute numbers, but also in relation to the population of 10 000 inhabitants (see Table 1). In addition, the number of newly registered nurses is declining rapidly. Over a ten years period, 5000 nurses have stopped working in hospitals [21].

Table 1. Dynamics of the number of practising nurses registered in the Register of Medical Practitioners between 2004 and 2014, and in 2018, in relation to 10 000 inhabitants (absolute numbers) [22-26,18].

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2018
Registered nurses	10 650	10 791	10 695	10 803	11 055	10 133	10 024	9810	9456	9382	9193	8352
Per 10 000 inhabitants	-	-	-	-	-	45,1	45	48	46,7	46,9	46,3	43,5
Practising nurses	10 552	10 717	10 589	10 669	10 969	10 063	9976	9712	9398	9338	9148	8332

There are 18 882 registered nurses in Latvia, but only 8 460 persons work in the nursing profession, moreover, according to the Latvian Nurses Association, about 40% of working nurses have reached pre-retirement or retirement age. Simultaneously, out of 250 graduates each year, only 60 nurses start working in state and municipal medical institutions. As a result, hospitals are currently facing a shortage of around 1 500 nurses [14].

The Latvian Nurses Association reports that 34.8% of nurses perform 1.5 workloads and 4% of nurse perform even two workloads; while 21.2% and 3.8% of nurses work in two and three workplaces respectively [27], and several dozen nurses are forced to work in four to seven workplaces. Only half of the total number of nurses in Latvia work full-time in a medical institution [28]. Health care institutions cannot fully control the employment of their staff in other medical institutions, which can lead to uncontrollable staff burnout. Currently, according to the Medical Treatment Law [29], medical staff may be employed in one workplace for up to 240 hours per month, however, this requirement does not apply in aggregate, in case the employee works in a number of institutions. The multi-job practice can lead to the risk of medical practitioner overstrain, as a result the provided service quality, as well as the employee's own health, may suffer severely [30].

The data published in the conceptual report of the Ministry of Health of the Republic of Latvia "On the Reform of Health Care Systems" indicates that currently

there are 502.4 nurses per 100 000 inhabitants of Latvia, which is on average 42% less than in other European Union countries [31]. At the same time, being aware of this problem, the issue of nurses salaries, workload and working conditions are not addressed on the national level. Furthermore, every year a large proportion of nurses leave to work abroad – in 2016, 64 nurses received documents for emigration, in 2015 – 111. Predominantly nurses emigrate to Great Britain, Norway and Sweden [28].

5. Challenges and prospects

Since the introduction of the health care financing reform in 1992, enormous changes have taken place. Reasons for the ongoing reform are: the country's macroeconomic scene, population expectations, comparison of medical technologies development, political demands and the demographic situation. During the onset of the reform, opinions were that there are too many doctors, nurses and hospitals, medical institutions are not efficient, social problems are solved in hospitals, primary health care has a low capacity and secondary care has an irrational material and technical base. Citizens were accused of a weak interest in health promotion, while having a full confidence in the state provided health care [32].

Health care reforms are ongoing, and a number of health care indicators have changed rapidly. Currently, in the mass media, several groups of health care professionals are making demands to increase salaries, provide social guarantees and improve working conditions. Representatives of the Ministry of Health present the planned reforms in health care. The general reasons for change in health care worldwide are a disproportional acceleration of health care costs, advanced patient expectations and demands, the need for transparency and quality assessment, demographic changes (population ageing), development of treatment possibilities, medical and information technologies, and thus changes in communication with patients, increased competition for qualified staff, globalization and the growing trend of medical tourism [33].

There is a multi-level system in the professional education of nurses in Latvia. There are nurses in the labour market with the third level of professional qualification (secondary vocational education, that was available until 2004), the fourth level of professional qualification (first level professional higher education) and the fifth level of professional qualification (second level professional higher education). The regulatory documents of the Republic of Latvia note that the third level of qualification indicates the increased theoretical training and professional skills of the specialist, which gives an opportunity to perform certain duties, which also includes the planning and organization of own work; the fourth level of qualification – theoretical and practical training, which gives an opportunity to perform complex work, as well as to organize and manage the work of other specialists; fifth qualification

level – the highest qualification of a specialist in a certain field, which gives an opportunity to plan and perform scientific research in the respective field [21,27]. Over recent years in Latvia, the number of medical practitioners with secondary medical education, including the number of nurses, has been decreasing. In 2010, there were 1 090 nurses with higher education in Latvia, but in 2014 the number of such specialists had almost doubled – 2 028 nurses with higher education [34].

In order to expand the competence of nurses and provide wider job opportunities, it is planned to change the education system for obtaining the qualification of a nurse [14]. As a result of the reform, nurses would have a uniform educational process – once enrolled, once submitted documents, single payment for enrolment, singular construct of a qualification thesis. Acquisition of specialization would also be simplified – practising nurses, regardless of the previously acquired education (nursing schools, medical colleges, universities), could further acquire the necessary knowledge in the speciality via professional development. This implies that university studies would no longer be mandatory to acquire the rights to work in a speciality. Also, the certification and re-certification process would no longer apply, and nurses could effortlessly change the profile in which they work. It should be noted, that nurses already employed in health care won't have to acquire additional knowledge at university. As before, both registered and certified nurses will improve their professional competence in non-formal education programmes. Therefore, after obtaining the required number of continuing education points within five-year period, the nurse will be re-registered as a General Nurse [7].

The nursing education programme shall include knowledge of the sciences where patient care is based, knowledge of the professional ethics and essence of nursing, and relevant clinical experience. Clinical education is organized in health care institutions (including home care) as work-based learning process under the guidance of qualified nurses and in cooperation with other medical professionals [35]. The training shall ensure that following knowledge and skills are acquired:

1. comprehensive knowledge of the sciences on which the activities of a general nurse are based, including an adequate understanding of both the healthy and sick human body, physiological functions and behaviour, and of the interrelation between the state of health and the physical and social environment;
2. knowledge of the professional ethics and essence of nursing, and the general principles of health and patient care;
3. appropriate clinical experience; the experience should be chosen according to the value of training, should be gained under the supervision of qualified nursing staff and in places where the number of qualified staff and equipment is appropriate for the patient care;

the ability to participate in the practical training of health care personnel and gain work experience with representatives of other professions in health care sector [36].

Regulation of the Cabinet of Ministers of the Republic of Latvia No. 268 "Regulation of medical practitioners and students attending first or second level

professional higher medical education programmes competence in medical practice and the amount of theoretical and practical knowledge of these persons" outlines nursing competencies, the definition of which is used in the development and improvement of educational programmes and practice:

1. planning and providing care to patients and their families;
2. evaluation of patient care results, monitoring of inpatients and outpatients;
3. administration of medicines;
4. performance of the specified diagnostic and medical procedures and completion of the specified surgical procedures;
5. provision of specific care for children, geriatric patients, patients with mental disorders and performance of medical procedures; specific care for women and performance of medical procedures during pregnancy, childbirth and the postpartum period;
6. provision of emergency medical care; taking preventive measures and maintaining a safe working environment;

managing the work of health care team, educating patients, their family members and the public about maintaining, promoting and preserving of health [8].

Amendments to the regulatory framework will be made (register, competencies) by December 31, 2020, educational programmes will be developed and second level professional higher education study programmes will be updated. Studies according to the new system could start in 2022/2023 academic year [9].

References

1. Barnett K. Pasaules un Latvijas māsu prakses vēsture. Ievads mācību materiālā māsām. 1. izdevums (History of world and Latvian nursing practice. Introduction to the study material for nurses. 1st edition). LEMON, Copenhagen, 1996.
2. Millere I. Māsas zināšanas un kompetences ļauj patstāvīgi vadīt aprūpes procesu(Nurses' knowledge and competencies allow them to independently manage the care process). https://ir.lv/2020/02/27/masas-zinasanas-un-kompetences-lauj-patstavigi-vadit-aprupes-procesu/ (access: 2020.09.12).
3. Odiņa O. Māsu profesijas attīstība Latvijā (18.-20.gs.) (Development of the nursing profession in Latvia (18th-20th centuries)). RSU; 2013.
4. Vētra J. Medicīniskā izglītība Latvijā (Medical education in Latvia). 2020. https://enciklopedija.lv/skirklis/5419-medicīniskā-izglītība-Latvijā (access: 2020.09.12).
5. Millere I. Māszinības Latvijā (Nursing in Latvia). 2020. https://enciklopedija.lv/skirklis/58738-māszinības-Latvijā- (access: 2020.10.07).
6. Behmane D, Dudele A, Villerusa A, Misins J, Kļaviņa K, Mozgis D, Scarpetti G. Latvia: Health system review. Health Systems in Transition, 2019; 21(4):i–165. https://apps.who.int/iris/bitstream/handle/10665/331419/HiT-21-4-2019-eng.pdf?ua=1 (access: 2020.10.07).
7. MK noteikumi Nr.322 "Noteikumi par Latvijas izglītības klasifikāciju" (Regulations of the Cabinet of Ministers No. 322 "Regulations on the Classification of Education in Latvia"). 2017.. https://likumi.lv/ta/id/291524-noteikumi-par-latvijas-izglitibas-klasifikaciju (access: 2020.09.12).
8. MK noteikumi Nr. 141 "Noteikumi par pirmā līmeņa profesionālās augstākās izglītības valsts standartu" (Regulations of the Cabinet of Ministers No. 141 "Regulations regarding the State

Standard for First Level Professional Higher Education"). 2001. https://likumi.lv/ta/id/6397-noteikumi-par-pirma-limena-profesionalas-augstakas-izglitibas-valsts-standartu (access: 2020.09.12).
9. MK rīkojums Nr. 537 „Par konceptuālo ziņojumu "Par māsas profesijas turpmāko attīstību"" (Order of the Cabinet of Ministers No. 537 "On the Conceptual Report" On the Future Development of the Nursing Profession ""). 2019. https://m.likumi.lv/doc.php?id=310369 (access: 2020.09.12).
10. MK noteikumi Nr. 268 "Noteikumi par ārstniecības personu un studējošo, kuri apgūst pirmā vai otrā līmeņa profesionālās augstākās medicīniskās izglītības programmas, kompetenci ārstniecībā un šo personu teorētisko un praktisko zināšanu apjomu" (Regulations of the Cabinet of Ministers No. 268 "Regulations on the Competence of Medical Practitioners and Students Acquiring First or Second Level Professional Higher Medical Education Programs in Medical Practice and the Amount of Theoretical and Practical Knowledge of These Persons"). 2009. https://likumi.lv/doc.php?id=190610 (access: 2020.10.07).
11. MK noteikumi Nr. 317 "Ārstniecības personu un ārstniecības atbalsta personu reģistra izveides, papildināšanas un uzturēšanas kārtība" (Regulations of the Cabinet of Ministers No. 317 "Procedures for the Establishment, Supplementation and Maintenance of the Register of Medical Practitioners and Medical Support Persons"). 2016. https://likumi.lv/ta/id/282367-arstniecibas-personu-un-arstniecibas-atbalsta-personu-registra-izveides-papildinasanas-un-uzturesanas-kartiba (access: 2020.07.10).
12. Profesionālās izglītības likums (Vocational Education Law. 1999. https://likumi.lv/doc.php?id=20244 (access: 2020.10.07).
13. MK noteikumi Nr. 943 „Ārstniecības personu sertifikācijas kārtība" (Regulations of the Cabinet of Ministers No. 943 "Procedures for Certification of Medical Practitioners"). 2013. https://likumi.lv/ta/id/253782-arstniecibas-personu-sertifikacijas-kartiba (access: 2020.09.12).
14. MK noteikumi Nr. 512 "Noteikumi par otrā līmeņa profesionālās augstākās izglītības valsts standartu"(Regulations of the Cabinet of Ministers No. 512 "Regulations on the State Standard for Second-Level Professional Higher Education"). 2014. https://likumi.lv/ta/id/268761-noteikumi-par-otra-limena-profesionalas-augstakas-izglitibas-valsts-standartu (access: 2020.10.07).
15. Buttell P, Hendler R. Quality in Health Care: Concepts and Practice. 2007. 62 p.
16. Plānots attīstīt māsas profesiju (It is planned to develop the nursing profession). https://lvportals.lv/dienaskartiba/303434-planots-attistit-masas-profesiju-2019 (access: 2020.10.07).
17. MK rīkojums Nr. 326 "Par pamatnostādnēm „Cilvēkresursu attīstība veselības aprūpē"" (Order of the Cabinet of Ministers No. 326 "On guidelines for the development of human resources for health"). 2005. https://likumi.lv/ta/id/108598-par-pamatnostadnem-cilvekresursu-attistiba-veselibas-aprupe (access: 2020.10.07).
18. Latvijas veselības aprūpes statistikas gadagrāmata 2013 (Statistical Yearbook of Health Care in Latvian 2013). Riga; 2014. https://www.spkc.gov.lv/lv/latvijas-veselibas-aprupes-statistikas-gadagramata-2013 (access: 2020.10.12).
19. Rīgas Stradiņa universitātes Sarkanā Krusta medicīnas koledžas Studiju virziena "Veselības aprūpe" pašnovērtējums 2014./2015.studiju gadam (Riga Stradiņš University Red Cross Medical College Self-assessment of the study field "Health Care" 2014/2015 academic year). 2015. https://www.rcmc.lv/wp-content/uploads/2012/06/VESEL%C4%AABAS-APR%C5%AAPE_-pasnovertejums_2014_2015.st_.g.-2.pdf (access: 2020.09.12).
20. Latvijā pamazām sarūk ārstu un medicīnas māsu skaits (The number of doctors and nurses in Latvia is gradually decreasing). 2016. http://www.lsm.lv/lv/raksts/latvija/zinas/latvija-pamazam-saruk-arstu-un-medicinas-masu-skaits.a190297/ (access: 2020.10.15).
21. Latvijas veselības aprūpes statistikas gadagrāmata 2018 (Statistical Yearbook of Health Care in Latvian 2018). 2019. https://www.spkc.gov.lv/lv/latvijas-veselibas-aprupes-statistikas-gadagramata-2018 (access: 2020.09.18).
22. Latvijas veselības aprūpes statistikas gadagrāmata 2014 (Statistical Yearbook of Health Care in Latvian 2014). 2015. https://www.spkc.gov.lv/lv/latvijas-veselibas-aprupes-statistikas-gadagramata-2014 (access: 2020.10.14).

23. Latvija ir valsts Eiropas Savienībā ar viszemākajiem māsu skaita rādītājiem (Latvia is the country in the European Union with the lowest number of nurses). 2009. https://nra.lv/latvija/veseliba/8549-latvija-ir-valsts-eiropas-savieniba-ar-viszemakajiem-masu-skaita-raditajiem.htm (access: 2020.10.07).
24. Demography 2014. Collection of Statistical Data. Riga, Central Statistical Bureau of Latvia; 2014.
25. Māsu asociācija: no Latvijā reģistrētajām māsām 10 000 nestrādā savā profesijā (Nurses' Association: 10 000 nurses registered in Latvia do not work in their profession). 2017. http://jauns.lv/raksts/zinas/241464-masu-asociacija-no-latvija-registretajam-masam-10-000-nestrada-sava-profesija (access: 2020.09.12).
26. Latvijas veselības aprūpes statistikas gadagrāmata 2010 (Statistical Yearbook of Health Care in Latvian 2010). 2011. https://www.spkc.gov.lv/lv/latvijas-veselibas-aprupes-statistikas-gadagramata-2010 (access: 2020.07.15).
27. Latvijas veselības aprūpes statistikas gadagrāmata 2012 (Statistical Yearbook of Health Care in Latvian 2012). 2013. https://www.spkc.gov.lv/lv/latvijas-veselibas-aprupes-statistikas-gadagramata-2012 (access: 2020.07.15).
28. Latvijas veselības aprūpes statistikas gadagrāmata 2016 (Statistical Yearbook of Health Care in Latvian 2016). 2017. https://www.spkc.gov.lv/lv/latvijas-veselibas-aprupes-statistikas-gadagramata-2016 (access: 2020.07.15).
29. Administratīvo prasību analīze un kontrolējošo institūciju darbības novērtējums veselības aprūpes pakalpojumu jomā (Analysis of administrative requirements and evaluation of the activities of controlling institutions in the field of health care services). Riga, Baltic Institute of Social Sciences; 2012.
30. Vahere B. Par ievainojumiem, kurus iegūst darbā (For injuries sustained at work). Doctus. 2007; Maijs:15-19.
31. Paparde I. Medicīnas māsas gatavas visas uzrakstīt atlūgumu (The nurses are all ready to write a resignation). 2017. https://nra.lv/latvija/209532-medicinas-masas-gatavas-visas-uzrakstit-atlugumu.htm (access: 2020.10.21).
32. Ārstniecības likums (Medical Treatment Law). 1997. https://likumi.lv/doc.php?id=44108 (access: 2020.09.12).
33. Konceptuālais ziņojums "Par veselības aprūpes sistēmas reformu" (Conceptual report "On health care system reform"). 2017. https://likumi.lv/ta/id/292718-par-konceptualo-zinojumu-par-veselibas-aprupes-sistemas-reformu (access: 2020.09.12).
34. Mozgis Dz. Ceļvedis veselības aprūpes vadībā (A guide to health care management). Rīga: Nacionālais apgāds; 2008. 359 p.
35. Pētījums par medicīnas māsu profesionālo darbību – medicīnas māsu aprūpes nodrošināšanas aktuālo problēmu apzināšana un izpēte (Research on the professional activity of nurses - identification and research of current problems in the provision of nursing care). Rīga; 2000.
36. Likums "Par reglamentētajām profesijām un profesionālās kvalifikācijas atzīšanu" (Law "On the Regulated Professions and the Recognition of Professional Qualifications"). 2003. https://likumi.lv/doc.php?id=26021 (access: 2020.09.12).
37. EIROPAS PARLAMENTA UN PADOMES DIREKTĪVA ar ko groza Direktīvu 2005/36/EK par profesionālo kvalifikāciju atzīšanu un Regulu (ES) Nr. 1024/2012 par administratīvo sadarbību, izmantojot Iekšējā tirgus informācijas sistēmu (IMI regulu) (DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2005/36 / EC on the recognition of professional qualifications and Regulation (EU) No 1095/2010 1024/2012 on administrative cooperation through the Internal Market Information System (IMI Regulation)). 2013.
38. https://eur-lex.europa.eu/legal-content/LV/TXT/PDF/?uri=CELEX:32013L0055&from=en (access: 2020.10.07).

Birutė Gostevičienė, Simona Paulikienė

NURSING IN LITHUANIA

1. Brief history of nursing

After the baptism of Lithuania (14th century), houses for the sick and homeless elderly people were established near churches and monasteries - (lith. špitolės). In the 16th century and later the number of shelters and nursing homes continued increasing [1]. In the 17th-19th centuries, the patients were usually cared for by monks of various orders, and societies of Merciful Sisters. The first known schools that taught nursing were established in Lithuania at the end of the 18th century (the school of midwifery at Vilnius University). By the initiative of the Red Cross Society, training for Merciful Sisters, nurses, and the orderly began at the end of the 19th century. The Merciful Sisters assisted in military hospitals and organized training courses for nurses in peacetime. The education lasted for 2 years, and about 10 women studied in each school [2]. In 1895, the Merciful Sisters established the first pediatric surgery hospital not only in Lithuania but also in the entire Russian Empire. Only the Merciful Sisters of the Red Cross organization were considered professional nurses [2]. In independent Lithuania (1918-1920), the nuns (Samaritans) were also actively involved in nursing activities. They nursed and took care of the rural people, and also provided the first aid [1]. At the same time, the Department of Health of the Republic of Lithuania decided that only the professional nurses should work in hospitals and, thus, started their registration. Temporary and permanent certificates were issued, which gave the right to provide nursing in Lithuania [2, 3]. In 1940, after the Soviet Union occupied Lithuania, the union of Merciful Sisters of Lithuania was abolished, and many of the Merciful Sisters were exiled to Siberia [1]. Gradually, medical schools were established in the largest cities, which were later renamed to higher medical schools [3].

In 1957, the first conference of nurses was organized in Klaipeda. In 1972, The Kaunas Medical School started training nurses (dental assistants). In 1989, the union of Merciful Sisters restored its activities. Until 1990, each medical school trained about 120-300 nurses, midwives, and paramedics each year [1].

After the World War II, although medical schools, apart midwives and nurses, started studies for doctor's assistants, laboratory assistants and sanitary doctor's assistants, the development of nursing in Lithuania slowed down [1, 2].

The Lithuanian Union of Merciful Sisters helped to release the first magazine for nurses in Lithuanian "Lithuanian Sister" (later "Merciful Sister") in 1930-1931. From the post-war period to 1997 specialized periodicals for nurses were not published. Individual publications on nursing were published in publications meant for health care

professionals. In 1997, The Center for the Development and Specialization of Nursing Employees (now The Center of Excellence of Healthcare and Pharmacy Specialists) started publishing the newspaper "Šalpusnis", which, considering the development of nursing science, in 2001 the journal was renamed "Nursing. Science and Practice". Later, other specialized periodicals for nurses were or are published: "Nursing and Health" (supplement to the publication "Art of Healing"), "Health Sciences", "Baltic NuRsE", "Rehabilitation sciences: nursing, physiotherapy, occupational therapy", "NERP. Nursing Education, Research & Practice" [3].

After the restoration of independence of Lithuania (1990), a large number of nursing associations and organizations were registered. The most numerous of them are the Lithuanian Nurses' Organization (LNO), founded in 1992. Later, other associations of nurses were established - Society of Anesthesia and Intensive Care Nurses, the Association of Nurses of Lithuania Higher Education, Lithuanian Society of Operating Nurses, the Lithuanian Nurses' Managers' Union, and others.

LNO brought together working nurses - nurses, midwives, doctor's assistants, and other professionals involved in nursing practice and nursing science. The experts of the organization have began to analyze the nursing situation in the country and to develop activities to reorganize the nursing profession, improve the working conditions of nurses and represent the interests of specialists in the country and internationally. In March of 1994, the organization was admitted to the International Council of Nurses and became a full member of it, and in 1996, - a member of the European Federation of Nurses Associations. As a representative of nurses, LNO contributes to the improvement of the health care system, submits proposals to the state institutions on the expansion of the nursing practice, participates in working group activities, by means of negotiations seeks fair remuneration for nurses' work, assurance of safe and healthy working conditions and stability of labour relations. It constantly stimulates social dialogue between LNO, employers, and representatives of the local government [4].

The Society of Anesthesia and Intensive Care Nurses is a voluntary community organization that brings together nurses working in the fields of anesthesia and intensive care (resuscitation). The Society seeks to unite anesthesia and intensive care nurses and reform their activities, to participate in the preparation of legal documents that regulate the organizing of work of professional training of anesthesia and intensive care nurses, to help improve their qualifications, to represent and defend the interests of their members [5].

Lithuanian Society of Operating Nurses is a voluntary, independent organization that unites operating nurses of the Republic of Lithuania. The aim is to bring together the members of the society, to represent and defend their professional interests, to solve the problems of operative nursing science, training and practice in Lithuania, and to integrate into international professional activities [6].

The Lithuanian Nurses' Managers' Union seeks to unite nurses' managers for joint activities, reorganizing and improving the provided nursing services, raising

the prestige of nursing in the society. The Union organizes congresses, seminars, conferences, represents the interests of the members of the Union in various organizations and institutions, and co-operates with them, prepares methodological recommendations, etc. [7].

2. System of education for nurses

After the restoration of the independence of Lithuania, the functions of the Lithuanian nursing personnel were narrow, nurses were not engaged in health education and training, or disease prevention, and they were insufficiently prepared to work with healthy people and social groups [2]. Therefore, Kaunas Medical Academy, which in 2010 was renamed to the Lithuanian University of Health Sciences (LUHS), established a department of nurses ("medicine sisters") with higher education in 1990 [8]. In 1993-1994, with the introduction of the higher education system in Lithuania, based on the structure of three study cycles (professional bachelor/bachelor - master - doctor of science) [9], a need to develop nursing studies emerged. As a result, the Department of Nursing and Care was established at Kaunas Medical Academy in 1994. It was the first department in Lithuania with such a profile, where the first-cycle of university nursing studies were started. In 1996, Vilnius University (VU) also started teaching under the four-year bachelor's study programme "Nursing" [10]. In 1999, Kaunas Academy of Medicine started a master degree study in clinical nursing and opened admission to doctoral studies [8]. VU's two-year Master's programme in Nursing was launched in 2001. [10]. The same year, Klaipėda University (KU) started teaching according to a four-year bachelor's programme in nursing, and in 2005 it implemented a master's programme in nursing. Since 2004, KU Department of Nursing has collaborated with Finland universities (Turku, Tampere) in the preparation of PhDs in Nursing [11]. From 1994 until 2014, more than 2 200 nurses graduated from nursing studies at Lithuanian universities (LUHS, VU, KU) [12].

Until 2000, the Lithuanian higher education system was unitary - university level, and since 2000, binary - in addition to university studies, non-university (later named collegiate) studies were introduced, which were to be implemented by non-university higher education institutions - colleges. The non-university sector was created by reforming the higher education system. The first colleges were established in 2000 [9]. Vilnius, Kaunas, Utena, Panevėžys colleges, as well as Klaipėda and Šiauliai state colleges, were gradually established. They are still implementing the 3.5-year study programme "General Practice Nursing". In 2016, they were joined by Alytus College. According to the data of the Employment Service, from 2018, every year, about 400 general practice nurses are trained in Lithuanian colleges.

In 2009, a new law on Nursing Practice and Obstetrics Practice was adopted, which regulates more clearly: the acquisition of a nurse's professional qualification,

duties, rights. This law shows that nurses are important in the health system and do a great job of working as a team with other health professionals.

From 2015, the Department of Nursing and Care at LUHS was the first in Lithuania to start conducting the second cycle master's studies "Advanced Nursing Practice". Advanced practice nurses are expected to be provided with more functions and competencies that they will be able to use more widely in their practice after graduation [13]. From 2017, LUHS also conducts postgraduate studies in Nursing Leadership, in line with the recommendations of the World Health Organization (WHO) and the International Council of Nurses [8]. From September 2019, VU launched an updated study programme preparing bachelor of nursing and a second-cycle advanced practice nursing study programme [10].

Nurses are trained in accordance with the description of Lithuania's qualifications framework, which was approved by the Government of the Republic of Lithuania in 2010. The description legitimizes the 8-level system of qualifications established in the Republic of Lithuania, based on the competencies required for a person's activities, and defines the qualifications assigned to the qualification levels established in this description. Levels of qualifications define the functional, cognitive, and general competencies required to perform activities of similar complexity, autonomy, and variability. Level VI qualification is acquired in the first cycle of university or college studies, level VII - in the second cycle of university studies, level VIII - in doctoral studies [14].

The special requirements for the study programmes of the study field of nursing are regulated by the description of the Study Field of Nursing, which, in accordance with the order (2016) of the Education and Science minister was updated in 2019-2020. Its new name is "Description of Nursing and Midwifery Study Field". The requirements of the description apply to college and university undergraduate and postgraduate study programmes in nursing and midwifery [15].

The description of the study field, in accordance with the order of the minister of Education and Science of the Republic of Lithuania 2016, the elements of the content that must be reflected in the study programmes of the first and the second cycle nursing are named:

- the theoretical area of the nursing profession, which includes nursing theory: philosophy and models, values, diversity of nursing problems, critical thinking, and nursing implementation strategies;
- the field of nursing professional methods, covering the nursing process and its components;
- knowledge and application of nursing research methodology;
- the field of professional nurse, who critically analyzes and reflects practical activities and can perform practice in all personal health care institutions;
- the paradigm of the nursing profession, encompassing ethical, moral conduct standards and human rights principles;

– nursing interventions aimed at empowering the patient, maintaining and improving health, and preventing unwanted health conditions [16].

The training of general practice nurses in college first cycle studies must amount to 180 or 210 ECTS credits, in university studies - 240 ECTS credits [17]. Directive 2005/36 / EU of the European Parliament and of the Council is followed in order to achieve the minimum training requirements for nurses and midwives and the mutual recognition of professional qualifications in European countries in the study programmes of Lithuanian higher education institutions training general practice nurses. Therefore, at least 4600 hours of theoretical and clinical training must be devoted, with at least one third of the theoretical training time and at least half (2300 hours) of the minimum training time being required for clinical professional practice. Clinical professional practice is necessary in order to acquire the right to pursue a regulated profession. It is performed under real working conditions. The volume of the master's study programme is not less than 90 ECTS credits and not more than 120 ECTS credits [18].

After graduating from the college undergraduate study programme "General Practice Nursing", graduates are able to: identify nursing needs and plan the nursing process, organize and implement patient care in order to improve professional practice; to work effectively with other participants in the health sector, including participation in the practical training of health professionals; to promote the healthy living and care of individuals, families, and groups; independently initiate and implement immediate life-saving measures in the event of crises and disasters; provide independent advice, guidance, and support to those in need of care and those caring for them; to independently ensure and evaluate the quality of nursing; to analyze the quality of nursing in order to improve one's professional practice as a general practice nurse; communicate on professional issues and cooperate with other professions in the health sector [19].

After graduating from the university undergraduate study programme "Nursing", graduates are able to: apply the latest professional methods and terminology; to evaluate physiological and pathological processes of human development; apply the principles of communication, ethics, and legal approaches; critically evaluate and effectively apply nursing theories, principles, and nursing models; to holistically identify etiological problems and health changes of an individual, group and community, to provide assistance; to formulate and prove hypotheses, to form evidence-based nursing practice; lead a team; use the latest technologies in the modern healthcare system; to organize and carry out health education for healthy and sick persons, to promote a healthy lifestyle and self-care; to share knowledge about professional activities and experience in nursing, to organize continuing education and to perform the functions of a mentor [19].

After graduating from the second cycle study programme "Nursing", graduates are able to: apply the provisions of national and international health policy, legal acts regulating health care, peculiarities of administration of health care institutions

and the principles of work and team formation of personal health care professionals; apply professional and scientific terminology and the context and objectives of its use; critically evaluate and effectively apply nursing theories and principles in clinical practice; scientifically substantiate nursing problems based on theories and models; to carry out scientific research, analyze the obtained results and correctly present and interpret the results; to develop and apply in clinical practice standards of nursing procedures based on scientific evidence; apply patient-centered care and quality assessment criteria for nursing services in clinical practice; to solve work problems creatively and innovatively, to apply ethical decision-making models and ethical principles in everyday activities; to organize practical training of students in a health care institution and to perform the functions of a mentor and to organize professional development of subordinate employees; use and apply new technologies in nursing clinical practice; to formulate nursing policy and to be a professional ambassador at the national and international level [16].

After graduating from the second cycle study programme "Advanced Nursing Practice", graduates are able to: apply research-based solutions for advanced nursing practice, work independently in various health care institutions and lead and manage in a changing multidisciplinary environment to effectively address health care system problems; to issue prescriptions for nursing means and referrals to specialists in accordance with the procedure established by the minister of Health, to issue personal health certificates, to perform an examination of a person's state of health, to prevent diseases [16].

Upon completion of studies in nursing and midwifery in Lithuania, the following qualification degrees are obtained: a professional bachelor's degree in health sciences, a first-cycle college degree, and a bachelor's degree in health sciences, a first-cycle university degree. Upon completion of both college and university undergraduate studies, the professional qualification of a general practice nurse is also acquired. The master's degree in health sciences is obtained upon completion of postgraduate studies in nursing. Upon completion of the second cycle master's degree in "Advanced Nursing Practice", both a master's degree in health sciences and a professional qualification of an advanced practice nurse are obtained [16].

3. The legal status of nursing

One of the main laws regulating the activities of nurses in Lithuania was adopted in 2001 - the Law on Nursing Practice (now the Law on Nursing and Midwifery Practice) and related by-laws. This law took the nursing profession to a new level of an independent, legally regulated profession. The law ensured that only persons with a nursing diploma could work as nurses in Lithuania [20].

Since 2002, the State Health Care Accreditation Agency under the Ministry of Health carries out the registration and licensing of nurses [21]. A general practice

nurse or a general practice and advanced practice nurse must renew the license confirming the general practice nurse's right to practice general nursing or general and advanced nursing practice every 5 years, as a valid license is mandatory for nursing practice. In order to renew the license, the nurse must regularly deepen or update the knowledge and abilities and practical skills required for professional activities, considering scientific and technical progress and new technologies. The duration of compulsory professional development is at least 60 hours every five years, or 100 hours if a nurse has not been legally practicing nursing for more than two years in the last five years. Licensing of new nursing graduates is carried out automatically for two years after graduation, without any additional requirements [22].

Universities and colleges, independently or in cooperation with professional organizations and associations, organize professional development courses for nurses, national and international scientific and practical conferences and seminars, and issue certificates of continuing education. The Center of Excellence of Healthcare and Pharmacy Specialists also plays an important role in the continuing professional development of nurses [21].

The right to engage in general nursing practice belongs to a person who has acquired the professional qualification of a general practice nurse by following the established procedure and has a valid general nursing practice license to practice general nursing. The right to engage in advanced nursing practice belongs to a person who has acquired the professional qualification of an advanced practice nurse and has a general nursing practice license, which contains a record of the acquired professional qualification of an advanced practice nurse.

Areas of specialized nursing approved by the order of the minister of Health, in which a special practice nurse with a relevant nursing specialization may engage in special nursing practice:

1. Anesthesia and Intensive Nursing;
2. Community Nursing;
3. Operation Theatre Nursing;
4. Mental Health Nursing;
5. Emergency Medical Care [23].

In order to engage in special nursing practice, a general practice nurse must have a valid general nursing practice license and a document certifying the acquisition of the relevant nursing specialization.

A person has the right to engage in special nursing practice after she/he has acquired a higher education or equivalent qualification in the field of nursing at a higher education institution, has a general nursing practice license issued and valid in accordance with the procedure established by the legal acts of the Republic of Lithuania and has additionally completed: 1) a nursing specialization programme in a higher education institution; 2) or a nurse specialization programme run by the Center of Excellence of Healthcare and Pharmacy Specialists; 3) or a non-formal

education nursing specialization programme and having obtained a certificate confirming this [24].

Since 2010, the specialization in nursing is acquired only in a higher education institution upon completion of a selected non - formal education programme in the field of specialized nursing [23]. The scope of training varies depending on the area of nursing specialization (Table 1). In 2010, the minister of Health approved the descriptions of the requirements of specialization programmes, which set out the requirements for the training of specialization nurses, the minimum programme under which nurses in general practice will be able to provide nursing services, theoretical and practical training and their acquired rights. The provisions of the description apply to nurses responsible for general care seeking to practice nursing in the relevant specialty or to provide emergency medical care, to their employers, as well as to institutions that train, develop and supervise these specialists. Irrespective of the specialization, the practical training is carried out in a personal health care institution and the practice is supervised by an experienced specialist with at least 3 years of continuous practical work experience in the relevant field of nursing [24].

Table 1. Scope of specialization programmes [24]

No.	Title of the programme	Duration of theoretical training (hours)	Duration of practice (hours)
1.	Anesthesia and Intensive Nursing (training of at least 960 academic hours)	Anesthesia – 40	Anesthesia – 440
		Intensive Nursing – 40	Intensive Nursing – 440
2.	Mental Health Nursing (training of at least 640 academic hours)	160	General part – 180; At the children's and adolescents' wards – 180; at the adult wards - 180
3.	Community Nursing (training of at least 480 academic hours)	160	320
4.	Operation Theatre Nursing (training of at least 480 academic hours)	80	400
5.	Emergency Medical Care	320	Number of cases not less than specified in the specific topic of the description

In Lithuania, the rights, duties, and competence of a general practice nurse, an advanced practice nurse, and a specialization nurse are regulated by the medical norms of Lithuania. The general practice nurse, the advanced practice nurse, and the specialized nurse work independently according to the competence and/or in a team with a doctor and in cooperation with other health care professionals.

4. Nursing in numbers

In 2019, according to the data of the Lithuanian Department of Statistics, 22 523 nurses (including midwives) practiced in Lithuania [25]. Nurses work not only in personal health care institutions but also in social security and labour, education and science, national defense, and internal affairs systems. Although more and more students graduate from general practice nursing in higher education every year (Table 2), [26], in 2017, there were only 20.2 nursing graduates per 100 000 population, compared to the Organiation for Economic Co-operation and Development (OECD) average of 43.6 [27].

Table 2. Number of nursing graduates

Years	**2015**	**2016**	**2017**	**2018**	**2018**
Number of nursing graduates	535	543	572	605	614

Despite the increasing number of nursing graduates, a decreasing number of practicing nurses (practicing nurses - nurses working clinically with patients) is observed (Table 3), [28]. In 2013-2018, the number of health professionals working in Lithuania fluctuated around 41 000 professionals. The number of employed health professionals did not increase as significantly as the number of licensed health professionals increased over the same period. This shows that during this year there has been an increase in the number of health professionals who have licenses but do not work as health professionals in Lithuania. Such persons worked either as non-health professionals in Lithuania or worked outside Lithuania. This may warn against the trend of newly trained or existing health professionals seeking employment in other countries or other sectors of employment [29].

Table 3. Number of nursing personnel

Personnel/Years	**2015**	**2016**	**2017**	**2018**	**2019**
Nurse	22 342	22 187	21 903	21 886	21 717
Practicing Nurse	22 260	22 099	21 802	21 793	21 629
Licensed Nurse	28 599	27 744	26 911	26 078	26 065

According to the data of the Lithuanian Department of Statistics, in 2018, Lithuania had a population of 2 801 501; in 2019 – 2 792 209 inhabitants [30]. According to information provided by the OECD, in 2017, in Lithuania, there were 7.7 nurses per 1000 population, compared to the OECD average of 8.8 [27]. The statistical information of the Lithuanian Department of Statistics is calculated for 10 000 inhabitants, but the trend of the ratio can be seen. Although the declining number of the Lithuanian population is obvious, more and more nurses are being trained, and a declining number of nurses per 10 000 population is observed (Table 4), [31].

Table 4. Number of nurses per 10000 population.

Number of nursing personnel per 10000 population /Years	2015	2016	2017	2018	2019
Nurse	77.4	77.9	78	78.3	77.7
Practicing Nurse	77.1	7.,6	77.6	78	77.4
Licensed Nurse	99	97.4	95.8	93.3	93.3

The number of doctors has increased in recent years and the number of practicing nurses has remained unchanged, so the ratio of the number of nurses to doctors has decreased from 2.1 in 2000 to 1.7 in 2017. Therefore, Lithuania is projected to restore the ratio of nurses to doctors to 2.0 until 2020 [32].

The average age of nurses ranges from almost 41 years (anesthesia and intensive care nurses) to almost 50 years (community nurses). The average age of general practice nurses, who make up the largest part of the workforce is 45.3 years [21]. According to the WHO, about 10 percent of Lithuania's nurses are younger than 35 years, about 55 percent - 35-54 years, about 35 percent - over 54 years old. In 2016, 99.7 percent of the nurses were women [33]. A similar distribution of nurses by age and gender is observed today.

Due to unfavorable retirement conditions (eg pensions are lower than salaries), about half of nurses of retirement age continue their practice until the age of 70 [21]. The share of retirees among health professionals of retirement age differs significantly according to the profession of health professionals, i. y. nursing and midwifery professionals are about three times more likely to retire than doctors at retirement age [29].

According to the data of the Lithuanian Department of Statistics, the majority of nurses (including midwives) in 2019 practiced in Kaunas (the second largest city of Lithuania) county'- 88.6 specialists per 10 000 inhabitants, while in Vilnius (capital) county - 75.4 specialists per 10 000 inhabitants [25].

Nurses' salaries are at the level of the average annual income, including social security contributions and income taxes, which are paid by the employee. As a general rule, it should include all additional official benefits, such as bonuses and payments for night shifts and overtime. On average, in OECD countries, nurses in hospitals earn a little bit more than the average salary of all employees. However, in Lithuania, nurses earn much less than the average salary of all the employees. The salary of hospital nurses, in relation to the average salary in 2017 (or in the coming years) is 0.7, compared to 1.1 in OECD countries. In general, nurses working in Central and Eastern European countries receive the lowest pay, which at least partly explains why many of them migrate to other EU countries [27].

It is projected that in 2028 the need for health professionals in Lithuania will be 3400 professionals higher than the number of health professionals employed in 2018. The largest percentage of a shortage of health professionals in 2028, projected for general practice nurses (34%). The need for these health professionals

in 2028 will be 4200 higher than the number of employed specialists in 2018. It is projected that by 2028, 6300 nurses will retire, and 5000 will leave work for other reasons [34].

5. Challenges and prospects

With the changes in the healthcare system, modernization, and complexity of the health care system, the requirements for the nursing specialty are increasing. The quality of nursing and patient safety is affected by the unfavorable work of nurses and other social environments: an insufficient number of nurses and lack of new jobs, high workloads, low salaries, low differentiation of jobs according to nurses' education and competencies, insufficient job security, and low occupational prestige. Although there are several opportunities to acquire the profession of a nurse, the consistent growth and improvement of all professional competencies are not ensured. In personal health care institutions, nursing administrators do not have sufficient decision-making power to improve the organization of nursing services due to the lack of a common nursing quality assessment system, nursing protocols, and nursing documentation to ensure quality nursing and patient safety in health care institutions. The implementation of evidence-based solutions in nursing science in practice is still insufficient. Considering the international priorities and principles of nursing science, it is expedient to develop Lithuania's nursing science by determining the priority areas and directions of nursing research, improving the legal acts regulating biomedical research. There is a lack of research in nursing in different fields of science, personal health care institutions, research institutions, and international cooperation. Research data is insufficiently systematized and collected, there is a lack of wider dissemination of research and practical applicability. Nurses should implement evidence-based nursing practices based on science and practice, using research findings and practical experience to address nursing issues [12].

Considering the nursing situation in Lithuania, in 2016, the National Nursing Policy guidelines for 2016–2025 were developed. The guidelines set out the purpose, direction, issues, evaluation criteria, implementation, and coordination of results of the national nursing policy to improve the availability and quality of nursing services. The implementation of the National Nursing Policy aims to: at the legislative level, give nurses more rights and responsibilities in providing personal health care services and ensuring the quality of nursing services; to grant autonomy to the care administrators of personal health care institutions; to implement a nursing quality and monitoring evaluation system; to create a common electronic nursing documentation system; to expand nursing services and the independence of nurses and to ensure an equal distribution of nursing services in the regions of the country; to optimize the workload of nurses; to create a system for forecasting the need for nurses; to ensure the improvement of the professional qualification of

nurses; to develop Lithuanian nursing science taking into account the international priorities and principles of nursing science; strengthen the integration of nursing science and practice [12].

References

1. Šeškevičius A. Slauga [Nursing]. In: Visuotinė slaugos enciklopedija, Mokslo ir enciklopedijų leidybos centras, 2008, (12): 221-222.
2. Kalibatienė D. Slaugos istorija [History of Nursing]. Vilniaus universitetas, 2004.
3. Riklikienė O (eds.). Lietuvos slaugos istorija 1918-2018 [History of Lithuanian Nursing 1918-2018]. Sveikatos priežiūros ir farmacijos specialistų kompetencijų centras, 2018.
4. Lietuvos slaugos specialistų organizacija [Lithuanian Nurses' Organization]. https://www.lsso.lt/istorija (access: 2020.06.28)
5. Anestezijos ir intensyviosios terapijos slaugytojų draugija [Society of Anesthesia and Intensive Care Nurses] https://www.laitsd.lt (access: 2020.06.28)
6. Lietuvos operacinės slaugytojų draugija [Lithuanian Society of Operating Nurses] http://www.losdraugija.eu (access: 2020.06.28)
7. Lietuvos slaugytojų vadovų sąjunga [Lithuanian Nurses' Managers' Union] https://www.emedicina.lt/lt/gydytojui/draugijos/lietuvos_slaugytoju_vadovu_sajunga.html (access: 2020.06.28).
8. Lietuvos sveikatos mokslų universiteto Slaugos ir rūpybos katedra [Department of Nursing and Care, Lithuanian University of Health Sciences] https://lsmuni.lt/lt/struktura/medicinos-akademija/slaugos-fakultetas/katedros// (access: 2020.07.28).
9. Lietuvos aukštojo mokslo sistema [Lithuanian higher education system]. https://www.skvc.lt/default/lt/lietuvos-svietimo-sistema/aukstasis-mokslas) (access: 2020.07.28).
10. Vilniaus universiteto Slaugos katedra [Department of Nursing, Vilnius University]. https://www.mf.vu.lt/struktura/sveikatos-mokslu-institutas/slaugos-katedra#istorija (access: 2020.07.28).
11. Klaipėdos universiteto Slaugos katedra [Department of Nursing, Klaipėda University]. https://www.ku.lt/svmf/sveikatos-mokslu-fakultetas/struktura/katedros/slaugos-katedra/ (access: 2020.07.28).
12. Ministry of Health. Lietuvos Respublikos sveikatos apsaugos ministro 2016 m. vasario 10 d. įsakymas Nr. V-222 "Dėl Nacionalinės sveikatos politikos 2016–2025 metų gairių patvirtinimo".
13. Asmens sveikatos priežiūra. Sveikatos apsaugos ministerija [Personal health care. Ministry of Health]. https://sam.lrv.lt/lt/veiklos-sritys/asmens-sveikatos-prieziura/slauga-asmens-sveikatos-prieziura (access: 2020.07.28).
14. The Government of the Republic of Lithuania. Lietuvos Respublikos vyriausybės 2010 m. gegužės 4 d. nutarimas Nr. 535 "Dėl Lietuvos kvalifikacijų sandaros aprašo patvirtinimo".
15. Ministry of Education and Science. Lietuvos Respublikos švietimo ir mokslo ministro 2016 m. gruodžio 1 d. įsakymas Nr. V-1075 "Dėl studijų krypčių ir krypčių grupių, pagal kurias vyksta studijos aukštosiose mokyklose, sąrašo, jo keitimo tvarkos, kvalifikacinių laipsnių sąrangos ir studijų programų pavadinimų sudarymo principų patvirtinimo".
16. Ministry of Education and Science. Lietuvos Respublikos švietimo ir mokslo ministro 2016 m. lapkričio 16 d. įsakymas Nr. V-1012 "Dėl Studijų pakopų aprašo patvirtinimo".
17. Ministry of Education and Science. Lietuvos Respublikos švietimo ir mokslo ministro 2016 m. gruodžio 30 d. įsakymas Nr. V-1168 "Dėl Bendrųjų studijų vykdymo reikalavimų aprašo patvirtinimo".
18. Parliament. Lietuvos Respublikos Mokslo ir studijų įstatymas, 2009 m. balandžio 30 d. Nr. XI-242.
19. Study Fields' Descriptors. Centre for quality assessment in higher education. https://www.skvc.lt/default/en/quality-assurance/study-program-descriptions (access: 2021.09.29).

20. Parliament. Lietuvos Respublikos Slaugos praktikos įstatymas, 2001 m. birželio 28 d. Nr. IX-413.
21. Riklikienė O, Starkienė L, Macijauskienė J. Lithuania. In: Rafferty AM, Busse R, Zander-Jentsch B, et al. (eds). Strengthening health systems through nursing: Evidence from 14 European countries [Internet]. Copenhagen (Denmark): European Observatory on Health Systems and Policies, 2019. (Health Policy Series, No. 52.) https://www.ncbi.nlm.nih.gov/books/NBK545719/ (access: 2020.07.01).
22. Ministry of Health. Lietuvos Respublikos sveikatos apsaugos ministro 2009 m. gruodžio 30 d. įsakymas Nr. V-1088 "Dėl slaugos praktikos licencijavimo taisyklių patvirtinimo".
23. Ministry of Health. Lietuvos Respublikos sveikatos apsaugos ministro 2009 m. gruodžio 17 d. įsakymas Nr. V-1037 "Dėl specializuotos slaugos sričių sąrašo patvirtinimo".
24. Ministry of Health. Lietuvos Respublikos sveikatos apsaugos ministro 2010 m. sausio 21 d. įsakymas Nr. V-51 "Dėl reikalavimų specializuotų slaugos sričių neformaliojo švietimo programoms aprašų patvirtinimo".
25. Number of practicing physicians, dentists and nurses. The Lithuanian Department of Statistics. https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S3R399#/ (access: 2020.08.01).
26. Number of health graduates. The Lithuanian Department of Statistics. https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S3R824#/ (access: 2020.08.01).
27. OECD. Health at a Glance 2019: OECD Indicators, OECD Publishing. doi: 10.1787/4dd50c09-en**.** (access: 2020.08.01).
28. Number of health personnel.The Lithuanian Department of Statistics. https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S3R828#/ (access: 2020.08.01).
29. Medicinos darbuotojų poreikio prognozavimo modelis, 2019 [Medical staff demand forecasting, 2019]. https://strata.gov.lt/images/tyrimai/Sveikatos%20specialistu%20poreikio%20tyrimas.pdf?v=2 (access: 2020.07.25).
30. Resident population as of 1 July. The Lithuanian Department of Statistics. https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S3R824#/ (access: 2020.08.01).
31. Number of health personnel per 10 000 population. The Lithuanian Department of Statistics. https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S3R829#/ (access: 2020.08.01).
32. OECD/European Observatory on Health Systems and Policies (2019), Lithuania: Country Health Profile 2019, State of Health in the EU, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels. ISBN 9789264515215 (PDF).
33. Global Health Workforce Statistics. World Health Organization. https://www.who.int/hrh/statistics/hwfstats/en/ (access: 2020.08.01).
34. Medicinos darbuotojų poreikio prognozavimo modelis, 2019. Rezultatai ir išvados. [Medical staff demand forecasting, 2019. Results and conclusions]. https://strata.gov.lt/images/tyrimai/Sveikatos%20specialistu%20poreikio%20prognozavimo%20modelio%20Rezultatai%20ir%20isvados.pdf?v=2 (access: 2020.07.25)

Małgorzata Nagórska, Małgorzata Lesińska-Sawicka

NURSING IN POLAND

1. Brief history of nursing

The beginnings of professional nursing in Poland fell in an historically extremely difficult period, when the country was weakened after 123 years of partitions. The first secular nursing school with the Polish language of instruction was established in Krakow in the Austrian partition in 1911, at a time when Poland was not an independent country. It was the St. Vincent's Paulo Vocational Nursing School. After Poland regained independence in 1918, professional nursing began to be organized, which essentially was based on the assumptions of Florence Nightingale, Christian ethics and historical traditions [1].

In 1925, the first nursing organization, the Polish Association of Professional Nurses (*Polskie Stowarzyszenie Pielęgniarek Zawodowych – PSPZ*) , was established, and in the same year it became a member of the International Council of Nurses (ICN). The enactment of the Nursing Act on February 21, 1935 was also important for the profession. [2]. It defined the requirements for apprenticeships and regulated the practice of the profession for over sixty years. The Act specified limitations for female applicants (Article 4), "the right to practice nursing may not be obtained by persons:

- deprived of their own will due to mental illness for the duration of incapacitation,
- judicially deprived of public and civil rights of honour - until these rights are regained,
- suffering from disease which is dangerous to the environment" [3].

The outbreak of World War II interrupted the possibility of educating nurses, and the only school operating throughout the war was the 2-year religious School of Nursing of the Congregation of the Sisters of Charity, established in 1939. Other forms of education took place clandestinely and were organized by nurses themselves. Risking their lives during the war, nurses fought on many fronts, caring for the wounded and sick, and participated in the resistance movement. After the war, the staffing situation was very difficult, as Poland lost nearly 30% of the total number of nurses during the war [4].

Due to the great demand for nursing staff, the education system was restored after the war, mainly thanks to the involvement of the Polish Red Cross. Initially, there were six-month courses for students who were willing to learn the profession. Over the next years, the nursing education system in Poland changed and improved, and education was possible in schools for nursing assistants, medical high schools and colleges.

It was not until 1957 that the largest nursing organization of the Polish Association of Professional Nurses was reactivated under the name of the Polish Nursing Society [5]. An important event for Polish nursing was the launch of a three-year nursing study at the Medical University of Lublin in 1969 and its transformation into the first Faculty of Nursing in Poland and Europe. It was the beginning of higher education for Polish nurses [6].

With time, nursing journals were also created to support professional development, professional prestige and social recognition [7]. Initially, articles dedicated to nurses were published in the journals of the Head Office of the Polish Red Cross in Warsaw, such as *Czerwony Krzyż* (Red Cross) (1919-1925), *Polski Czerwony Krzyż* (The Polish Red Cross) (1925-1939), as well as in the general medical journal *Zdrowie* [Health]. In 1924, the first nursing scientific journal *Pielęgniarka* [Nurse] was published. Another historical journal is *Przewodnik pielęgniarski* [Nursing handbook] (1929-1933) dedicated to psychiatric nurses. In the years 1929-1939, "Pielęgniarka Polska" [Polish Nurse] journal began to be published and was re-issued after the war in 1948-1958. In 1958 the first issue of the *Pielęgniarka i położna* [Nurse and Midwife] journal appeared, which was published until 2008. After the systemic transformation in 1989, new titles dedicated to nurses appeared, including: *Pielęgniarstwo Polskie* [Polish Nursing], " *Pielęgniarstwo* XXI wieku [Nursing of the 21st century], *Problemy Pielęgniarstwa* [Nursing issues], *Pielęgniarstwo chirurgiczne i angiologiczne* [Surgical and angiological nursing], *Pielęgniarstwo w Opiece Długoterminowej* [Long-Term Care Nursing], and in 2007 the first online magazine *Nowoczesne pielęgniarstwo i położnictwo* [Modern Nursing and Midwifery] [8].

2. System of education for nurses

Poland's accession to the European Union in 2004 resulted in significant changes in the education of nurses and midwives. The process of transformation of the Polish nurses education system began in 1991 when the association agreement with the European Union was signed. In 1995, the document "European agreement on training and education of nurses" was signed, which concerned undergraduate education, including a definition of a nurse responsible for general care, entry requirements for candidates for the profession, teaching standards, as well as the dimension and scope of education [9, 10].

The consequence of these changes in Poland was the establishment of the Self-Government of Nurses and Midwives (1991) and drafting a new law on the profession (1996), as the law of 1935 was still in force. On July 1, 1996, the Act on the profession of a nurse and midwife entered into law, which initiated great transformations in Polish nursing, also at the educational level. In the same year, recruitment to nursing high schools was completed, and in 2003 to nursing colleges.

Since 2004, nurses have only been educated at the undergraduate level in the higher education system. They also have the option of obtaining a Master's in Nursing in a two-year complementary Master's programme [9, 11]. Currently, training in the profession of a nurse and a midwife is governed by the provisions of the Act of July 20, 2018 Law on Higher Education and Science (Journal of Laws 2018, item 1668) [12], and the Act of July 15, 2011 on the profession of nurse and midwife (Journal of Laws 2016, items 1251 and 2020) [13], and implementing acts to these Laws, including the most important Regulation of the Minister of Science and Higher Education of July 26, 2019 on the standards of education preparing for the profession of a doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician, physiotherapist and paramedic (Journal of Laws 2019, item 1573) [14].

In the years 2004-2015, 40,819 people, including 36,949 female nurses, 563 male nurses and 3,307 midwives with secondary education, completed their education to the level of bachelor's degree in vocational studies - so-called "Complementary bridge studies" lasting two or three semesters, depending on the school graduated earlier [15]. Pursuant to Directive 2005/36 / EC of 2005, EU Member States recognize, on the basis of acquired rights, documents stating the qualifications of a nurse / midwife, confirmed by a "bachelor's degree, if they have been obtained on the basis of a special education programme "bridge studies" [16] .

In the European Union countries, the undergraduate education of nurses has been standardized, which facilitates the mutual recognition of qualifications. In accordance with the recommendations of the Nursing Education Directives and national regulations, first-cycle nursing studies last no less than 6 semesters. The number of hours of classes and internships should not be less than 4,815, and the number of ECTS (European Credit Transfer System) points should not be less than 180 [11].

Raising qualifications is a statutory obligation stipulated in the Act on the Profession, as well as in the Code of Professional Ethics for Nurses and Midwives of the Republic of Poland *(Code of Professional Ethics for Nurse and Midwife of the Republic of Poland, 2003*). The skills obtained during postgraduate education entitle to a significant expansion of professional competences. The legal basis for postgraduate education of nurses and midwives is stated i.e. in:

- Act of July 15, 2011 on the professions of a nurse and a midwife (Journal of Laws of 2018, item 123, as amended) [13]
- Regulation of the Minister of Health of December 12, 2013 on the list of nursing fields and fields applicable in health care, in which specialization and courses may be conducted (Journal of Laws of 2013, item 1562) [17]
- Regulation of the Minister of Health of September 30, 2016 on postgraduate training for nurses and midwives (Journal of Laws, item 1761, as amended) [18]
- Regulation of the Minister of Health of February 28, 2017 on the type and scope of preventive, diagnostic, therapeutic and rehabilitation services provided by a nurse or a midwife independently without a medical order (Journal of Laws, item 497) [19]

Depending on the form, postgraduate education lasts for several hours (a training course) up to two years (a specialization). In Poland, nurses and midwives can take part in four forms of postgraduate education [10, 20]:

1. The specialization training called "specialization" is aimed at obtaining specialist qualifications by nurses in a specific field of nursing or an area that is applicable in health care and obtain the title of a specialist in this field. The specialization lasts two years and ends with a state examination. The framework of the specialist training programme includes: a general vocational block, common for all specializations and a specialist unit specific to the field being the subject of specialization. Nurses can acquire specializations in the following 15 areas: anaesthetic and intensive care, surgical, epidemiological, geriatric, internist, neonatological, oncological, surgical, long-term care, palliative care, paediatric, psychiatric, emergency, family care, occupational health care. The title of a specialist in the field being the subject of specialization is obtained by a nurse, a midwife after passing the state examination conducted by the state examination commission appointed by the Minister of Health.
2. The aim of qualification courses is obtaining specialist qualifications by a nurse or midwife to provide specific health services falling within the scope of a given field of nursing or an area applicable in health care. The duration of the qualification course is up to 6 months. Qualification courses for nurses can be conducted in 21 fields of nursing: anaesthetic and intensive care, surgical, diabetological, epidemiological, geriatric, internist, cardiology, nephrology with dialysis, neonatology, neurology, oncology, surgery, long-term care, palliative care, paediatric and psychiatric care, emergency, family, teaching and education environment, transplantation and occupational health protection.
3. Specialist courses give qualifications to perform specific professional activities when providing care, preventive, diagnostic, therapeutic or rehabilitation services. The specialist course is aimed at obtaining by a nurse or midwife qualifications to perform specific professional activities when providing care, preventive, diagnostic, therapeutic or rehabilitation services. Currently, it is possible to conduct 32 different courses in accordance with the developed programmes.
4. Supplementary courses are aimed at deepening and updating the knowledge and professional skills of nurses or midwives. This is the shortest form of post-graduate education, and in this case, framework programmes do not apply - the organizers themselves prepare an educational offer.

A great deal of interest in all forms of education is observed in the group of nurses.

3. The legal status of nursing

The profession of a nurse in Poland is an independent medical profession. It results from the provisions of the Act on the professions of a nurse and a midwife of July 11, 2011 (Journal of Laws of 2011, No. 134, item 1039). The act defines in detail the principles of pre-graduate and postgraduate education, conditions for obtaining the right to practice a profession and the rules of practising the profession. The Act also defines the rules of professional liability of nurses [13].

Pursuant to the Act, the profession of a nurse in Poland may be performed by a person who has the right to practice the profession issued by the competent District Chamber of Nurses and Midwives (R. 2, Art. 7). The right to practice the profession is granted to a person who has a certificate or diploma of a nurse obtained in Poland or in the EU or in another country (after meeting specific conditions), has full legal capacity, is healthy enough to perform the profession and shows an impeccable ethical attitude. (R3 Art. 28) [13].

An important legal act regulating the professional competences of nurses is the Regulation of the Minister of Health of February 28, 2017 on the type and scope of preventive, diagnostic, therapeutic and rehabilitation services provided by a nurse or midwife independently without a medical order (Journal of Laws, item 497). § 1. The regulation specifies:

1. The type and scope of preventive, diagnostic, therapeutic and rehabilitation services that may be provided independently by a nurse and a midwife without a medical order,
2. List of medicinal products and auxiliaries which nurses and midwives are authorized to use on their own without a medical order,
3. Types of specimen that can be collected by a nurse and a midwife for diagnostic purposes without a doctor's order,
4. The type and scope of medical rescue activities performed by a nurse
5. List of diagnostic tests to be performed by a nurse and a midwife independently [19].

A relatively new competence of nurses and midwives in Poland is the possibility to issue prescriptions for certain drugs containing certain active substances, foods for special nutritional uses and certain medical devices, provided that they complete a specialist course. This is guaranteed by the Act on the Profession of Nurse and Midwife (Article 15a.1 of July 15, 2011) and the Regulation of the Minister of Health on the list of active substances contained in medicines, foodstuffs for particular nutritional uses and medical devices ordered by nurses and midwives and the list of diagnostic tests for which nurses and midwives have the right to issue referrals of January, 18 2018 (Journal of Laws of 2018, item 299) [21].

There are detailed lists in the regulation:

– active substances contained in medicines that can be prescribed by nurses and midwives (group of drugs, active substances, form and route of administration),

– foods for particular nutritional uses that may be ordered by nurses and midwives,
– medical devices for which nurses and midwives have the right to issue prescriptions and orders,
– diagnostic tests for which nurses and midwives have the right to refer.

The obligation to complete a specialist course does not apply to those nurses and midwives who obtained such knowledge during nursing school education or as a part of specialization training (Article 15a (7) of the "Act on Professions").

In addition, from January 1, 2020 nurses can provide nursing advice in outpatient specialist care [13, 22] and in Primary Healthcare [23]. The scope of nursing advice in Primary Health Care includes; assessment of the patient's health, physical examination, referral for diagnostic tests, prescription of drugs, issuing prescriptions [23].

Pursuant to the legal regulations in force in Poland, the profession of a nurse is an independent profession that requires thorough professional preparation at least at the level of undergraduate university studies, offering broad competences and considerable development opportunities through various forms of professional development. High standards of education allowed nurses to gain new competences previously assigned only to doctors [24].

4. Nursing in numbers

Nurses are the most numerous group among the medical professions. The Main Chamber of Nurses and Midwives (*pol*. *Naczelna Izba Pielęgniarek i Położnych* - NIPIP), publishes statistics and reports on nurses and midwives. According to these data, registered nurses are still the most numerous group in Poland (Table 1) [25].

Table 1. Nurses education 2013-2019

Year	Registered nurse	BSc in Nursing	MSc in Nursing	Total
2019	215 600	53 493	30 526	299 619
2018	219 217	50 077	26 143	295 437
2017	224 106	45 175	22 510	291 791
2016	228 192	41 049	19 154	288 395
2015	234 448	36 863	17 065	285 376
2014	234 363	32 755	15 404	282 522
2013	237 555	28 711	13 773	280 039

Source: Nursing education, NIPIP, 2019.

Nurses willingly undertake postgraduate education. According to data in 2019, 51 575 people completed various forms of postgraduate education (Table 2) [26].

Table 2. Number of nurses and midwives who completed training / courses in 2019

Type of postdiploma education	Nurses	Midwives	Total	Percentage
Specialization training	10194	1741	11935	23.1%
Qualification courses	3483	527	4010	7.8%
Specialist courses	26604	5675	32279	62.6%
Supplementary courses	2234	1117	3351	6.5%
Total	42 515	9 060	51 575	100%

Source: Report on the implementation of postgraduate education of nurses and midwives for 2019, CKPPIP Warszawa 2020. p. 4.

Nursing in Poland is one of the fastest growing scientific disciplines. According to the data for 2017 of the Main Chamber of Nurses and Midwives, 427 nurses had the doctoral and postdoctoral degrees, and 1 nurse had the title of professor [27].

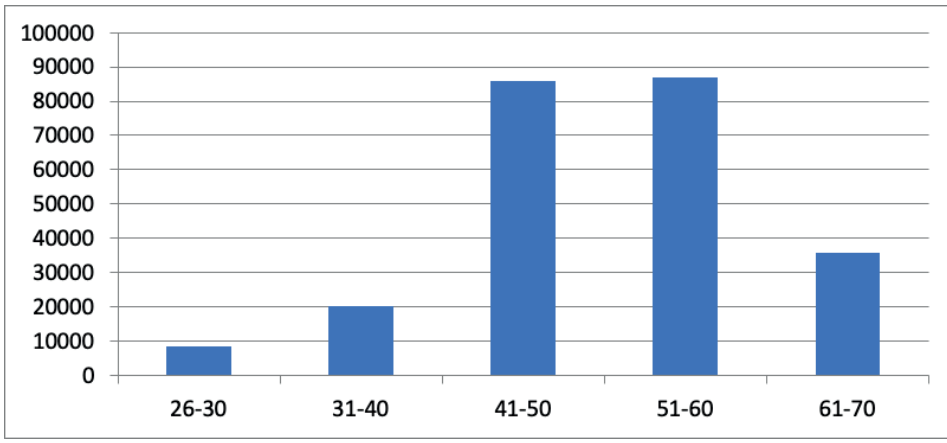


Fig. 1. Age structure of nurses employed in Poland. As of December 2017

Source: own study based on data from: Raport NIPIP, 2018. p 11.

There is a noticeable tendency to increase the level of preparation to perform professional functions, but the forecasts regarding the number of working nurses and midwives in the country are becoming alarming. Shortages and ageing of staff are the main problems of nursing in Poland. The number of employed nurses has been gradually falling in recent years, which is a consequence of professional migrations, insufficient number of individuals studying for the profession, and the fact that some graduates do not work in the profession. With respect to professional migrations in Poland, there is a large disproportion between nurses going abroad for work purposes and those coming from other countries. The number of nurses and midwives who were issued certificates for the recognition of professional qualifications in the EU in the period from May 1, 2004 to December 31, 2016/2019, amounted to 19 953.

Only 156 nurses from other countries were granted the right to practice (41 out of EU and 116 non-EU countries). These figures show considerable discrepancies, which in turn results in a negative migration balance for nurses and midwives in Poland [28].

The number of registered nurses in Poland, according to the NIPiP data, is 299 601, including 292 473 women and 7,128 men, and the number of employed nurses is 229 974. The difference is quite significant, because there are still many nurses who do not take up or leave the profession [29].

Currently, about 86% of people with qualifications required to practice as a nurse have reached the age of 40 [30], and the mean age of nurses in Poland changed from 44.19 in 2008 to 52.59 in 2019 [29]. There are well-founded concerns that there will be no simple generation replacement of nurses due to the ageing of the workforce.

Taking into account the persistent trends and known indicators (the retirement age of 60 years and the average monthly number of recognized rights to practice as a nurse or midwife), NIPiP estimated the forecast number of staff shortages for the following years. These forecasts are not very optimistic, as this shortage may amount to 69 886 nurses and midwives by 2033. The situation is illustrated in Table 3 [31].

Table 3. Number of nurses and midwives vested pension rights in 2018–2033

Year of obtaining pension rights (60 yrs)	The number entitled to pension rights	Registered nurse or midwife qualifications (mean from 2014-2016)	The number of missing nurses and midwives
2018	8 653	4 487	4 166
2019	9 006	4 487	4 519
2020	8 906	4 487	4 419
2021	8 593	4 487	4 106
2022	8 603	4 487	4 116
2023	8 404	4 487	3 917
2024	9 263	4 487	4 776
2025	9 161	4 487	4 674
2026	8 875	4 487	4 388
2027	8 813	4 487	4 326
2028	9 374	4 487	4 887
2029	9 705	4 487	5 218
2030	9 372	4 487	4 885
2031	9 334	4 487	4 847
2032	8 210	4 487	3 723
2033	7 406	4 487	2 919
Total	**141 678**	**71 792**	**69 886**
Average	**8 855**	**4 487**	**4 368**

Source: NIPIP Raport, 2018. p.11-12.

The rate in direct patient care for Poland in 2016 (OECD data) was 5.2, compared to Switzerland with the highest rate in Europe, at 17.5. (Fig. 2) [28].

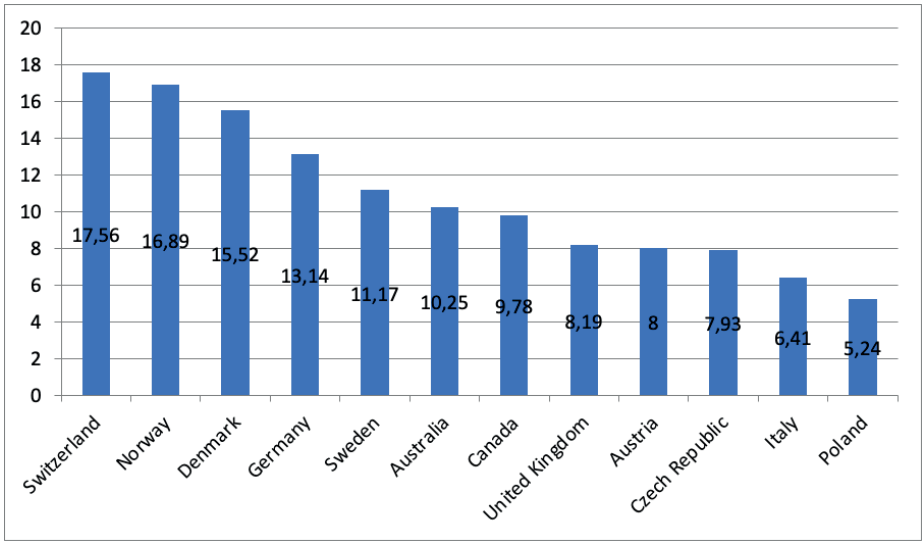


Fig. 2. Rate of nurses employed per 1,000 inhabitants in selected countries (based on OECD 2016 data)

Source: Developed by the authors based on NIPIP Raport, Zabezpieczenie społeczeństwa polskiego w świadczenia pielęgniarek i położnych [Providing Polish society with the services of nurses and midwives], NIPIP, Warszawa 2017, p. 38.

The prepared forecast relating to the number of registered and employed nurses and midwives in 2016–2030 shows that this indicator will decrease in the future (Table 4) [30].

Table 4. Forecasted nurse rate per 1,000 inhabitants in Poland

Year	Number of nurses	Number of inhabitants	Nurse rate per 1000 inhabitants
2016	239 958	38 369	6.25
2020	216 363	38 137	5.67
2025	183 660	37 741	4.87
2030	148 963	37 185	4.01

Source: Providing Polish society with the services of nurses and midwives. NIPIP, Warszawa 2017, p. 34.

5. Challenges and prospects

Persisting trends of decreasing numbers of nurses employed in Poland prompted intensive actions aimed at improving the situation.

Recent steps taken by the professional self-government and the Ministry of Health aimed at nurses and midwives have brought visible effects in the form of

suspending the unfavourable trend - the shortage of nurses and midwives. The number of professionally active nurses in the period from December 31, 2010 to December 31, 2018 increased by 39 204 people, i.e. by approximately 20.74%. Also, the number of professionally active midwives in the period from December 31, 2010 to December 31, 2018 increased by 5 593 people, i.e. by approximately 25.47%. The number of nursing schools has also increased from 74 higher education institutions in 2014 to 106 in 2020 (32 more higher education institutions) - as of February 18, 2020. The interest in BSc studies in nursing has significantly increased – 5 431 people were admitted to BSc studies in nursing in the academic year 2014/2015, while 6 653 people in 2018/2019 [32].

The expenditure on postgraduate training for nurses and midwives was maintained at the level of PLN 8 million. Funds were obtained from the EU programme for training nurses and improving the quality of education under the EU POWER programme in the perspective 2014-2020 - *Increasing the quality of nurses and midwives education by creating Monoprofile Medical Simulation Centres under Priority Axis V Support for the health area*, Activities 5.3 *High quality of education in the medical faculties* of the Knowledge Education Development Operational Program. Under this project, 56 facilities with modern equipment and an audio-video system were created where the conditions resemble a real hospital. This allows for the practical improvement of the diagnostic and therapeutic process in a safe environment where making a mistake will not cause any harm to a patient. Students have the opportunity to practice complex and rare cases according to predefined scenarios in controlled and repeatable conditions. They also improve their planning, predicting and communication skills [33].

The introduction of new employment standards for nurses and midwives in 2019, guaranteed by the Regulation of the Minister of Health of October 11, 2018, amending the regulation on guaranteed benefits in the field of hospital treatment was of key importance for the community of nurses and midwives [34].

New employment standards for nurses and midwives have been introduced in hospital wards since January 1, 2019. In conservative wards, 0.6 full-time job is intended per bed, while in surgical wards - 0.7. From this year on, the changes to the standards are also binding for paediatric wards: 0.8 full-time job is intended per bed in the paediatric conservative ward, while in the surgical ward it is 0.9. The purpose of introducing index employment standards was to ensure the appropriate number of nurses and midwives, thus ensuring high-quality care, patient safety and appropriate working conditions. In exceptional cases these actions resulted in the reduction of the number of beds in some hospital wards in Poland in order to balance the number of staff with the statutory requirements [35].

Apart from the insufficient number of nurses and midwives in the health care system, Polish nursing struggles with other important problems including: the lack of auxiliary professions in the health care system; insufficient regulations concerning the number and qualifications of nurses and midwives providing guaranteed services

in individual scopes of services; insufficient definition of roles and competences of nurses and midwives in the health care system; working conditions of nurses and midwives; introducing new forms of education (e-learning, tele-nursing) [36].

Among the important issues that modern nursing faces in Poland is also the development of scientific research and obtaining funds, partners for these projects, internalization of science and cooperation, and implementation of Evidence Based Nursing (EBN) into nursing practice. Introducing the results of scientific research into professional practice indicates the legitimacy of implementing semantic interoperability in Poland, at the same time, efforts are made to implement a unified reference terminology by teaching the ICNP® dictionary during pre- and post-graduate education of nurses and midwives. Shaping IT competences in nurses is to enable documenting their work in the Electronic Patient Record. Computerization and the unification of classification of nursing diagnoses and interventions are important challenges that are to support nurses and midwives in developing e-health competences, creating applications for documenting medical events and preventing digital exclusion of nurses. Therefore, the key to building the position of nursing in Poland is conducting clinical trials in nursing through i.e. the use of knowledge based on analyzes and meta-analyzes of databases using interoperable dictionaries.

Another pressing problem, especially in view of the recent events related to the COVID-19 pandemic, is the need to increase the share of mobile and telemedicine solutions enabling remote patient care, teleconsultation and ongoing monitoring of the application of therapeutic recommendations.

Polish nursing has made a long and difficult path towards professionalism, autonomy and prestige, but it still faces new challenges related to changes in medicine, technology, education and society.

References

1. Wrońska I., Podstawy etyki pielęgniarstwa, PTP Warszawa 1993.
2. Gozdek N. (ed.), Rozmowy o profesjonalizacji w pielęgniarstwie, Werset, Lublin 2007.
3. Ustawa z dnia 21 lutego 1935 r. o pielęgniarstwie (Dz.U. 1935 nr 27 poz. 199).
4. Górajek-Jóźwik J., Kalendarium pielęgniarstwa polskiego, cz. I, wyd. OVO, Warszawa 1998.
5. Poznańska S., Pielęgniarstwo wczoraj i dziś, PZWL Warszawa 1988.
6. Zahradniczek K. Pielęgniarstwo, PZWL, Warszawa 2006.
7. Gabryś T. Znaczenie czasopisma „Pielęgniarka Polska" w rozwoju pielęgniarstwa zawodowego w Polsce. Pielęgniarstwo XXI w. 2011; 35: 81–84.
8. Nowakowska H, Olszewska J, Grabowska H. Polish periodical press for nurses. Nursing Problems / Problemy Pielęgniarstwa. 2012;20(4):535-538
9. Krajewska-Kułak E., Lewko J., Łukasik C., Na poziomie europejskim, Magazyn pielęgniarki i położnej, 2004, 11: 13-15.
10. Europejskie porozumienie w sprawie szkolenia i kształcenia pielęgniarek (Dz.U. 1996 nr 83 poz. 384).

11. Stryjski A., Poźniak-Balicka R., Stryjski R. Systemy kształcenia pielęgniarskiego w wybranych Krajach europejskich. *Problemy Profesjologii*, 2017, 1: 89-99.
12. Ustawa z dnia 20 lipca 2018 r. Prawo o szkolnictwie wyższym i nauce (Dz. U. 2018 poz. 1668)
13. Ustawa z dnia 15 lipca 2011 r. o zawodach pielęgniarki i położnej (t. jedn. Dz.U. 2020 poz. 562 z późn.zm.)
14. Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 26 lipca 2019 r. w sprawie standardów kształcenia przygotowującego do wykonywania zawodu lekarza, lekarza dentysty, farmaceuty, pielęgniarki, położnej, diagnosty laboratoryjnego, fizjoterapeuty i ratownika medycznego (Dz.U. 2019 poz. 1573) [14].
15. Raport Naczelnej Rady Pielęgniarek i Położnych, Zabezpieczenie społeczeństwa polskiego w świadczenia pielęgniarek i położnych, Naczelna Izba Pielęgniarek i Położnych, Warszawa 2017.
16. Dyrektywa 2005/36/WE Parlamentu Europejskiego I Rady z dnia 7 września 2005 r. (Dz-.U.UE.L.05.255.22).
17. Rozporządzenie Ministra Zdrowia z 12 grudnia 2013 r. w sprawie wykazu dziedzin pielęgniarstwa oraz dziedzin mających zastosowanie w ochronie zdrowia, w których może być prowadzona specjalizacja i kursy (Dz.U. z 2013 r., poz. 1562).
18. Rozporządzenie Ministra Zdrowia z 30 września 2016 r. w sprawie kształcenia podyplomowego pielęgniarek i położnych (Dz.U. poz. 1761 z późn.zm.)
19. Rozporządzenie Ministra Zdrowia z dnia 28 lutego 2017r. w sprawie rodzaju i zakresu świadczeń zapobiegawczych, diagnostycznych, leczniczych i rehabilitacyjnych udzielanych przez pielęgniarkę albo położną samodzielnie bez zlecenia lekarskiego (Dz.U. poz. 497)
20. Centrum Kształcenia Podyplomowego Pielęgniarek i Położnych/ Center of Postgraduate Education for Nurses and Midwives http://www.ckppip.edu.pl/
21. Rozporządzenie Ministra Zdrowia w sprawie wykazu substancji czynnych zawartych w lekach, środków spożywczych specjalnego przeznaczenia żywieniowego i wyrobów medycznych ordynowanych przez pielęgniarki i położne oraz wykazu badań diagnostycznych, na które mają prawo wystawiać skierowania pielęgniarki i położne z dnia 18 stycznia 2018 r. (Dz.U. z 2018 r. poz. 299)
22. Rozporządzenie Ministra Zdrowia z dnia 23 września 2019r. zmieniające rozporządzenie w sprawie świadczeń gwarantowanych z zakresu ambulatoryjnej opieki specjalistycznej (Dz. U. z 2019r., poz.1864).
23. Rozporządzenie Ministra Zdrowia z dnia 8 lipca 2020r. zmieniające roporządzenie w sprawie świadczeń gwarantowanych z zakresu podstawowej opieki zdrowotnej (Dz. U. z 2020r., poz. 1255).
24. Taranta, E., Marcinowicz, L., Terlikowski, S. The scope of expected nursing advice in primary health care from the patients' perspective: a qualitative study. *Pielęgniarstwo XXI wieku/Nursing in the 21st Century*, 2020, Vol.19, No. 4(73), p. 228-235.
25. Wykształcenie pielęgniarek NIPIP, 2019 https://nipip.pl/wykształcenie-pielegniarek/
26. Sprawozdanie z realizacji kształcenia podyplomowego pielęgniarek i położnych za 2019 rok. CKPPIP, Warszawa 2020.
27. Liczba pielęgniarek i położnych posiadających stopnie i tytuły naukowe. NIPIP, Warszawa 2018, http://nipip.pl/liczba-pielegniarek-i-poloznych-posiadajacych-stopnie-i-tytuly-naukowe/
28. Zabezpieczenie Raport Naczelnej Rady Pielęgniarek i Położnych, Zabezpieczenie społeczeństwa polskiego w świadczenia pielęgniarek i położnych, Naczelna Izba Pielęgniarek i Położnych, Warszawa 2017.
29. Liczba pielęgniarek zarejestrowanych i zatrudnionych 2019. NIPIP, Warszawa http://nipip.pl/liczba-pielegniarek-poloznych-zarejestrowanych-zatrudnionych/
30. Raport Naczelnej Rady Pielęgniarek i Położnych, Zabezpieczenie społeczeństwa polskiego w świadczenia pielęgniarek i położnych, Naczelna Izba Pielęgniarek i Położnych, Warszawa 2017.
31. Raport Naczelnej Rady Pielęgniarek i Położnych, Zabezpieczenie mieszkańców domów pomocy społecznej w świadczenia pielęgniarskie – raport z badania ankietowego. Naczelna Izba Pielęgniarek i Położnych, Warszawa 2018.

32. Kanownik G. Kto chce, żeby wróciły licea medyczne? Ministerstwo Zdrowia mówi nie! https://nipip.pl/kto-chce-zeby-wrocily-licea-medyczne-ministerstwo-zdrowia-mowi-nie/ 7. 03.2020 (dostęp 8.12.2020)
33. Monoprofilowe Centra Symulacji Medycznej dla pielęgniarek i położnych. Ministerstwo Zdrowia 2020. http://www.akademiapp.mz.gov.pl/monoprofilowe-centra-symulacji-medycznejdla-pielegniarek-i-poloznych/
34. Rozporządzenie Ministra Zdrowia z dnia 11 października 2018 r. zmieniające rozporządzenie w sprawie świadczeń gwarantowanych z zakresu leczenia szpitalnego (Dz.U. 2018 poz. 2012)
35. Spotkanie w sprawie norm zatrudnienia pielęgniarek i położnych – 6.02.2020. https://nipip.pl/spotkanie-w-sprawie-norm-zatrudnienia-pielegniarek-i-poloznych-6-02-2020/
36. Strategy for the development of nursing and obstetrics in Poland. Warsaw, 2017. https://nipip.pl/wp-content/uploads/2018/01/2018-01-Strategia-na-rzecz-rozwoju-piel%C4%99gniarstwa-i-po%C5%82o%C5%BCnictwa-w-Polsce.pdf

Raul Alberto Carrilho Cordeiro, José Carlos Carvalho

NURSING IN PORTUGAL

1. Brief history of nursing

As is common to the history of nursing, in Europe in general, in Portugal, the first references to the "work" of nurses appear in the 13th century, on documentary records associated with religious orders [1].

Throughout the Middle Ages, the "care" was in convents, monasteries or attached hospital institutions, being universal basic care, in which the help was directed to all, regardless of their origin or socio-economic level. This, was the origin and the seed for the emergence of a social and welfare-based network, consolidated the path for the construction of a welfare network in Portugal.

In Portugal this path has been slow, though regular, between times of stagnation followed by decades of significant progress [2].

In the 11th century, the Order of Hospitallers or Order of Military Nurses (military personnel who in times of peace took care of the sick and when necessary helped the crusaders to fight against several diseases [4]. The Hospitallers were established in Portugal at the beginning of the 12th century, between 1120 and 1132 [5].

The difficulty in controlling contagious diseases and a moving population were factors that influenced the construction of hospitals in the XV century all over the world, demanding more and more people to attend the patients.

In Portugal, the need arose in 1485 to create large hospitals such as the Hospital Termal das Caldas da Rainha in 1485 or the Hospital Real de Todos os Santos in Lisbon in 1501 [4].

Nursing continued to be the responsibility of orders of male and female nuns until 1834. During this period, nursing schools appeared all over Europe, recognizing that the patients could not be subject to care without the minimum of training and quality.

In mid-1860, nursing was considered an undifferentiated group and this situation continued until 1870.

During 1862 there was an ideological conflict between the secular anticlerical mentality and the religious mentality, a conflict that originated in the question of the sisters of charity. This French religious group belonging to the Congregation of St. Vincent de Paul came to Portugal during the epidemics of cholera and yellow fever, taking care of charitable practices and teaching orphans.

At the beginning of the 20th century the reality of nursing was quite dramatic. Nursing services left a lot to be desired and the recruitment of its staff was carried out in terrible conditions of training, miserably rewarded, despite the heavy burden and exhausting mission of this class.

It was urgent to put an end to such a situation, absolutely unavoidable. The complete remodeling of the nursing services, of the Professional School of Nursing, and the establishment of the criteria of competence, moral aptitude and aptitude for access to the profession, in the recruitment of personnel, constituted a concern of this organization.

These points were central to the orientation of the hospital departments, if they wanted to create for the whole country a Nursing service and not a group of healers or clinical nurses, as the hospitals had produced by almost exclusive fault of the doctors [4].

When a professional qualification for Nursing was required, about 80% of the nurses practicing in the country were unable to work.

In the 1901 reform, the emergence of a medical role in the training of nurses is well known. Doctors were the ones who exclusively occupied the positions of managerial staff or exercised the functions of technical direction of the services.

In the early 1930s, the nursing shifts were twelve to fourteen hours in a row for three to four consecutive days, with a break between them, which is considered ridiculous because the nurses worked consecutively from eight to twenty hours and did not rest in the night shifts.

In mid-1941, the nurse was expected to remain at the bedside of the sick, with a charitable posture, to be able to perform tasks prescribed by doctors and to take care of the domestic (now administrative or bureaucratic) aspects of the service. They were expected to fulfill the historical tradition of providing small daily care to the sick, thus giving more importance to the human, charitable part [6].

In 1942, in Portugal, a ban on marriage was imposed on nurses, a clearly sexist measure inspired by the Italian fascist model.

In 1947, the nurses were required to have primary education, with a one-year (ordinary course) or two-year (full course) training. It was then that the figure of the Nursing auxiliary was created, as a way of making up for the lack of nursing staff that was already being felt in Portugal, despite the slow evolution of the hospital system.

According to Nunes (2003), at the beginning of the 50's, the role of Nursing changed, with the nurse going from consoling the patient to helping the doctor.

In 1952 the reform of nursing education began. This reform finally contributed to discipline and organized the teaching of nursing in official schools. The schools are still dependent on the Hospitals. This reform is considered to be the first rupture that will lead to the real reform of the teaching of Nursing. From this reform on, there will be three distinct courses: General Course (minimum qualifications: 1st cycle of high school; duration of three years); Auxiliary Course (minimum qualifications: primary education; duration of one year plus six months of internship); Complementary Course (minimum qualifications: 2nd cycle of high school, General Nursing and professional practice; duration of one year) [7].

The 1952 reform was limited by the persistence/aggression of deficiencies that were already behind it, namely: lack of definition of teaching/learning objectives;

merely selective nature of the exams; lack of monitors in quantity and quality; utilization by hospitals of the work of trainees, with serious damage to their training; with a hospitalocentric approach and medical-hospital guardianship of Nursing [6].

In 1953, the Hospital de Santa Maria in Lisbon was opened to the public and with the 1952 reform, it became necessary to have a diploma to practice nursing.

In 1954, two important events linked Portugal to international movements of nursing. One of them was Portugal's participation in the International Nursing Meeting held in Turkey; the other was the appointment of Fernanda Alves Dinis, director of the Technical School of Nurses, as Regional Consultant Nurse of the World Health Organization of Europe.

In Portugal, the 2nd National Meeting of Nursing Professionals was held under the theme "The Militant Nurse of Health".

Still in 1954, the Dr. Assis Vaz Nursing School was created in Porto, which later became the S. João Hospital Nursing School [7].

After the creation of the Ministry of Health, in 1961, the General Direction of Hospitals was created.

In 1962, the first Directorate of the Hospital Nursing Service of the General Directorate of Hospitals was created, and it is in this year that the concern of the elaboration of a Nursing statute project arises [7].

In 1963, the Health and Assistance Statute was published, categorizing the three types of assistance into: public health activities; curative recovery medicine activities; and assistance activities [7].

In the 1970s, most nursing care providers were ancillary, but without the necessary counterparts: formal recognition of their skills; level or status of remuneration; opportunities for professional training; which eventually led to a vindication movement and is regulated the Health and Care Services Reform whose guidelines are to promote the implementation of care beyond the strictly curative [7].

The need for an Order of Nurses was beginning to be addressed.

The democratic revolution of April 25, 1974 and the 1976 Constitution profoundly changed Portugal, and new social policies emerged. The new Constitution established that everyone had the right to health, and this would be accomplished through the creation of a universal, general and free National Health System [7].

The structure and curriculum content of the Nursing course underwent new and profound changes on August 9, 1976, as a result of a working group where representatives of schools and the newly created nursing unions as well as the Portuguese Nursing Association [8], played an active role.

In 1981 the Nursing Career Diploma was published, in the official form of a decree law [9].

This document contains: Consecration of a single career for all nurses, regardless of area or place of work; Defines that nurses can only be assessed by nurses; Defines the functional content of careers, including the skills of chief nurses; Defines the various categories of nurses: Nurse (grade I); Graduated and monitor (grade

II); Specialist, chief and assistant (grade III); Supervisor and teacher (grade IV); Nursing Technician (grade V) [7].

In 1994, the Specialized Higher Education Courses in Community Nursing, Maternal and Obstetrics Health, Mental and Psychiatric Health, Medical-Surgical, Rehabilitation and Nursing Services Administration were created, regulated by Ordinance 239/94 of April 16, art. 2 [7].

In 1998 the Order of Nurses was created and its statute was approved in Decree-Law 104/98 of April 21 [10]. With its creation, conditions were established for the consolidation of the responsible autonomy of the Nursing profession. Among its attributions are: to promote the quality of Nursing care, to regulate and control the exercise of the Nursing profession and to assure the length of the rules of ethics and professional deontology.

The Deontological Code enunciates a set of duties and responsibilities of Nursing professionals (attached to the Statutes of the Order) [11].

The creation of the Order allows[7], to assume in their hands the destiny of what Nursing should be as a profession is to be simultaneously addressees and holders of a legal instrument in the process of building the professional identity. This Order responds to an imperative of the Portuguese society to see the establishment of a professional association of public law, which, in Portugal, promotes the regulation and discipline of the practice of nurses, in terms of ensuring compliance with the ethical standards that should guide the profession, ensuring the pursuit of the inherent public interest and the dignity of the exercise of Nursing. [10]

In 1999, a new reformulation of the nursing career was made, defining the following levels and categories of Nursing: level 1, which includes the categories of nurse and graduate nurse; level 2, which includes the categories of specialist nurse and head nurse; level 3, which includes the categories of nurse-supervisor and regional technical advisor of Nursing; and level 4, which includes the category of technical advisor of Nursing [12].

In 2000, an assessment was made to the baccalaureate courses having identified a set of shortcomings in training. As a result, it was necessary to implement a four-year Bachelor's degree, which is the time needed to acquire the cognitive, instrumental and socio-relational competencies required by the *Ordem dos Enfermeiros*.

This was essential to raise the level of qualification for access to professional practice and indispensable for the beginning of autonomous professional activity.

The qualification of Portuguese nurses in Europe is guaranteed, thus concreting the Bologna Process [7].

In 2001 the implementation of new information and documentation systems in Nursing in organizations and services at the national level began.

In 2003 the Order of Nurses defined the competencies of the general care nurse according to the competencies integrated in the International Council of Nurses. These competencies should be developed in the areas of action of the nurse: care practice, management, training, teaching, research and advice [7].

In 2005, the Order of Nurses defined the competencies of nurses responsible for general and specialized care and strategies to ensure quality in the provision of care to citizens.

In November 2006, a revision in the Nursing career was again proposed due to the introduction of new legislative mechanisms in the regulation of the National Health Service and also due to the reform of the nursing training system [7].

In. 2009, the Nursing career was structured in the categories of Nurse and Principal Nurse, defining that the functional content of the Nursing category is inherent to the respective qualifications and competencies in Nursing, comprising full technical-scientific autonomy.

In 2019, a new career review added two categories: specialist nurse and nurse manager, maintaining the category of nurse and extinguishing that of principal nurse [13].

2. System of education for nurses

The formalization of nursing education in Portugal occurred between 1881/1886.

The Dr. Ângelo da Fonseca Nursing School was the first Nursing School in the country, founded on October 17th 1881, by the Hospital Administrator of the University of Coimbra, Professor António Augusto Costa Simões, being called the Coimbra Nursing School [14].

In 1901 the first Professional School of Nursing was created.

Based in the Hospital de S. José in Lisbon, with temporary facilities, its mission was to provide the doctrinal, technical and practical instruction that had to be demanded of all those who, in the hospital, had to comply with medical or surgical prescriptions and provide nursing care to patients.

In 1918, the Civil Hospitals Nursing Professional School was created (operating at Hospital de S. Lázaro), also establishing the General Course and the Complementary Nursing Course - Head of Nursing [15].

In 1919, the Nursing School of the Hospitals of the University of Coimbra was created [16].

In the 1930's (1939), the Professional School of Nursing was transformed into the Artur Ravara School of Nursing, changing to the facilities of the Hospital dos Capuchos.

Despite the Estado Novo institution, during the dictatorship in Portugal, the union movement started with the foundation of the South Region Nurses Professional Union and, later, the North Region Nurses Professional Union. One of the first claims focused on the risks to the physical integrity of nurses due to lack of protection. Later, it was suggested the elaboration of a Nursing Professional Code integrated in a Health Code.

The "90 candles" regime was established, that is, a quarterly period of night work. The first schools of Nursing appeared aggregated to religious congregations,

such as the Nursing School of *Casa de Saúde da Boavista*. The course of the Nursing School of São Vicente de Paulo was three years long and was the first religious course to train lay nurses.

In the following decade (1940-1949), the Lisbon Technical School was founded (in the premises of the current Francisco Gentil Portuguese Oncology Institute in Lisbon), integrating a semester of pre-learning. Some improvement courses were created in areas of Nursing such as Psychiatry, Child Care and Public Health, understood as continuous training activities.

At that time, Nursing could only be exercised by single women or widows and without children [17].

The public exercise of Nursing was forbidden to those who did not have a diploma.

New schools were created, restructuring of others and permission to institute courses of Pre-Nursing and Auxiliary Nursing [18].

The Technical School of Nurses at the Portuguese Institute of Oncology in Lisbon (1940) emerges as a new training model, influenced by the American system [19].

In the 1947 reform, the nursing auxiliaries course, the internship regimen and the preference in the admission to the female sex emerges.

Between 1950-1959, a new restructuring of the Nursing teaching was carried out, with the approval of the Nursing Schools Regulation.

The General Nursing Course became three years and the schools started to have technical and administrative autonomy.

The International Health Regulations, a document signed by the World Health Organization, was introduced in the Portuguese legislation [20].

March 8th, the anniversary of the birth and death of St. John of God, patron of nurses (March 8th 1495 in Montemor - Portugal / March 8th 1550 in Granada - Spain), is marked as the day of Portuguese Nursing.

With the reorganization of 1952, the Study Plans were standardized in the official schools, the General Course became 3 years and the Auxiliary Course 18 months.

The Lisbon School Hospital grew, with a new hierarchy of nurses: nurse superintendent; general, chiefs, deputy chiefs and first and second class nurses, instrumental nurses and anesthesiologists, trainees and nursing auxiliaries.

In 1955, a study commission was created to develop a program to promote Nursing.

In 1957, the Hospital de Santa Maria school in Lisbon was inaugurated and in 1968 it was renamed Calouste Gulbenkian Nursing School, in Lisbon.

The school wards emerged as training places for nurses.

The end of the prohibition of marriage for nurses and reform of the care practice [21].

Due to the Colonial War, organization of the 1st Specialization Course in Rehabilitation Nursing.

In the 1965 reform, the "center" of training became the nursing curricular unit [22]. The duration of the general course was 3 years, requiring the 2nd cycle of high school. For the auxiliary course of 18 months, 6 years of schooling. In the post basic training, the complementary nursing course worked until 1967 in Lisbon, Porto and Coimbra.

The specialized training for positions of leadership and teaching of nursing started to be done in the School of Education and Administration in Nursing.

The year of 67 is relevant for nursing, starting the "systematization of knowledge in nursing, "by the use of research and identification of an intellectual dimension of nursing care ... the discipline began to delineate itself as an academic and scientific discipline" [23].

The 70's consecrated the technical and administrative autonomy with the direction of the schools given to nurses.

In 1973, the 1st National Congress of Nursing was held with precursor themes that anticipated the future of nursing, such as, the need to elaborate the professional statute, discussion around the discipline and profession and the integration in the National Educational System.

At this time, the Nursing Auxiliary course was extinct and there was a financial and social valorization of nursing professionals.

The creation of the National Health Service (SNS), enshrined the right to health as universal and free (1979) [24].

In this decade (1980-1989), the first equivalence courses to specialists were initiated and three Post Basic Schools were created, teaching specialization courses in Lisbon, Porto and Coimbra.

Integration of the Higher Schools of Nursing in Higher Education, arrived in the decade of 90.

The integration of nursing education (taught in higher schools of nursing), in the national educational system, ensuring academic recognition of its various levels of training, took place in 1988 [23].

The first masters in Nursing Science, began in 1992. In 1999, the Bologna Declaration was signed, and the restructuring of Higher Education began. The Nursing course becomes a Bachelor's Degree [12]:

- ensuring scientific, technical, human and cultural training for: the provision and management of general Nursing care throughout the life cycle, to the family, groups and community, at different levels of prevention;

- to ensure the necessary training for: participation in the management of health services, units or establishments;

- participation in the training of nurses and other health professionals; the development of research practice in their field.

The first Doctorate Course in nursing, occured in 2004, in the Institute of Biomedical Sciences Abel Salazar - University of Porto.

Currently there are 38 Schools where the teaching of Nursing at a higher level is given.

3. The legal status of nursing

Nursing is taught in polytechnic higher education, in specialized higher schools (240 credits / 4 years): higher schools of nursing (nursing domain; higher schools of health (health domain).

The teaching of Nursing is assured through the cycle of undergraduate studies in Nursing;

The teaching of Nursing is supervised by the ministry with the supervision of higher education, and there is an articulation with the ministry with the supervision of health:

- The strategic planning of training
- The definition of curricular structures
- The establishment of annual vacancies
- The monitoring of evaluations and audits
- The cycle of studies of nursing degree has the duration of four curricular years

Ensures a scientific, technical, human and cultural training for the provision and management of general nursing care to the person throughout the life cycle, the family, groups and community, at different levels of prevention;

It also aims at ensuring the necessary training:

The participation in the management of services, units or health establishments;

Participation in the training of nurses and other health professionals;

The development of research practice within its scope.

The training of nurses in charge of general care is also regulated at European level, with a view to the recognition of their professional qualification among the Member States.

The formulation of the general care nurse skills profile was the result of a consensus-building process based on the "ICN Framework of Competencies for the Generalist Nurse", which was published and widely disseminated in 2003 [25]. The presentation in domains of the 96 competencies was reorganized, keeping all the competencies defined and regrouping in a structure that aims, mainly, to be adequate for the certification process.

Bearing in mind that:

(i) The professional exercise of Nursing focuses on the interpersonal relationship between a nurse and a person, or between a nurse and a group of people (family or communities). Both the nurse person and the people who are clients of nursing care have pictures of values, beliefs and desires of individual nature - fruits of the different environmental conditions in which they live and develop. Thus, the therapeutic relationship promoted within the professional exercise of Nursing is characterized by the partnership established with the client, with respect for their capabilities;

(ii) The nurse's decision making, which guides the professional exercise, implies a systemic and systematic approach - in the decision making, the nurse identifies

the Nursing care needs of the individual person or group (family and community); after the correct identification of the client's problem, the Nursing interventions are prescribed in order to avoid risks, detect potential problems early and solve or minimize the real problems identified. In the decision-making process in Nursing and in the implementation phase of the interventions, the nurse incorporates the results of the investigation into his practice;

(iii) from the point of view of the attitudes that characterize the professional exercise of nurses, they emphasize the humanist principles of respect for human freedom and dignity and for the values of people and groups.

In their performance, the nurses respect the duties foreseen in the Deontological Code and the regulations of the exercise of the profession, which shape the good practice of Nursing. These best practices are defined in a set of competencies:

– General Care Nurses Competencies

A - Domain: Professional, ethical and legal responsibility.

A1. Develops a professional practice with responsibility.

A2. Exercises his professional practice according to the ethical, deontological and legal frameworks.

B - Domain: Care provision and management.

B1. Acts according to the fundamentals of care provision and management.

B2. Contributes to the promotion of health.

B3. Uses the Nursing Process.

B4. Establishes effective communication and interpersonal relationships.

B5. Promotes a safe environment.

B6. Promotes inter-professional health care.

B7. Delegate and supervise tasks.

C - Domain: Professional Development.

C1. Contributes to professional development.

C2. Contributes to the continuous improvement of the quality of nursing care.

C3. Develops continuous training processes [26].

– General competencies of specialist nurses are outlined as follows:

A - Professional, ethical and legal responsibility domain

A1 - Develops an ethical and legal professional practice, in the area of specialty, acting in accordance with the legal standards, ethical principles and professional ethics

A2 - Ensures care practices that respect human rights and professional responsibilities.

B - Mastery of Continuous Quality Improvement

B1 - Ensures a proactive role in the development and support of strategic institutional initiatives in the area of clinical governance

B2 - Develops quality practices, managing and collaborating in continuous improvement programmes

B3 - Ensures a therapeutic and safe environment.

C - Mastery of care management

C1 - Manages nursing care, optimizing the response of your team and the articulation in the health team.

C2 - Adapts the leadership and management of resources to the situations and context, aiming at ensuring the quality of care

D - Mastery of professional learning development

D1 - Develops self-knowledge and assertiveness.

D2 - Bases its clinical praxis on scientific evidence [27].

4. Nursing in numbers

Portugal has a resident population of approximately 10,200,000 inhabitants, about 21.7% of the population over 65, which translates into an Ageing Index of 157.4.

Male life expectancy is 78 years and female life expectancy is 83.5 years.

In the two largest health professional groups, in 2019, 73650 were nurses and 53600 medical doctors.

Table 1. Number of inhabitants per nurse (1960-2019)

Year	1960	1970	1980	1990	2001	2010	2019
Inhabitants/Nurses	929.1	629.2	441.0	354.6	262.2	169.4	135.8

Data Sources: INE - Health Personnel Statistics Statistics Portugal - Annual estimates of the resident population

Source: PORDATA - Last update: 2020-07-30

Table 2. Number of active nurses and specialist nurses (2000-2018)

	2000	2005	2010	2015	2018
Number of active nurses	37 623	48 296	62 566	67 893	73 912
Number of specialist nurses	6 740	6 856	10 670	14 833	18 682

Source: Ordem dos Enfermeiros - Balcão Único (31-12-2018)

Table 3. Distribution of nurses by Region/Sex (2018)

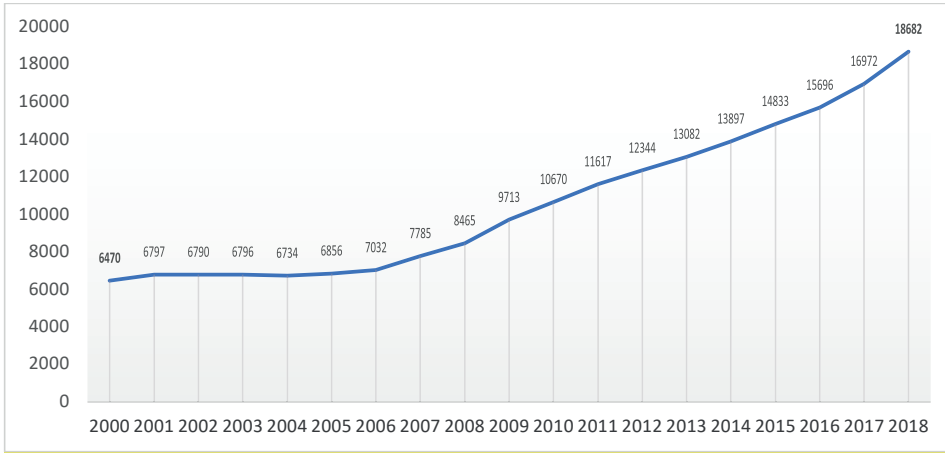
	Women	Men	TOTAL
Madeira	1 880	388	2 268
Açores	1 718	392	2 110
Centro	12 730	3 088	15 818
Norte	20 179	4 115	24 294
Sul	24 230	5 192	29 422
Total	60 737	13 175	73 912

Source: Ordem dos Enfermeiros - Balcão Único (31-12-2018)

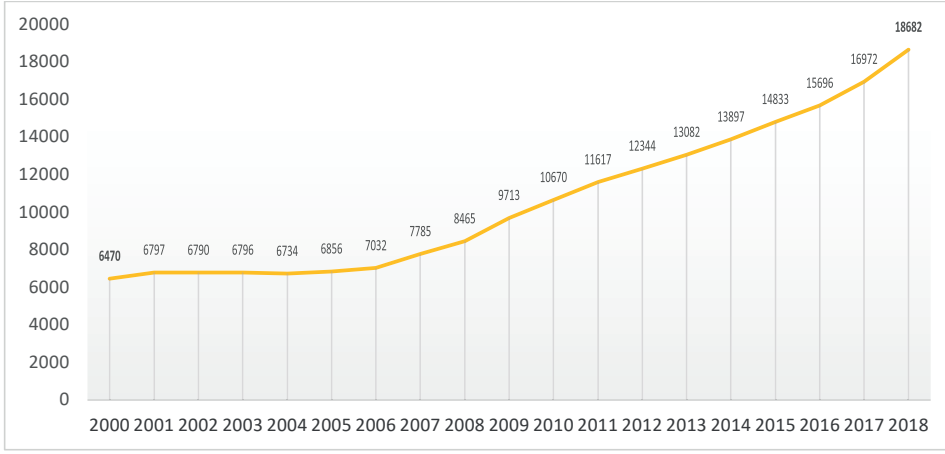
Table 4. Distribution of General Care Nurses and Specialist Nurses/Sex (2018)

	Women	Men	TOTAL
General care nurses	45 489	9784	55 273
Specialist nurses	15 283	3399	18 682
Total	60 772	13 183	73 955

Source: Ordem dos Enfermeiros - Balcão Único (31-12-2018)



Graph 1. Evolution of Nurses (2000-2018). Source: Ordem dos Enfermeiros - Balcão Único (31-12-2018)



Graph 2. Evolution of specialist nurses (2000-2018). Source: Ordem dos Enfermeiros – Balcão Único (31-12-2018)

5. Challenges and prospects

The challenges faced by Portuguese nurses in this new era in which health professionals have become a precious asset to any country are similar to those that are collected globally.

Nurses have always had to know twice as much, know more and better, and be more competent so that their knowledge could be transformed into power in the health systems.

Unfortunately, it took a pandemic for nurses to become even more significant as an essential workforce in health systems, to gain greater social recognition and to enhance their management and health care skills.

Portuguese nurses are affirmed on the international scene participating in the activities of the International Council of Nurses or the European Federation of Nurses Association sharing their principles and values.

At the level of care provision, perhaps the greatest challenge is the search for safe endowments for nursing care. This objective poses renewed challenges to the training of new nurses as well as to their ability to enter the labour market. It should be noted that at the moment the employability of nursing in Portugal is 100%.

In terms of training, nursing in Portugal, spent about 40 years from baccalaureate to full insertion in higher education at PhD level, with nurses and nursing teachers increasingly qualified.

The integration in higher education is complete. In Portugal, due to the dual system: teaching at the university and teaching at the polytechnic, nursing seeks its insertion in university education.

This integration will bring more solidity to the scientific knowledge of nursing but also more responsibility in the national and international scientific panorama.

References

1. Carvalho, António Carlos do Carmo. "O Infirmarius, precursor medieval do enfermeiro." Pensar Enfermagem 20.1, 2016: 63-78.
2. Santos, Maria José Felícia dos. Panorâmica da evolução histórica da enfermagem em Portugal. Diss. 1994.
3. Colliére, Marie-Françoise. Promover a vida – Da prática das mulheres de virtude aos cuidados de enfermagem. Sindicato dos Enfermeiros Portugueses, 1999.
4. Vieira, Margarida. Ser enfermeiro: da compaixão à proficiência. Universidade Católica Editora, 2017.
5. GRAÇA, Luís,Isabel HENRIQUES. „Proto-história da Enfermagem em Portugal–I Parte. http://www.ensp.unl.pt/lgraca/textos64.html (access: 2020.11.15).
6. Nunes, Lucília. Um olhar sobre o ombro: Enfermagem em Portugal (1881-1998). 2003.
7. Nunes, L. "de Maio – Dia Internacional do Enfermeiro–Sob o signo do olhar: Re-ver, Ver e Pre-ver. Percursos." Número especial comemorativo do Dia Internacional dp Enfermeiro (2007): 1-42.
8. Amendoeira, J. (2004). Enfermagem em Portugal. Contextos, atores e saberes. Enfermagem, 2(35/36), 13-22

9. Decreto Lei n.º 305/81 de 12 de novembro. Diário da República nº 261/81 I Série. Lisboa, Portugal.
10. Decreto-lei n. 104 de 21 de abril de 1998. Criação da Ordem dos Enfermeiros. Diário da República de Portugal I Série, Lisboa. 21 de abril de 1998.
11. Decreto-Lei n.º 161/96 de Setembro. Regulamento do Exercício Profissional dos Enfermeiros (REPE), Diário da República n.º 205/1996, Série I-A de 1996-09-04
12. Decreto-lei n. 353/99 de 3 de setembro. Confere o grau de licenciatura ao curso de enfermagem. Diário da República de Portugal, I Série, Lisboa. 3 de setembro de 1999.
13. Diário da República, 2.ª série — N.º 26 — 6 de fevereiro de 2019. Regulamento n.º 140/2019 - Regulamento das Competências Comuns do Enfermeiro Especialista
14. Graça, L., & Henriques, A. I. Evolução da Prática e do Ensino da Enfermagem em Portugal (Practice and Teaching of Nursing in Portugal during the XX Century). Textos sobre Saúde e Trabalho. 2000.
15. Decreto 4563, de 12 de Julho. Corpo emitente: Secretaria de Estado do Interior - Direcção Geral de Assistência - 1.ª Repartição. Diário do Govêrno n.º 155/1918, Série I de 1918-07-12.
16. Decreto n.º 5636. (10 de maio de 1919). Lisboa: Diário do Governo: I Série. Obtido em 2 de maio de 2017, de www.dre.pt
17. Decreto-Lei n. 31913 de 12 de março de 1942. Dispõe sobre a proibição do casamento para as enfermeiras e 377 Cogitare Enferm 2009 Abr/Jun; 14(2):374-8 dá outras providências. Diário da República de Portugal, I Série, Lisboa. 12 de março 1942.
18. Decreto-lei 36219, de 10 de Abril. Corpo emitente: Ministério do Interior - Subsecretariado de Estado da Assistência Social. Diário do Governo n.º 81/1947, Série I de 1947-04-10.
19. Ferreira, Óscar. A Escola Técnica de Enfermeiras (1940-1968). ." Pensar Enfermagem 18.2, 2014: 74-88.
20. Decreto-Lei n.º 39193 (2 de maio de 1953). Regulamento n.º2 da Organização Mundial de Saúde. Lisboa: Diário do Governo: I Série. Obtido em 2 de maio de 2017, de www.dre.pt
21. Lei n.º 2120. Diário do Governo n.º 169/1963, Série I de 1963-07-19
22. Amendoeira, J. (2004). Enfermagem em Portugal. Contextos, atores e saberes. Enfermagem, 2(35/36), 13-22.
23. Decreto-lei n. 480 de 23 de dezembro de 1988. Regulamenta a integração do curso de enfermagem no sistema educativo superior politécnico. Diário da República de Portugal, I Série, Lisboa. 23 de dezembro 1988.
24. Lei n.º 56/79. Diário da República n.º 214/1979, Série I de 1979-09-15
25. Alexander, Margaret F., and Phyllis J. Runciman. ICN framework of competencies for the generalist nurse: Report of the development process and consultation. International Council of Nurses, 2003.
26. Diário da República, 2.ª série — N.º 79 — 23 de abril de 2015. Ordem dos Enfermeiros. Regulamento n.º 190/2015 - Regulamento do Perfil de Competências do Enfermeiro de Cuidados Gerais
27. Diário da República, 2.ª série — N.º 26 — 6 de fevereiro de 2019. Regulamento n.º 140/2019. Regulamento das Competências Comuns do Enfermeiro Especialista.

Mircea Timofte, Roxana Hainagiu

NURSING IN ROMANIA

1. Brief history of nursing

Romanian nurses' professionalization has been a complex and long-term process influenced by many internal and contextual factors, each one characterized by its own dynamics.

The methods and means of medicine practiced in Romania until the 18th century, were those of general medicine, minor surgery and hygiene, with significant differences between the urban and rural, the latter benefitting mostly from a popular, empirical medicine, largely dominated by mysticism [1].

The history of secular, professional nursing training in Romania dates from the 19th century, when the country, in the process of creating the modern state, reformed most areas of public life. The events experienced in the Romanian territories since then, progressively changed nursing from charitable, social activities to a self-contained profession.

Preliminary references on the practice of the profession acknowledge the existence of medical care provision before the establishment of the medical system in Romania, both in monastic hospitals, placed under metropolitan jurisdiction, as well as in health facilities in the Romanian territories of Wallachia and Moldova, where they served as quarantine areas, considering that cholera and plague returned periodically from the 18th century until 1850 and care and prevention centres were needed [2].

In the book called *Medicine and Pharmacy in the Romanian Past*, the midwife was described as the *woman who assists at birth and cares that, as far as possible, everything went well both with the mother and the newborn. According to church rules, the midwife who helped women to give birth, was not allowed to go to church for eight days after the event* [3].

In Transylvania, in 1820, a first translation of the work of the Viennese physician Raphael Johann Steidele, "Lehrbuch von der Hebammenkunst" ("Handbook for the Art of Midwifery"), becomes available to the midwives from the villages of the region. [4]

The reform initiated in the onset of the 19th century in the Romanian Principalities focused on the creation of institutions where health professionals could be trained and could practice. Two hospitals, Filantropia and Brâncovenesc hospitals were opened in 1811 and 1838, respectively, offering the possibility to women to undergo nursing courses**.** During the period, the first schools on midwifery were established, in Bucharest (1813) and Iasi (1852).

The beginnings of nursing are linked to the creation of territorial medical-sanitary establishments and to the epoch of the Organic Regulations. This legal framework included legal references for the training of auxiliary medical staff and provided for the establishment of health bodies throughout the territory of each Principality.

The sanitary regions called "ocroguri", included health services, each with a doctor, a surgeon and 10 midwives, a completely insufficient staff to deal with the health of the community. These services dealt mostly with the prevention and control of epidemics and initiated measures to combat venereal diseases, rabies and pellagra [1].


МѢЩЕШИѢГѪЛ МОШЪРІЇ
пентрѫ
ДИВЪЦЪТѢРА ТОАШЕЛОР
ла
інстітѫтѫл матернітъцій
діи
БѢКѢРЕЩІ
прін
ІОСЕФ СПОРЕР
матос мі професор ла ачел інстітѫт.
БѢКѢРЕЩІ
ла тіпографіа лві Аѳтасіе Ражф.
1839.

Picture 1. Iosif Sporer, *The Craft of Midwifery* „Bucharest, Library of the National Museum of Bucharest, 1839, BibliotecaMuzeuluiMunicipiuluiBucuresti/ photos [5]

Prof. Samarian Gh. Pompei, in his book *Medicine and Pharmacy in the Romanian Past* mentions that in 1839, *The Craft of* Midwifery represented the first obstetrics textbook and was written for the study of midwives of the School of Midwives, part of the Birth Institute that was opened in 1839 in Bucharest [5].

According to historian Adrian Majuru, Eforia Spitalelor Civile, an organization founded in 1832, responsible with the management of the largest hospitals in Bucharest and then of all state hospitals in the country until 1948, established medical schools, where nurses were trained for this type of public service [6].

A crucial moment in the history of Romanian nursing during this period, with significant impact on strengthening the nursing profession took place, however,

between 1855 and 1885, a period known as "the era of Carol Davila". Doctor Carol Davila begins, in the second half of the century, the construction of a medical system, organizes the ambulance service, the latter having an important contribution during the War of Independence. Also, he establishes a nursing school ("felceri) and one of surgery, and, later on, establishes the Faculty of Medicine and opens orphanages in Bucharest[2].

In 1874, the first modern sanitary law came into force, designating the sanitary service as state service. According to the law, the health service management was performed in cooperation with local authorities. At the same time, provisions referred to the establishment of rural hospitals and to public hygiene (industrial, public establishments, housing hygiene, food, measures against epidemics, etc.), considering the trends of public hygiene in Europe at that time.

An amendment of the Law, introduced in 1881, established provisions for the rural hospitals, introducing, at the level of villages, a qualified nurse, even specialized to some extent.

A new regulation for sanitary service at the county level, adopted in 1894, made it compulsory for every village and even every commune to have a sanitary agent. This position was to be filled by surgeons, and in their absence, by former army paramedics and hospital nurses [2].

In 1904 the attributions of the sanitary agents and the midwives were

defined by a new regulation for the rural sanitary service. At the same time, under the law of rural communes, rural infirmaries were established, with the objectives to isolate contagious patients and provision of birth care. The doctor's activity would be supported by sanitary officers and midwives that were recruited and underwent a three months training. The idea of rural infirmaries was much criticized, which is why most of these infirmaries were abolished after 1904, although despite their deficiencies, they constituted real premises for the further development of some medical facilities in rural areas [1]. Gradually, as a result of the lack of staff caused by wars and epidemics, women began to be increasingly present in the Romanian health system. But it was not until the First World War that the trend gained greater visibility, with the involvement of Queen Mary of Romania in organizing fundraising campaigns, field hospitals and women medical teams on trains. Many high school students, having the schools turned into hospitals, became sisters of charity. The sisters of charity worked in the occupied territories and played an essential role in the moral support of the Romanian prisoners, even helping some to escape [2].

On the medical trains, where teams were usually made up exclusively of male doctors, Queen Mary placed teams of nurses. Former attendees of nursing courses from Bucharest hospitals volunteered for such teams.

Usually, there were about 14 nurses on each train, supporting doctors in surgeries and helping soldiers to eat and to dress. After the war, the medical field continued to develop aiming to address the problems of that time, such as infant mortality, tuberculosis, and sexually transmitted diseases [2].

Picture 2. Photo of HRH Queen Mary of Romania, Photo donated by the Royal Family

An important change came in 1930, when, with the adoption of a new law, the organization of the health system was taken from the tutelage of the Ministry of Interior and almost completely decentralized, leaving counties to finance health actions for their populations. At the same time, the number of doctors and support staff in rural areas increased, whereas the situation in terms of hygiene and health in general was more dramatic.

Nurse positions were set up next to district doctors (in charge with rural care). They attended a nursing school and helped doctors in dispensary consultations, visited schools to check on students' health, offered advice on raising children, advised pregnant women on pregnancy matters and how to care for their babies, and conducted social surveys related to BCG vaccination, etc.

With the education reform of 1948, sanitary technical schools were established, to train nurses for four years. During the time, nurses were professionally and administratively subordinated to the management of medical units ruled by medical doctors. However, in terms of training, things proved to be more dynamic: new nursing schools were established, new specialties were introduced. Nursing schools were organized in a centralized manner and great importance was given to practical training in hospitals, provided by doctors [7].

After the transition period of the 1990s, nurses began to go abroad in high numbers. One study shows that the number of nurses in the public system decreased from 125484 nurses in 1990 to 95484 in 2012, i.e., by 25% [8].

Romanian nurses' process of professionalization entered a new stage in 1994 when the first national nursing organization, the Romanian College of Nurses, was founded separately from the trade union organization, with county branches and having the goal to regulate the nurses' professional practice. The same year, the organization put forward, for the first time, a legislative proposal for a law on nursing in Romania, document adopted 7 years later, as *Law 461/2001 on the exercise of the profession of nurse, establishment, organization and functioning of the Order of Nurses and Midwives in Romania*. The law also extended the prerogatives of the organization, renamed as the Romanian Order of Nurses and Midwives of Romania (Ordinul Asistenților Medicali Generliști, Moașelor și Asistenților Medicali din România..

In 2001, the professional organization launched its own publication, the quarterly magazine *Ars medica*, a magazine which, since 2005, has been published every two months.

In 2003, the Order developed the national programme for Continuing Medical Education, providing the framework for continuous development of the professional training of the Romanian nurses.

The beginning of the negotiations for Romania's accession to the European Union imposed the alignment of the Romanian legislation with the European law in all fields of activity, including the legislation that regulated the activity of nurses and midwives in Romania. This requirement influenced the later amendment of Law 461/2001, by Law 304/2004. The new regulation conferred institutional autonomy and the role of supervision and control of the exercise of the profession by nurses. It also introduced the obligation of continuous professional training and the annual renewal of the membership. It entrusted the obligation to assess the ethical behaviour and judge violations and malpractice cases. At the same time, the law gave the professional organization the opportunity to collaborate with the Ministry of Health for all decisions regarding nursing and midwifery.

The foundations of the legislative document were laid in the framework of the Institutional Twinning Convention under the PHARE Program for Accession to the European Union. Within the framework, a dedicated working group worked on compiling the curriculum for the training of nurses and midwives, so that the level of professional training of nurses in Romania corresponded to the requirements of the European Union legislation. The working group also considered the preparation of the procedure for authorizing the right of practice of nurses and midwives.

In the context of numerous and substantial changes in legislation, policies and practices directly affecting the profession, the professional organization has undergone continuous efforts to define its professional role and implicitly its identity as a professional group. At the same time, the organization played an active role in the continuous improvement of the regulation framework, ensuring compliance with the European legislation, as well as periodically updating the continuous

development programmes while aiming to enhance its visibility and credibility at national and international level.

Since 2007, after the accession to the EU, the midwifery and nursing diplomas have been under the provision of EU legislation, being automatically recognized in all EU countries. The same year, the Order was notified to The European Commission as the competent authority for the exchange of information and participates, through its representatives, in European Commission`s work related to professional regulation.

In 2011, the organization changed its name to the Order of Nurses and Midwives of Romania, with the adoption of the Emergency Ordinance 144/2008. The Ordinance was subsequently amended in 2015, by law, providing for new steps on the administration autonomy of the Order county branches.

Today, the Romanian Order of Nurses and Midwives is a statutory, independent, non-governmental organization comprising 42 autonomous county subsidiaries, and more than 120 000 members. According to art. 38 of the *Emergency Ordinance 144/2008 with the subsequent amendments and completions,* the Order of Nurses and Midwives is a professional organization, with legal personality, non-governmental, of public interest, apolitical, without patrimonial purpose, with responsibilities delegated by the state authority, having as an object of activity the control and supervision of the exercise of the profession of nurses and midwives.

The organization is in charge of regulating the nursing and midwifery profession in Romania in close cooperation with the Ministry of Health, being responsible for mutual professional recognition in compliance with EU legislation, the right to practice and the good standing of our members. The organization sets the standards for the education, members` registration, ethics and professional conduct of nurses and midwives in Romania.

The role of the Order of Nurses and Midwives is to supervise the exercise of the profession, to continuously develop the profession, by improving the regulation of existing competences and acquiring new professional skills and competences, allowing members to provide high quality care services to the population.

A register of all nurses and midwives eligible to practice in Romania is hosted and constantly updated by the organization.

The Order also investigates allegations of impaired fitness to practice (i.e. where these standards are not met).

The organization has been a member of the International Council of Nurses since 2015, and of the European Nursing Council since 2007, respectively, the Order being one of the founder members of the latter, with the President of the Romanian Order being first elected as vice-president between 2013 and 2019 and currently serving as president on a 5 year mandate. At the same time, the Order has excellent cooperation relations with the Regional Office for Europe of the World Health Organization and with the dedicated WHO country office.

2. System of education for nurses

The historical development of nursing in Romania reflects changes in roles and practices, in format and type of education, in organization and legal framework on the background of the public health system reformation.

The modern nursing post-secondary schools were mostly established during the communist regime, with the education reform of 1948.

Before 1990, there were several different training schemes in nursing. The professional training was initially in the attributions of the Ministry of Health and later in the attributions of the Ministry of Education and was organized according to specific training programmes.

In the early `90s, the Ministry of Health conducted an intense retraining programme to update the competences of nurses who graduated from specialized nursing high schools, which was the only form of training between 1978 and 1990.

As of January 2020, the network of nursing education included 11 nursing faculties and 4 midwifery faculties, 12 public post-secondary schools and 165 accredited private post-secondary schools.

	Head count (number)						Ratio (per 100 000 inhabitants)					
	Nursing professionals		Midwives		Nursing associate professionals		Nursing professionals		Midwives		Nursing associate professionals	
	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018	2013	2018
Belgium	:	:	521	791	:	:	:	:	4.7	6.9	:	:
Bulgaria	307	593	122	184	0	0	4.2	8.4	1.7	2.6	0.0	0.0
Czechia	:	:	233	207	:	:	:	:	2.2	2.0	:	:
Denmark	2 353	2 587	143	165	0	0	41.9	44.7	2.6	2.9	0.0	0.0
Germany	36 705	35 742	625	633	7 903	8 142	45.5	43.1	0.8	0.8	9.8	9.8
Estonia	467	390	72	34	0	0	35.4	29.5	5.5	2.6	0.0	0.0
Ireland	1 528	*1 426*	128	*107*	0	0	33.1	*29.3*	2.8	*2.2*	0.0	0.0
Greece (1)	1 608	1 773	153	275	4 747	6 999	14.7	16.5	1.4	2.6	43.3	65.1
Spain (2)	8 783	9 936	457	364	0	0	18.8	21.2	1.0	0.8	0.0	0.0
France	27 198	27 076	914	:	0	0	41.3	40.4	1.4	:	0.0	0.0
Croatia	730	1 399	110	82	1 383	1 040	17.2	34.2	2.6	2.0	32.5	25.4
Italy (3)	13 075	11 455	881	816	0	0	21.7	18.9	1.5	1.4	0.0	0.0
Cyprus	339	134	0	0	0	0	39.3	15.4	0.0	0.0	0.0	0.0
Latvia (4)	:	:	49	38	:	:	:	:	2.4	2.0	:	:
Lithuania	502	605	29	39	0	0	17.0	21.6	1.0	1.4	0.0	0.0
Luxembourg	61	72	2	4	0	0	11.2	11.8	0.4	0.7	0.0	0.0
Hungary	1 852	3 404	83	124	1 512	2 649	18.7	34.8	0.8	1.3	15.3	27.1
Malta	144	132	13	12	0	0	33.8	27.2	3.1	2.5	0.0	0.0
Netherlands	2 238	4 204	148	161	4 089	5 736	13.3	24.4	0.9	0.9	24.3	33.3
Austria (5)	3 136	2 842	137	80	0	0	37.0	32.3	1.6	0.9	0.0	0.0
Poland	13 561	9 070	1 761	1 471	0	0	35.7	23.9	4.6	3.9	0.0	0.0
Portugal	2 666	2 580	:	:	0	0	25.5	25.1	:	:	0.0	0.0
Romania (6)	3 023	1 163	82	:	17 409	17 501	15.1	6.0	0.4	:	87.1	89.9
Slovenia	490	611	15	37	1 108	1 009	23.8	29.5	0.7	1.8	53.8	48.7
Slovakia	:	:	125	77	:	:	:	:	2.3	1.4	:	:
Finland (7)	:	:	237	209	:	:	:	:	4.4	3.8	:	:
Sweden	3 847	4 336	253	372	:	:	40.1	42.6	2.6	3.7	:	:
United Kingdom	:	:	*1 792*	*2 094*	:	:	:	:	*2.8*	*3.2*	:	:
Iceland	125	113	10	14	111	81	38.6	32.0	3.1	4.0	34.3	23.0
Liechtenstein	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	3 653	4 257	107	121	0	0	71.9	80.1	2.1	2.3	0.0	0.0
Switzerland	2 751	3 578	150	169	3 978	5 461	34.0	42.0	1.9	2.0	49.2	64.1
Montenegro	:	55	:	:	:	:	:	8.8	:	:	:	:
North Macedonia (8)	:	:	14	:	:	:	:	:	0.7	:	:	:
Albania	:	:	270	:	:	:	:	:	9.3	:	:	:
Serbia	881	1 392	213	251	2 800	2 665	12.3	19.9	3.0	3.6	39.1	38.2
Turkey (9)	19 842	15 754	2 822	2 692	0	0	26.1	19.4	3.7	3.3	0.0	0.0

(1) 2017 instead of 2018.
(2) Nursing professionals: may include midwives.
(3) Nursing professionals: break in series.
(4) Nursing professionals and nursing associate professionals: 2017 instead of 2018.
(5) Midwives: break in series.
(6) 2012 instead of 2013.
Source: Eurostat (online data code: hlth_rs_grd)

eurostat

Figure 1. Nursing professional graduates in Romania in 2018, as compared with 2013 [9]

All types of nursing education facilities are accredited by national independent agencies of quality assurance.

The number of students entering university colleges and public nursing colleges is strictly regulated by the Ministry of Education. By contrast, the number of students entering private schools is not controlled.

The number of nursing students and graduates does not translate directly into the number of practising nurses in Romania or to the needs of the system based on the absorption capacity of the public health care system.

There was a decline in the number of nursing professional graduates by three fifths in Romania in 2018, as compared with 2013 (Figure 1) [9].

As for the number of nursing associate professionals graduating per 100 000 inhabitants, in 2018, this ratio peaked at 90 per 100 000 inhabitants, which was 2.1 times as high as the ratio recorded in 2008 (43 per 100 000 inhabitants) (*Figure 2*) [9].

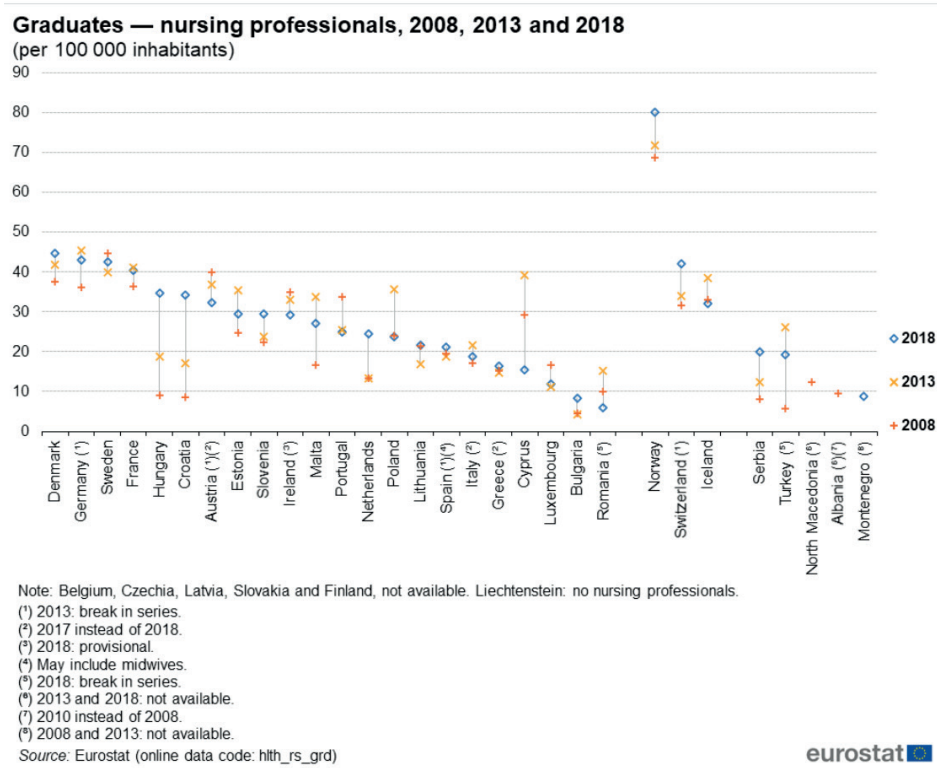


Figure 2. Number of nursing associate professionals graduating per 100 000 inhabitants [9]

Nurses can specialize in several disciplines: laboratory, public health and hygiene, balneology and physiotherapy, radiology, nutrition. Specialization takes one year.

As a result of the negotiations for joining the European Union, in 2004, minimum criteria for nursing and midwifery training were introduced by Government Decision 1477/2003 for higher education, and subsequently, by Order of the Minister of Education, Research and Youth no. 2713/2007, for post-secondary sanitary education.

Today, according to the provisions of the National Education Law no. 1/2011, nursing and midwifery education fall within the attributions of the Ministry of National Education and are carried out according to specific criteria aligned to European norms.

Access to training in these professions is conditioned by the completion of the upper secondary education cycle (12 years of general education). The training must comply with the minimum training hours requirements under EU legislation, of 4600 programme hours, and a maximum two thirds clinical weighting.

Postgraduate training of nurses is essential for human resources development in the health system. Continuing professional development is validated yearly through the accumulation of a sufficient number of continuous education points.

As of January 2020, the Order of Nurses and Midwives launched an online platform for continuing education courses with free access for its members to update and improve their specific professional knowledge and skills.

3. The legal status of nursing

The nursing profession in Romania is a regulated profession. Nurses are individuals with the qualifications required by law to exercise the profession, i.e. a supplier of health services, especially care, preventive, diagnostic, treatment, rehabilitation and health promotion services.

In 2004, the new law strengthened professional autonomy and aligned nursing education with the European standards. The law defines who has the right to practice, describes the two professions and the contents of their respective activities.

The control and supervision of the exercise of the professions of nurses and midwives are performed by the Ministry of Health and by the Order of Nurses and Midwives of Romania, in accordance with the powers and competences provided by the legal regulations in force.

The profession of generalist nurse and the profession of midwife are exercised, on the territory of Romania, under the provisions of the *Government Emergency Ordinance no. 144/2008,* with the subsequent amendments and completions.

The profession of nurse and midwife is exercised, on the Romanian territory, by individuals holding an official qualification and is registered with the Order.

Romania has set up an upgrading programme for general care nurses whose qualifications did not meet the minimum training requirements under Directive 2005/36/EC, with the goal to enable professionals who acquired their qualifications prior to Romanian's accession to the EU to upgrade their qualifications to meet these EU-level minimum requirements.

The content of the document was analyzed over 2012-2014 by the European Commission with experts from the EU Members, to establish the extent to which the programme met the minimum requirements under Directive 2005/36/EC (number of hours, years of study, training subjects, skills, knowledge and competences to be acquired).

Upgrading courses were designed to bridge the gaps identified. Following an assessment by Member State experts and further exchanges, the draft programme was adapted to take into account the feedback, e.g. on admission requirements, number of training hours and supervision during clinical training.

Romania rolled out the final document for nurses under the provision of the joint Order of the Minister of National Education and of the Minister of Health No 4317/943/2014, endorsed by the Romanian Order of Nurses, Midwives and Medical Assistants and by Order of the Ministry of National Education No 5114/2014.

To implement the upgrading programme at post-secondary level, eight 'train the trainers' sessions with experts from five Member States were organized between 2013 and 2014 by the Romanian Ministry of National Education, the Ministry of Health, the Romanian Order of Nurses, Midwives and Medical Assistants and the National Commission of Hospitals Accreditation.

The training started in the academic year 2014/2015 and according to information provided by the Romanian Ministry of Education and Research, more than 3000 graduates at post-secondary level and 23 graduates at higher-education level completed it by the end of academic year 2018/2019.

Romania presented the programme to the Member States in the Group of Coordinators for the Recognition of Professional Qualifications in March and May 2018. No Member State objected to Romania's proposal that the graduates benefit from automatic recognition in the future. A substantial number of students have since successfully completed the programme [10].

In recent years, further steps to building an autonomous profession were made with the adoption of the legislative framework establishing the conditions for the independent exercise of the profession of nurse and midwife, regulated by Order no. 1454/2014, setting both the legal and general conditions for the independent exercise of the profession. The legislation also provided the possibility to associate several nursing professionals and / or midwives for the establishment of an independent practice.

Similar endeavors guided the members of the European Nursing Council in 2019, under the Romanian Presidency of the ENC, to draft and publish, an updated vision of the nursing act, emphasizing the autonomous nature of the profession, the diverse areas of competence of a nurse, claiming for a central role of the continuous professional **development. The nursing act was therefore defined as *encompassing all the professional action***, *i.e. the autonomous, interdisciplinary, partnership-based and collaborative person centred care of*

individuals, families, groups and communities across the life span; sick or well and in all primary, secondary and tertiary care environments. The Nursing act involves the use of clinical judgement in the holistic and evidence-based assessment, planning, implementation and evaluation of professional nursing care. Nursing includes health promotion, health education and disease prevention, the care of sick, the injured, the disabled and the terminally ill. Advocacy, promoting patient adult and child safety, quality care, continuous quality improvement, the conduct and utilisation of research and evidence-based practice, contributing to health policy and health systems management and delivery are also dealt by the nursing science. The nursing act is underpinned by national and international ethical values and codes which respect dignity, autonomy, justice, fidelity, and the uniqueness of human beings, as well as underlying the duty of nurses to engage in continuous professional development.

Another area of interest was a revision of the standards of practice for nursing training in post-secondary schools to provide a higher quality of clinical practice by conditioning the exercise of clinical practice to the specific area of competence.

To adequately respond to the needs of the health system and the current challenges for greater specialization of nurses, in 2019, the Order of Nurses put forward a proposal which was later on adopted by the Ministry of Health , defining norms for the organization and development of specialization programs for professional reconversion as well as for the development of professional skills for nurses and nurses.

The document included programs to allow nurses acquire further specialization in a wide range of medical specialties such as palliative care, psychiatry, dental medicine, community health care, neonatology, anesthesia and intensive care, pneumology, pathological anatomy, geriatrics and gerontology, diabetes, oncology, nephrology / hemodialysis and peritoneal dialysis, cardiology, gastroenterology.

4. Nursing in numbers

Nurses are present in all structures of the Romanian health services system, being by far the largest group of healthcare workers.

Nurses and midwives (per 1,000 people) in Romania were reported at 7 3891 in 2017, according to the World Bank collection of development indicators, compiled from officially recognized sources (Figure 3) [11].

Similar data is reflected in the *State of Health in the EU Romania Country Health Profile **2019*** **[13].** Despite increases in the size of the health workforce over the course of the last decade, the Romanian health system is still suffering from shortages of doctors and nurses. In 2017, there were 6.7 nurses per 1 000 population (EU average 8.5)

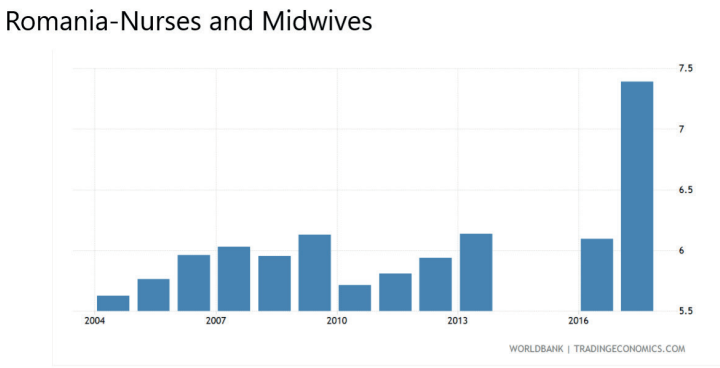


Figure 3. Nurses and midwives per 10000 inhbitans in Romania, World Bank Report [11]

The data from Eurostat provides the following numbers for Romania in 2018 (*Figure* 4):

ISCO-08 International Standard Classification of Occupations 2008	2018*		
	Practising	**Professionally active**	**License to practice**
Nurses and midwives	143.845	145.912	157.415
Nursing professional and midwives	17.746	17.856	17.846
Nurses	140.493	142.560	154.487
Nurses professional	14.394	14.504	14.918

Figure 4. Nurse professional categories for 2018, Eurostat, 2019 [14]

Migration outflows created the development of a domestic shortage of health professionals, with negative consequences on care accessibility. In response to this issue, the government has taken measures to try to improve staff retention and make employment in the health care sector more attractive.

Data of 2019, reflect a share of nurses and midwives in the total workforce in Romania of 1.5%, far below the 2.2% average of the EU(*Figure* 5)**[14].**

The same report mentions lower ratio of practising nursing professionals' in 2018 than all other EU Member States with only 74 per 100000 inhabitants. Romania reported between 17 and 21 practising midwives per 100 000 inhabitants, the lowest ratio of midwives to population similar with Spain (licensed to practise) and Latvia.

The evolution of the total number of midwives in Romania reflects an important decreasing trend that started in 1978 when midwifery education was abolished. In 1989, there were 12,479 midwifes, in 2006 only 4,913 were reported. The function of the midwife was passed to nurses, who worked as nurse specialized in obstetrics and gynecology.

Romania reported a decrease in midwives' ratios between 2013 and 2017. However, in terms of practising nursing associate professionals, Romania recods second highest number after Germany with more than 100 000 practising nursing associate professionals (126 000).

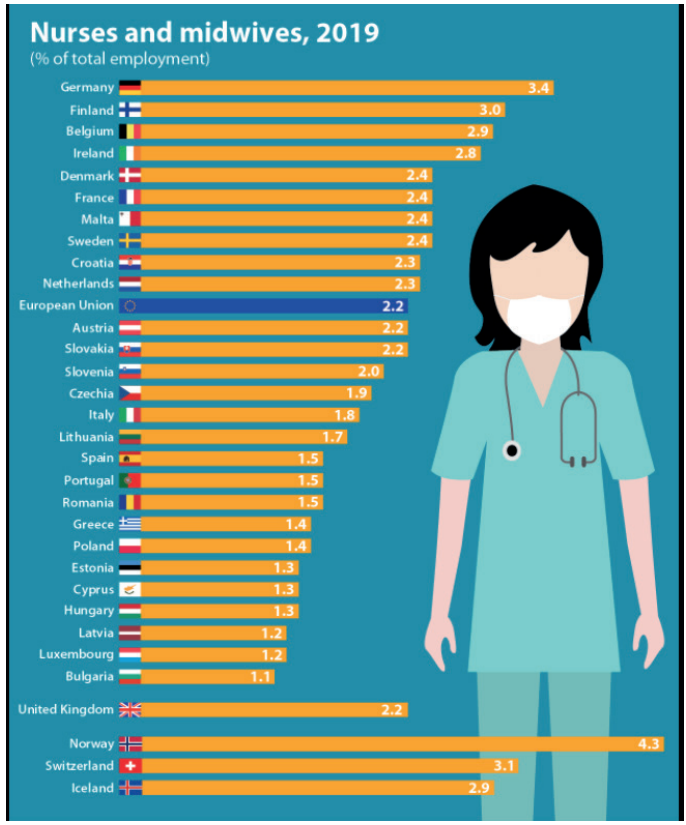


Figure 5. Nurses and midwives, Eurostat, 2019 [14]

Relative to population size, there were 648 practising nursing associate professionals per 100 000 inhabitants. The country recorded the largest number of nursing associate professionals employed in hospitals in 2018 (57 400). By contrast, the number of nursing professional graduates declined by three fifths. [14]

Figure 6 presents a comparison for the number of nursing associate professionals graduating per 100 000 inhabitants. In 2018, this ratio peaked at 90 per 100 000 inhabitants in Romania, which was 2.1 times higher than the ratio recorded in 2008 (43 per 100 000 inhabitants) (Figure 6) [14].

The *Statistics Annual Report* of the National Institute of Statistics from 2018 reported data on nurses according to the level of qualification, forms of property residence areas, staff categories and age groupsalthoulgh mention is made that data

included is preliminary. Reference is also made to the sex groups and ratios of the most represented specialization, obstretics-gynecology[15].

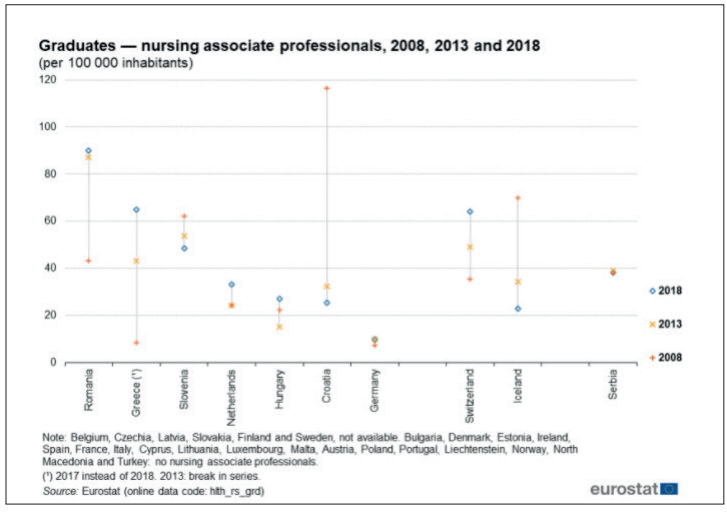


Figure 6. Number of nursing associate professionals graduating per 100 000 inhabitants, Eurostat, 2019 [14]

According to this document, with reference to the nurses with university studies, a total of 15345 nurses was recorded, from which 13704 women, 14 806 working in urban areas, and 870 were specialized in obstretics-gynecology. 13 108 nurses of the total were working in public facilities and only 2 237 in private owned facilities. The dominant age group is 35-44, with 5 794 nurses, while closely followed by the 44-55 group with 4 997 nurses. The lowest representation was in the age groups of 25 and under (332 nurses) and 65-74 (38 nurses).

With reference to nurses holding post-secondary degrees, the report reflected the following data: from the total of 145 317 nurses, women significantly outnumbered men with 118 711 professionals. Of the total, working in public facilities 94 355 professionals while in private 50 962 nurses. 129 432 nurses are working in urban areas. The most represented age groups are those of 35-44 with 55 432 and 44-55 with 40 729 while the least represented age groups were recorded for 25 and under with 5 458 and 65-74 with 1 339.

5. Challenges and prospects

Nurses are the largest group of employees in health systems working directly with the patient. To a large extent, among others, on their number, distribution, skills and motivation depends the effectiveness and cost-efficiency of the healthcare system.

The deficit of nursing personnel is a problem both in Romania and globally. For some time, Romania has seen significant outward-migration of health professionals, particularly since EU accession in 2007, and substantial numbers have left the public health sector because of poor remuneration and working conditions.

Due to the increase in the health care needs of ageing societies, the problems of the education system and the emigration of staff, the deficit has been steadily getting worse. The number of nurses in Romania in relation to the number of inhabitants is the lowest in European countries, and forecasts indicate that the demand for nurses will increase in the coming years, deepening the current deficit. It seems that financial factors in the health care system (relatively low wages, as compared with the scope of duties), as well as the extremely burdensome nature of the work, influenced the perception of the nursing profession as unattractive and therefore not conducive to be taken up. As a result, access to health care, its range and quality deteriorate, which could lead to negative consequences for the health and economic activities of people.

Ensuring adequate numbers of appropriately qualified and distributed nurses is one of the most important challenges the Romanian health care system still faces today. There is a need for comprehensive measures, including, among others, areas of higher education and the organization and financing of health services.

In 2018, the Romanian Government addressed this matter under an Emergency Ordinance with substantial and rapid increases in pay, in public hospitals. This was a response to protests and it is hoped that improved pay will help to retain medical personnel and reduce emigration. Considering the number of certificates of conformity issued by the Ministry of Health, there is some decrease reported in their numbers in 2019 as compared to 2016, from 2658 to 1674 which may be considered as a positive outcome of the income increase.

In addition, most countries, like Romania, have been struggling with the problem of uneven territorial distribution of nurses. The main shortage of nurses, as well as the other health personnel, seems to be in rural areas. In order to tackle these inequalities, the Government adopted different policies. A set of criteria was introduced to define and rank remote areas with chronic shortage of nursing and medical personnel.

However, as a recent World Bank Review points out, the human resource for health component has been largely left out by all health reforms, with no official document or policy on this issue; it is suggested that a strategy is needed at least to: (i) attract young Romanian to enter the health professions, (ii) encourage graduates to practice in rural and remote areas, and (iii) limit the migration of health professional after EU accession [16].

Moreover, it is equally important to involve local authorities. It is not only about the Ministry of Health, it is not only about professionals, it is also about local households. But it also belongs to the population, which must also be aware of the one it chooses and puts in the service of the citizen and tries to satisfy the needs

of the community. We must also evolve as a civil society, not to develop a certain degree of public culture.

These issues are important for the functioning of the health system. As research shows, the higher the number of nurses, the greater the efficiency of health services provided in hospitals, including, among others: lower incidence of adverse effects of treatment and reduced number of deaths among surgical patients. The importance of nurses also increases with the growing of the deficit of doctors. A shift towards integrated community care is however at the moment hampered by low general practitioner numbers and overuse of hospitals, as demonstrated by the very high hospital discharge rates. Efforts to define criteria for community care and community centres are in progress.

As nurses are increasingly taking over part of the existing responsibilities of doctors, especially the care for patients with uncomplicated conditions and patients during routine appointments and prescriptions, increasing the scope of competences of nurses is seen as a way to improve access to benefits, including reducing waiting times for health services.

A number of additional challenges related to nursing education and practice reffer to issues such as: the existence of a large number of post-secondary schools at national level contributing to a surplus of nurses in relation to the number of inhabitants and the low absorption ratio of nurses on the labor market; the quality of clinical education with low number of internships compared to the large number of students; lack of a training programme for qualified teachers; or the compliance with the authorization and accreditation standards.

Subsequently, it is worthwhile to develop a comprehensive policy of education, motivation and development of this group of workers. The issue of ensuring an adequate number of suitably skilled medical personnel is essential not only to ensure population's access to health care services, but to the overall functioning of a healthy and prosperous society.

Ensuring a balance between patient safety, the quality of the medical act and human and financial resources involves a paradigm shift from a health-care system focused on economic efficiency to a patient-centered health-care system. If in the old paradigm a discourse based on measuring the performance of areas and indicators prevailed, a context that marginalized the human and moral perspective on which health-care is based, in the new perspective, centered on a health-care system that is customized, attentive to the patients' individual needs, the development of quality nursing practice value driven standards, is needed more than ever.

The challenge in the new context is to develop public policy documents to start from the daily practice of nurses and midwives, from their daily working experience with patients of different ages, gender, education, religions, ethnicities, nationalities.

Despite the efforts to modernize health-care infrastructure, to meet the current patient's expectations and technological innovation context, the Romanian healthcare system remains a source of dissatisfaction for patients, who today enjoy

increased mobility in exercising their right to quality care, which gives them the possibility of confront and compare the Romanian care services with those provided in other countries.

Improving the quality of the patient-nurse/midwife relationship is also critical for the social repositioning of the profession, restoring the trust conferred by society, as well as for assuming the internal obligations deriving from this trust.

A public draft policy carried on in 2018-2019 by the Order of Nurses and Midwives and jointly adopted with the Ministry of Health aimed at restore patient's confidence in the Romanian system, in the medical staff and in the latter's ability to provide a care model based on professionalism, cooperation and empathy towards his needs and expectations .

The position document on the values of the nursing and midwifery practice in Romania identified ethical guidelines to serve as a bechmark for individual, managerial and public policy decisions.

The initiative to identify the professional values followed a substantial performance-oriented reform having patient care at its core. These promoted values are hoped to support and guide appropriate behaviors in clinical practice, and provide a reference system for self-assessment and assessment of the quality of health-care services.

References

1. Chiritã L. Scurt istoric al asistentei medicale în România. [*Short history of Nursing in Romania]* Medicina Familiei, no. 13. http://www.medfam.ro/mf/mf/mf13/istm13.html, acces: 2020.11.03).
2. Nicolae V. Scurt istoric al asistenţei medicale în România. [*History of Nursing in Romania]*. https://mindcraftstories.ro/sanatate/scurt-istoric-al-asistentei-medicale-in-romania/ access: 2020. 10.03).
3. Pompei S. "Medicine and Pharmacy in the Romanian Past", 2nd volume.Calarasi. Ialomita Modern Print Shop, 1935.
4. Popp V. Dissertation on Romanian printing houses in Transylvania. Sibiu 1838. Ediţie critică, Editura Dacia, Cluj-Napoca, 1995, 225 p.
5. Marinescu V. History of Medicine in Romania.
6. https://www.academia.edu/34996555/History_of_medicine_in_Romania?email_work_card=view-paper, (access: 2020.09.02).
7. Majuru M. ECivil Hospital Eforia. A needed restoration, Cotidianul,10 mai 2010.
8. https://www.cotidianul.ro/eforia-spitalelor-civile-o-restituire-necesara/ access:2020.10.15).
9. Popovici S.The Romanian Nurses' Professional Group Evolution, A Model of Analysis for the Professionalization Process. http://praktiskegrunde.dk/2017/praktiskegrunde(2017-1+2i)popovici.pdf (access: 2020.10.12).
10. Rotilă V. Study on the situation of nurses in public health units in Romania.http://www.solidaritatea-sanitara.ro/attachments/article/18623/Studiu%20privind%20situa%C8%9Bia%20asistenten%C8%9Bilor%20medicali%20din%20unit%C4%83%C8%9Bile%20sanitare%20publice%20din%20Rom%C3%A2nia.pdf (access: 2020.09.12).
11. European Commssion, Healthcare personnel statistics - nursing and caring professionals., August 2020. https://ec.europa.eu/eurostat/statistics-explained/index.php/Healthcare_personnel_statistics_-_nursing_and_caring_professionals. (access: 2020.08.25)

12. Vlădescu C, Scîntee S, Olsvaszki V, et all. Health Systems in Transition. Vol 18, (4): 86-95.
13. European Commission, Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions , Brussels, 11.5.2020 COM(2020) 191 final .https://ec.europa.eu/transparency/regdoc/rep/1/2020/EN/COM-2020-191-F1-EN-MAIN-PART-1.PDF (access: 2020.08.26).
14. World Bank. Romania - Nurses and midwives - actual values, historical data, forecasts and projections https://tradingeconomics.com/romania/nurses-and-midwives-per-1000-people-wb-data.html (access: 2020.11.05).
15. OECD. State of Health in the EU. Romania: Country Health Profile 2019. ISSN: 25227041 (online). https://www.oecd-ilibrary.org/docserver/f345b1db-en.pdf?expires=1605783629&id=id&accname=guest&checksum=B18425A99E35974F20B192EC80A75A35. (access: 2020.11.03)
16. Eurostat, Healthcare personnel statistics - nursing and caring professionals https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthcare_personnel_statistics_-_nursing_and_caring_professionals&oldid=542570(access: 2020.11.05).
17. Institutul Naţional de statistică. Statistical Yearbook. 2019. https://insse.ro/cms/sites/default/files/field/publicatii/anuarul_statistic_al_romaniei_carte_ro_1.pdf (access: 2020.10.12).
18. World Bank. The changing nature of work. 2019. http://documents1.worldbank.org/curated/en/816281518818814423/pdf/2019-WDR-Report.pdf (access: 2020.11.20)

Dragana Simin, Dragana Milutinović

NURSING IN SERBIA

1. Brief history of nursing

The earliest strict rules for tending the sick in Serbia can be traced back to the Hilandar typikon, the medieval manuscript written on parchment in around 1200. St. Sava, the Serbian prince who became a monk and after his death canonized as saint, composed the typikon based on the rules of conduct governing the spiritual life and organization of monastic rites [1,2]. The typikon comprises 43 chapters, each containing one specific rule which is to be followed by the monks during the „devine service". In two chapters the presence of a profound awareness of health and nursing is described in addition to illnesses and care for the sick. Thus, the special order of monks-aides were taught to shelter and tend the sick. In Chapter 40 of this typikon there are records of the sick monks who need to have more comfortable beds, heating, food and drink to sustain their needs. It is in this chapter, that the hegumen administers the divine service, care and attention that the sick received from monks [3]. Although the monks were mainly trained for providing care in the monastic colonies on Mount Athos, they were also familiarized with Assyrian and Byzantine medicine through contacts with Jerusalem and Constantinople medicine. In particular, the major influence on the contacts with Constantinople was at that time the renowned and well-organized hospital within the Pantokrator monastery [1,4]. Furthermore, Saint Sava founded the first place for the care of the sick (infirmary) in the territory of the present-day Serbia in Studenica Monastery in 1208. The infirmary had four rooms with a total of 12 beds. Apart from the Hilandar typikon, Saint Sava composed the typikon of Studenica, prescribing conditions requiring infirmary placements, as well as the method for appointing the monk as an aide, the house rules, procedures for managing epidemics, and written discharge instructions [2]. In the following centuries of the medieval Serbia, under the strong influence of Byzantium, many monasteries were built, which in addition to their sacral role served as places for learning and infirmaries. At that time, monasteries were not only sacral places but also the only providers of organized care for the sick and wounded soldiers [2,4]. Moreover, medieval Art testifies to the Serbian practice of medicine at that time. Numerous frescoes of medieval churches and monasteries depict women giving birth, breastfeeding, swaddling, giving shelter to the sick, and those who were dying. Among which, the „Birth of the Mother of God" in the Studenica monastery originating from the 14th century is especially impressive. This fresco depicts female characters being gentle and attentive to each other, with their hair tied back neatly, providing care, preparing a baby bath and

checking the water temperature with the palm of their hands, as well as keeping food covered with a lid, putting white towels and bottles of medicine on a special weighing scale tray [1].

The „First Nurse of Serbia" evolved from a legend and myth that arose after the Battle of Kosovo, on June 28, 1389. [5]. Following Serbia's defeat by the Turkish invaders, people lost their freedom, but they did not lose their vigour, which was extensively nourished through national literary epic poetry. This type of poetry symbolyzes their pride and it is of exquisite value for the Serbian cultural heritage. One of the most beautiful myths and legends was turned into a poem of the Kosovo Maiden, who is also the metaphor of caring, charity and compassion for fellow human beings [1]. According to the myth, the morning after the battle a young girl searches the battlefield for her betrothed husband, godfather and brother-in-law. She walks upon the „blackbird field" in traditional folk clothing, wearing embroidered white blouse with rolled sleeves, neatly tied hair, bearing in her hands two golden goblets, one of red wine and one of fresh cold water. She carefully goes around tending to all the wounded, no matter if they were her next to kin or not. Listening carefully to their stories, she tends to their wounds, offers red wine and cold water to drink, white bread to eat while some of the wounded die in her arms [5]. Because of her strength, bravery and Christian charity, she also symbolizes the Good Samaritan to the Serbs [1]. Hence,,the Kosovo Maiden was a source of inspiration for painters. Eventually one of the best known depictions was the painting created in 1919 by the famous Serbian painter Uroš Predić. In this picture, the Kosovo Maiden is shown as a dignified, elegant young girl with an angelic face [1,5]. The historical significance of the battle, the mythical beauty and the characteristics of the Kosovo Maiden also formed a recognizable framework for nursing in Serbia. The figure of the Kosovo Maiden found its place on the emblem of the first professionally educated nurses, numerous nursing associations and journals [1,2,5].

After the conquest of the Serbian lands by the Turks, the development of the Serbian medieval practice of medicine was completely interrupted, whereas tribal and patriarchal culture were revived and folk medicine renewed. In traditional beliefs, the skills in healing and tending to the sick and wounded were passed down by word of mouth and through the collection of manuscripts concerned with the healing arts. The signs and symptoms of disease were first listed in these manuscripts and subsequently directives for tending and healing [4].

In the late eighteenth century and during the nineteenth century, with the development of organized healthcare services, the first initiatives for nursing and midwifery education in Serbia were documented. Also, the first written traces indicate the longstanding tradition of midwifery education. It was in the middle of the eighteenth century that the first midwives obtained their diplomas in Pest, Hungary [4]. Subsequently the first courses for midwives in Serbia were organized in Belgrade in 1841, and afterwards in all major cities [2]. After more than half a century, more precisely in 1899, the first school for midwives was founded in Belgrade [5].

At the turn of the nineteenth and twentieth centuries, two national women's associations were founded in Serbia, the Belgrade Women's Society (BWS) and the Circle of Serbian Sisters (CSS), in 1873 and 1903, respectively [1,2,6]. Immediately after the founding, the courses for nurses were started by these associations [6]. In the period until the beginning of the Balkan War and the First World War (1912 and 1914, respectively) 1500 nurses completed these courses. Although they were from different social strata, ranging from housewives, teachers, artists to Serbian princesses, they were all very dedicated to performing their tasks, often with no assistance and ready to take everything upon themselves. Many of them were wounded and contracted typhus while performing their duties [1]. Among those who eventually died after tending the wounded soldiers were Ljubica Luković, the president and the famous painter Nadežda Petrović, the founder of CSS [1,2]. At this time, nurses were the winners of prestigious nursing awards. Hence, Delfa Ivanić, Anka Đurović and Ljubica Luković were awarded with nursing's highest international red cross distinction, the Florence Nightingale medal. Of whom, Milunka Savić was recognized both as a nurse and a war heroine and thereupon awarded with the French Légion d'Honneur (Legion of Honour) twice, Russian Cross of St. George, the English medal of the Most Distinguished Order of St Michael and she was the sole female recipient of the French Croix de Guerre. In the course of the liberation wars of Serbia (1912-1918), as part of allied nation missions (England, Scotland, Canada, the United States, Russia, France, Belgium, etc.) doctors also provided significant assistance to nurses. After joint work, they significantly strengthened their nursing knowledge and skill performance, and the experience acquired formed the basis of further initiatives for the foundation of modern schools for nurses [1,2,5].

The first school for nurses in Serbia was established in 1921 with the financial assistance and support of the Serbian Red Cross, the Ministry of Health, the American Health Mission, BWS, the League of Red Cross Societies, the Rockefeller Foundation and eminent Belgrade doctors [6]. The greatest merits of launching the initiative to open the school went to Dr. Reeder, the head of the American mission, whose priority was fulfilling three mission goals in Serbia, among which one of the activities included educating the staff who would replace nurses from abroad following their departure from Serbia. The first school principals, Miss Edith Newton, and her successor, Rose Helich, from 1924, were nurses who were educated in England [6,7].

In Serbia, whch was one of the 6 republics comprising the former Federal Republic of Yugoslavia, at the initiative of the Ministry of Health, three-year and four-year secondary medical schools were established in all major cities, providing nursing education for various profiles [2,7-10].

In 1952, the first state College of Nursing of the Yugoslav Red Cross was opened in Belgrade [8,9,11]. Soon after,the Army School of Nursing was founded in 1956 [1,11].

With the signing of the Bologna Declaration, the process of reforming higher education system initiated the four-year academic education of nurses in Serbia

[12]. Academic studies in nursing were founded at the Medical Faculty of the University of Novi Sad and the lectures for the first generation of students began in October 2003. In the same year, the first registered Department of Nursing at an academic institution was formed at this faculty, and nursing was defined as a narrow scientific field within the medical sciences. Master academic studies also received accreditation at this Faculty in 2007 [12-14]. During this study programme, graduate students, among other things, prepared for doctoral studies after collecting at least 300 European Credit Transfer and Accumulation System (ECTS) credits [12,13].

The first Serbian professional nursing association was founded as the Yugoslav Graduate Nurses' Association in Belgrade, in 1927. The functioning of the association was regulated by rule- based goals, rights and obligations of the members of all the sections [1]. The following year, the Ministry of Health passed a decision according to which the membership was limited to only one health professional association registered under the scope of the same practices, which can be further divided by sections and geographical regions, as well as mandatory membership of the Association. Yugoslav Association of Graduate Nurses joined the International Council of Nurses (ICN) in the same year that it was founded. The association existed until the outbreak of the Second World War [1,11]. In the post-war period, the Association of Health Professionals of the People's Republic of Serbia was founded in 1951. Somewhat later, in 1954, the Nursing Association of the People's Republic of Serbia was founded. After its establishment, the Association established cooperation with the ICN. The Association of Nurses-Technicians of all Yugoslav republics, founded in Sarajevo in 1984, had a number of projects and active cooperation with the World Health Organization (WHO) Collaborating Centre in Maribor, until its termination in 1991. The Nursing Association of Yugoslavia was founded in 1995 in Belgrade, and two years later it was renamed as the Association of Nurses-Technicians and Midwives of Serbia (serb. Udruženje medicinskih sestara-tehničara i babica Republike Srbije, UMSTBS). In addition, many other independent associations in nursing or associations-councils -unions of health professionals have been founded, in the work of which nurses participate through engaging in various sections [11]. The real expansion of associations in nursing took place after 2006, but there is no record showing their exact number. These associations were founded and they are still being founded on a regional basis (e.g., the Association of Nurses - Technicians of the Clinical Center of Serbia - Nursing) or according to the scope of nursing pactices (e.g. the National Association of Nurses - Technicians of Intensive Care, Anesthesia and Resuscitation of Serbia (serb. Udruženje medicinskih sestara-tehničara intenzivnih nega-anestezije i reanimacije Srbije, UINARS)). Although there have been initiatives and attempts to re-establish a single national nursing association, this has not been achieved up to the present time [15].

The Chamber of Nurses and Medical Technicians in Serbia (serb. Komora medicinskih sestara i tehničara Srbija, KMSZTS) was established in 2006, as one of the five Chambers of Health Professionals of the Republic of Serbia [11,15].

National journals are referred to in the Serbian Citation Index (SCI index) as scientific publications. Indexed journals are subject to continuous evaluation, given the impact in the database itself and additional Web of Science Indexes. At the same time, bibliometric indicators of the journal quality are measured. Currently, two nursing journals are indexed in SCI index, Nursing Word and Inspirium [16]. The Nursing Word is a scientific, professional and informative journal aimed at providing qualitative and up-to-date information in the health care field, nursing and nursing education that are of interest for nursing and medical theory and practice. The journal is published twice a year and it was launched by the nursing association the UMSTBS, immediately after its founding in 1996 [11]. The UINARS association launched a scientific journal of professional nursing titled Inspirum in 2011. The journal publishes scientific and professional articles in nursing, midwifery, medical and applied sciences that are a source of information on professional education of nurses and health technicians in Serbia [16].

Since 2004, nurses with exceptional human and professional integrity have been awarded the prestigious „Dušica Spasić" award. The award was established in the memory of a twenty-three-year-old nurse who died of smallpox, caring for the first patient with this vicious and at that time, in 1973, unrecognized disease. Two awards are given annually - one to a nurse employed at the institution where Dušica used to work, the Clinical Center of Serbia, and the other to a nurse from other health institutions in Serbia [2].

2. System of education for nurses

The first Serbian school of nursing was established in 1921 corresponding to a secondary education level [7]. Candidates older than 18 and younger than 30, with at least four grades of a grammar school and a medical certificate as evidence that they were fit for school, could apply for places at school. Before taking the entrance exam, the candidates had a six-week preparatory course [1,6]. During their schooling, they lived in a boarding school, and for practical nursing classes they wore a uniform with the school emblem of a Red Cross and the logo of the Kosovo Maiden. The first lecturers were doctors that taught at the Faculty of Medicine, unfortunately the archives do not preserve the records of the first nurse educators. According to the curriculum, the candidates acquired qualification to work in hospitals, as well as to promote medical and hygienic education of the population. The education lasted five semesters. Building nursing professional commitment in adult candidates besides work habits, orderly daily life, all-day classes and study in the circumference of the sickbed, helped nurses, after graduating from this school, be well prepared for future professional tasks [1,7]. Simultaneously with the establishment of school, the Ministry of Health passed a decree which provided candidates with a full-time employment after completing school. Immediately after graduation, two students

were sent to the United States for training, and one to England. The costs of their further training were fully-funded by the Rockefeller Foundation and the Red Cross League [2,7]. Also,the first generations of graduate students were faced with the difficult, pioneering role in organizing health services in newly opened anti-tuberculosis and antimalarial dispensaries, school and dental clinics. At the same time, they worked intensively on the population health education. The great majority of the highest-ranked students continued working at school or being dually employed at health institutions and educational institutions [1,7]. By the end of the World War II, 20 generations graduated from this school [7].

After the World War II, due to social and political changes in Serbia, which was one of the republics of the former Federal People's Republic of Yugoslavia, progress in nursing education ended [8]. In the post-war period, politicians wanted to revise the education system so as to prepare the workforce as quickly as possible for a new qualification system. By accepting the socialist model of education, secondary schools were opened in all major cities, which, in addition to general education programmes, also provided vocational education programmes [7-10]. Thus, following this model, after completiing eight-year of primary school, students enrolled at different types of four-year secondary schools at the age of 15. At that time, there was an expansion of secondary vocational schools, while the number of grammar schools was significantly reduced compared to the pre-war period [1]. Such a change seriously affected the nursery and and midwifery education, which was identical in all the countries of the socialist bloc [8]. At the same time, the institutional, diagnostic-therapeutic component was significantly developing in the health care system, and thus nursing care was primarily hospital-centered care. Consequently, nursing in primary health care was partially suppressed. This model of nursing was almost exclusively task-oriented. Accordingly, nurses have increasingly assisted physicians in the process of diagnosing and treating disease, rather than assisting sick and infirm people in performing everyday tasks and coping with the disease [1,8]. This period was also characterized by the construction of new secondary medical schools in which skill labs and laboratories were formed creating thus more favorable conditions for professional education and learning of new professional profiles of future health workers. Teachers who taught vocational subjects in these schools graduated from medical faculties, secondary medical schools and nursing colleges, and there were also nurse educators who completed one-year courses in England [7,10]. After graduating the first secondary medical school in Belgrade a large number of students became nurse educators in medical secondary schools throughout Serbia [1,7]. In all secondary medical schools, the largest number of students were in the nursing profile classes, because there was a need for this cadre. Schools averaged 30 students per class, while during the practical nursing classes there were no more than 10 students per group [7,10]. In the teaching process particular attention was given to education in health care. In the first grade, during the classes within the skill labs, students acquired manual skills and a sense of working order and responsibility for their work. During the second year, at the age

of 16, students started learning outside schools in hospital educational settings. In the third and fourth year, classes were organized in the way that students spend at least two mornings doing practical nursing training in hospital settings, while theory classes were held in the afternoon [7]. A much smaller number of practical training classes were conducted in health centres. In the final year, the clinical internship lasting 30 days was organized, after which the final exam was taken. Towards the end of the fifties, specialised programmes for a pediatric nurse, gynecology and obstetrics nurse and dental nurse were initiated in most secondary medical schools [7,10].

There was a significant change in the Serbian secondary education and the other republics of socialist Yugoslavia after implementing education reform which introduced the so-called secondary vocational education, existing between 1977 and 1989. [8]. It was the „top-down" reform according to the type of approach and its creator was Stipe Šuvar, with the basic idea to provide a more functional relationship between educational activities and the acquisition of new skills related to production activities. Afterwards, the first two grades of secondary school were reformed into the so-called "common ground"education that was supposed to provide students with enough initial and general knowledge, so that they could continue further training according to their choice of occupation. The ideological basis of this approach was based on the promotion of Marxian and self-management ideas, and by connecting schools and the manufacturing sector [7, 10]. Subjects comprising common ground education (Total People's Defense and Social Self-Protection, Marxism, Socialist Self-management, Basics of Technology and Industrial Production Practices) represented 30% of classes in the curriculum. After the second year, the students opted for a profession, an educational profile. Furthermore, they could continue their secondary school education for another year or two, which according to the nomenclature of that time would be equivalent to III or IV level of education [7]. Nursing profiles lasted four years. In the third and fourth year, students who opted for these profiles had a significantly higher number of classes compared to the prior levels of education. In the first term of their third year, the students had their practical nursing training only in skill labs, whereas starting with the second term and then in the fourth year, they spent 5 hours twice a week in health institutions. During the year, nursing training classes were organized periodically in the form of the 'so-called' block scheduling with a duration of one week. After the fourth grade, students had the opportunity to complete a one-year specialization course and obtain a qualification at level V or to continue their education at colleges of nursing and faculties [7,10].

Analyzing this type of nursing education, the representatives of secondary medical schools and teaching associates employed at health institutions considered that the two-year education was not sufficient for such a delicate profession. The representatives of other secondary vocational schools shared similar attitudes. Political and economic changes in the country, along with the above mentioned attitudes and the fact that the employment rate has not increased significantly, which was one of the goals for introducing common ground education, have now initiated the „down-top" reform

[7]. Thus, since 1987, the four-year vocational secondary education was reestablished. The curriculum content has been significantly innovated. According to the earlier traditional model, the teaching method in the first and second year was predominantly theoretical. Practical nursing training was mostly conducted in the equipped skill labs, differing significantly from school to school in spite of the national standards. Scheduling blocks in the I and II year were conducted in health institutions [7,10]. Thus, practical nursing training was often considered to be selective. Namely, some students, who could not adjust to the requirements of the future vocation, were given the opportunity to change their profile or school for which they had more options [7].

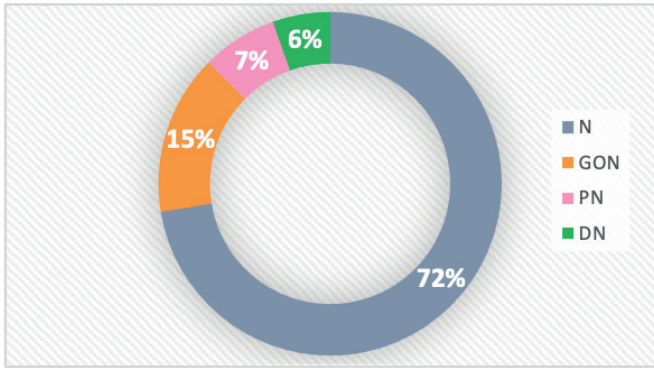
The very concept of secondary school education has not changed significantly to date. An attempt to carry out more radical reform changes in the vocational secondary education began in 2003 through experimental programmes. The changes were focused on the structure of the programme comprising both general education and vocational training subjects. In the same year, a three-year education programme was introduced in two schools, after which the student acquired the title of health care aide [8]. However, by adding these programmes into a "regular" system, in 2014, many of the positive aspects of these experimental programmes were lost. Starting first with 20 students per „pilot" classes, and now with 30 and more, with groups of 6 to 8 students and finally with 10 or more per group by rationalizing the number of vocationally oriented classes. Accordingly, the curriculum consists of 4600 hours in total, out of which 2680 (58.3%) hours cover 20 vocational education subjects. Out of the total number of classes during a four-year education, 1340 hours were allocated to theory classes, whereas 1220 hours to practical training classes [17]. Also, at the secondary education level, students continue to be educated for specialist nursing profiles: pediatric nurse (PN), gynecological-obstetric nurse (GON) and dental nurse (DN) [18].

Traditionally, Serbia, as a multicultural state, promotes the rights of national minorities through educational policy. Thus, in some schools the whole nursing (N) profile classes, in addition to Serbian language, are conducted in the languages of 4 national minorities (Albanian, Croatian, Hungarian and Slovak) [10,18].

In the last ten years, several private secondary schools have been established in Serbia. From its foundation until today, a unique national curriculum has been applied for secondary education in all schools in Serbia, regardless of the founder [17]. About 6,000 students enroll annually in 34 secondary medical schools, the founder of which is the Republic of Serbia. In 2020, out of a total of 5540 students enrolled, 3015 (54.3%) comprise nursing profiles. At the same time, the nursing education profile has the largest number of students (n = 2010; 66.7%). The distribution of students enrolled in nursing education profiles is shown in Graph 1. On the other hand, the number of students enrolled in private schools is not available [18].

The beginnings of higher education of nurses in Serbia dates back to 1952 with the opening of the College of Nurses of the Red Cross of Yugoslavia [1]. The school was established due to the need for differentiating levels of health professional

education [8]. Initially, gaining a higher nursing title required a seven-semester education and training internship in the eighth semestar. By the end of the sixth decade of the last century, the Army School of Nursing was established in Belgrade in 1956 and the College of Nursing in 1958, which lasted 2 years [1,7,9].



Graph 1. Distribution of students enrolled in secondary medical schools in 2020-21 school year according to the education profile

Source: Ministry of Education, Science and Technological Development of the Republic of Serbia [18].

Graduates from these schools completed their professional assignments through the organization of patronage service delivery, as well as the organization and management of nursing services in health and social care institutions [1,8]. Fifteen years later, in 1973, two nursing colleges, from the civil sector, were integrated into one. Beyond the traditional nurse profile, in the newly formed school, other health professionals continued to be educated in the same way as before. Until 1998 and the founding of the Colege of Applied Health Sciences in Ćuprija, it was the only nursing college in Serbia [8,11].

Major changes to nursing education in Serbia occurred with the signing of the Bologna Declaration in 2003, thus initiating the process aimed at reforming the system of higher education [8]. The new structure for higher nursing education included different levels starting from the first degree: basic professional or academic studies: bachelor level degree which typically ranges from 180 ECTS (3 years full-time) to 240 ECTS (4 years full-time) whereas the number of ECTS credits per year needs to be 60. Professionally-oriented programmes were created in accordance with the European higher education reforms through the Bologna Declaration and the Lisbon Convention. They have also been designed in accordance with the recommendations of the WHO, ICN and the European Federation of Nurses Association regarding qualifications based on minimum training requirements and operating procedure for accreditation of nurse education programmes, as well as the recommendations included in European Union directives (2005/36 / EU; 2013/55 / EU; 77/452 / EEC; 77/453 / EEC) [8,19]. Accordingly, the overall nursing education programme in

Serbia stipulates no less than 4,600 hours, of which theoretical instruction must comprise at least one- third of 4600 hours, whereas at least half of the total number of hours should comprise clinical placement [19,20]. Theory classes comprise three groups of subjects: health care, nursing, and subjects within natural and social sciences programmes. Clinical education must comprise nursing training related to: general and specialty medicine, general and specialist surgery, child care and pediatrics, psychiatric mental health, geriatrics and psychiatry, as well as home health care [8]. The programmes undergo the accreditation process by the Ministry of Education [21]. Currently, nurses in Serbia can acquire different levels of higher education in the institutions founded by the state (five colleges of applied health sciences, as well as three medical faculties within universities) and a significantly larger number of private vocational schools, which have been established in the last five years. Although there is a National Entity for Accreditation and Quality Assurance in Higher Education (NEAQA) (serb. Nacionalno telo za akreditaciju i obezbeđenje kvaliteta u visokom obrazovanju) for the accreditation of all schools, regardless of the founder, there is still no single national curriculum for higher nursing education, as in the case with the secondary education level [15].

Candidates with a four-year secondary education, i.e. at least 18 years of age, enroll in the first-degree studies. Accreditation establishes the number of students who can be enrolled in any educational institution, while in state schools and faculties, the number of state-funded students is determined. In order to enroll in these institutions students are ranked on the basis of their success achieved in secondary school, as well as on the basis of the points they acquired at the entrance exam, which is a a qualification classification system [19,21].

The structure of the study programme of basic applied studies, regulated by the law and controlled by NEAQA, contains the following group of courses in relation to the given number of ECTS: general academic education – cca 15%, vocational – cca 40% and applied professional – cca 45%. Within the structure of the study programme, optional courses are present with at least 10% in relation to the total amount of ECTS credits, which students choose in accordance with their own area of interest and abilities [21]. After completing this level of study, the graduate acquires qualifications for performing professional health activities, and after undertaking internship acquires the right to enroll the master academic studies and specialist professional studies [15,19,22].

The structure of the study programme in basic academic studies comprises the following groups of courses in relation to the total number of ECTS credits, namely: general academic education – cca. 15%, theoretical-methodological – cca. 20%, applied-scientific – ccc. 35% and applied-vocational – ccc. 30%. All the elective courses, which make up to 10% of ECTS credits, are classified into 2 categories of theoretical-methodological and applied-professional, preparing students for clinical placement [21]. At the Medical Faculty of the University of Novi Sad, which was the first in Serbia to accredit such a conceived nursing studies, out of a total of 4600 hours, theory classes consist of 1,500 hours, practical nursing training classes of

1815 hours and other forms of active teaching (seminars, clinical practice training). The number of hours of independent research projects of students within professional practice is 1170. A similar concept and curriculum was adopted by two other medical faculties, first in Kosovska Mitrovica, then in Belgrade from 2014 [15,19].

Today, it is inconceivable that an individual health professional can solve and respond to numerous problems associated with acute and chronic conditions in patients of different age groups and posed by different etiologies [19]. Therefore, it is necessary to implement educational strategies for teaching through interprofessional education (IPE). This is the strategy which contributes to the development of professional identity with an objective view of the roles and responsibilities professionals share in teamwork, which ultimately results in better collaborative practice and more efficient provision of services in the health system [23,24]. Given that both students and lecturers at the Faculty of Medicine in Novi Sad are ready to accept and implement new educational strategies, IPE was first introduced in theoretical education, and then owing to the ERASMUS + KA2 project titled Reinforcement of the Framework for Experiential Education in Healthcare in Serbia - ReFEEHS was undertaken with the aim to use IPE in a practice setting [14,19,23,24]. Following the current trends in nursing education, the faculty academic staff saw all the benefits of the preceptorship / mentorship model of nursing clinical education, which is applied in most European educational institutions. Accepting the new trends in 2014, in cooperation with the teaching staff of prestigious education institutions from Slovenia they held a basic course titled „Creating mentorship programmes for nursing clinical education", in order to make all the participants start supporting and implementing working in this way [13,19]. However, even after several attempts to date, this way of working has not come to life in a practical setting. Thus, academic staff at the Faculty of Novi Sad, in charge of clinical practice, is still engaged according to the type of partnership model (the teacher has a dual employment, i.e. he/she works in both health and educational institutions) [14]. This model of working is in any case a more modern form than the traditional model of clinical education in which the health care teacher is exclusively employed full-time in an educational institution, and not in a teaching setting, which is still applied in most vocational schools [19].

The next level of studies, approved by the Ministry of Education, are master of applied studies, lasting 4 semesters (120 ECTS credits) and master of academic studies in nursing, lasting 2 semesters (60 ECTS credits) [8,19,21]. Subsequently, nurses have the opportunity to acquire specialization and currently there are several one-year specialist studies accredited by the Ministry of Education (Gerontology and Geriatrics, Teaching Methodologies in Nursing Education, Anesthesia and Resuscitation, Public Health Nursing). Although these specializations were established in 2010, it is sad to say that they have not yet been approved by the Ministry of Health [8,11,15].

The structure of the study programme of the master of academic studies, comprises courses from the group of scientific and applied sciences – cca. 70% and general education and theoretical-methodological – cca. 30% of the total number

of ECTS [21]. The first official programme of academic master studies in health care was accepted by the University of Novi Sad, and in October 2007 the first generation of nurses was enrolled [8,13]. Today, this programme takes place in two disciplines that provide an opportunity for students to affirm their preferences and commitments to certain fields of nursing practice in the system of health and social care or pedagogic work in secondary and nursing colleges. The basic characteristics of the study programme are the development of knowledge and skills acquired in the basic studies. The content of the programme combines individual courses, so that the graduate student is able to organize and manage the nursing at different levels and fields of health care, capable of teaching at different types of educational institutions in nursing, capable of participating in solving various research tasks and last but not least that he/she is capable of applying the acquired knowledge and skills in practice in order to improve the quality of health care [5,19]. Also, graduate students through this study programme prepare for doctoral academic studies, and one of the prerequisites is the achievement of 300 ECTS credits at the previous two levels of academic studies. Also, after successful thesis defense, as well as obtaining diplomas at other levels of study, the student receives his/her diploma at a graduation ceremony. Along with the diploma, the student also receives a diploma supplement, in order to provide sufficient independent data in the study discipline, in order to ensure the recognition of academic and professional qualification [19,21].

Finally, the highest, the third degree of academic studies- doctoral academic studies (3 academic years, 180 ECTS credits) are also approved by the Ministry of Education [21]. The current legislation does not recognize doctoral academic studies in nursing. Most of the nurses who decide on this level of study enroll themselves mainly at some of the medical faculties in Belgrade, Kragujevac and Novi Sad [15]. Doctoral academic studies at these faculties are designed for the field of public health with elective courses: health promotion, health care organization models, economics and management in health care or clinical electives on current issues in health care. In 2020, the Faculty of Medicine in Novi Sad innovated to a great extent the concept of this level of education for a new accreditation cycle. The new doctoral studies in biomedical sciences are planned for 2021. The usage of a modular teaching method is planned, implementing 12 areas of content to be addressed, one of which is nursing. So, nurses in Serbia, exactly 100 years after the founding of the first school for nurses, will have the opportunity to be educated for the first time at the third level of education, whereby one field of practice module is allocated to nursing.

3. The legal status of nursing

The health care law has general regulatory role in legal aspects and regulations of health care professionals in Serbia, the adoption of which was initiated by the Ministry of Health [25]. The first nursing working group at the Ministry was established in

2002. The group of eight nurses played key roles in nursing education, training and association. The Working Group President held the position of an advisor to the Minister of Health [11,15]. Also, the working group was obliged to develop programme activities and project tasks in accordance with the Munich Declaration. A nursing strategic plan in Serbia has been made and a draft bill on health care has been designed, in addition to guidelines for educational reform, two guides to good practice, a training internship programme and many other documents have been prepared, and eventually an initiative has been launched to establish a Chamber of Nurses. Between 2005 and 2009, the link nursing in Serbia was created to the website of the Ministry of Health. Although the nursing working group was repeatedly declared one of the most successful working groups in the Ministry, this recognition was only declarative because few of the proposed programmes were adopted, including the Law on Health Care. Personnel changes and reorganization in the Ministry of Health have contributed to the fact that this group has not existed since 2009 [11].

According to the existing laws and regulations, health professionals cannot perform health activities immediately after acquiring formal qualifications, until they complete an internship and pass a professional exam [25]. The internship for all health professionals lasts for six months. After completing secondary school, nurses are obliged to spend 3-month- internship in a health centre, and the rest of the time in inpatient health care institutions. In contrast, nurses with a higher level of education spend significantly longer, 17 weeks of internship in inpatient facilities [22]. Also, the programme of this internship was created according to the level of nursing education. The programme for nurses with a higher level of education is more differentiated in relation to the programme of secondary nursing education. However, when analyzing the competencies listed in the programmes, there is essentially no difference in nurses' competencies obtained through different levels of education [15,22].

All health professionals are legally obliged to complete continuing professional education and training, in order to maintain and improve the quality of their work. Professional training is a pre-condition for renewing a professional license. According to the law and regulations, the health institution is obliged to provide the health professional with a paid educational leave in order to renew the license. In addition to participating in professional and scientific meetings, this type of education includes courses and seminars. Organizers of continuing education programmes can be secondary schools and higher education institutions for health professionals, chambers of health professionals, health institutions, health care associations, as well as other public agencies, provided that the programmes are accredited by the Health Council. The Government of Serbia is forming the Health Council, as an expert and advisory body that takes care of the development and quality of the health care system, as well as the organization of the health care system and health insurance. The council comprises 15 members, and one of them is a representative of the nursing chamber [25].

The Chamber of Nurses and Healthcare Technicians is an authorized body, proposed by respective ministries, that issues, renews and revokes the license to practice

independently (License). The first nursing licenses were awarded in 2008, and the following year the first accredited sets of continuing medical education were realized to acquire the credits necessary for relicensing [8,11]. The Chamber was established as an independent, professional organization, and membership of the Chamber is mandatory. According to the organizational structure, KMSZTS consists of 6 branches, according to territorial affiliation, and eight boards according to professional affiliation. The Board of Nurses, as the largest board of KMSZT, consists of six subcommittees: subcommittees for nurses in primary, secondary and tertiary health care, midwives, dentists and nurses in preschool institutions. Also, KMSZT represents and protects the professional interests of its members and takes care of their reputation; establishes a Code of Ethics governing the practice of law by all members; forms teams to check the quality of professional work; initiates the manner of performing the internship, taking the professional exam and professional training; participates in determining the nomenclature of health care services and criteria for identifying benchmarks for assessing the costs of services provided by nurses; initiates the adoption of regulations in the field of socila health protection, etc [26].

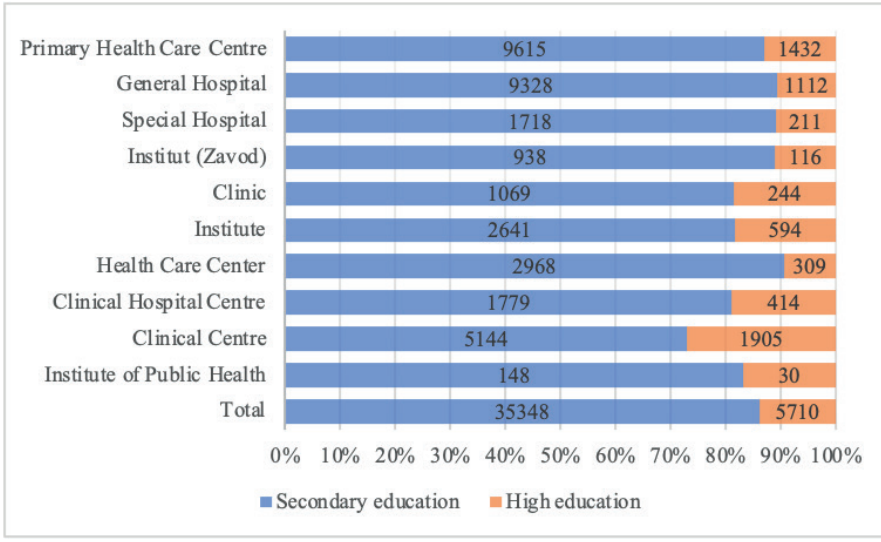
In the academic environment of the Republic of Serbia at the faculties providing degree programmes in nursing, nurse educators, as well as all members of the academic community, cannot be elected and university academic titles cannot be assigned without scientific competencies being verified, based on the criteria to be fulfilled by scientific research (number of papers in categories that cite recent research) and citations, in addition to making scientific careers attractive to young people. In colleges of applied studies, in accordance with the regulations, the scientific competencies of teachers are not primary [16].

Both in Serbia and around the world, there are different types of nursing research funding. Some of them are the Ministry of Health of the Republic of Serbia, local self-government units or non-governmental organizations. The most experienced, or qualified research nurses can apply for funding from the Ministry of Science, but it is very difficult to obtain given the great competition with researchers from other fields. Currently, there is no national institute for research in nursing practice in Serbia, and thus no significant source of funding and support for nursing research, as is the case in developed countries [15].

4. Nursing in numbers

At the end of 2018, there were 101 498 health professionals employed at 350 health institutions, comprising the Serbian health system. There was a total of 44 825 health professionals and associates with secondary school education employed at these institutions, of which 33 982 (76%) were medical and pediatric nurse-technicians and 2,230 (5%) were midwives. There were 10,138 health professionals and associates with higher education, of which 5710 (56%) were nurses. In Serbia,

in 2018, the number of nurses and pediatric nurses with a secondary school education was 4.9 per 1000 inhabitants, while that number was significantly lower and amounted to 0.7 for those with nursing college education. The distribution of health professionals according to the level of education and the type of institution in which they are employed is shown in Graph 2 [27].



Graph 2. The distribution of nurses according to the education level and the type of institution in which they are employed – data for 2018

Source: Institute of Public Health of Serbia "Dr Milan Jovanovic Batut". Health Statistical Yearbook of Republic Serbia 2018 [27].

5. Challenges and prospects

Today, when the current decade of the 21st century ends, nursing in Serbia is facing the transformation and gradually acquiring the assumptions underpinning the profession determined by „Miller's Wheel of Professionalism in Nursing", based on the sociology of nursing professionalism, and theoretical basis for nursing. By analyzing the characteristics that are considered necessary in achieving nursing professionalization, it can be concluded that nursing in Serbia is taking on professional framework. However, there is still a need for a number of joint activities, both by nurses and the state, in order to complete development of their professional „framework". Academic nursing education for acquiring the title of B.Sc. in nursing was established in 2003, health care was defined as the narrow scientific field within the medical science, membership with the Chamber, compliance with the Code of Ethics and mandatory continuing education, two nursing journals are available in

the Serbian Citation Index and there are many nurses who participate actively in professional nursing organizations. However, nursing theory and application of theory in nursing practice and research are only sporadically observed in nursing practice, whereas professional self-regulation, clear division of competences and professional autonomy are nearly non-existent [15].

There are numerous barriers to the process of the professional development of nursing in Serbia, but to overcome these barriers it is necessary for the nursing population to be aware of them. One of the first obstacles is that there are different levels of education which facilitate an entry into working life, which continuously contributes to the subordinating position of nurses in the healthcare system [29]. Graduates at all educational levels are not yet well- recognized in the health system, although they have completed study programmes accredited by national accredition institutions. The nursing profession's potential power and impact is significantly reduced by the tension that exists between subgroups within the profession, such as tensions between different levels of education (nurses with secondary education vs. nursing college / faculty) [15].

The proliferation of professional nursing associations and competition among association members diminishes rather than enhances the impact of nursing within the health care industry. Thus harnessing the collective power of nursing and causing them to feel trapped and unable to effectively influence management structures to set professional standards for the purpose of achieving autonomy.

Taking into the account that times that lie ahead will require the process of nursing professionalization, based on evidence rather than a traditional reliance on directives from others, current issues in nursing in Serbia should be considered as a challenge. Given the effective professional development is a core part of education, some educational institutions have already recognized problems facing nursing and addressed these challenges by innovating the teaching process. For the process of accession of Serbia to the European Union, it is important to harmonize nursing education with EU directives, but the most important thing for Serbia is to ensure optimal nursing education programmes in order to meet its own requirements, bearing in mind that patients in Serbia deserve the same quality of health care at national level compared with other EU residents.

References

1. Tijanić M. Istorijski razvoj zdravstvene nege (Historical development of health care). In Tijanić M, Đuranović D, Rudić R, et al. Zdravstvena nega i savremeno sestrinstvo (Health care and contemporary nursing). 2nd ed. Naučna, Beograd, 2001, 38-48.
2. Vlaisavljević Ž, Čolović N, Perišić M. Beginnings of nursing education and nurses' contribution to nursing professional development in Serbia. Srp Arh Celok Lek. 2014; 142 (9-10): 628-636.
3. Sveti Sava. Hilandarski tipik (Hilandar typikon). Project Rastko, E-library of Serbian Culture https://www.rastko.rs/knjizevnost/liturgicka/svsava-sabrana/svsava-sabrana_04.html (access: 2020. 08.16.).

4. Maksimović J. Bolnice (Hospital): In Maksimović J, Uvod u medicinu sa teorijom medicine (Introduction to medicine with the theory of medicine). Medicinski fakultet, Novi Sad 2001, 198-200.
5. Benson ER. The Legend of the Maiden of Kosovo and Nursing in Serbia. Image J Nurs Sch. 1991; 23 (1): 57-59.
6. Benson E. Nursing in Serbia-early days. Am J Nurs. 1974; 74 (3): 472-474.
7. Obradović R, Mandić M. „1921/1996" 75 generacija posvećenih vašem zdravlju (75th generations dedicated to your health). Medicinska škola, Beograd, 1996, 9-48.
8. Milutinović D. Education of nurses; acquired competence and place in the health care system: problems and challenges in Serbia (Obrazovanje sestara stečene kompetencije i mesto u zdravstvenom sistemu: problemi i izazovi u Srbiji). Proceeddings of 5th. International Scientific Conference: Developing Focus for Nursing Through Better Understanding and Implementation of Safety, Productivity and Quality Improvement, May 25-27 2011, Beograd 78-82.
9. Urbancic D. Nursing in Yugoslavia. Am J Nurs. 1956; 56 (5): 585-587.
10. Korica-Aćimović Z. Srednja medicinska škola „7. april" u Novom Sadu: monografija o pedesetogodišnjici škole (Secondary Medical School „7th April "in Novi Sad: a monograph on the fiftieth anniversary of the school). Prosveta, Novi Sad, 1997, 10-131.
11. Mirčić Ž, Aleksić Ž. Udruženje medicinskih sestara-tehničara i babica Republike Srbije: na temeljima prošlosti – pogled u budućnost (Association of Nurses-Technicians and Midwives of the Republic of Serbia: On the Foundations of the Past - A Look into the Future). Udruženje medicinskih sestara-tehničara i babica Republike Srbije, Beograd, 2015, pp. 14-33; 232-250.
12. Milutinović D. Bolonjski proces: tiha revolucija u sestrinskom obrazovanju (The Bologna Process: A Silent Revolution in Nursing Education). 3. Kongres medicinskih sestara, tehničara i babica Republike Srbije sa Međunraodnim učešćem, Čačak 11-12 May 2011, pp. 11-15.
13. Milutinović D. Andrijević I., The history of nursing education in Serbia and development of a department of nursing. Med pregl. 2018; 71 (Suppl 1): 7-8.
14. Brkić S, Srdić-Galić B, editors.Univerzitet u Novom Sadu, Medicinski fakultet: 1960-2020 (University of Novi Sad, Faculty of Medicine: 1960 – 2020). Medicinski fakultet: Futura, Novi Sad, 2020, pp.70-74.
15. Milutinović D. Profesionalizacija sestrinstva i razvoj zdravstvene nege kroz stručne i naučne projekte (Professionalization of nursing and development of health care through professional and scientific projects). Zbornik radova Simpozijuma glavnih sestara, babica i profesora zdravstvene nege, Nov 23-27. 2016, Tara, Srbija Udruženje medicinskih sestara-tehničara i babica Republike Srbije, Beograd 2016. pp. 12-17.
16. Simin D. Publikovanje radova kao pokazatelj stručne i naučne kompetentnosti medicinskih sestara (Manuscript Publication as an indicator of professional and scientific competence of nurses). Zbornik radova Simpozijuma glavnih sestara, babica i profesora zdravstvene nege, Nov 23-27. 2016, Tara, Srbija Udruženje medicinskih sestara-tehničara i babica Republike Srbije, Beograd 2016. p. 21-24.
17. Pravilnik o nastavnom planu i programu stručnih predmeta srednjeg stručnog obrazovanja u području rada Zdravstvo i socijalna zaštita („Službeni glasnik RS – Prosvetni glasnik", br. 7/14, 11/14, 9/15 i 2/16) Rulebook on the curriculum of vocational subjects of secondary vocational education in the field of health and social protection ("Official Gazette of RS - Education Gazette", No. 7/14, 11/14, 9/15 and 2/16). https://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/viewdoc?uuid=fa13811d-9e0a-43b2-8814-36aa4c6d659c (access: 2020.08.21.).
18. Ministarstvo prosvete, nauke i tehnološkog razvoja. Upis u srednje škole Republike Srbije 2020/2021 (Ministry of Education, Science and Technological Development of the Republic of Serbia. Enrollment in secondary schools of the Republic of Serbia 2020/2021). http://upis.mpn.gov.rs/Cir/Srednje-skole-pretraga/000000001400000000 (access: 2020.08.29.).

19. Brkić S. Savremene preporuke i očekivanja za medicinske sestre (Contemporary recommendations and expectations for nurses). Zbornik radova Simpozijuma glavnih sestara, babica i profesora zdravstvene nege, Nov 23-27. 2016, Tara, Srbija Udruženje medicinskih sestara-tehničara i babica Republike Srbije, Beograd 2016. pp. 9-11.
20. Zakon o regulisanim profesijama i priznavanju profesionalnih kvalifikacija: 66/2019-7. Službeni glasnik RS. No. 66 (Sept 18, 2019)(Zakon o regulisanim profesijama i priznavanju profesionalnih kvalifikacija: 66/2019-7. Službeni glasnik RS. No. 66 (Sept 18, 2019) (Law on Regulated Professions and Recognition of Professional Qualifications: 66 / 2019-7. Official Gazette of RS. No. 66 (Sept. 18, 2019). https://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/skupstina/zakon/2019/66/2/reg (access: 2020.08.29.).
21. Regulations on Standards and Procedure for Accreditation of Study Programmes: 66/2019-7. Official Gazette of the Republic of Serbia. No. 66 (Sept 18, 2019). https://www.nat.rs/en/regulations/ (access: 2020.08.29.).
22. Pravilnik o pripravničkom stažu i stručnom ispitu zdravstvenih radnika:33/2019-26. Službeni glasnik RS (Rulebook on internship and professional exam of health workers: 33 / 2019-26. Official Gazette of RS) No. 33 (May 10, 2019). http://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/ministarstva/pravilnik/2019/33/4/reg (access: 2020.08.27.).
23. Simin D, Milutinović D, Brestovački B, et al. Improvement of teamwork in health care through interprofessional education. Srp Arh Celok Lek. 2010; 138 (7-8): 480-485.
24. Milutinović D, Lovrić R, Simin D. Interprofessional education and collaborative practice: Psychometric analysis of the Readiness for Interprofessional Learning Scale in undergraduate Serbian healthcare student context. Nurse Educ Today. 2018; 65: 74-80.
25. Zakon o zdravstvenoj zaštiti 25/2019-40. Službeni glasnik RS (Law on Health Care 25/ 2019-40. Official Gazette of RS) No. 25 (Apr 3,2019) http://www.pravno-informacioni sistem.rs/SlGlasnikPortal/eli/rep/sgrs/skupstina/zakon/ 2019/25/2 (access: 2020.08.27.).
26. Statut Komore medicinskih sestara i zdravstvenih tehničara Srbije: 115/2006-171, 21/2008-31, 69/2008-33, 10/2012-10, 85/2015-20. Službeni glasnik RS. (Statute of the Chamber of Nurses and Health Technicians of Serbia: 115/2006-171, 21/2008-31, 69/2008-33, 10/2012-10, 85/2015-20. Official Gazette of RS) No. 115/2006, 21/2008, 9/2015-1, 68/2008, 10/2012 and 85/2015. https://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/drugeorganizacije/statut/2006/115/1/reg (access: 2020.08.29.).
27. Institute of Public Health of Serbia "Dr Milan Jovanovic Batut". Health Statistical Yearbook of Republic Serbia 2018. Institute of Public Health of Serbia "Dr Milan Jovanovic Batut", Beograd, 2019. http://www.batut.org.rs/download/publikacije/pub2018.pdf (access: 2020.09.12.).

Dana Zrubcová, Andrea Solgajová

NURSING IN SLOVAKIA

1. Brief history of nursing

The development of nursing in individual periods is influenced by cultural traditions, and social, religious, political and economic situations. The first references to nursing date back to history. In Slovakia, the first monastic shelter was founded around 1000 by the Benedictines near St. Hypolitus' Monastery on the Zobor hill near Nitra, where the main focus of the monks was caring for the sick. [1,2]. In the territory of modern Bratislava, a monastic hospital was established in 1095 [3]. The municipal hospitals were established in the 14th and 15th centuries: in Trenčín in 1340; in Trnava in 1362; in Banská Bystrica in 1380; in Kremnica in 1382; in Nová Baňa in 1391; and in Bardejov in 1418. In them, the monks, as well as civilian carers, took care of sick and dying wayfarers, and provided them with therapeutic care [3,1]. In the Enlightenment period (1717-1780), at the time of the Theresa and Joseph's reforms, the implementation of advanced elements of health care became more pronounced. The reforms limited the power of the church and brought gradual improvement in care for the sick. In 1753, regional and municipal physicians were constituted and gave suggestions related mainly to the hygiene conditions of the town administration. In 1770, a standard which regulated the rights and obligations of all healthcare workers was established. Emperor Joseph II included the small hospitals in general hospitals [4]. For Slovak nursing, the establishment of the Faculty of Medicine in the Jesuit University in Trnava in 1770 was of great importance. For the first time in our history, not only physicians but also midwives were required to have completed institutional education which they acquired at the University. Midwives attended six-week courses in the Surgical and Obstetrical Department [2,4]. The training of nurses was not institutionalized yet; at that time, they learnt in hospitals directly in their workplaces from physicians and older colleagues [5]. The pioneer of nursing in Slovakia was Janka Hrebendová, who organized courses in wound care and dressing for women. She was also the first organizer of treatment of the wounded on the battlefields in 1848 in the rescue of Slovak volunteers [2].

In the second half of the 19th century, there was significant progress in nursing and midwifery in the world. The establishment of the first nursing school in London influenced the emancipation efforts of women in Austria-Hungary. In 1872, the Hungarian Royal Ministry of Culture and Education established the Regional Institute of Midwives in Bratislava, where theoretical and practical trainings were intertwined during a four-month course [2]. The Institute was led by MUDr. Ján Ambro, who published the first textbook "The Book on Obstetrics for Midwives"

in the Slovak language. In 1899 at the General Assembly of the Živena Association, which had the improvement of the health status of the inhabitants in the programme, Elena Maróty-Šoltésová initiated the establishment of the Slovak School for Girls oriented on social and health care. In that period, nursing care focused on the activity in hospitals and primary health care. Sick people were treated in adverse conditions by nuns and civilian carers who were generally only briefly trained. Nursing focused on meeting the needs of the sick, assisting in some medical procedures and ensuring the running of wards. In primary health care, the space was created for midwives who delivered babies in the home environment [1,4].

In 1914, a decree set the duration of nursing training for two years. Care expanded to include preventive, health and social care. It was also aimed at children and visiting services in families. In addition to theoretical training, an emphasis was placed on organized practice [1,4].

The dissolution of Austria-Hungary, the emergence of the Czechoslovak Republic in 1918 and new social requirements changed the approach towards nursing training in Slovakia. Slovak nursing took over the experience of the Nursing School in Prague. The establishment of hospitals and gradual progress in medicine required the need for systematic training of nursing staff also in Slovakia. Working conditions continued to be very unfavourable. Hospitals mostly employed nuns who were accommodated in convents. Civilian graduate nurses were not accepted in hospitals with understanding. Civilian nurses and caregivers lived in rooms with the sick. Their work was strenuous not only physically but also psychologically. Many patients who came to hospitals were malnourished and affected by lice. The nurses were required to show humility, discipline and obedience. The salary conditions were unsatisfactory; many nurses worked only for food and accommodation [4,6]. The two-year School for Social and Health are was established in the Institute of M. R. Štefánik in 1925 as the first public school of this type in Slovakia. Training focused mainly on communicating the knowledge that graduates needed in providing social assistance and health care and in counselling to overcome the prejudices and beliefs deeply ingrained especially in the countryside [7,8]. In 1929, the two-year Nursing School of the Sisters of Mercy of the Holy Cross was founded in Bratislava. Its mother superior was Sister Fides Dermeková, a graduate of the Nursing School in Prague. The School of the Holy Cross was attended by nuns and civilian applicants. Also thanks to the thoughtful and widely formulated, methodically elaborated system of education and under the practical guidance of Sister Fides, the graduates of the Nursing School acquired prestige which enabled its graduates to get employed not only in state, county and provincial hospitals, but also in the private sector. They were well-known for their experience in operating theatres acquired during their practice. Their hallmark were the professional nursing badges which they received along with diplomas after successful finishing the school [9]. In 1932, the Nursing School of the Sisters of Mercy of St. Vincent in Košice was founded on the same basis [10]. Košice was chosen to be a seat of the

School because there was a new modern hospital in the city where students could acquire quality professional training [7].

Difficult social conditions in Slovakia made it necessary to found schools for social and health care. An important figure credited for establishing the Two-Year Nursing School was the president of the Živena Association Elena Maroty-Šoltésová. The School was founded in 1933 as part of the M.R. Štefánik's Institute in Turčiansky Svätý Martin. Oľga Šimeková, a graduate of the Nursing School in Prague, became the academic director. American graduate nurses also worked at the School. The admission requirement was the completion of a two-year vocational school for women's professions and 18 years of age [4]. The School educated only civilian nurses [2, 11]. After passing the final diploma examination, the graduates took the oath and could use the title *a graduate nurse of the sick* [7]. Their work was rather in the field aimed at prevention or care for socially disadvantaged groups. Still, mostly nuns worked in hospitals [12]. In the interwar period, the job of a chief nurse was to inspect the cleanliness of the rooms and hygiene of patients and their satisfaction with the behaviour of nurses twice a day. She supervised the preparation and serving of food and planned the menu. She participated in the morning ward rounds, kept a book of admissions and discharges of patients, and ensured patients were accompanied to other wards. She provided for archiving the medical records, managed a partial pharmacy, and kept an inventory book. She distributed workloads to nurses and gave new staff initial training. She was subordinate to a chief physician of the department and facilitated work mainly for the physicians [6].

During the War World II, nurses worked not only in hospitals; they also cared for abandoned children, prisoners, or the wounded directly on the front line and during the Slovak National Uprising [4]. The number of nursing schools increased only after the World War II. In 1946-1948, three church nursing schools – the St. Vincent's School in Nitra, the School of the Sisters of Mercy in Trenčín, and the School of the Daughters of St. Francis of Assisi in Nové Zámky – and three state schools in Košice, Zvolen and Liptovský Mikuláš were established. The Higher Nursing School of the Czechoslovak Red Cross was established in Prague and was attended by Slovak nurses too. The School trained the graduate nurses who had already gained the necessary experience for the posts in management and education [13]. In 1947, there were nine nursing schools in Slovakia [1,8].

After 1948, the development of nursing was influenced by political and social changes in the country. Health care was nationalised, and nuns were removed from the posts in the hospitals. However, the payment the nurses got was not sufficient as they worked under the Government Regulation of 1927 which determined working hours "as necessary". The shifts lasted from 12 to 36 hours for a very low salary. Therefore, the nursing profession was not attractive. Since all the citizens had health care guaranteed by the Act No. 103/1951 Coll. on *uniform therapeutic and preventive care*, the society had difficulties in providing health care. The Act No. 66/1950 Coll. on *the employment and salary conditions of civil servants* enacted an eight-hour

working day, and also regulated the salary conditions of nurses. Nurses working in hospitals were gradually given the activities that exceeded care responsibilities and it was, therefore, necessary to define the categories of middle lower and auxiliary health workers. The Decree of the Ministry of Health No. 70/1953 on *the professional competence and professional training of middle and lower health workers* defined the conditions for acquiring professional competence for performance of the profession. The School Act No. 95/1948 Coll. on *the basic regulation of unified education system* created a unified system of education. The duration of the studies was four years in 1948-1951. In 1952-1955, it was three years. Then, in 1955-2001, it was four years again. The 14-15-year-old primary school leavers were admitted to the studies. The graduates acquired full secondary vocational education with the school-leaving examination, and the competence to work as a general, paediatric and gynaecology nurse. The individual professions were substitutable in practice [1,4]. University education for nurses was activated in 1960 at the Charles University in Prague and in 1962 at the Comenius University in Bratislava. The philosophical and medical faculties prepared nurses with university education which vertically followed the studies at secondary nursing schools. Since they were intended for nursing teachers, most graduates were active in undergraduate education of nurses and only a small part in nursing practice and its management [4,5,14]. In 1966, the Decree of the Ministry of Health No. 44/1966 on *health workers and other health professionals* defined the categories of health workers. There were the nursing fields: a general nurse, a paediatric nurse, a gynaecology nurse, a dental nurse, and a nurse dietitian. In the 1980s in the Slovak Republic, undergraduate training of nurses was provided by 25 secondary nursing schools. In the period 1948-1989, in terms of enhanced hospital care, the professional role of nurses was perceived as a complement to medical care. Nursing was not autonomous. The competences that the nurses had did not allow for independent decision-making. Nursing was oriented medically, on the technique of procedures under the supervision of physicians. The assisting role was perceived positively. The nurse was accepted only as a physician's assistant, not as an equal member of the healthcare team. Nursing was regarded only as a practical activity, not as an independent field of science. Despite the fact that medically oriented nursing focused mainly on hospital care, nurses also worked in primary health care. In the 1950s, Slovak nursing became isolated from other developed countries in which nursing became autonomous, focused on a healthy individual and his quality of life, health restoration, and care for the sick [1,5]. Nurses who acquired information from abroad tried to introduce new knowledge into education and practice, but mostly unsuccessfully [5].

Until 1989, there were no social nor political conditions in Slovakia to change the philosophy of nursing and to promote new knowledge gained from developed countries. After 1989, not only were there political changes but also changes in the social and health system. In the 1990s, the transformation of nursing education began and influenced nursing practice. In 1994, at the proposal of the Slovak Chamber of

Middle Health Workers, the Conception of Nursing, which defines nursing as an independent discipline of science, was approved. Nursing care became more independent and the assisting role of nurses became less significant. Nursing training for workers was defined in accordance with minimum international standards. The Act No. 277/1994 Coll. on *health care* defined the categories of health workers, including the category of nurse. In 1997, the National Plan for the Development of Nursing was approved; it defined the priorities of nursing in Slovakia in an international context. It focused on improving the quality of care provided, introducing the method of nursing process. The changes also focused on funding nursing, nursing research and international collaboration [5].

Membership in organisations and journals

In 1921, the graduates of the Nursing School founded the Nursing School Graduates' Association, which focused on the training of nurses. Later, the association was renamed the Association of Graduate Nurses in Czechoslovakia. It sought to uplift the nursing status and cultivated a professional discipline. It was involved in improving the training of nurses and established contacts with sister organisations abroad. In Paris in 1933, the Association of Graduate Nurses of the Czechoslovak Republic was accepted as a full member of the International Council of Nurses (ICN). A condition of membership was that the incorporated sister organisations were non-political, nationwide, seeking the highest possible level of nursing, and striving for at least three years of education. Czechoslovak nurses had their own professional journal called *Diplomovaná sestra*. The first double issue was published in 1937 [15]. The membership in the ICN was terminated in 1948 because the Association of Graduate Nurses had to unite with the Revolutionary Trade Union Movement and thus it did not meet one of the requirements of the ICN statutes – to be apolitical – anymore. It suspended the further development of Czechoslovak nursing at international level [5, 6]. In 1950, the journal *Zdravotnická pracovnice* was established; in 1970, it was supplemented by a regular scientific and research part *Československé ošetřovatelství*. In 1972, the Professional Association of Middle Health Workers was established within the Slovak Medical Society. The Czech and Slovak Association of Nurses had a joint committee the Czechoslovak Association of Nurses, which was re-accepted to ICN in 1982 [4, 6]. After the division of Czechoslovakia, the membership of the Czechoslovak Association of Nurses in the ICN was terminated again. The activities of the Slovak Association of Nurses continued to focus on further continuous training of nurses and collaboration with partner organisations in Slovakia and abroad. Since 1995 the Slovak Association has published the professional journal *Revue ošetrovateľstva a laboratórnych metodík* [4, 5]. In the context of changes in the political system and the efforts to divide the common Czechoslovak Republic in 1990, middle health workers in Slovakia established the Slovak Union of Middle Health Workers, which aimed to protect and promote the professional and social interests of its members. In 1992, the National Council

decided to revitalise the chambers and professional organisations. By the Act No. 14/1992 Coll. on *the Slovak Chamber of Middle Health Workers and the Slovak Chamber of Dental Technicians,* the Slovak Chamber of Middle Health Workers (*Slovenská komora stredných zdravotníckych pracovníkov*, SK SZP) was designated as the legal successor to the Slovak Union of Middle Health Workers. The SK SZP had 28 professional sections which participated in the continuous training of their members. It collaborated with national and international partner organizations. In 1997, the SK SZP was re-admitted as a full member of the International Council of Nurses (ICN) at the 25th International Congress in Vancouver. The main task for the development of international collaboration was to achieve changes in education and nursing practice in accordance with global trends. During its existence, the SK SZP published the professional journal *Slovenský zdravotník* [4, 5]. In the process of the accession negotiations between the Slovak Republic and the European Union (EU), there were gradual changes in the legislation, in line with the requirements resulting from the EU directives on education and exercise of regulated professions in the health sector in the EU Member States. In 2002, the National Council adopted the Act No. 311/2002 Coll. on *the profession of nurse, on the profession of midwife, on the Slovak Chamber of Nurses and Midwives* (orig. Slovenská komora sestier a pôrodných asistentiek, SK SaPA), which regulated the conditions of performance and continuous training in the exercise of the profession. The Act also defined the basic tasks of the Chamber. One of the priority tasks is keeping and updating the Register of Nurses and the Register of Midwives. Membership in the Chamber was given by registering in the relevant register and was compulsory for all nurses and midwives who were active in their profession. Each member of the Chamber was obliged to practise their profession professionally and in accordance with the Code of Ethics for Nurses and the Code of Ethics for Midwives [4,5]. In 2004, the National Council approved the Act No. 578/ 2004 Coll. on *healthcare providers, healthcare workers, professional organisations in the health sector and on amendments to certain laws*, which regulates the membership in professional organisations. The membership became voluntary with the effect of the Act. In the present, the SK SaPA aims to promote and maintain the highest possible standard of care in nursing and midwifery, and develop practice, management, education, continuous education, ethics and research in nursing and midwifery. It defends the professional, social and legal interests of its members. It represents nurses and midwives before the Government, the Parliament, non-governmental organisations, the public in Slovakia and abroad [16]. It is a member of the international organisations: the European Federation of Nurses (EFN) since 2004; and the European Psychiatric Nurses-HORATIO, the European Federation of Critical Care Nursing Associations (EFCCNa), and the European Midwives Association (EMA) since 2013. Since its inception in 2002, the SKSaPA continued to publish the *Slovenský zdravotník* journal. Since 2003, it has been publishing its own scientific peer-reviewed journal *Ošetrovateľstvo a pôrodná asistencia*.

2. System of education for nurses

Until 1948, nursing schools focused on training for the nursing profession. Practical training accounted for approximately 80 % of the studies. Theoretical knowledge focused on knowledge in the field of medicine. From 1948 to 1989, health education was included in the system of vocational schools, which, in addition to vocational training, also had the prescribed scope of general education knowledge which allowed the students to obtain a school leaving examination certificate (*maturitné vysvedčenie*) [4].

In 1989 in the then Czechoslovakia, there were changes in political and social life as well as changes in the understanding of health care. Although health reform did not deal with nursing education, nursing became part of the reform steps [5]. Changes in practice and the formation of the field of nursing as a science assumed the acquisition of new knowledge and changes in education. Undergraduate education had to be designed in such a way that the content and scope of education, the conditions for admission and completion of studies were comparable to those of the developed EU countries. In 1991, the concept of education was presented by educators in nursing. The concept was based on the experience of the training of nurses in Slovakia and the new school legislation (the School Act and the Higher Education Act) which allowed higher vocational and university bachelor's studies. The basis for the creation was also to ensure the compatibility of education with the European Union criteria for training of nurses. The transformation of education was in two stages. Most of the requirements of the EU directives for changes in the content of training of nurses were accepted [4,8].

The first stage took place in the period before the Slovak Republic joined the EU from 1990 and education and training were as follows:

- At the Secondary Nursing School of M. R. Štefánik, the field of study a diploma general nurse in the full-time form of studies was initiated. At the same time, in the academic year 1990/91, a study programme Nursing was implemented at the Jessenius Faculty of Medicine, the Comenius University in Martin. These training models envisaged the transformation of selected secondary nursing schools to higher vocational schools [5].
- Until 2000, 31 secondary nursing schools continued to teach in the field of study a general nurse. The duration of the studies for 15-year-old primary school leavers was four years, and for 17-year-old graduates of other secondary schools it was three years. In both forms, the study was completed by the school-leaving examination (maturita). The studies were terminated in 2004 [4].
- Full-time three-year higher vocational study a diploma general nurse, intended for 18-year-old graduates completed by a graduation examination, was activated in 1999 at 11 secondary nursing schools [5]. In the content, duration and organisation, the studies corresponded to the EU standards No. 77/452/EEC; 77/453/EEC, 80/154/EEC; and 81/1057/EEC [4].

– Part-time follow-up higher vocational study, which was intended for general nurses with a school-leaving examination and defined nursing experience. The study was completed by a graduation examination [4,5].

The Decree of the Government of the Slovak Republic No. 742/2004 Coll. on *professional competence for the exercise of the healthcare profession* granted professional competence without the need to supplement the education to a nurse who acquired full secondary vocational education in the field of study a nurse, a general nurse, a paediatric nurse, a gynaecology nurse, and a dental nurse, if she carried out the activities of nurses responsible for general care for at least three years from 1999.

The second stage of changes in nursing training started in 2004 after Slovakia joined the EU. The study is carried out as higher vocational studies and university studies as follows:

– Full-time three-year higher vocational studies in the field of study for graduates of secondary schools with a school-leaving examination. In the period after 2004, the part-time follow-up higher vocational studies were terminated [5]. At present, the interest in full-time studies in the field a diploma general nurse has been gradually decreasing.
– Full-time university three-year bachelor's degree studies and follow-up two-year full-time master's degree studies.
– Part-time university three-year bachelor's degree studies and follow-up two-year part-time master's degree studies. The studies were intended exclusively for nurses, secondary nursing school graduates and with at least two years of professional experience [4,5].
– In 2016, an amendment to the Act No. 131/2002 Coll. on *universities and on amendments to certain laws* was approved, which adjusted the duration of part-time studies at all universities in Slovakia. At present, four-year bachelor's degree study programmes and three-year master's degree study programmes are accredited. Graduates with completed secondary education can study in the part-time form. These changes also apply to nursing studies.
– After completing master's degree studies, nurses may continue at the third level of university education in full-time and part-time doctoral studies.

Training is in accordance with the Directive 2013/55/EU of the European Parliament and of the Council amending the Directive 2005/36/EC on the recognition of professional qualifications. The studies meet the minimum requirements stated in the Directive for undergraduate education: minimum age of 17 years and completed general education of ten years, or completion of qualification studies of equivalent standard; the duration of studies is at least three years of study or 4,600 hours of theoretical and clinical training; and the duration of the theoretical training representing at least one-third and the duration of the clinical training at least one half of the minimum duration of the training. During theoretical training, the student

acquires knowledge and skills and professional skills in laboratory conditions. Clinical training shall take place in direct contact with a healthy or sick individual or community. Students learn to plan, organise, provide and evaluate nursing care on the basis of acquired knowledge and skills. Teaching is carried out in healthcare facilities and in community under the supervision by university teachers – nurses, in collaboration with nurses [5].

University education is provided at higher education institutions which have an accredited field of study Nursing. At present, bachelor's studies are accredited at ten higher education institutions and universities, and master's studies at five higher education institutions and universities. Doctoral studies are currently accredited at three universities. Nurses have the opportunity to habilitate and inaugurate in nursing at one university in Slovakia.

Postgraduate training of nurses

All healthcare professionals are obliged to continuous lifelong education to ensure the quality of care provided. The Institute for Education of Middle Health Workers was established in Bratislava in 1960. It allowed nurses to study in the form of basic and further speciality studies. Postgraduate education was methodically modified by the Decree of the Ministry of Health of the Slovak Republic No. 77/1971 on *health workers and other health professionals* [4,5]. For nurses, it defined 6-12 months of starting practice and further education as post-secondary specialty studies. Based on the requirements of practice, 35 speciality fields were created, of which 11 specialties were intended for nurses [5].

The transformation of the health system affected also the further education system. The Institute for Education of Health Workers was transformed in 1998 into the Slovak Postgraduate Academy of Medicine, which provided further education for all categories of health workers. Pluralism was introduced into further education in 2003 by modifying the Higher Education Act and the Health Care Act. Other educational institutions could also apply for accreditation of further education [5]. The Act No. 578/2004 Coll. on *health care providers, healthcare workers, professional organisations in the health system and on amendments to certain laws, as amended*, defines continuous education as the continuous deepening and maintenance of acquired professional competence in accordance with the development of the relevant fields throughout the exercise of the healthcare profession. The method of further education was modified by the Regulation of the Government of the Slovak Republic No. 743/2004 on *the method of further education of health workers, the system of speciality fields and the system of certified work activities*. Nurses' further education activities can be carried out as speciality studies, certification training, and continuous education. Continuous education is defined as the continuous deepening and maintenance of acquired professional competence in accordance with the development of the nursing field throughout the whole period of the exercise of the profession of nurse. Continuous education may include participation in conferences, lectures, workshops, or professional traineeships. They

are provided to nurses by an employer, the SK SaPA individually or in collaboration with educational facilities, or other internationally recognised professional societies or professional associations and providers.

The Regulation of the Government of the Slovak Republic No. 296/2010 Coll. on *professional competence for the exercise of the health profession, the method of further education of healthcare workers, the system of speciality fields and the system of certified occupational activities* defines the system of speciality fields and the system of certified occupational activities in the nurse category as follows:

A) Specialty fields with the minimum duration of speciality studies of one year:
- Anaesthesiology and Intensive Care,
- Instrumentation in the Operating Theatre,
- Intensive Nursing Care for Adults,
- Intensive Nursing Care in Neonatology,
- Intensive Nursing Care in Paediatrics,
- Nursing Care for Adults,
- Nursing Care in Community,
- Nursing Care in Paediatrics,
- Nursing Care in Psychiatry,
- Perfusiology.

B) Speciality fields with the minimum duration of speciality studies of one year after obtaining the master's degree in nursing:
- Auditing Nursing.

C) Speciality fields with the duration of specialty studies of more than one year after obtaining the master's degree in nursing:
- Health Management and Administration (HMA),
- Master of Public Health (MPH) – public health management expert,
- Health Management and Funding.

Speciality studies in all accredited speciality fields are completed by a specialty examination before a committee appointed by an educational institution. After successful completion of the speciality examination, the graduate receives a diploma on speciality.

The certified activities in the category of a nurse:
- Audiometry,
- Endoscopic examination methods in individual fields,
- Functional examination methods,
- Invasive and interventional diagnostic and therapeutic procedures,
- Classification system in the health system,
- Orthoptics and pleoptics,
- Nursing care for diabetics,
- Nursing care for chronic wounds,
- Nursing care in haematology and transfusiology,
- Sterilisation and disinfection of healthcare equipment,
- Examination methods in clinical neurophysiology and neurodiagnostics.

The educational institution shall issue a certificate to the nurse after successful completion of certification training.

The evaluation of continuous education is carried out in the regular five-year cycles which are counted from the date of registration of the nurse in the SK SaPA register. The evaluation of nurses is done electronically or in regional centres for the evaluation of continuous education. The criteria and method of evaluation of continuous education activities are carried out in accordance with Decree of the Ministry of Health of the Slovak Republic No. 74/2019 Coll. on *the criteria and method of evaluation of continuous education of a healthcare worker.*

3. The legal status of nursing

Nursing in the 21st century faces many challenges as a result of global as well as regional social and economic changes. The provision of nursing care in the Slovak Republic has progressed significantly in recent decades, when not only education has changed under the current European legislation, but also the scope of practice of nurses and midwives [16]. The key act defining the categories of healthcare workers and the conditions for the provision of health care and services related to the provision of health care in Slovakia is the Act No. 578/2004 Coll. on *health care providers, healthcare workers, professional organisations in the health sector and amendments to certain laws*. In 2018, there were several legislative changes in Slovakia that affect the direction of the field [17]. The Decree of the Ministry of Finance of the Slovak Republic No. 364/2005 Coll., defining *the scope of nursing practice provided by the nurse independently and in collaboration with the physician* was replaced by the Decree of the Ministry of Health of the Slovak Republic No. 95/2018 Coll., defining *the scope of nursing practice provided by the nurse independently, independently based on the indication of the physician, and in collaboration with the physician, and the scope of the practice of midwifery provided by the midwife independently, independently based on the indication of the physician and in collaboration with the physician.* The Decree defines four categories of nurses and their competencies:

Nurse – obtained professional competence to perform professional activities through university education in the first or second level of studies in nursing, or higher vocational training in the field of a diploma general nurse.

Nurse specialist – obtained professional competence to perform professional activities and professional competence to perform specialty activities.

Advanced practice nurse – completed university education in master's degree in nursing if they completed university education in bachelor's degree in nursing and speciality in the relevant speciality field and has at least five years of professional experience in the relevant specialty field. The advanced practice nurse is also a nurse who completed university education in a master's degree programme

in nursing if they completed university education to bachelor's degree in nursing and has at least eight years of professional experience.

Nurse in nursing practice management – completed university education in master's degree, speciality in the relevant speciality field and has professional experience.

The Decree provides a defined scope of nursing practice for each of the above stated categories.

The scope of nursing practice provided by **the nurse** independently: The nurse

- Assesses the needs of an individual, family or group of individuals defined by a geographical area or by common interests and values,
- Identifies nursing diagnoses, plans, ensures meeting or meets individual's needs related to health, illness or dying, and evaluates meeting of the identified needs,
- Ensures that an individual's environment is maintained safe and that the individual's intimacy is protected in the provision of nursing care,
- Provides and performs activities in relation to the admission, discharge, transfer, dying and death of an individual,
- Collaborates with other healthcare professionals on the basis of a nursing care plan,
- Educates an individual, family, or community about healthy lifestyle, regimen measures in relation to nursing care, with an emphasis on individual's self-care;
- Recommends the use of over-the-counter medicines, dietetic foods and medical devices in relation to the provision of nursing care,
- Participates in the protection, promotion and development of public health,
- Coordinates the activities of healthcare assistants and porters, and delegates activities to them in the scope of their competences,
- Performs administration and documentation activities, issues confirmations and reports related to the provision of nursing care,
- Uses available individual's medical records, including electronic records, for the implementation and documentation of nursing care,
- Assesses individual's health status or any changes in individual's health status, using assessment tools and measuring instruments to assess health status or changes in health status,
- Participates in the assessment of individual's status by means of a checklist or questionnaire in relation to the relevant disease or clinical condition and informs the physician about the deviations found,
- Assesses the needs for providing long-term nursing care to an individual,
- Measures, monitors and interprets numerical and clinical data on individual's vital signs and physiological functions in the extent necessary for the provision of health care,
- Ensures the provision of continuous nursing care to an individual after the discharge from an institutional healthcare facility to the natural social environment of an individual,

– Manages the hygiene of the environment, including disinfection and sterilisation of medical devices, apparatus, instruments and equipment used in the provision of nursing care and, according to the degree of difficulty, participates in disinfection and sterilisation,
– Recommends further health care within the scope of nursing care;
– Conducts informative visual acuity tests using optotypes, informative colour sensitivity tests and informative hearing tests,
– Decides on activities and performs activities related to the provision of nursing care depending on the identified needs of an individual, family, and community,
– Ensures the mobilisation of an individual and nursing rehabilitation in an individual, and participates in prevention of immobility disorders,
– Assesses and treats disorders of the integrity of skin and mucous membranes,
– Provides application of packs and compresses,
– Sucks out secretions from the upper respiratory tract and ensures their patency; sucks out secretions in an individual with secured lower respiratory tract,
– Treats the places of insertion of invasive access devices such as drains, peripheral and central venous cannulas and epidural catheters, and ensures and inspects their functionality,
– Treats all types of stoma,
– Indicates catheterisation of the urinary bladder, performs catheterisation of the urinary bladder and inserts a permanent urinary catheter in a woman, ensures the functionality of a permanent urinary catheter, inserts a rectal tube,
– Examines blood samples with the use of simple diagnostic devices,
– Administrates oxygen therapy, inhalation therapy, enteral nutrition, enemas and therapeutic baths,
– Monitors and evaluates the fluid balance,
– Performs resuscitation in an individual, including the use of an automatic external defibrillator and rescue breathing with an anaesthesiologic mask in emergency medical care,
– Implements preventive measures in individuals with chronic illnesses, and physical or mental disabilities in order to reduce the risk of destabilisation of an individual's health condition,
– Participates in practical training of students of health fields.

The scope of nursing practice provided by the nurse independently based on physician's indication. The nurse
– Prepares an individual for diagnostic and therapeutic procedures, provides nursing care during and after the procedures,
– Takes biological material such as capillary blood, peripheral vein blood, blood from a central venous catheter, urine, faeces, sputum, swabs from skin, mucous membranes, body cavities and wounds,
– Dresses and treats wounds,

– Removes stitches from the wound healing by primary intention,
– Inserts gastric probes and duodenal probes in cooperating individuals, ensures their functionality, administrates enteral nutrition, removes gastric and duodenal probes,
– Inserts cannulas into peripheral veins, removes cannulas from peripheral veins,
– Administrates parenteral nutrition,
– Administrates drugs sublingually, orally, rectally, through inhalation, locally to the skin and mucous membranes, vaginally, epidurally, intracutaneously, subcutaneously, intramuscularly, intravenously, excluding blood transfusions, blood derivatives and contrast agents,
– Ensures the management of administrative activities related to the performance of examinations.

The nurse also performs nursing procedures related to diagnostic and therapeutic procedures performed by the physician in invasive and non-invasive procedures of a surgical and non-surgical nature, when administrating contrast agents intravenously and administrating transfusion drugs and transfusion preparations.

The nurse specialist provides nursing care within the scope of the nurse's competence and speciality nursing care which is provided in speciality fields intended for the nurse and independently. The nurse
– Indicates and performs the replacement and removal of the cannula from the peripheral vein,
– Administrates medical treatment within the dosing range and pharmacological composition on the basis of the physician's indication and after assessing the need in an individual and evaluates the effectiveness of the treatment.

The advanced practice nurse, in addition to the activities of a nurse and a nurse specialist, independently:
– Assesses the needs of an individual, family, and community within the scope of preventive measures and nursing care,
– Is responsible for the development and implementation of the individual nursing plan of an individual,
– Proposes and indicates preventive measures to ensure the safety and stabilisation of an individual's health condition,
– Proposes and indicates interventions and methods in the provision of nursing care to an individual, family, and community;
– Indicates the collection of biological material for basic laboratory examinations to the extent specified after consultation with a physician,
– Decides and is responsible for the performance of interventions and the administration of medical treatment to an individual which meet the needs of an individual and are in accordance with a treatment plan stated by a physician,
– Indicates and prescribes medical devices related to the provision of nursing care in accordance with the Decree of the Ministry of Health of the Slovak

Republic No. 89/2018 issuing a list of medical devices that the nurse or midwife is entitled to prescribe,

- Indicates the treatment of the wound healing by primary intention,
- Ensures the adherence to relevant hygienic and epidemiological procedures, imposes a barrier regimen and supervises the adherence to the barrier regimen in the treatment of individuals,
- Decides on placing the individuals in beds in accordance with hygienic and epidemiological principles,
- Manages the activities of the nursing team members,
- Inspects and analyses the records in the nursing documentation,
- Develops, revises and evaluates nursing standards and nursing care maps, education plans and implements them in nursing practice,
- Monitors the need to conduct research in nursing, conducts nursing research and uses its results in nursing practice,
- Implements and evaluates a quality system in nursing care,
- Participates in the training of students of health fields.

The nurse in nursing practice management, besides the activities of a nurse and a nurse specialist, independently:

- Manages, plans, organises and reviews the achievement of strategic and operational objectives in the nursing sector,
- Collaborates in ensuring the adherence to the minimum requirements for staffing and material and technical resources of the workplace and ensures effective management of the provision of nursing care,
- Monitors, manages and inspects emergency management, corrective and preventive measures, addresses crisis situations related to the provision of health care in the nursing sector,
- Implements and upgrades the assessment scales and tools used in nursing practice, ensures measurability and traceability of quality of nursing care,
- Inspects and methodically manages the keeping of medical documentation within the scope of nursing care,
- Monitors the level of individuals' satisfaction with nursing care provided, takes corrective actions,
- Approves educational plans, local nursing care standards and maps, and inspects the adherence to them,
- Participates in and supervises the implementation of the results of nursing research in nursing practice,
- Participates in the training of students of health fields.

The current trend of the changing health systems suggests that the state of competences of nurses and midwives in Slovakia does not reflect their skills and knowledge, nor corresponds with the needs of providing nursing care to patients. Despite the fact that in Slovakia 47,5 % of the total number of nurses are nurse specialists, their competences do not differ from those of nurses without speciality,

which is ultimately not an incentive for enhancing their qualification and professional development, nor for taking responsibility [16].

4. Nursing in numbers

The profession of nurse is one of the key posts in the health system in Slovakia. In our society, it is generally perceived as important, lacking and also under-valued. Nurses in Slovakia were given new competences in 2018, which can ultimately improve their status as an equal partner of a physician in the provision of health care and the gradual stabilisation of the number of nurses. However, it is a long-term process. The prognoses of demographic changes assume considerable long-term ageing of the population, which will affect also the provision of health care in the years to come. Given the increasing number of people of retirement age and the associated increasing need for nursing care, it will be necessary to have much higher numbers of nurses available.

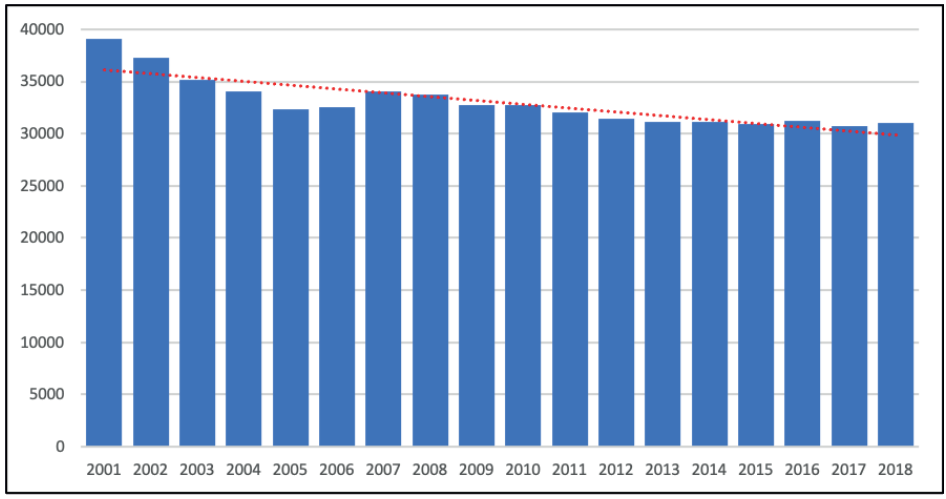
The development of the number of nurses in Slovakia has been on a long-term decreasing trend, which is of concern in the context of the ageing population and the increasing need for nursing care, as well as the impact of new pandemics. The decreasing trend in the number of nurses from the previous years has not continued and the number has been relatively stabilised. The number of nurses rose by 329 persons in 2018 compared to 2017 to 31,061 (See Table 1 and Graph 1). However, compared to 2001, it is still more than 8,000 nurses fewer [18].

Table1. Development of the number of nurses in the Slovak Republic since 2000

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number of nurses	39 073	37 65	35. 13	34 007	32 319	32.568	34 040	33 778	32 708

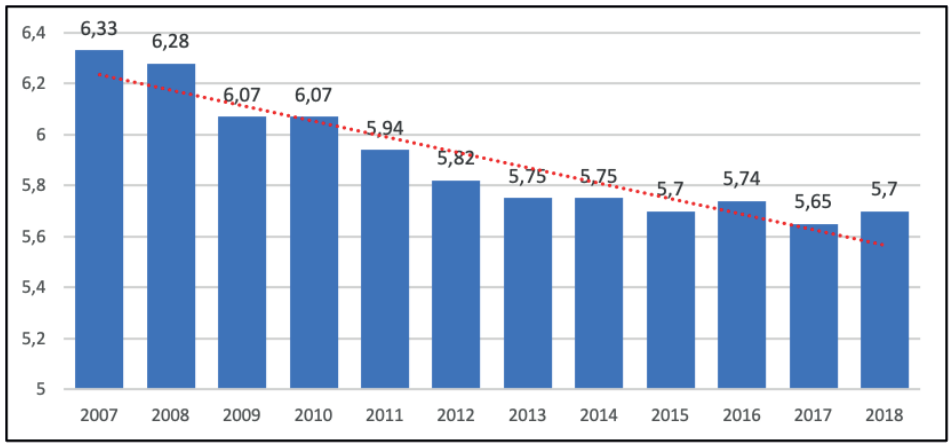
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of nurses	32 745	32 043	31 478	31 128	31 166	30 904	31 183	30 732	31 061

According to the statistics from the Organisation for Economic Co-Operation and Development (OECD/EU, 2018), the numbers of nurses in the neighbouring countries have been increasing slightly. Unfortunately, Slovakia has been failing to stabilise the number of nurses. The number of nurses in Slovakia is among the lowest in the EU countries. The Slovak Republic is one of the few countries that report a decrease in the number of nurses between 2000 and 2017, both in absolute terms and in terms of population (See Graph 2) [19]. In Slovakia, there are 5.70 nurses per 1,000 inhabitants, with an OECD average of 9.1 [20].



Graph 1. Development of the number of nurses in the Slovak Republic since 2000

Source: Zdravotnícka ročenka Slovenskej republiky 2018 [18].

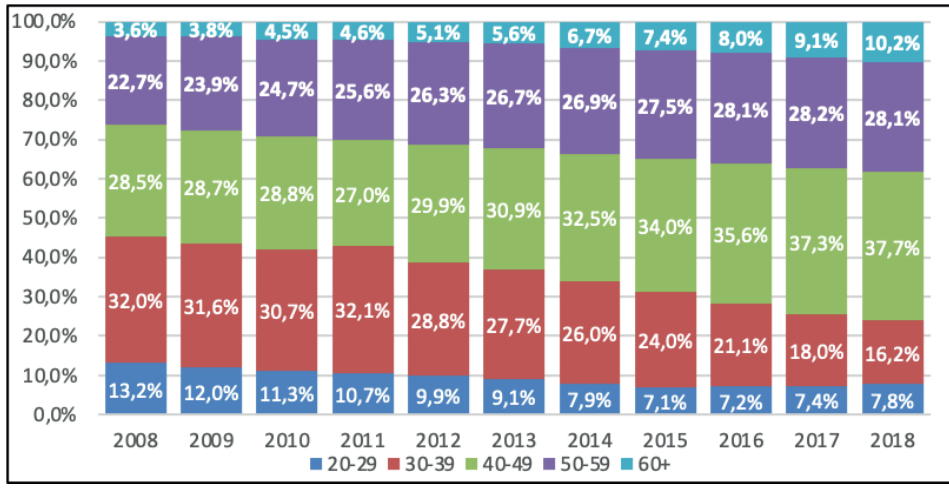


Graph 2. The number of nurses per 1,000 inhabitants in the Slovak Republic

Source: OECD/European Observatory on Health Systems and Policies: Slovensko Zdravotný profil krajiny 2019 [19].

It is important to draw attention not only to the decreasing numbers of nurses, but also to their changing age structure.

Graph 3 show that nurses in the health system in Slovakia are ageing. The percentage of nurses aged 20-29 years fell from 13.2 % in 2008 to 7.8 % in 2018. On the other hand, the percentage of nurses aged 60+ years increased from 3.6 % in 2008 % to 10.2 % in 2018. Thus, there are more active nurses in retirement age than in the early days of their working career [18].



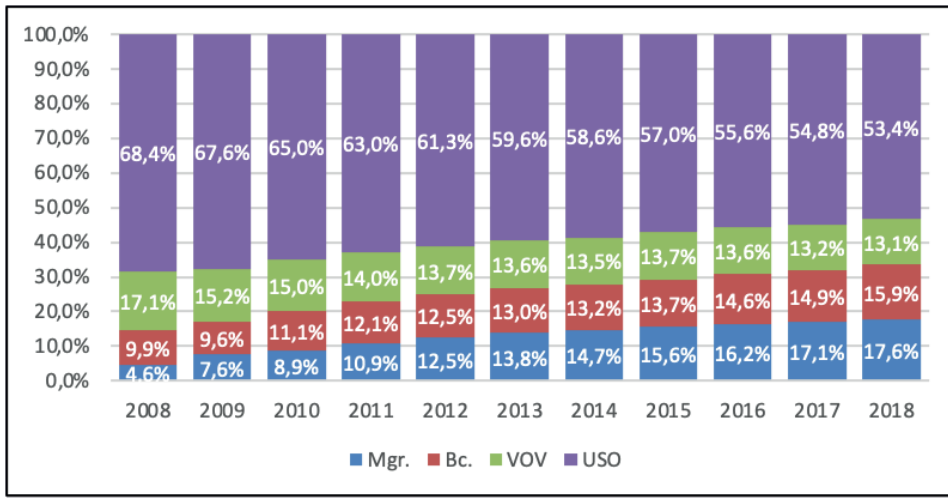
Graph 3. Development of the age structure of nurses in Slovakia

Source: Zdravotnícka ročenka Slovenskej republiky 2018 [18].

Nursing care is provided by nurses in outpatient and institutional healthcare facilities and in an individuals' natural social environment. The condition for exercising the health profession of nurse is the acquisition of professional competence. The profession of nurse is one of the five regulated professions; education and training are acquired in the field of nursing. The current professional education and training of nurses in Slovakia respond to new economic and social conditions and to global trends and requirements.

Graph 4 show that the percentage of nurses with full secondary education has been gradually decreasing. The percentage of nurses with full vocational education was 68.4 % in 2008 and 53.4 % in 2018, which is 15 % lower. On the other hand, the number of nurses with second-level university education increased from 4.6 % in 2008 to 17.6 % in 2018. It is due to the changes in the education system and by the natural process – retirement of nurses [18].

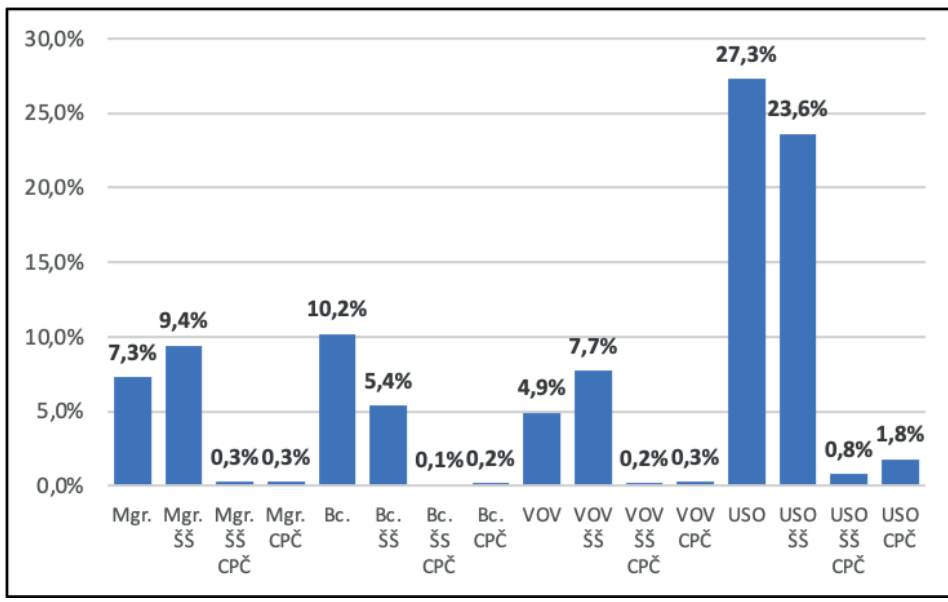
The current trend of the changing health systems suggests that the state of competences of nurses and midwives in Slovakia does not reflect their skills and knowledge, nor corresponds with the needs of providing nursing care to patients. Despite the fact that in Slovakia 47.5 % of the total number of nurses are nurse specialists (Graph 5) their competences do not differ from those of nurses without specialty, which is ultimately not an incentive for enhancing their qualification and professional development, nor for taking responsibility On the other hand, current practice also requires extending the activities of nurse specialists, such as working with an artificial pulmonary ventilation device, or a respiratory rehabilitation device. The development logically also indicates the need to adapt specialty and certification study programmes for nurses, as societal changes signal a greater need for nurses' competences as well as their flexibility on the labour market.



Legend: Mgr. – master's degree; Bc. – bachelor's degree; VOV – higher vocational education; USO – full secondary vocational education

Graph 4. Development of the educational structure of nurses in Slovakia

Source: Zdravotnícka ročenka Slovenskej republiky 2018 [18].



Legend: Mgr. – master's degree; ŠŠ – speciality studies; CPČ - certified work activity, Bc. – bachelor's degree; VOV – higher vocational education; USO – full secondary vocational education

Graph 5. Educational structure of nurses in 2020

Source: Zdravotnícka ročenka Slovenskej republiky 2018 [18].

5. Challenges and prospects

The most serious shortcomings and also challenges for solutions in the health system in the Slovak Republic include the lack of nurses and the absence of a clear definition of the competences of nurses and their adherence. The amendment and description of new competences will help nurses plan their professional development and growth. They will serve as a basis for educational institutions when and how to plan the next educational process for nurses. They will reduce the gap between theory and practice in order to ensure the consistency across the entire nursing sector and will point to the unique benefits of care provided by nurses in health and non-health facilities 24 hours a day. Staff shortages cause a psychological and physical burden on nurses, which can result in burnout and, in the most difficult cases, long-term sick leave. There are 12 or more patients per nurse, while there are no auxiliary staff who should assist nurses and provide basic nursing care. Last but not least, nurses draw attention to the excessive burden due to the increased administrative burden or duplication of documentation in health care. In various surveys, nurses state the management of paper nursing documentation as one of the factors of overload in the first places, as they do not have sufficient technical support – computers, tablets – to record performed nursing activities continuously [16, 21]. Another important factor is the absence of the use of the International Classification of Nursing Diagnoses (ICND/NANDA), or the International Classification of Nursing Interventions (ICNP) in electronic form which is available to most health systems in the EU providing nursing care by the method of nursing process. These methods significantly simplify and make the management of nursing documentation more accessible to nurses. The classification systems, assessment and evaluation scales in nursing, and standardised nursing procedures should be part of electronic health system.

The World Health Organization (WHO) calls on all eligible institutions to intensify their action to strengthen nursing by following these steps:

- Ensure the participation of nursing in decision-making at all stages of policy development and implementation;
- Point out to obstacles, in particular in the fields of recruitment policy, gender and status issues, and medical dominance;
- Provide financial benefits and career opportunities;
- Improve basic and continuous education and enable access to higher education in nursing,
- Create opportunities for nurses for joint education in both basic and continuous education, and an access to higher education in nursing and midwifery;
- Promote research and dissemination of information so that the development of nursing is based on knowledge and evidence;
- Seek opportunities to establish and support nursing programmes and services aimed at the nurses' communities and, where appropriate, introduce the post of a family nurse;

– Enhance the role of nurses in public health, health promotion and society development.

In order to achieve these objectives in Slovakia, it is necessary to ensure that nurses participate in decision-making at all political levels, and to create the conditions so that they can be active in the field of public health and community development, and can provide services aimed at family community nursing [16].

Nurses, as an essential powerhouse of providing high-quality, accessible and effective nursing care that represents almost 80 % of all activities in health system, may only be managed by a nurse [16].

References

1. Farkašová D, Koňošová H, Kubicová Ľ, et al. Ošetrovateľstvo – teória. 3. vyd. Osveta, Martin 2009.
2. Gulášová I. Úvod do histórie ošetrovateľstva. Kont. 2005; 7 (1-2) :47-52.
3. Dobríková-Porubčanová P, Adamicová K, BeržinecP. Nevyliečiteľne chorí v súčasnosti. Osveta, Martin 2005.
4. Krišková A, Musilová M, Závodná V. História ošetrovateľstva na Slovensku. In Lemon I. SKSZP, Bratislava 1997. 40-52.
5. Farkašová D, Závodná V, Kubicová Ľ, et al. História ošetrovateľstva. 1st ed. Osveta, Martin 2010.
6. Kutnohorská J. Historie ošetrovatelství. Grada Publishing, Praha 2010.
7. Moroviczova E, Zdravotnícke školstvo na Slovensku v medzivojnovom období. Studia Historica Nitriensia. *2017; 21(2): 327-347.*
8. Hanzlíková A. Profesionálne ošetrovateľstvo a jeho regulácia. Osveta, Martin 2011.
9. Iljevová Ľ, Juríková E. Kongregácia milosrdných sestier svätého Kríža a jej prínos pre rozvoj ošetrovateľského vzdelávania na Slovensku: 1. časť – založenie ošetrovateľskej školy v Bratislave. Historicko-pedagogické fórum. 2017; 6 (2): 14-23. online http://www.msap.sk/images/stories/casopis/hpf_2-2017.pdf (access: 2020.08.10).
10. Falisová A. Zdravotníctvo na Slovensku v medzivojnovom období.: Veda, Bratislava 1999.
11. Falisová A. Ženy v zdravotníctve so zameraním na ošetrovateľstvo (1918-1938). Človek a spoločnosť. 2006; 9 (4): 68 - 73. online http://www.clovekaspolocnost.sk/sk/rocnik-9-rok-2006/4/studie-a-clanky/zeny-v-zdravotnictve-so-zameranim-na-osetrovatelstvo-1918-1938/ (access: 2020.07.14).
12. Hanzlíková A. Ošetrovateľstvo – veda i umenie. Revue profesionálnej sestry. 1999; 6(6): 5-6.
13. Kočingerová I. Zaujímavosti z histórie ošetrovateľstva v košickom regione. Revue ošetrovateľstva a laboratórnych metodík. 2000; 6 (2*): 67.*
14. Botíková A. Manuál pre mentorky v ošetrovateľstve: Učebnica pre mentorky a študentov ošetrovateľstva. 2. vyd. Typi Universitatis Tyrnaviensis, Trnava 2011.
15. Staňková M. K 80 výročí založení založení profesní organizace českých sester. Sestra. 2001;12 (1): 16-17.
16. Lazorová I, Laurinc *M.* Zhrnutie problematiky ošetrovateľstva a pôrodnej asistencie v Slovenskej republike. SKSaPA 2020 online http://new.sksapa.sk/obsah/koncepcne-materialy-sk-sapa/zhrnutie-problematiky-osetrovatelstva-a-porodnej-asistencie-v-slovenskej-republike/.html (access: 2020.07.18).
17. Gondárová -Vihničková H. Legislatívne novinky v sesterskej profesii. Sestra 2018; 17 (5-6): 15-17.

18. Zdravotnícka ročenka Slovenskej republiky 2018. 2019 online http://www.nczisk.sk/Documents/rocenky/2018/Zdravotnicka_rocenka_Slovenskej_republiky_2018.pdf (acces: 2020.08.19.).
19. OECD/European Observatory on Health Systems and Policies Slovensko: Zdravotný profil krajiny 2019, State of Health in the EU, OECD Publishing, Paris/European Observatory on Health Systems and Policies. online https://ec.europa.eu/health/sites/health/files/state/docs/2019_chp_sk_slovak.pdf (access: 2020.27.08).
20. Stachura *P.* Nedostatok zdravotníckeho personálu na Slovensku. 2019; online https://zalepsiezdravotnictvo.sk/blogy/34-nedostatok-zdravotnickeho-personalu-na-slovensku (access: 2020.29.08).
21. Derňarová Ľ, Andraščíková Š, Žultáková S. et al. Kvalitná ošetrovateľská starostlivosť -výzva alebo nedosiahnuteľná méta? online https://www.unipo.sk/public/media/files/docs/fz_veda/svk/dokument_122_31.pdf (acces: 2020.07.15.).

Manca Pajnič, Renata Vettorazzi, Tina Levec, Ljubiša Pađen

NURSING IN SLOVENIA

1. Brief history of nursing

In the period of modern nursing, the majority of Western European countries have followed the Florence Nightingale initiative to educate nurses. However, nursing as a profession in Slovenia started to develop quite late, when the first Slovenian educated nurse came to Slovenia (1919). Up until that time, employed nuns of religious orders provided the majority of formal care in hospitals.

Angela Boškin is Slovenia's first officially recognized trained and educated nurse (graduated in Vienna, Austro-Hungarian Empire, today's Austria), who started her first job as a nurse in 1919 in Jesenice [1]. Only three years later, in 1923, the first Slovenian nursing school was established in Ljubljana. At first, the educational training programme lasted only one year, but it was extended to two years as soon as in 1927 and then, in 1932, to a three-year programme. In 1948, soon after World War II, the Nursing High School in Ljubljana started offering an upper secondary educational programme. Two years later, the college nursing degree programme started [2,3].

Due to an exclusive contract between civil hospitals and religious orders, newly qualified nurses could only work in preventive care, child and school health services, home care and military hospitals [4]. Qualified nurses also worked in the summer/winter camps for sick children and in the medical balneotherapy and climatotherapy resorts [5].

During World War II, Slovenia was occupied by Germans, Italians and Hungarians, so, during this period, nurses worked in "occupied" civil health care; however, many joined the partisan resistance movement, working illegally and underground [6]. Later, many nurses became members of the national liberation movement and joined partisan hospitals, often hidden in canyons and woods, or joined combat formations. Nurses took care of the sick and injured by providing perioperative care including anesthesia, collected material and medicines, and organized first aid and care courses. They also engaged in other activities [6,7,8].

After World War II, many people were disabled, the infrastructure was damaged and health care and health care services underwent development at an international level, including the establishment of the World Health Organization [9]. The health care system in the new state (Socialistic Republic of Yugoslavia) was reorganized [10]. In 1948, all members of religious orders were given a state decree to leave hospitals [11]. Nurses started practicing across all health care services – from prevention to acute services.

Therefore, nurses and nursing as a profession were assuming a stronger role through education, clinical practice and research [12]; however, at the time of former Yugoslavia, their role was still often perceived traditionally, i.e. as physician assistants rather than competent and autonomous nursing professionals. The Alma Ata Declaration (1978) provided a new perspective on nursing - emphasizing the need for education, the development of a system of quality nursing standards and the development of nursing management [13]. Public health was strengthening in Yugoslavia, emphasizing the role of nurses in primary care [14]. An important milestone was the establishment of the WHO Collaborating Centre for Primary Health Care Nursing in 1986 in Maribor, which had an important impact on the further development of nursing in Slovenia. Nursing research started to develop more systematically. In addition, co-workers at the Centre intensified their activities by means of introducing the nursing process, nursing diagnoses and nursing terminology to nurses in Slovenia [15].

Translation of important handbooks contributed to an integration of the nursing process and nursing diagnoses into the nursing clinical practice in Slovenia. Already in 1993, the first NANDA handbook (Nursing diagnoses: introduction to the study of nursing diagnoses) had been translated. Assistant Professor Dr. Marija Bohinc and her colleagues translated the Barrett & Richardson handbook: *The nursing process and documentation* in 1995 [16]. Professor Dr. Olga Šušteršič and her colleagues translated the alpha version of *The International Classification for Nursing Practice* in 1998 [17], while Dr. h. c. Majda Šlajmer-Japelj translated *Nursing Diagnosis* (M. Gordon) in 2004 [18]. The nurses working group - Slovenian Nursing Diagnoses (SLONDA) translated *NANDA International Nursing Diagnoses* in 2017 and in 2019, a revised version was published.

Another important work that contributed to nursing professionalization in Slovenia is the nursing terminology dictionary. Cibic and her colleagues [19] (1999) published *Slovenian nursing terminology*, defining more than 500 terms. This work helped to unify professional language across all key areas: education, practice, policy, and research.

Over the years, Slovenian nurses have also drawn international attention and received honorees. At least six Slovenian nurses were awarded the Florence Nightingale Medal for their work: Vera Šlajmer, Dina Urbančič, Cita Lovrenčič Bole, Jugoslava Polak Bragant, Neža Jarnovič and Jerica Kašca [20]. In 2008, Majda Šlajmer-Japelj became an Honorary Fellow of the Royal College of Nursing (United Kingdom) [21]. In 2018, Professor Dr. Majda Pajnkihar was accepted into the American Academy of Nursing and became a Fellow as the first Slovenian nurse; later in 2019 she also became a fellow of the European Academy of Nursing Science [22,23].

Development of professional societies

In 1927, graduates from the nursing school in Ljubljana established a professional organization. The aim of the organization was to enable collaboration and

connection between graduates, education of the members, counseling on legal and professional issues, referring to women's policy issues and equality, and promotion of a better recognition of the new profession and better treatment of patients. In 1929, the Slovenian organization (at that time a part of the national Yugoslavian association in the Kingdom of Yugoslavia) became a member of ICN – International Council of Nurses. In 1951, the professional society of nurses renamed as the Nurses Society of Slovenia, and from 1963 it has been known as the Nurses Association of Slovenia. In 1992, the Nurses Association of Slovenia founded the Nursing Chamber of Slovenia, which became an integral part of the Nurses Association. In 2005, the last change was made as the Midwives organization joined, so the new official name changed to the Nurses and Midwives Association of Slovenia (*Zbornica zdravstvene in babiške nege Slovenije – Zveza strokovnih društev medicinskih sester, babici in zdravstvenih tehnikov Slovenije*) [24]. The Nurses and Midwives Association of Slovenia consists of 11 regional associations. Members (registered nurses, registered midwives and practical nurses) of these connect and develop professional relationships. Members actively assist in the preservation and development of the cultural and historical heritage of nurses and nursing in their region. Regional associations develop various activities related to cultural, social and sports activities. They also organize professional educational courses, seminars and conferences [25].

In 1963, the first professional subgroup was established, with an aim to connect the nurses from industrial ambulatory health care and clinics [24]. Today, the Nursing and Midwives Association of Slovenia includes 31 professional groups, connecting nurses and midwives practicing nursing in different areas [26].

Journals

Slovenian nurses received their first professional journal in 1954, which was the publication of the first issue of the *Community Nurse* professional-information periodical journal. The journal covered a number of topics: from general ones such as education, legislation and organization, to more specific ones for example: nutrition, caring for the elderly, caring for children, hygiene and public health challenges and interventions. *Community Nurse* was published until 1961[27]. From 1967 to 1994, *Health Review* was published. The scope of the journal was broad. It covered topics related to healthcare such as health promotion and disease prevention, nursing care and rehabilitation. Furthermore, in their first editorial in 1967, the editors emphasized that *Health Review* would follow a contemporary concept of health, including psychological and social aspects [28]. In 1994, *Health Review* was renamed as *Slovenian Nursing Review*, which is still the only scientific journal in nursing published in Slovenian. Nowadays, *Slovenian Nursing Review* publishes original and review studies in the field of nursing, midwifery and interdisciplinary research. It is indexed in international and national databases such as: CINAHL, ProQuest, Crossref, COBIB.SI, Biomedicina Slovenica, dLib.si, DOAJ, ERIH Plus, OAIster® database J-GATE in Index Copernicus International [29].

The Nursing and Midwives Association also publish a professional monthly newsletter named *Utrip*. This magazine covers various topics. It is informative in nature and provides news for nurses and midwives across the country. Professional articles on different topics related to health, experiences of nurses and innovations in the field of nursing in Slovenia are also published [30].

In addition to periodical journals and magazines, there are many national and international conferences and seminars organized by the Nursing and Midwives Association, professional groups of nurses and midwives, faculties/universities and other societies. Conference proceedings are usually published in hard copy and recently they have also been made available online. Proceedings generally contain full articles rather than abstracts.

2. The system of education for nurses

Education for nurses – historical overview

Prior to 1923, only non-officially trained nuns in monasteries and /or hospitals attended to patients. Until 1947, there were two parallels: nurses who were members of religious orders (nuns) and civil educated nurses [14]. In addition to nurses there were also midwives who attended the first school of midwifery in Ljubljana established in 1753 [25].

The first secondary school of nursing started a one-year programme in Ljubljana in 1923. The programme at first focused only on child and mother protective health and social care [31]. The professional title of students who completed the programme was a child protective nurse (*otroška zaščitna sestra)*. Three years later in 1927, the educational programme was extended to two years. The content of pediatric heath care, social legislation and district service were included in the curriculum. In 1934, the study programme was again changed. The programme took three years to complete and combined theoretical knowledge with practical skills. The programme's focus was on child and mother health and social care, kindergarten care, orphan care and care for the ill, the abandoned or the neglected. Female students had to have successfully finished six years of high school and the age limit was >18 years [31,32].

During World War II, the educational program experienced some limitations and underwent changes, but many nurses continued their education and work in civil health care or in military hospitals. Nuns continued to work in hospitals during the war. After 1949/50, the educational programme was again extended, this time to four years, and secondary schools for nurses were established across the country. The programme for vocational and technical training has since changed several times, which resulted in awarding different professional titles for the same level of education (*medicinska sestra/*nurse*, medicinski tehnik/*medical technician*, babica – medicinska sestra/*midwife – nurse*, zobozdravstveni asistent/*dental assistant*,*

*zdravstveni tehnik/*health care technician*, tehnik zdravstvene nege/*nursing technician*, srednja medicinska sestra/*practical nurse*)*. In addition to the four-year programme there were also two and three-year programmmes for nursing assistants (*zdravstveni negovalec*/health carer, *bolničar negovalec*/nursing assistant) [33,34,35].

The Nursing College in Ljubljana was officially founded in 1954, but its undergraduate programme ran from 1951. At first, the study program lasted two years, then the following year it was extended to three years. For many years, the professional title for nurses with a diploma was "*višja medicinska sestra"* (higher diploma degree), equal to EQF Level 5. In 1962, the Nursing College of Ljubljana merged with the Physiotherapy College and Radiology College into the College for Health Professionals, which became part of the University of Ljubljana in 1976. In 1993, the College for Health Professionals was transformed into the University College of Health Care and in 2009 into the Faculty of Health Sciences. In the 1970s, the College organized several post-diploma courses and specializations in intensive care, psychiatric care, occupational medicine, ophthalmology care, gynecology and obstetrics care, and community care. In the 1990s, courses in management for head nurses were organized [36].

From 1951, the curriculum has often been modified due to changes in legislation. The length of the associate degree programme was 2-3 years. With the higher education reform in 1997, a study program at EQF Level 6 (NQF 7/1) was introduced and the professional title was changed to *"diplomirana medicinska sestra"* (professional degree), with the study programme lasting three years. Between 1980 and 2000, 2589 associate degrees were awarded. In 1998 the first diplomas were awarded. From 1951 to 1993, the only nursing college in Slovenia was in Ljubljana [36].

The institution with the second-longest tradition in educating nurses is the Faculty of Health Sciences at Maribor University. It was established in 1993 as the College of Health Studies and was renamed the Faculty of Health Sciences in 2007 [37].

The College of Health Care (Izola) at the University of Primorska was founded in 2002 and was later transformed into the Faculty of Health Sciences. After the study conducted by the National Institute of Public Health [38], which analyzed the nursing workforce and predicted a lack of nurses by the year 2033, the first autonomous higher education institution- the College of Nursing- was founded in Jesenice in 2007, which expanded to Novo mesto and Maribor (Alma Mater) in 2008. Later, two other autonomous higher education institutions in Celje and Slovenj Gradec offered nursing programmes.

From 1993, Ljubljana and Maribor were enrolling approximately 500 students per year for almost a decade. Study programmes were offered to full time and part time students. From 2008, with the addition of new institutions, the number of entries increased to almost 1,000 per year.

For many years, an internship for associate degree nurses was obligatory. The internship took nine months and was supervised by registered nurse. Graduates had

to follow the programme within the areas of community care, outpatient clinics, intensive care, emergency, psychiatric care and management. The internship was completed by taking a state registration examination divided into four parts: nursing care, first aid, social medicine and the organization of health care, and health care regulative law [39].

An important milestone occurred when the University College for Health Professionals and the Faculty of Education (both in the University of Ljubljana) prepared and implemented the first curriculum for the Bachelor of Science in Health Education. The two-year programme, which enrolled nurses with a college associate degree (a basic degree taking 2-3 years). Graduates who took this route of studies could complete a university degree and have an opportunity to continue their studies at a postgraduate level. This study programme was introduced in 1993, but it enrolled only four generations of students. Opposition to the programme from many in Slovenian health care, especially from medical doctors, was the main reason for its termination. Altogether, 129 students entered this study programme. The basic Nursing programme in the Health Education programme took two and a half years to complete. The curriculum for the Health Education programme was based on the principles of the WHO strategy "health for all" [39].

In the second half of the 1990s, there were several specializations available (College of Health Studies/Faculty of Health Sciences University of Maribor) in Perioperative Nursing, Gerontological Nursing, Clinical Dietetics, Community Nursing and Informatics in Health Care and Nursing, which typically took one year to complete.

The first master's programme in Nursing was offered in 2007 at the Faculty of Health Sciences, University of Maribor. In the 2009/10 academic year, the College of Nursing Jesenice/Faculty of Health Care and the College/Faculty of Health Care Izola started a master's programme in nursing and the following academic year the Faculty of Health Sciences in Ljubljana followed.

The first doctoral programme in Nursing was offered at the Faculty of Health Sciences (University of Maribor) in 2016. From the 2017/18 academic year, the Angela Boškin Faculty of Health Care (Jesenice) has also been offering a doctoral study programme in Health Sciences with the area of Nursing [40,41].

With the development of the nursing profession, nurses and nursing lecturers were seeking formal university, master and doctoral education courses. Before master and doctoral nursing study programmes were introduced in Slovenia, nurses had been obtaining degrees most frequently in the field of management, pedagogy and andragogy, work organization processes and similar fields. Many nurses and nursing lecturers with diplomas enrolled into another undergraduate study programme to obtain a university level education, which would then enable them to continue their studies at a master's (Master of philosophy) and later at doctoral (Doctor of Philosophy) level. According to our best knowledge, only a few nursing lecturers completed doctoral studies in nursing abroad.

Current education for nurses in Slovenia

Entering nursing is possible at two levels of education: by finishing a secondary technical school and becoming a practical nurse, or by taking a diploma level course in nursing at a faculty/college and becoming a graduate nurse (Table 1). It is possible to become a practical nurse first and take a diploma level programme afterwards.

The undergraduate nursing study programme takes three years (six semesters), comprising 180 ECTS credits in total. There are nine higher education institutions in Slovenia where a nursing programme at a bachelor level is offered. All institutions enroll approximately 750 students per year [42]. Three autonomous institutions offer only part-time study. Others enroll mostly full-time students. All study programmes at a bachelor level follow the European Parliament and the Council Directive (2005/36/EC) and Directive (2013/55/EU) [36,40,43,44,45,46,47,48].

All institutions' offer nursing postgraduate study programmes in Nursing at a master's level and only one institution offers a doctoral nursing programme, while one offers a programme in Health Sciences, which enables students to focus on nursing care [36,40,43,44,45,46,47,48].

Table 1. Different levels of education in Nursing in Slovenia

Title	Level of education	EQF – European quality framework	NQF – National quality framework (Slovenia)	Years of study programme
Doctor of Philosophy	Tertiary (Doctoral Degree)	8	10	3
Master of Nursing Science	Tertiary (Master Degree)	7	8	2
Graduate Nurse/ Registered nurse* *diplomirana medicinska sestra*	Tertiary – EU regulated (Professional Bachelor Diploma)	6	6/1	3
Practical Nurse *srednja medicinska sestra*	Secondary Technical Education (Vocational Matura Certificate)	4	5	4
Nursing assistant *bolničar*	Secondary Vocational Education (Final examination certificate)	4	4	3

At the technical vocational level of education, there are ten secondary schools of nursing in Slovenia that enroll approximately 950 students per year [49]. The practical nurse training is a four-year programme at the secondary level of education that includes general subjects (Language, Mathematics, Biology, Chemistry, Physics, History, Geography, Sociology, Psychology) and professional subjects such as Anatomy, Physiology, Microbiology, Nursing Care for Children, Adults and the Elderly, Nursing Care in Specialized Areas and Long-term Care. Secondary technical education (Table 1) prepares students for general practice with a wide range of competencies [50].

Some secondary schools also offer the nursing assistant programme, which takes three years. After completing it, students have an option to enroll for another two years and become practical nurses. The competencies of nursing assistants include care and assistance with basic activities of peoples' daily living such as bathing and showering, dressing, toileting, feeding and transferring [51]. Many nursing assistants are employed in homes for the elderly [52].

A graduate is awarded the title "registered nurse" when they have obtained the certificate of registration from the Nursing and Midwife Association of Slovenia.

3. The legal status of nursing

In Slovenia, the health care system is public and partly private. Public institutions and private concession institutions/ practitioners provide services and treatment for insured individuals. Insurance has both, a compulsory and voluntary level. Compulsory health insurance covers only certain rights, so by having the additional voluntary insurance, the scope of services that the insured is eligible for, increases. Slovenia spends a total of 8.3% of GDP (gross domestic product) on health care. The health care sector is divided into a primary level with community health centre services (GPs - family doctors, pediatrics, gynecology, dentistry, home care, health education) and pharmacies, and a secondary level that includes general hospitals, specialist out-patient clinics and health resorts. The tertiary level includes university hospitals, clinics, clinical institutes and clinical departments. Health care is regulated by the Ministry of Health. The Ministry of Labour, Family, Social Affairs and Equal Opportunities regulates social care institutions such as homes for the elderly and institutions for disabled/handicapped children and adults. Nursing care is provided in health care and social care institutions [53,54].

Nurses and other health care workers operate under the common law Health Activity Act [55]; medical doctors, dentists and pharmacists are regulated by this special act.

In 2005 the Ministry of Health accredited the Nursing Chamber (Integral part of Nurses and Midwives Association of Slovenia) to be able to register nurses and license them [56]. Nowadays, nurses with a professional Bachelor diploma working in health care and social care must be registered and have a licence for work. A licence is issued for a seven year period and in order to renew the licence after this period, every nurse must collect licence points by engaging in lifelong learning or by publishing. During the seven year period, every nurse must participate in and pass three obligatory courses: Law and Ethics, First Aid and Resuscitation as well as Quality and Safety in Health Care. The Nursing Chamber as a regulator is also responsible for administration, supervision and licence withdrawals. Practical nurses are not required to obtain licence for work [57].

In 1994, the Nursing Association of Slovenia published Slovenia's first special Code of Ethics for registered and practical nurses [58]. Prior to that nurses were required to

work according to the Yugoslav Healthcare workers' Code from 1963 [59]. The Code of Ethics for registered and practical nurses was modified in 2005, and the current version of the Code of Ethics in nursing and care was published in 2017 [60,61].

In the 1990s the Ministry of Health requested the Extended Professional Board for Nursing to prepare a document of competencies for professional nursing care [62]. In 1997, a new document specified the competencies and working activities for practical nurses and registered nurses more clearly [63]. The document was revised and published in 2008 and nursing assistants and midwives were added [64]. In the last revision conducted in 2019, midwives were excluded from the document [65]. The last document is based on the EFN Guideline for the implementation of Article 31 of the Mutual Recognition of Professional Qualifications Directive 2005/36/EC, amended by Directive 2013/55/EU.

4. Nursing in numbers

Often statistics do not distinguish between registered and practical nurses. The Nurses and Midwives Association of Slovenia proposes to include only those nurses who have completed at least three years of post-secondary education (e.g. registered nurses) [66]. In Table 2, a data overview for health care professionals in Slovenia is presented.

Table 2. Statistical data overview in health care settings in 2019 for Slovenia [67]

Population	2 097.195
Number of healthcare professionals/ 1000	Medical doctors = 3.26 Registered nurses = 3.82 Practical nurses = 6.44
Absolute number of healthcare professionals in Slovenia	Medical doctors = 6 941 Registered nurses = 8 057 Practical nurses = 13 596 Nursing assistants = 421 Master of nursing science = 87 BSc in health education = 42 Occupational therapists = 545 Physical therapists = 1535
Number of institutions	Community health centres = 63 Hospitals = 27 (general, specialized, university hospitals and clinics), Social care institutions = 92

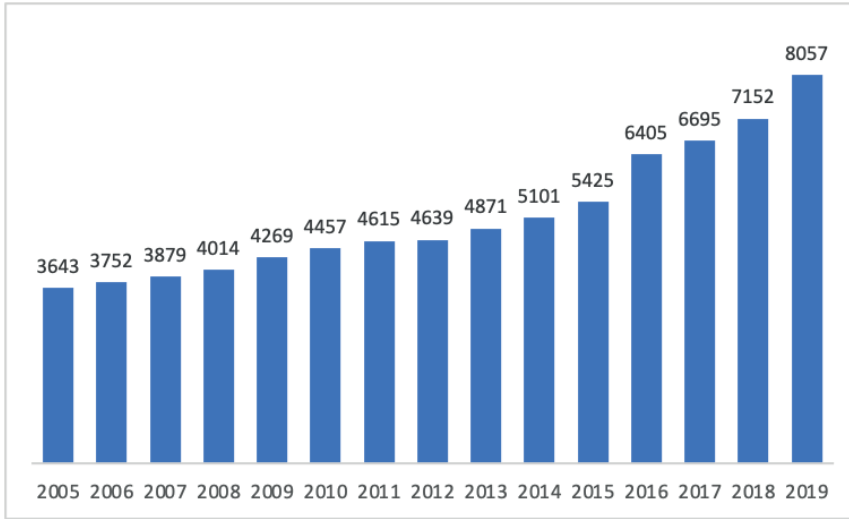
In 2004, the National Institute of Public Health published a survey predicting a shortfall in the number of registered nurses in Slovenia by 2033. A 15% increase in enrollment in undergraduate nursing programmes and an invite of 40 graduate nurses from abroad per year was predicted [38]. Following this research, five nursing colleges were established. Such growth was completely inappropriate according to the described projections from 2005, and in 2012 the projected figures were already

exceeded by 60% [68]. Table 3 and Graph 1 show that the number of registered nurses increased by 114 % from 2005 to 2019.

Table 4 and Graph 2 show that the number of registered nurses per 1,000 inhabitants in Slovenia has increased. However, when comparing the numbers in 2018 with other European countries, Slovenia ranks at the bottom of the list, followed only by Greece, Croatia, Serbia and Romania. If professional nurses are also included, then Slovenia ranks seventh [69].

Table 3. The number of nurses in Slovenia per year [52,69]

Title	2005	2010	2015	2016	2017	2018	2019
Registered nurse	3 643	4 457	5 425	6 405	6 695	7 152	8 057
Practical nurse	11 443	12 583	12 828	13 691	13 988	14 051	13 596



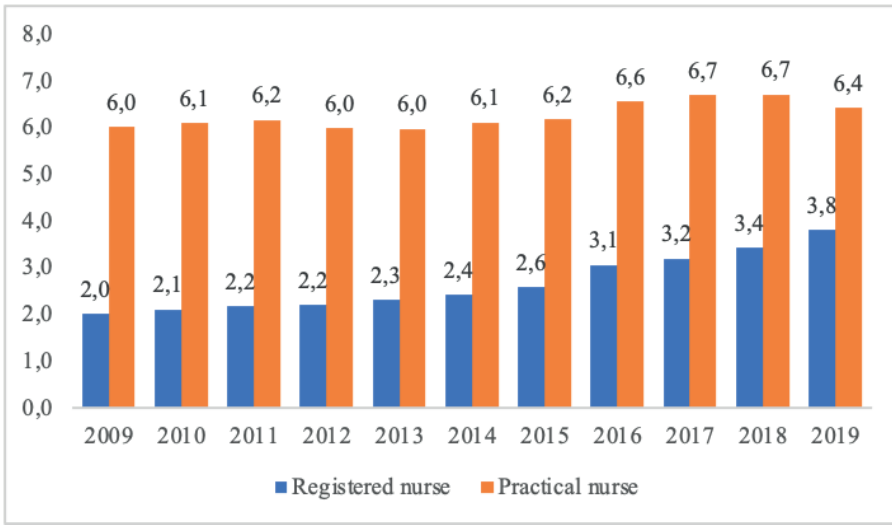
Graph 1. Number of registered nurses in Slovenia 2005-2019 [52,69]

Table 4. The number of nurses per 1,000 inhabitants in Slovenia [52]

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Registered nurse	2.0	2.1	2.2	2.2	2.3	2.4	2.6	3.1	3.2	3.4	3.8
Practical nurse	6.0	6.1	6.2	6.0	6.0	6.1	6.2	6.6	6.7	6.7	6.4

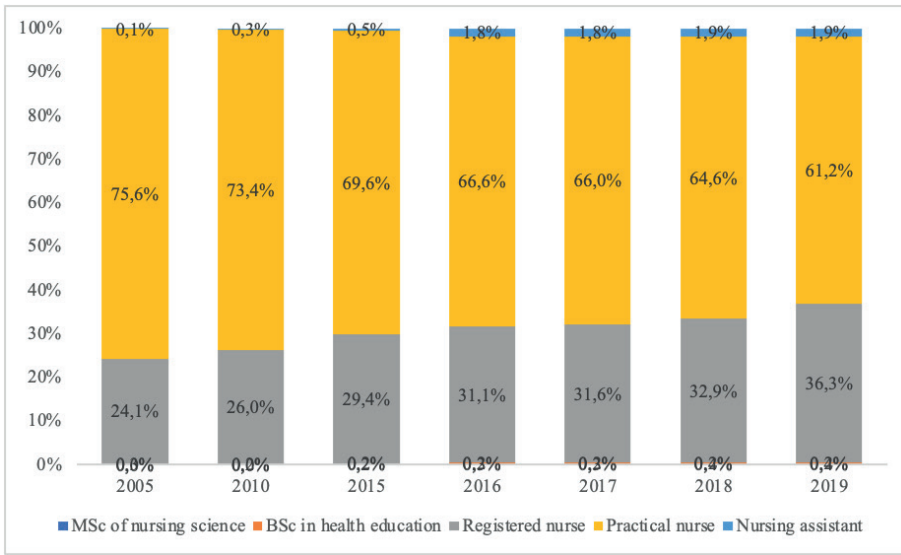
Table 5. Educational structure of nurses in Slovenia [52]

	2005	2010	2015	2016	2017	2018	2019
MSc of nursing science	0.0%	0.0%	0.2%	0.3%	0.3%	0.4%	0.4%
BSc in health education	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Registered nurse	24.1%	26.0%	29.4%	31.1%	31.6%	32.9%	36.3%
Practical nurse	75.6%	73.4%	69.6%	66.6%	66.0%	64.6%	61.2%
Nursing assistant	0.1%	0.3%	0.5%	1.8%	1.8%	1.9%	1.9%



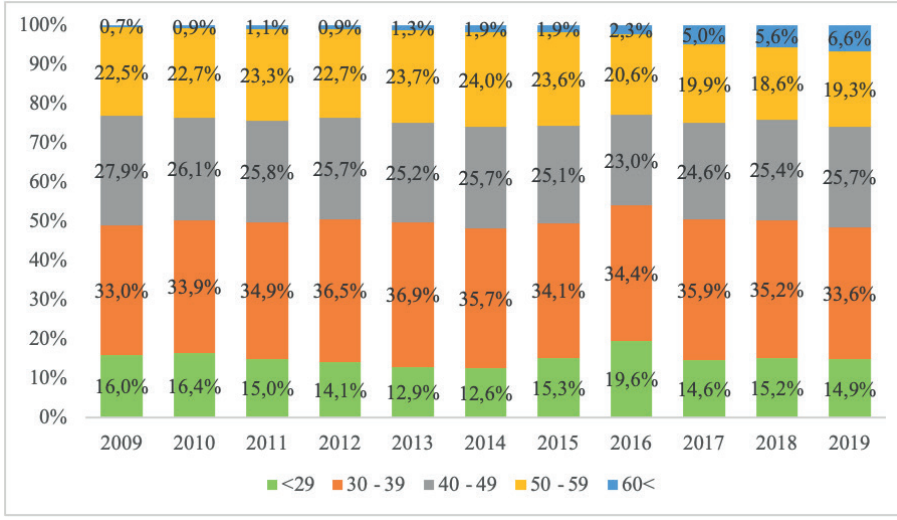
Graph 2. The number of nurses per 1,000 inhabitants in Slovenia

In the document *Strategy for the Development of Nursing and Care in the Health Care System in the Republic of Slovenia for the period from 2011 to 2020* the Nurses and Midwives Association of Slovenia stated that the ratio of registered nurses to practical nurses should be 70:30 [70]. Table 5 shows that the plan has not been achieved. In 2019 the ratio of registered nurses to practical nurses was 37:63.



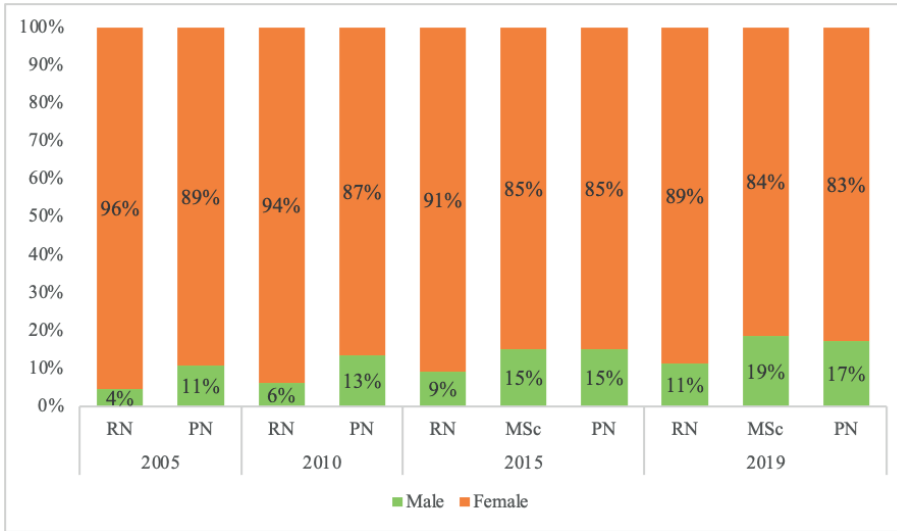
Graph 3. Educational structure of nurses in Slovenia [52]

The age of registered nurses is presented in Graph 4. It can be observed that the proportion of nurses over the age of 60 is increasing.



Graph 4. Age structure of registered nurses in Slovenia [52]

Women predominate in health professions. Nursing is traditionally a female profession; however, the number of men is slowly increasing (Graph 5).



Graph 5. Gender of nursing providers [52]

About one third of nurses (RN, PN) work in outpatient settings. More data about nurses' place of employment is presented in Table 6.

Table 6. Nurses' place of employment in 2019 [52]

	Primary healthcare		Specialist out-patient clinic		Hospital		HR	PHI	MB	Social care institutions		Educational institutions	
	Pu	Pr	Pu	Pr	Pu	Pr	Pr	Pu	Pu	Pu	Pr	Pu	Pr
Registered nurse	2221	350	8	136	4629	192	42	37	13	369	120	103	0
BSc in health education	7	3	0	0	11	0	0	3	1	1	0	15	1
MSc of nursing science	24	5	0	1	40	2	1	0	3	2	3	5	3
Practical nurse	2954	998	10	297	6275	484	136	29	64	2099	565	39	0
Nursing assistant	6	2	0	1	267	2	0	0	0	88	52	0	0

Pu – Public; Pr – Private; HR - Health resort; PHI - Public health institution; MB - Management bodies

5. Challenges and prospects

Practice

There is a shortage of registered nurses in clinical settings. The main reasons are a lower salary, poor working conditions, a change in the payment system in Slovenia several years ago that resulted in the fact that the previous educational level of nurses was not equal to the Bologna bachelor level, and several years of limited numbers of academic course placements. Often young nurses find employment in other fields or seek work abroad.

Education

In nursing education, the issues concerning the implementation of the European directive, whether the number of prescribed hours of practical training is supported by evidence and whether this is the way to get the most competent nurses, remain. We have observed that students are overloaded with work in the three-year programme.

Many nurses believe that internship gave better results and equips young nurses with more knowledge; however, this is not supported by evidence. Newly employed nurses were supervised for the time of their internship and their role was clearly defined.

The challenge concerning the introduction of higher education didactics remains as university lecturers do not need an additional certificate of teaching in order to be able to lecture.

Nursing lecturers are allowed to teach and lecture at a faculty/college only with the adequate habilitation title. Habilitation must be renewed every five years and lecturers must collect a minimum number of points by publishing articles in recognized journals with or without an impact factor. The number of points needed depends on the position title [71]. The criteria for habilitation were primarily prepared for traditional sciences, hence it is generally more challenging for nursing lecturers to achieve those criteria.

Many nursing lecturers do not have or have very limited resources for research in nursing. The Slovenian Research Agency does not recognize nursing as a discipline [72], which limits the resources even more.

Professionalism

Nowadays, there is a vertical axis in nursing education, but a culture of hierarchy and control still prevails in Slovenian hospitals [73]. Recently, the first nurses have been educated at a doctoral level. We have also observed that in Slovenia, this research field is poorly represented and there has not been much improvement. In practice, only a few nurses publish or lead research projects. Some of them work as research assistants in projects led by medical doctors, but it is still uncommon for nurses to be principal researchers. The majority of articles published in journals with impact factors are written by nursing lecturers from universities and/or university colleges.

Here, it should be mentioned that if a nurse only works as a lecturer at a faculty or a college, they do not need to renew their licence unless they also work in health care.

The fact remains that nurses with a master's degree or a doctorate do not see their role as directly caring for the patient. Some master students envision their roles as managers or head nurses, which are areas where work experience is most valued.

There is no current strategy regarding formal specializations in nursing in Slovenia which would enable nurses to have their advanced skills officially recognized.

References

1. Keršič Ramšak I. Oblačilo zaposlenih v zdravstveni negi v Sloveniji od leta 1919 do 2000. Diplomsko delo. Ljubljana, 2003.
2. Zaletel M. Zdravstvena nega: ob 50-letnici izobraževanja iz zdravstvene nege. Obzor Zdrav Neg. 2005; 39(1): 5-10.
3. Zaletel M. Zdravstvena nega. In: Zdravstvena fakulteta. Ljubljana, 2009, 101-111.
4. Gradišek A. Petdeset let dela in oblikovanja medicinske sestre na slovenskem: govor na jubilejni skupščini ZDMSS v Ljubljani dne 5. Decembra 1969. Obzor Zdrav Neg. 1970; 4(1): 8-31.
5. Zupanič Slavec Z. Razvoj javnega zdravstva na Slovenskem med prvo in drugo svetovno vojno in njegov utemeljitelj dr. Ivo Pirc. Ljubljana: Inštitut za varovanje zdravja RS. 2005, 164–5, 183, 297–311.
6. Bole C. Iz spominov na minulo svetovno vojno: prispevek k zgodovini NOB. Obzor Zdrav Neg. 1975; 9(4): 275-277.

7. Bole C. Medicinske sestre v narodnoosvobodilnem boju: ob petintridesetletnici smrti padle partizanke, med. sestre Pavle Levstek. Obzor Zdrav Neg. 1977; 11(4): 275-277.
8. Franko S. Jubilejna skupščina Zveze društev medicinskih sester Slovenije: medicinska sestra v NOB. Obzor Zdrav Neg. 1974; 8(3): 163-165.
9. McCarthy M. A brief history of the World Health Organization. 2002; 12, 360(9340): 1111-1112.
10. Shain M. Health Services in Yugoslavia. Medic Care. 1969; 7(6): 481-486.
11. Zupanič Slavec Z. Sanatorij Leonišče v Ljubljani (1894-1947). Iz zgodovine medicine. ISIS, 2012; 21(7): 33-41.
12. Šlajmer-Japelj M. Raziskovalno delo - osnova za razvoj zdravstvene nege, Obzor Zdrav Neg. 1986; 20(5/6): 289-293.
13. International Conference on Primary Health Care. Declaration of Alma-Ata. WHO Chron. 1978; 32(11): 428-430.
14. Kersnič P. Organizacija službe zdravstvene nege v zdravstvenih zavodih Slovenije. Obzo Zdrav Neg. 1997; 31(1/2): 3-23.
15. Sivka S. Ustanovitev Slovenskega kolaborativnega centra za primarno zdravstveno nego in njegov vpliv na razvoj zdravstvene nege. Diplomsko delo. 2013.
16. Bohinc M. Proces zdravstvene nege z dokumentiranjem. Maribor: Kolaborativni center SZO za primarno zdravstveno nego. 1995.
17. Šušteršič O, Šlajmer-Japelj M, Cibic D, Rajkovič V. Mednarodna klasifikacija prakse zdravstvene nege. Alfa verzija. Kranj: Založba moderna organizacija. 1998.
18. Gordon M. Negovalne diagnoze – priročnik. Radizelj: Rogina, 2003.
19. Cibic D, Filej B, Grbec V, Hajdinjak G, Kersnič P, Pavčič Trškan B, et al. Mali leksikon terminoloških izrazov v zdravstveni negi. Ljubljana: Zbornica zdravstvene in babiške nege Slovenije - Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije. 1999.
20. Berkopec M, Keršič I. Odlikovanje "medalja Florence Nightigale" (Florence Nightigale Medal). Utrip. 2020; 28(4): 57-61.
21. RCN Fellowship and Honorary Fellowship Roll of Honour 2020. Royal College of Nursing. https://www.rcn.org.uk (access: 2020.12.15).
22. Vrbnjak D, Štiglic G, Kaučič A. Pogovor s prof. Dr (Združeno kraljestvo Velike Britanije in Severne Irske) Majdo Pajnkihar, dekanico Fakultete za zdravstvene vede Univerze v Mariboru. Utrip. 2018, 26(9), 29-33.
23. Vrbnjak D, Lovrenčič A. Majda Pajnkihar, Fellow of the European Academy of Nursing Science. Utrip. 2020, 28(5), 30-31.
24. Keršič I. Delovna skupina za ohranjanje zdravstvene in babiške nege. In: Keršič I, Klemenc D, Berkopec M, et al. (eds.). Negovanje dediščine skozi devet desetletij – organizirano delovanje medicinskih sester na Slovenskem. Ljubljana, 2017, 275-277.
25. Društvo medicinskih sester, babic in zdravstvenih tehnikov Ljubljana. Zgodovina društva. http://www.drustvo-med-sester-lj.si/si/o-drustvu/zgodovina-drustva (access: 2020.12.16).
26. Zbornica zdravstvene in babiške nege Slovenije – Zveza društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije. O Zbornici – Zvezi. https://www.zbornica-zveza.si/o-zbornici-zvezi/ (access: 2020.12.11).
27. Tominec F. Bibliografski pregled časopisa „medicinska sestra na terenu. Obzor Zdrav Neg. 1971; 5(3): 182-208.
28. Editorial. Za uvod. Obzor Zdrav Neg. 1967; 1(1): 1-2.
29. Slovenian Nursing Review. Journal History. https://obzornik.zbornica-zveza.si/index.php/ObzorZdravNeg/about (access: 2020.11.15).
30. Zbornica zdravstvene in babiške nege Slovenije – Zveza društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije. Glasila Utrip. https://www.zbornica-zveza.si/izobrazevanja/publikacije/glasilo-utrip/ (access: 2020.11.29).

31. Okoliš S. Zgodovina šolstva na Slovenskem. Ljubljana: Slovenski šolski muzej, 2008.
32. Zakon o visokem šolstvu (Higher Education Act). Official Gazette of the Republic of Slovenia, No. 32/12.
33. Nacionalna agencija Republike Slovenije za kakovost v visokem šolstvu. History. https://www.nakvis.si/about-sqaa/history/?lang=en (accsess: 2020.12.18).
34. CEDEFOP – European Centre for the Development of Vocational Training. Statistical overviews on VET – Slovenia. 2017. https://www.cedefop.europa.eu/files/slovenia_countryoverviews_2017.pdf (access: 2020.12.28).
35. Eurostat, 2018. Students in tertiary education – as % of 20-24 years old in the population. https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_uoe_enrt08&lang=en (access: 2020.11.16).
36. Gradišek A. Jubilejna skupščina Zveze društev medicinskih sester Slovenije: 50 let zdravstvenega strokovnega šolstva na Slovenskem. Obzor Zdrav Neg. 1974; 8(3): 145-158.
37. Merljak N. Jubilejna skupščina Zveze društev medicinskih sester Slovenije: 50. Obletnica ustanovitve šole za medicinske sestre na Slovenskem. Obzor Zdrav Neg. 1974; 8(3): 158-161.
38. Gradišek A. Vzgojno-izobraževalni programi usmerjenega izobraževanja za zdravstveno varstvo na srednji stopnji. Obzor Zdrav Neg. 1981; 15(3): 134-137.
39. Miloradović M. Usmerjeno izobraževanje na področju zdravstvenega varstva v SR Sloveniji s posebnim poudarkom na izobraževanju medicinskih sester. Obzor Zdrav Neg. 1981; 15(3): 127-133.
40. Srednja zdravstvena šola Ljubljana. Zgodovina šole. https://szslj.si/sola/zgodovina-sole/ (access: 2020.12.29).
41. Zdravstvena fakulteta. Zdravstvena nega. https://www.zf.uni-lj.si/si/predstavitev/organiziranost/oddelki-s-katedrami/zdravstvena-nega-ok (access: 2020.12.19).
42. Dornik E, Vidmar G, Žumer M. Nursing education in Slovenia and its impact on nurses publishing in their professional journal. Nurse Educ Today. 2005; 25: 197-203.
43. Albreht T. Analiza preskrbljenosti z medicinskimi sestrami ter ovrednotenje stopenjskih ukrepov in projekcij do leta 2033. Ljubljana: Inštitut za varovanje zdravja Republike Slovenije. 2005.
44. Pahor M. The first BSc nursing curriculum in Slovenia: its development and characteristics. Nurse Educ Today. 1997; 17: 287-291.
45. Univerza v Mariboru, Fakulteta za zdravstvene vede. O fakulteti. https://www.fzv.um.si/vizija-poslanstvo (access: 2020.12.14).
46. Fakulteta za zdravstvo Angele Boškin. Doktorski študij Zdravstvene vede. https://www.fzab.si/si/mainmenu/studijski-programi-2/studijski-programi-tretje-stopnje/doktorski-studij-zdravstvene-vede/ (access: 2020.11.12).
47. Ministrstvo za izobraževanje, znanost in šport. Spletni portal eVŠ. Razpis za vpis javni in koncesionirani (2020 arhiv). https://portal.evs.gov.si/razpisi-za-vpis-javni-in-koncesionirani-2020-arhiv (access: 2020.12.5).
48. Fakulteta za zdravstvo Angele Boškin. https://www.fzab.si/ (access: 2020.11.29).
49. Univerza na Primorskem. Fakulteta za vede o zdravju. https://fvz.upr.si/ (access: 2020.12.1).
50. Visoka zdravstvena šola Celje. http://www.vzsce.si/si/ (access: 2020.12.1).
51. Fakulteta za zdravstvene in socialne vede Slovenj Gradec. https://www.fzsv.si/ (access: 2020.12.1).
52. Univerza v Novem Mestu. Fakulteta za zdravstvene vede. https://fzv.uni-nm.si/ (access: 2020.12.1).
53. Alma Mater Europea. Programi. https://almamater.si/ (access: 2020.12.1).
54. Republika Slovenija GOV.SI. Razpis za vpis v srednje šole in dijaške domove za šolsko leto 2019/20. https://www.gov.si/zbirke/javne-objave/razpis-za-vpis-v-srednje-sole-in-dijaske-domove-za-solsko-leto-20202021/ (access: 2020.12.2).
55. Republika Slovenija. Ministrstvo za izobraževanje, znanost in šport. Evidence VI zavodov in VI programov. Zdravstvena nega. http://eportal.mss.edus.si/msswww/programi2019/programi/Ssi/zdravstvena_nega_SI/spl-del.htm (access: 2020.12.2).

56. Republika Slovenija. Ministrstvo za izobraževanje, znanost in šport. Evidence VI zavodov in VI programov. Bolničar – negovalec. http://portal.mss.edus.si/msswww/programi2016/programi/SPI/bolnicar_negovalec/spl-del.htm (access: 2020.12.2).
57. Nacionalni inštitut za javno zdravje. Podatkovni portal. https://podatki.nijz.si/pxweb/sl/NIJZ%20podatkovni%20portal/?px_language=sl&px_db=NIJZ%20podatkovni%20portal&rxid=70bf2b9b-86d2-4d6b-b67a-b949d8191af7 (access: 2020.12.4).
58. Republika Slovenija, Ministrstvo za zdravje. Zakonodaja Ministrstva za zdravje. https://www.gov.si/drzavni-organi/ministrstva/ministrstvo-za-zdravje/zakonodaja-ministrstva-za-zdravje/ (access: 2020.12.4).
59. Republika Slovenija. Ministrstvo za delo, družino, socialne zadeve in enake možnosti. Zakonodaja Ministrstva za delo, družino, socialne zadeve in enake možnosti. https://www.gov.si/drzavni-organi/ministrstva/ministrstvo-za-delo-druzino-socialne-zadeve-in-enake-moznosti/zakonodaja/ (access: 2020.12.4).
60. Zakon o zdravstveni dejavnosti (Health Activity Act). Official Gazette of the Republic of Slovenia, No. 23/05.
61. Odločba o podelitvi javnega pooblastila in oddaji storitev iz javnega pooblastila (Decision on granting a public authorization and awarding services from a public authorization). Official Gazette of the Republic of Slovenia, No. 93/07.
62. Pravilnik o registru in licencah izvajalcev v dejavnosti zdravstvene ali babiške nege (Rules on the register and licences of providers in the activity of nursing or midwifery). Official Gazette of the Republic of Slovenia, No. 3/16, 62/16, 152/20.
63. Kodeks etike medicinskih sester in zdravstvenih tehnikov Slovenije, 1994. Official Gazette of the Republic of Slovenia, No. 04/02.
64. Grbec V. 10-letnica Kodeksa etike medicinskih sester in zdravstvenih tehnikov. Obzor Zdrav Neg. 2004; 38(1): 83-86.
65. Kodeks etike medicinskih sester in zdravstvenih tehnikov Slovenije, 2005. Official Gazette of the Republic of Slovenia, No. 40/10.
66. Kodeks etike v zdravstveni negi in oskrbi (Code of Ethics of Nursing and Care). Official Gazette of the Republic of Slovenia, No. 52/14, 18/15, 13/17.
67. Škerbinek L. Uvodnik: razmejitev zdravstvene nege. Obzor Zdrav Neg. 1993; 27(1/2): 1-43.
68. Zbornica zdravstvene in babiške nege Slovenije – Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije. Utrip. Razmejitev zdravstvene nege. 1997; 5(12): 21-40.
69. Zbornica zdravstvene in babiške nege Slovenije – Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije. Poklicne kompetence in aktivnosti v zdravstveni in babiški negi. Ljubljana: Zbornica zdravstvene in babiške nege Slovenije – Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije, 2008. https://www.zbornica-zveza.si/sites/default/files/doc_attachments/poklicne_aktivnosti_in_kompetence08_0.pdf (access: 2020.11.16).
70. Zbornica zdravstvene in babiške nege Slovenije – Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije. Poklicne kompetence in aktivnosti izvajalcev v dejavnosti zdravstvene nege. Ljubljana: Zbornica zdravstvene in babiške nege Slovenije – Zveza strokovnih društev medicinskih sester, babic in zdravstvenih tehnikov Slovenije, 2019.
71. Turk E, Habjanič A. Slovenia. In: Rafferty AM, Busse R, Zander-Jentsch B, et al. (eds.) Strengthening health systems through nursing: Evidence from 14 European countries. 2019. https://apps.who.int/iris/bitstream/handle/10665/326183/9789289051743-eng.pdf (access: 2020.12.14).
72. Zdravstveni statistični letopis Slovenije 2018. Viri v zdravstvu. Nacionalni inštitut za javno zdravje. https://www.nijz.si/sites/www.nijz.si/files/uploaded/publikacije/letopisi/2018/8_viri_v_zdravstvu_2018.pdf (access: 2020.11.23).
73. Albreht T, Pribaković Brinovec R. Analiza preskrbljenosti z medicinskimi sestrami v RS - metodološka izhodišča za nadgradnjo raziskave iz leta 2005. In: Skela-Savič B (ed.). Izobraževanje

in znanje v zdravstveni negi na vseh treh bolonjskih stopnjah: diferenciacija kompetenc ter sposobnosti, 5. posvet z mednarodno udeležbo Moja kariera - quo vadis, Ljubljana, 13. 3. 2012. Jesenice: Visoka šola za zdravstveno nego, 2012, 56-61.
74. Eurostat, 2018. Healthcare personnel statistics – nursing and caring professionals. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthcare_personnel_statistics_-_nursing_and_caring_professionals (access: 2020.12.12).
75. Nurses and Midwives Association of Slovenia: Strategija razvoja zdravstvene nege in oskrbe v sistemu zdravstvenega varstva v Republiki Sloveniji za obdobje od 2011 do 2020. https://www.zbornica-zveza.si/wp-content/uploads/2019/09/Strategija-razvoja-zdravstvene-nege-in-oskrbe-v-sistemu-zdravstvenega-varstva-v-RS-za-obdobje-od-2011-do-2020-oktober-2011.pdf (access: 2020.12.26).
76. Javna agencija za raziskovalno dejavnost Republike Slovenije (Slovenian Research Agency). Klasifikacije, šifranti; Raziskovalne vede, področja in podpodročja. http://www.arrs.si/sl/gradivo/sifranti/sif-vpp.asp (access: 2020.12.28).
77. Skela-Savič B. Organizacijska kultura in uvajanje sprememb v slovenskih bolnišnicah: subculture in mesto zdravstvene nege. Obzor Zdrav Neg. 2006; 40(4): 187-196.

Neziha Karabulut

NURSING IN TURKEY

1. Brief history of nursing

Nursing has existed as a community service for many years, and it emerged with the aim of improving the health of people and providing care when they are sick. According to the Turkish Language Association, the word nurse; refers to a healthcare worker who is responsible for administering the treatments prescribed by a doctor in writing, except for in cases of emergency, while also, arranging, supervising and evaluating the patient's care. The word also means "SISTER" [1, 2].

The definition of nursing provided by the Turkish Nurses Association in 1981 is as follows: "Nursing is a health discipline consisting of science and arts responsible for the planning, organization and evaluation of services for the purpose of protecting, developing and improving the health and well-being of the individual, family and society, and the education of individuals who will perform these services" [3].

Patient care by women is a well established profession with the longest history next to the medical profession. In ancient times, tribal leaders, magicians and elderly women took care of the sick and became the stepping stone for this profession to reach the status that it has in the present day. Patient care has an important place in monotheistic religions. It is widely known that in Turks, since the early Middle Ages, patients have been cared for in nursing homes, with male patients being cared for by male nurses, and female patients by female nurses [4].

The development of Turkish nursing can be examined under two main headings: before and after the Turkish Republic.

Pre-Republic Nursing

Prior to the Republic, nursing had not yet been established as a profession. Instead, it was seen as a function performed by volunteer women in private institutions such as private homes, hospitals and nursing homes. Turkish women not only looked after the patients but also attended to pregnant women and performed midwife duties [4, 5].

In Turkish society, care for the patients and injured has always been important not only in wars but also in daily life. As a reflection of this, Kayseri Darüşşifa is the first modern hospital of Anatolia, which was established in the Anatolian Seljuk State between 1204 and -1206. It was built in the name of Gevher Nesibe Sultan, the sister of Gıyasettin Keyhüsrev. At the same time, in this institution, where medical education was provided, care was given to the sick and injured [5, 7].

During the time of the Anatolian Seljuk state, the sultans, benevolent wealthy people, extended their hands of compassion to the patients for public health. They

established general hospitals, healing houses, and mobile hospitals transported by camels. The men and women raised in all these healing houses were trained in the style of master-apprentice. In the 15th century, in the work Cerrahiyyettül Haniye by Şerafettin Sabuncuoğlu, one of the chief physicians of Amasya Hospital, it was stated that women performed surgical interventions [8].

The Ottoman period, which brought the continuation of the Seljuk medicine, preserved its eastern character until the 19th century, After the 19th century, its face turned completely to the west. The Ottomans focused on protecting human health and providing effective treatments; they built hospitals, baths, healing houses and mental hospital in all cities. The head of the doctor's office was established to regulate health care by the state; thus, the Ottomans were trying to control healthcare workers [4, 9, 10].

A hospital was built by Beyazıt at 1389 in Bursa, and II. Murat, built the Paralysed Dormitory in Edirne between 1421-1451. Fatih Sultan Mehmet established the first university under the name of the Fatih Complex in 1470. Then, Kanuni Sultan Süleyman founded the second university under the name of the Süleymaniye Complex. All hospitals had doctors, pharmacists and nursing cadres. During the Ottoman Empire, many women also built health and aid facilities. It is widely known that in some hospitals such as Haseki Hospital, all care was provided by women [5, 6. 11].

Nursing education first started in the Constitutional Monarchy in the Ottoman Empire. In order to open midwifery courses in the Medical School, authorization was given to the government by the chief physician in 1842. As a result, midwifery courses were opened in the Medical School in 1843, and the training was carried out on mannequins. Midwifery courses, which started education in this way, produced their first graduates in 1845, and they received their diplomas in the presence of the sultan [4, 11].

The historic journey of Turkey through the Crimea, the Balkans, the Çanakkale and the World War I to the development of nursing has been very effective. During the Crimean War (1853-1856), there was a great loss of people. The bad health conditions in the military hospitals, the death of 9.000 Ottoman soldiers due to illness and conditions of neglect left traces in the minds. The care of soldiers injured during the Crimean War was been an important problem for participating countries. While the Ottoman Empire opened many institutions with sanitary services for the care of both its own soldiers and those of its allies, the Selimiye Barracks turned into a hospital where British wounded soldiers could stay. In addition, a hospital was opened for the war wounded in Emirgan [5, 12-14].

The British government allowed the volunteer nurse Florence Nightingale to come to Istanbul with a team to care for her soldiers. Nightingale improved healthcare practices by reforming army hospitals. Nightingale visited and cared for her patients at night with a lamp in her hand. As a reflection of this, the legend of the "lady with a lamp" was born. With the help of 38 accompanying nurses,

Nightingale significantly reduced the death rate of soldiers suffering from war-induced wounds and diseases (from 42% to 2%). Selimiye Barracks is an important place that plays an active role in world nursing as a result of Nightingale's work. Nightingale emphasised the importance of the Selimiye barracks in her letters and publications [5, 12, 14-16].

After the signing of the Geneva Treaty by the Ottoman Empire in 1865, national and international foundations were established in the region in order to provide adequate health care for everyone. The foundations of the Ottoman Hilal-i Ahmer Society, which has a special place in Turkish nursing, were laid in 1867, and the organisation was officially established in 1877. Ottoman women served under the Ottoman Hilal-i Ahmer Society. In addition to patient care, they prepared materials such as underwear, bed sheets and bandages, etc. Through the Hilal-i Ahmer Society [4, 16].

In order to help the Turkish soldiers who were injured during the 1897 Greek War, Ahmet Cevdet Pasha's daughter, Fatma Aliye Hanım, founded an association called Cemiyet-i İmdadiye (1907), and engaged in social activities such as collecting aid from families. Through this process, Western countries contributed to the development of Turkish nursing. Due to the 1897 Turkish-Greek War, 11 nurses were brought to Istanbul by the wife of the German ambassador to care for wounded soldiers in the Turkish army [4, 17-19].

The first hospital nursing was started in Gülhane Seririyat Hospital, which was opened on December 30, 1898. The German doctor Robert Reider took part in the establishment of this hospital. Dr. Reider focused on patient care for the success of all hospitals. He saw caregivers as an important factor in patient care *and said, "Just as a surgeon does not leave his knife, a doctor cannot do without a nurse"*. First, military nursing training was initiated in Gülhane and the first graduates were produced in 1902 [4, 8, 19].

Having attended the Red Cross Conference held in London in 1907, Dr Besim Ömer Pasha and Dr Nihat Reşat Belger pioneered the establishment of the Hilal-i Ahmer Women's Section. Hilal-i Ahmer Women's Centre was established in 1912 within the Ottoman Hilal-i Ahmer Association. The Women's Centre attended to, soldiers and their families, prisoners of war, orphans and immigrants during the First and Second Balkan Wars (1912-13), World War I (1913-18), the War of Independence (1919-22) and the 1923 Treaty of Lausanne, and it helped alleviate the suffering of the sick and wounded [16, 17].

Attending the Red Cross Washington Congress in 1911, Dr Ömer Pasha and Dr Belger saw that nursing is a profession that is divided into branches. In this direction, they stated that there was a need for a nursing profession in the country. Hilal-i Ahmer (Red Crescent) started offering nursing courses for six months to men and women, which were started in Kadırga, İstanbul in1911. Many women who completed these courses, including Safiye Hüseyin Elbi, Kerime Salahor and Münire İsmail, worked as volunteers in the Balkan and Çanakkale Wars. For this

reason, the year 1912 is considered the beginning of the nursing profession in Turkey [11, 14, 17, 20, 21].

Safiye Hüseyin Elbi, our first certified nurse, is the Florance Nightingale of the Turks. She grew up with Western culture and spoke English and German. As a result of her work that did not discriminate based on religion, nationality and race, she was awarded national and international medals of honour and appreciation as well as the Florence Nightingale medal [14, 16, 22, 23].

Dr. Ömer Pasha opened nursing courses in 1913 in Hilal-i Ahmer Centre, in Darülfünun, in 1914-1915, and in Kadırga Maternity Clinic in 1916. The books of Dr. Ömer Pasha, titled "A Day Duty of the Nursing During War" and "Nursing", also showed great guidance for nurses. Fatma Züleyha, who attended Hilal-i Ahmer courses in 1915, translated a work into French called "Nursing". Admiral Bristol Health Vocational High School was opened in 1920[5,14,17,24,25].The American hospital, whose opening coincided with the same year, was also considered as the school's field of application. The education period was two years and six months. The programme was extended to three years in 1923 and four years in 1957 [14, 26]. *Post – Republic Nursing*

When the Republic was proclaimed on October 29, 1923 in Turkey, the number of nurses working as health professionals was found to be inadequate. For this reason, issues such as raising a healthy generation, providing quality health care, increasing the number of hospitals and maintaining qualified personnel were among the top priorities for the Young Republic. Atatürk's principles and reforms were effective in all areas, and the importance given to women's education was primarily structured around nurses and teachers [5, 27, 28].

In the Hilal-i Ahmer Congress held on December 11, 1924, the importance of trained nurses during the war years was emphasised, and it was decided to open a nursing school. The first nursing school of the Republic period was the Red Crescent Private Nursing School, which was opened on February 21, 1925. The school, which was opened by Dr Besim Ömer Pasha with the support of Dr Refik Saydam, the health minister of the period, initially provided education programmes lasting two years and three months. In the first years of the school, the influence of foreign nurses especially those who were American and German was seen in the administrative staff, but their graduates eventually took over the service in these positions [5, 14, 20, 29, 30].

Until 1936, the Red Crescent Nursing School benefited from American and German nurses for some courses on patient education. In 1936, Ömer Lütfi left the school, and Ms Hazel Avis Goff, an American nurse, was appointed as the director of the school. During the three years that Ms Goff worked at the Red Crescent Nursing School, the education period was increased to three years, the admission conditions were changed only secondary school graduates were recruited. Later, it was decided to sign a contract with Polish Marie Mochnacka for this task. The nurses who graduated from this school made great contributions to the shaping of the Turkish nursing

profession by performing duties such as consultancy in the Ministry of Health as well as administration of nursing schools and hospitals. In 1948, a Turkish nurse, Asuman Türer, who was also a graduate of the Red Crescent Nursing School, became the director of the Red Crescent Nurse School for the first time [5, 14, 26, 28].

In 1954 the "Nursing Law" numbered 6283 introduced, the concept of the nurse assistant. In 1957, primary school graduates and people between the ages of 18-30 were trained as 'Assistant Nurses' by attending courses for one to 1.5 years. In 1958, the secondary school-based education period of the school was increased from three to four years and transformed into a college. These schools, which were opened as 'health colleges' in many provinces of the country, have been known as 'vocational schools of health' since 1976. The number of health vocational high schools affiliated with the Ministry of Health was close to 300 during the 1991-1992 academic year, and the students in these schools continued on to study in two departments: midwifery and medical [14, 15, 26].

Table 1. Distribution of Nursing Undergraduate and Associate Degree Programmes by the Foundation Year

Some Undergraduate Programms	
Foundation Year -University Name	**Year of Turned into Nursing Faculty**
1955- … Ege University, School of Nursing (İzmir)	(2011) The Faculty of Nursing
1961- … Hacettepe University, School of Nursing (Ankara)	(2012) The Faculty of Nursing
1961- … İstanbul University, Florence Nightingale School of Nursing (İstanbul)	(2011) The Faculty of Nursing
1977- … Atatürk University, School of Nursing (Erzurum)	(2016) The Faculty of Nursing
1982-… Cumhuriyet University, School of Nursing (Sivas)	(2008) The Faculty of Health Sciences, Department of Nursing
1985- … Gülhane Military Medical Academy, School of Nursing (Ankara)	(2017) Gülhane Nursing Faculty
1993- … Marmara University, School of Nursing (İstabul)	(2007) The Faculty of Health Sciences, Nursing Department
1994-… Dokuz Eylül University, School of Nursing (İzmir)	(2011) The Faculty of Nursing
1995- … Gazi University, School of Nursing (Ankara)	(2008) The Faculty of Health Sciences, Department of Nursing
Associate Degree Nursing Programmes affiliated to universities	
1985-1996 Associate degree programmes affiliated with universities	
1991-1999 Open University Two-Year Degree	
1991-1999 Health Services Vocational High School	
1996- … Health -Occupation High-School	

Undergraduate education, which aims to raise the standard of education in nursing to provide professional support and train educators, managers and practitioners

at the undergraduate level who can solve the health problems of the country at that time, started for the first time at Ege University in 1955. This was followed by programmes at Hacettepe University and Istanbul University Florence Nightingale School of Nursing in 1961 and Atatürk University in 1977. The Nursing schools in some state universities in Turkey are shown in the following Table 1 according to the foundation year [1, 30].

In addition, as of 2020, there are nursing departments affiliated with more than 40 foundation universities in our country. The School of Nursing is affiliated with Başkent University, which was opened for the first time in 1994. Subsequently, nursing departments were opened under Maltepe University in 1997, Haliç University in 1998 and Koç University in 1999 to allow nurses to continue their education [30]. Some associations related to the nursing profession are given in Table 2 [31, 32]. Some journal names and links related to the nursing profession are given in Table 3 [33, 34].

Table 2. Professional Organizations

Foundation year	Professional organizations	Professional Organizations Link
1933	Turkish Nurses Association	https://www.thder.org.tr/
1956	Florence Nightingale Nursing Schools and Hospitals Foundation	http://www.florencenightingalevakfi.org/
1956	Red Crescent Private Nurse College Graduates and Members Association	-
1989	Oncology Nurses Association	http://www.onkohem.org.tr/
1990	Marmara University Nursing Education and Services Support Association	-
1992	Turkish Nephrology, Dialysis and Transplantation Nursing Association	http://www.ndthd.org.tr/
1992	Turkish Intensive Care Nurses Association	http://www.tybhd.org.tr/
1994	Istanbul University Cerrahpaşa Medical Faculty Nurses Association	-
1995	Diabetes Nursing Association	http://www.tdhd.org/index.php
1996	Association of Gastrointestinal Endoscopy Nurses and Technicians	https://endohem.com/
1996	Nursing Research and Development Association	http://hemarge.org.tr/anasayfa
1997	Child Nursing Association	http://www.cohemder.org.tr/
1997	Turkish Surgery and Operating Room Nurses Association	http://www.tcahd.org/

1998	Pediatric Surgery Nursing Association	http://www.cchd.org.tr/
1999	Neurosurgery Nurses Association	http://www.norosirurjihemsireleri.org.tr/
1999	Ege University Nursing School Alumni Association	http://hemsirelik.ege.edu.tr/files/hemsirelik/icerik/Dernektarihce.pdf
2000	Psychiatric Nurses Association	https://www.phdernegi.org/
2001	Turkish Ostomy Surgery Association	http://ostomicerrahi.org/w/index.html
2005	Neonatology Nursing Association	http://neonatolojihemsireligi.org.tr/home
2006	Association of Urology Nurses	http://www.uroturk.org.tr/urolojihemsireligi/index-2.html
2006	Rheumatology Nurses Association	https://www.romhemder.org/
2006	Student Nurses Association	http://www.ohder.org.tr/
2007	Reproductive Health and Infertility Nursing Association	ureme.infertilite.hems.dernegi@gmail.com
2007	Nursing Education Association	http://www.hemed.org.tr/
2008	Wound, Ostomy, Incontinence Nursing Association	http://www.yoihd.org.tr/
2010	Women's Health Nursing Association	http://www.kadinsagligihemsireligidernegi.com/
2010	Emergency Nurses Association	http://ahemder.org.tr/
2012	Geriatric Nurses Association	http://www.gerhemder.org.tr/
2014	Public Health Nursing Association	http://www.halkhemder.org.tr/default.aspx
2015	Orthopedics and Traumatology Nursing Association	http://www.othed.org.tr/othed/
2016	Innovative Nursing Association	https://inovatifhemsirelikdernegi.com/
2017	Surgery and Sterilization Nurses Association	http://cshder.org.tr/
-	Neurology Nursing Association	http://www.norolojihemsireligi.org/index.php
-	Bone Marrow Transplant Surgery Nurses Association	http://www.kithemsireleri.com/
-	Cardiovascular Surgery Nurses Association	kdchemder@gmail.com
-	Occupational Health Nursing Association	http://www.ishemder.org/

Table 3. Turkish Nursing Journals

The Name of Journal	Access Link
Acıbadem University Journal of Health Sciences	http://acibadem.dergisi.org/
Dokuz Eylul University E-Journal of Nursing Faculty	http://www.deuhyoedergi.org/index.php/DEUHYOED/index https://dergipark.org.tr/en/pub/deuhfed
Florence Nightingale Journal of Nursıng	https://fnjn.org/
JAREN / Journal of Academic Research in Nursing	https://jarengteah.org/jvi.aspx
Journal of Anatolian Nursing and Health Sciences	https://dergipark.org.tr/tr/pub/ataunihem

Journal of Cumhuriyet University Health Sciences Institute	https://dergipark.org.tr/tr/pub/cusbed
Journal of Education and Research in Nursing	http://www.kuhead.org/jvi.aspx
Journal of Ege University Nursing Faculty	https://dergipark.org.tr/tr/pub/egehemsire
Journal of Hacettepe University Faculty of Nursing	http://www.hacettepehemsirelikdergisi.org/
Journal of Health and Nursing Management	https://www.shydergisi.org/jvi.aspx
Journal of Nephrology Nursing	https://dergipark.org.tr/en/pub/hemsire
Journal of Nursing Science	https://dergipark.org.tr/tr/pub/hbd
Journal of Psychiatric Nursing	https://www.phdergi.org/tr/
Journal of Public Health Nursing	https://fnjn.org/
Journal of Research and Development in Nursing	http://hemarge.org.tr/dergi
Journal Of The Turkısh Socıety Of Critical Care Nurses	https://dergipark.org.tr/tr/pub/ybhd
Journal of Women's Health Nursing	https://dergipark.org.tr/tr/pub/kashed
Ordu University Journal of Nursing Studies	https://dergipark.org.tr/tr/pub/ouhcd
The Journal of Turkish Nurses Association	https://dergipark.org.tr/tr/pub/thdd
Turkish Journal of Cardiovascular Nursing	https://khd.tkd.org.tr/
Turkish Journal of Diabetes and Obesity	https://dergipark.org.tr/tr/pub/tudod
Turkiye Klinikleri Journal of Nursing Sciences	https://www.turkiyeklinikleri.com/journal/hemsirelik-bilimleri-dergisi/1308-092X/
University of Health Sciences Journal of Nursing	https://dergipark.org.tr/tr/pub/sbuhemsirelik

2. System of education for nurses

The Health Education Restructuring Project was initiated in line with the targets set in the First National Health Congress, which was carried out by the Ministry of Health in 1992. It has been decided that the training of nurses and midwives required by the country is to be provided in universities. Following these developments and on the basis of national and international decisions, the decision of the High Health Council No. 185/1 (May 1995), the decision of the Council of Ministers (November 1996) and the protocol between Councıl of Hıgher Education (YÖK) and the Ministry of Health (November 1996), their high schools have been transformed to provide undergraduate education [1, 35].

Undergraduate Education

Since 1955, high school graduates in Turkey have participated in university nursing programmes in these schools after passing the university entrance examination. The education period in nursing undergraduate programmes spans at least four years and includes 4.600 hours of theoretical and practical education. In addition, there is a distance education licence completion programme carried out in accordance with the protocol advanced by the Ministry of Health and Atatürk University in order to execute the completion training of the healthcare workers who are graduates of

the Nursing and Health Officer programme working in the public or private sector. Students were enrolled in this programme in only two academic years: the 2009-2010 and the 2010-2011 academic years [1, 36, 37].

For nursing undergraduate education, it is required to be at least a high school graduate. Nursing undergraduate education spans at least four years or 4600 theoretical and clinical training hours. The duration of the theoretical training is at least one third of the total time in the programme, and the duration of clinical training is half of the total training. The topics to be taught in the nursing undergraduate program are given in the table 4 [35].

Table 4. The Subjects to be taught in nursing undergraduate programme

Theoretical education	Basic Sciences	Liberal Arts	Clinical Education
Nursing **-** Professional Ethics - Health and nursing principles **Nursing principles regarding the following topics:** - Internal diseases - Surgical Diseases - Child Health and Diseases -Maternatiy Health - Mental Health and Psychiatry - Elderly Care and Geriatrics	-Anatomy and Physiology -Pathology -Bacteriology, Virology and Parasitology -Biophysics, Biochemistry and Radiology -Nutrition -Hygiene -Preventive medicine -Health Education -Pharmacology	- Sociology -Psychology -Management Principles -Teaching Principles -Social and Health Legislation -Legal Aspects of Nursing	- Internal diseases -Surgical Diseases -Child Health and Diseases - Maternal Health Mental Health and Psychiatry Elderly Care and Geriatrics Home Care Nursing

Post Graduate Education

a. Post Graduate Application and Admission

Candidates must have a bachelor's degree and a minimum ALES (Academic Staff and Graduate Education Entrance Exam) score of 55 points. Higher education institutions may admit students to graduate programmes only with the ALES score or with, the ALES score in addition to their undergraduate grade point average, written scientific evaluation or interview results [38].

The master's programme with a thesis enables the student to gain the ability to access, compile, interpret and evaluate information using scientific research methods. The master's programme with thesis consists of at least seven courses, a seminar course and a thesis study, with a total of at 21 credits. The programme consists of at least eight courses, including the seminar course and a total of at least 120 ECTS credits, including thesis study, provided that not less than 60 ECTS credits are taken in one academic semester [30].

At most, two of the courses to be taken by the student can be selected from undergraduate courses provided that they have not been taken during undergraduate education. In addition, a maximum of two courses can be selected from the

courses offered in other higher education institutions. The duration of the master's programme with thesis is four semesters, excluding the time spent in scientific preparation, and the programme is completed in six semesters. Those who fail to meet the success criteria of the higher education institution at the end of four semesters, thesis study or schedule the thesis defense within the maximum period of time are dismissed from the higher education institution [38].

b. Assignment of Thesis Advisor

A thesis supervisor on the staff of her own university is appointed for each student by the end of the first semester at the latest. The supervisor provides the thesis topic, to be determined together with the student's advisor, to the institute before the end of the second semester at the latest [38].

c. Finalization of the Master's Thesis

The student writes her thesis in accordance with the style guide and defends it orally in front of the jury. The master's thesis jury consists of three faculty members, one of whom is the student's thesis advisor, and at least one from outside the higher education institution. After the completion of the thesis exam, the jury makes the decision of acceptance, rejection or correction by the absolute majority. A student whose thesis is rejected is dismissed from the higher education institution. A student whose thesis is given a correction decision defends the thesis again in front of the same jury after corrections are made within three months at the latest. At the end of this defense, a student, whose thesis is not accepted, will be dismissed from the higher education institution. A student whose thesis is rejected, will be awarded a master's degree without thesis provided that he / she has, fulfilled the requirements of the non-thesis master's programme, including the course credit load, project writing and related requirements [38].

Doctoral Programme

The doctoral programme provides the student with the necessary skills to conduct independent research specifically by learning to interpret, analyse and reach new syntheses by examining scientific problems and data with a broad and deep perspective. The doctoral programme consists of a total of 21 credits for students admitted with a master's degree with a thesis, and it consists of at least 240 ECTS credits, including at least seven courses, a seminar, a proficiency exam, a thesis proposal and thesis study [38].

For students admitted with a bachelor's degree, the programme consists of a minimum of 42 credits, 14 courses, a seminar, a proficiency exam, a thesis proposal and thesis study, and a total of at least 300 ECTS credits [38].

The thesis to be prepared in the doctoral study must fulfil at least one of the characteristics of bringing innovation to science, developing a new scientific method, and applying a known method to a new field [38].

a. Application and Admission to the Doctoral Programme

In order to apply to doctoral programme, candidates must have a master's degree with a thesis and a minimum ALES score of 55 points. Those who apply to the doctoral programme with a bachelor's degree must have at least a 3.0 point undergraduate graduation grade point average (out of a possible 4.0) and a minimum ALES score of 80 points [38].

Candidates who apply to the doctoral programme can be evaluated with the result of the scientific evaluation exam to be completed in writing and/or by interview. For applicants with a master's degree, the graduate grade point average can also be evaluated. Candidates must have at least 55 out of 100 points from international foreign language exams that are recognised as equivalent to the central foreign language exams accepted by the Higher Education Council, or it is compulsory to obtain a score equivalent to this score from international language exams that are accepted as equivalent to The Measuring, Selection and Placement Center (ÖSYM) [38].

The doctoral programme is eight semesters for those admitted with a master's degree with a thesis, and the maximum completion period is twelve semesters. For those accepted with a bachelor's degree, the doctoral programme is 10 semesters and the maximum completion period is 14 semesters (excluding the time spent in scientific preparation) [33]. The maximum period for successfully completing the courses in the doctoral programme is four semesters for those who are accepted with a master's degree with a thesis. It is six semesters for those admitted with a bachelor's degree [38].

b. Appointment of a Thesis Advisor

The thesis advisor must be appointed by the end of the second semester at the latest. In doctoral programmes, faculty members must have directed at least one master's thesis that has been successfully completed [38].

c. Doctoral Qualifying Exam

The exam is a measurement of whether the student who has completed his/her lectures and seminars has the depth of scientific research related to the basic subjects and concepts in his/her field of doctoral study. A student can take the proficiency exam up to at most twice a year. The exam is organized and executed by the doctoral qualification committee consisting of five faculty members approved by the institute's board of directors. The examination jury consists of five faculty members, including the advisor and at least two members from outside the higher education institution. The proficiency exam is held in two parts: written and oral. Students who are successful in the written exam can take the oral exam. A student who fails the proficiency exam will take the exam again in the next semester. A student who fails this exam is dismissed from the doctoral programme [38].

d. Thesis Monitoring Committee

For the student who is successful in the proficiency exam, a thesis monitoring committee is formed within a month with the recommendation of the head of the department and the approval of the institute board. The thesis monitoring committee

consists of three faculty members. In addition to the thesis advisor, the committee includes one member each from within and outside the institute's department [38].

e. Thesis Proposal Defense

A student who successfully completes the doctoral qualifying exam must Schedule an oral defense of the proposal in front of the thesis monitoring committee, within six months at the latest, which includes the purpose, method and study plan of the research. For the student whose thesis proposal has been accepted, the thesis monitoring committee meets at least twice a year: once between January and June, and once between July and December. A student's thesis study is determined as successful or unsuccessful by the committee. A student who fails three times intermittently by the committee is dismissed from the higher education institution [38].

f. Finalising the Doctoral Thesis

A student in the doctoral programme writes his/her results in accordance with the style guide accepted by the senate, and the student defends his/her thesis orally in front of the jury. In order for the student's thesis to be finalised, at least three thesis monitoring committee reports must be submitted. The jury consists of five faculty members, three of whom are on the student's thesis monitoring committee, including the advisor and at least two members from outside their higher education institution. After the completion of the thesis exam, the jury decides whether the thesis is to be accepted, rejected or corrected by the absolute majority, without an audience. A student whose thesis is accepted is evaluated as successful [38].

3. The legal status of nursing

The Nursing Law, which includes provisions on the status, education, duty, authority and responsibilities of nurses, was published in Official Gazette No. 6283 of 1954. The Nursing Law, which was prepared according to the conditions of that day, did not meet the duties, authority and responsibilities of today's nurse. After long efforts, the law, which needed to be rearranged according to the needs of the day was amended by the Law Amending the Nursing Law on April 25 2007. Despite the shortcomings of the amended Nursing Law, it has allowed for significant gains in the name of nursing [39, 40].

The main changes in the updated Nursing Law and Nursing Services Regulation are as follows:

Nursing Law

- Gender discrimination in the nursing profession is lifted, men have the chance to become nurses.
- The position of specialist nurse was identified and science expertise in nursing was recognised.
- Nurses have the right to obtain authorisation certificates within the framework of the principles to be determined in the units and areas related to their profession.

Table 5. Numerical data on nursing undergraduate and postgraduate education.

	Associate Degree Programme			Undergraduate Programme		
	Sum	Male	Female	Sum	Male	Female
Nursing	242	76	166	70 057 + 81* = 70138	20 750 + 24 = 20774	49 307 + 57 = 49 364

	Master's degree			Doctoral degree		
	Sum	M	F	Sum	M	F
Nursing	2540	434	2106	875	99	776
Emergency Nursing	11	0	11	11	3	8
Emergency Medical Nursing	31	13	18	0	0	0
Surgical Diseases Nursing	408	61	347	157	12	145
Child Health and Disease Nursing	358	50	308	137	22	115
Internal Medicine Nursing	15	1	14	0	0	0
Diabetes Nursing	3	0	3	0	0	0
Obstetrics and Gynecology Nursing	291	8	283	80	2	78
Infection Control Nursing Programme	3	1	2	0	0	0
Home Care Nursing	11	3	8	0	0	0
Public Health Nursing	340	74	266	113	22	91
Nursing Science	38	11	27	0	0	0
Fundamentals Nursing	246	58	188	120	14	106
Nursing Principles and Management	10	2	8	6	1	5
Nursing Services Management	31	3	28	0	0	0
Nursing Teaching	33	2	31	27	0	27
Nursing Management	91	16	75	83	8	75
Internal Medicine Nursing	375	62	313	160	7	153
Occupational Health Nursing	13	3	10	0	0	0
Women's Health and Disease Nursing	75	1	74	61	1	60
Liver Transplant Nursing	4	1	3	0	0	0
Consultation and Liaison Psychiatry Nursing	5	0	5	0	0	0
Oncology Nursing	20	1	19	2	0	2
Psychiatric Nursing	209	32	177	82	6	76
Mental Health and Disease Nursing	24	7	17	18	2	16
Mental Health and Psychiatric Nursing	78	14	64	45	7	38
Community Mental Health Nursing	15	1	14	0	0	0
Intensive Care Nursing	4	0	4	0	0	0
The overall total	5262	858	4404	1975	206	1769

* Health Sciences University Hamidiye Nursing Faculty International Nursing

- Nurses with undergraduate and graduate degrees obtained the priority rights of head nurse and nursing management positions.
- Graduates of health officer programmes equivalent to nursing education can work as nurses [39, 40].

Nursing Regulations

- Nurses' duties, authorities and responsibilities have been determined more broadly.
- The regulation covers all public and private health institutions and organisations and nurses working in other fields where nursing services are provided.
- The nursing diagnosis process has been defined.
- A distinction has been made between having expertise in nursing and having a certificate of authority.
- The qualifications required to be a head nurse and service nurse have been determined.
- The assistant head nurse position has been annulled, and the status of supervisor nurse was introduced.
- Nurses' participation in decisions within the framework of health policies and legislation was included in the regulation for the first time.
- The professional roles of nurses planning and participating in research and reflecting their results into practice in scientific studies have also been included in the nursing regulation [39, 40].

4. Nursing in numbers

According to the official data of the Ministry of Health for 2018, the number of active nurses working in Turkey is 190 499. The number of nurses working in Ministry of Health hospitals, university hospitals and private hospitals is 126 891, 29 263 and 34 345, respectively. As of 2018, the number of people per nurse is 430. Numerical data on nursing undergraduate and postgraduate education are given in Table 5 [41-43].

5. Challenges and prospects

When problems related to the nursing profession in our country are examined, it apparent that many factors have an effect. These factors draw attention to problems related to the nurses themselves, the patients and other healthcare professionals. In addition, problems arise in relation to health policies; hospital management and structure; budget allocation and distribution; insufficiency/deficiencies in the number of materials, equipment and personnel; and general working conditions [44, 45].

References

1. Ergöl Ş. Nursing Education in Higher Education in Turkey. Journal of Higher Education and Science 2011; 1(3): 152-155.
2. Turkish Language Institution. http://www.tdk.org.tr/TR/, https://sozluk.gov.tr/ (access: 2020.11.31)

3. Birol L. Nursing Process, Systematic Approach in Nursing Care. 9th Edition. Etki Printing Publishing. Ltd. şti, 2009.
4. Tepecik T. The Development of the Nursing Organization in the Period of the Republic of Turkey. Yıldız Technical University, Institute of Social Sciences, Master Thesis.İstanbul 2006.
5. Hatipoğlu S. Development of Surgical Nursing in Turkey. 6th Turkish Surgery and Operating Room Nursing Congress, May 3-6, Kuşadası 2009
6. Şehsuvaroğlu, B.N. An Overview of Patient Care and Nursing History in Anatolian Turks. Istanbul University, Faculty of Medicine Magazine 1960; 23 (1): 240-244.
7. Dündar M, Emekli R, Şener E. The Birth of Medicine in Anatolia, Gevher Nesibe Medical Madrasa and Hospital as the First Medical School in the World. science Bilimname. 2019;3(39):79-103.
8. Sarı N. The Position of Women in Ottoman Health Life. New medical history studies. (1996/97);2(3):11-36.
9. Kutlay N Y. Refik Saydam's Health Policy and the Place of the Hıfzısıhha Center in This Policy. Journal of New Medical History Research.1998; 4(1): 190-201.
10. Şimşekçakan S. Nursing Profession and History. Ankara University Publications. 1994.
11. Kurnaz Ş. Turkish Women Before the Republic (1839-1923). Publications of the Ministry of National Education. national education printing house. İstanbul, 1992.
12. Goldie SM. Florence Nightingale letters from the crimca (1854-1856), Great Britain, Clays Ltd. st Ives Plc. p.34, 227.
13. Gürkan K.İ. Historical Development of Nursing in Our Country. Nursing Journal.1965;4(4):2-3.
14. Gümüş N. The Institution of Nursing in Turkey in the first half of the XX. Century. Muğla University, Institute of Social Sciences. Department of History, Master's Thesis. Muğla 2002.
15. Şentürk SE. Nursing History and Deontology. Nobel medical bookstores, Nobel Printing, 2011.
16. Hatipoğlu, S. The State of Global Health A Brief History of Turkish Nursing. Reflections on Nursing Leadership Honor Society of Nursing Sigma Theta Tau International First Quarter, 2006.
17. Özaydın Z. A Pioneer in Nursing: Perihan Velioğlu. Prof. Dr. Velioğlu Fund Publications, İstanbul, 2001.
18. Ataç A. Establishment of Gülhane Military Medical Academy. Atatürk Culture, Language and History High Institution, Atatürk Cultural Center publication. Issue 87: 57-60, 101, Ankara 1996.
19. GATA's 100th Anniversary : 1898-1998, Ankara: GATA Basımevi,1998.
20. Tepekaya M, Kaplan L. Establishment and Activities of Hilal-i Ahmer Ladies Center (1877-1923). Selçuk University, Journal of the Institute of Social Sciences . 2003;(10): 147-203.
21. Hacıfettahoğlu İ. Conference for Ladies on the Hilal-i Ahmer, Turkish Red Crescent History Series II. 2nd Edition. Tuna Offset Printing Press Ankara, 2007.
22. Gören YŞ, Yalın NY. "Safiye Hüseyin Elbi", a pioneer in the history of nursing. Lokman Hekim Journal. 2016;6(2):38-45
23. Toros T. Safiye Hüseyin Elbi. Sky Life. İstanbul, 1995;(144): 53-55.
24. Sarı N, Özaydın Z. "Safiye Hüseyin Elbi", a pioneer in the history of nursing. Lokman Physician Journal. (I). Sendrom. Nisan, 1992;4:10-18.
25. Sarı N, Özaydın Z. Dr. Besim Ömer Pasha and the Reasons for Female Nurse Education (II). Sendrom. Mayıs,1992;5:72-80.
26. Babadağ K. Historical Development of Nursing in Turkey and Factors Affecting This Development. In: Sezgin K. (ed.). Hemşirelik Tarihi Ve Deontolojisi. T.C. Anadolu University Open education faculty Publications No:562/No:260, Eskişehir 1993, 160-176.
27. Altay S. Leading foundations in the reflection of health policies to the public during Atatürk's Period: Numune Hospitals (1924-1938) Doktora Tezi, Ankara Üniversitesi, 2015.
28. İnce F. Foreign Nurses that Worked in Turkey According to Documents of the Period Between 1931 and 1962 Years of the Turkish State Archives Republic Archive. Lokman Hekim Journal. 2020; 10 (3): 346-359.

29. Erdemir AD. Medical Deontology and General History of Medicine. Güneş& Nobel publishing house, Bursa, 1996.
30. Bahçecik N, Alpar ŞE. Nursing education in Turkey: From past to present. Nurse Education Today. 2009;(29): 698–703.
31. Professional Associations. https://hemsirelik.deu.edu.tr/?page_id=94 (access: 2020.11.28).
32. Nursing Associations. https://hemsirelikyukseklisans.blogspot.com/2019/04/hemsire-dernekleri.html (access: 2020.11.28).
33. National Academic Nursing Journals-30 Adet http://www.saglikasistani.net/profesyonel/ulusal-akademik-hemsirelik-dergileri-30-adet/ (access: 2020.11.28).
34. Turkish Nursing Resources https://libguides.ku.edu.tr/c.php?g=135294&p=886417(access: 2020.11.28).
35. Kocaman G. Nursing Education Problems and Solution Searches in Turkey. Journal of Research and Development in Nursing. Special edition (extended 2004 print). 2004;119-150.
36. Postgraduate Education and Training Regulation. https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=21510&MevzuatTur=7&MevzuatTertip=5 (access: 2020.11.28).
37. Atatürk University - Distance Education Research and Application Center's Nursing Undergraduate Completion (HELİTAM) program.http://atauzem.atauni.edu.tr/UserFiles/file/sss_080210.pdf (access: 2011.11.26).
38. Regulation on the Determination of Minimum Education Conditions for Doctorate, Nursing, Midwifery, Dentistry, Veterinary, Pharmacy and Architecture Education Programs.https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=11949&MevzuatTur=7&MevzuatTertip=5 (access: 2020.11.28).
39. Responsibilities and Obligations of Nursing-Deontology and Profession.http://megep.meb.gov.tr/mte_program_modul/moduller_pdf/Deontoloji%20ve%20Mesle%C4%9Fin%20Sorumluluk%20ve%20Y%C3%BCk%C3%BCml%C3%BCl%C3%BCkleri.pdf (access: 2020.08.28).
40. Nursing Regulation.https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=13830&MevzuatTur=7&MevzuatTertip=5 (access: 2020.11.28).
41. Number of Persons Per Health Personnel.https://data.tuik.gov.tr/Kategori/GetKategori?p=saglik-ve-sosyal-koruma-101&dil=1 (Access:2020.08.12).
42. Ministry of Health. Health Statistics Yearbook 2018.https://www.saglik.gov.tr/TR,62400/saglik-istatistikleri-yilligi-2018-yayinlanmistir.html (access: 2020.11.28).
43. Higher Education Statistics.https://istatistik.yok.gov.tr/ (access: 2020.11.28).
44. Öztürk H, Candaş B, Babacan E. Determining the Problems Experienced by Nurses Working in State Hospitals, Community and Family Health Centers. Yönetici Hemşireler Derneği Dergisi.2015;1:25-36.
45. Öztürk H, Kurt Ş, Mersinlioğlu SŞ, Bayrak B, Balık T, Demirbağ BC. Problems experienced by nurses who just started working at hospitals. ACU Sağlık Bilimleri Dergisi. 2016;4:189-201.

Irena Papadopoulos

NURSING IN UNITED KINGDOM

1. Brief history of nursing

In 2016 the Royal College of Nursing (RCN) celebrated its 100th year anniversary. In a book published by the RCN, to celebrate its centenary it is stated that prior to 1916, nursing was an unregulated profession [1]. Anyone could claim to be a nurse. In many cases these women had as little as two weeks first aid training.

In the 19th century, before the rise of hospitals and asylums, nursing was often carried out in the patient's home by their servants or family members. If extra help was needed, a nurse might be hired by the family, usually as a live-in servant. The main role of casually employed nurses was to comfort the patient and help with activities such as feeding and washing. These nurses could also administer "home remedy" treatments such as applying poultices or making herbal infusions.

Before Florence Nightingale, nursing had not been regarded as a respectable job. It was during the Crimean War (1854-1856) that nursing began to be seen as a suitable occupation for women (Box 1). This was partly due to Nightingale's fame and her work with the wounded soldiers in Scutari. Nightingale's work during the Crimean war became renowned. Nurses began to be portrayed as angels, dutifully caring for others. Florence Nightingale established a nursing training school at St Thomas's Hospital in London in 1860.

Box 1. Florence Nightingale: Key dates	
1820	Florence Nightingale was born. Aged 16, she discovered her interest in nursing while caring for her family and servants during a flu epidemic. Her interest was also influenced during the overseas trips with her parents to visit the poor. She undertook nursing training and at 33 became superintendent of a hospital for 'gentlewomen' in London.
1854	During the Crimean war, Nightingale was invited by the Minister of War to oversee the introduction of female nurses into the military hospitals in Turkey. She discovered that the care of the wounded and sick soldiers was inadequate and unorganised. She considered cleanliness and hygiene as most important factors for health. She introduced airing and cleaning wards, both of which improve sanitary conditions. She also organised the war hospitals and improved supplies of food, blankets and beds.
1860	The Nightingale Training School opens at St Thomas's Hospital in London.

Box 2. Key dates and events in nursing	
1854	Florence Nightingale goes to Turkey to lead a team of nurses caring for soldiers in the Crimean War
1855	Mary Seacole establishes the British Hotel, a convalescent home for soldiers in the Crimean War
1860	Nightingale Training School opens at St Thomas's Hospital in London. One of the first institutions to teach nursing and midwifery as a formal profession, the training school was dedicated to communicating the philosophy and practice of its founder and patron, Florence Nightingale
1887	British Nurses Association created; united nurses who sought professional registration
1900s	More hospitals establishing their own training schools for nurses; in exchange for lectures and clinical instruction, students provided the hospital with two or three years of skilled free nursing care
1908	The first meeting of the National Council of Trained Nurses of Great Britain and Ireland was held in London
1914-18	World War One; Queen Alexandra Imperial Military Nursing Service (QAIMNS) developed with 10 500 nurses enrolled
1923	After 1923, becoming a state registered nurse involved three years of training followed by an exam
1916	Royal College of Nursing founded with 34 members
1919	Nurses Act established the first professional register helped by the General Nursing Council
1932	Lancet Commission on Nursing explores how to make nursing more attractive to young women in order to deal with shortage of trainees
1939-45	World War Two; many nurses enrolled
1940	The state enrolled nurse (SEN) is formally recognised with two years of training
1948	National Health Service offered free treatment for all at the point of care
1951	Male nurses were allowed to join the professional register
1964	The Platt Report recommended that the standard of entry to nurse training should be five subjects at General Certificate of Education level (GCE). Both students first and second level student nurses should receive a training grant.
1967	Salmon Report proposes the development of nursing to include the management of hospitals
1972	Briggs Committee suggests a move to degree preparation of nurses and that practice be based on research
1983	United Kingdom Central Council for Nursing, Midwifery and Health Visiting (UKCC) sets up a new professional register with four branches (mental health, children, learning disability and adult)
1985	The Judge Report (1985) recommended: That nurse education is transferred to the higher education sector. That the nursing trainees are given student status. That a three-year course starting with a one-year foundation course, a second year in adult nursing and a third year in a speciality
1986	Project 2000 sets out the move to diploma level nurse training based in colleges/ universities rather than hospital based schools
2002	The Nursing and Midwifery Council (NMC) supersedes the UKCC
2002	Nurses are able to prescribe medication
2004	RCN votes for degree only preparation
2009	All nursing courses in UK become degree level

On the 27 March 1916, the College of Nursing was established. The College was instrumental in persuading parliament to introduce regulation of nursing and in 1919 the Regulation of Nurses Act was passed for England, Scotland, Wales and Ireland (which was still part of the UK at the time) [2]. This meant that all nurses had to learn the same subjects and meet the same standards. In 1928 the College was granted a royal charter, and in 1939 became known as the Royal College of Nursing.

As medical practices developed, the range of knowledge and skills required of nurses was increasing. In hospitals, new nurses began to be trained on the job; first observing and then assisting the more experienced nurses. In this early nurse training, hands-on experience and developing good character were prioritised over theoretical study and exams. Eventually, nurse education developed into a mixture of practical work, text books and lectures given by specialists.

In addition to standardising nurse training, the 1919 Nurses Registration Act also standardised the examinations. When the students passed their examinations, they gained the professional qualification of State Registered Nurse (SRN). The key dates and event in nursing are listed in Box 2.

2. System of education for nurses

Although Florence Nightingale is credited with the transformation of nursing from an non respectable vocation to a highly organized and paid profession for women, she was not the first or only person to contribute to the reform of nursing. However, she achieved reform by elevating moral and ethical standards of the women practicing nursing, improving hospital administration, and by creating a formalized training programme [3]. Nightingale developed a formal 1-year training programme for student nurses, who were then called probationers.

Probationers were trained utilizing an apprenticeship style of learning involving an experienced nurse, teaching the craft of nursing on the job with trainees rotated through various clinical areas to gain an array of experience [4],[3]. The probationer was expected to take notes and keep a journal, which would be checked by the home sister [5]. Probationers were provided with theoretical training from medical instructors who delivered lectures in physiology, chemistry, and medical/surgical topics [6]. Detailed records were kept regarding the probationer's clinical and theoretical training and they needed to pass several written and oral examinations throughout the year [5].

After 1923, becoming a state registered nurse involved three years of training followed by an exam. However, since the training was largely vocational and the content determined by individual matrons, experiences varied wildly. For those undertaking this training its main feature was work and discipline. After a brief preliminary period, student nurses took on a full workload, including everything from cleaning to clinical care, under the supervision of ward sisters. Resident in

the hospital's nursing home, their movements, conduct, manners and morals were constantly controlled under the matron's disciplinary structure [7].

During the Great Depression of the 1930s, registered nurses became too expensive to employ so hospitals sought cheaper options, resulting in training assistant nurses to deliver some care [8]. Post-World War II there remained a huge shortage of trained nurses in civilian hospitals globally, due to large numbers of casualties which increased demand for nurses [9], [6].

The introduction of the second level of nurse aimed to relieve nursing shortages, and reduce the costs of employing more registered nurses [10]. The updated Nurses Act in 1943, paved the way for state-enrolled assistant nurses to begin training[11]. They were originally trained in hospitals utilizing a similar apprenticeship model used for that of first-level (registered) nurses [12].

In 1983 the General Nursing Council (GNC) which had overseen the professional nursing education and standards, was superseded by the United Kingdom Central Council for Nursing, Midwifery and Health Visiting (UKCC) with four national boards, all with midwifery committees. The introduction by the UKCC of 'Project 2000' resulted in huge changes in nursing and nursing education as outline below.

Second-level nurses continued to be trained until the mid 1980s, when they began to be phased out following a review of nursing by [13] which concluded that it was unnecessary to have two levels of nurse [10] ..The nursing education reforms which took place in the mid-1980s as part of Project 2000 began to be implemented in 1990 and eventually led to nursing being integrated within the Higher Education sector. However, it is important to note here that the first course leading to a degree in nursing was accepted at the Welsh School of Medicine in 1969, with a number of other degrees in nursing being introduced at various universities in Wales during the 1970s.

Project 2000 was designed to produce only first level nurses (registered nurses). Students studied for 3 years, splitting the time between class based learning, and practical placements. The first 18-months of the course was known as the common foundation programme and provided basic grounding in 4 nursing disciplines: Adult, Child, Mental Health and Learning Disability. This was followed by 18 months dedicated to the nursing discipline of choice. On successful completion of the course students were awarded a higher education Diploma in Nursing relevant to their discipline. In recent years all nurses are educated at Bachelor degree level [14] Adult nurses work with patients over 18years old. They can work in hospitals or in community settings such as people's homes, health centres or nursing homes. Children's nurses work with children and young people up to 19 years old. Children react to illness in a very different way to adults, and children's nurses are specially trained to understand their needs. Children's nurses also support, advise and educate parents and carers. Learning disability nursing helps people with learning disabilities to live independent and fulfilling lives. They may work with people in supported accommodation, or with those who need more intensive support - for instance, in hospitals or in specialist secure units for offenders with learning disabilities. Mental

health nurses plan and deliver care for people living at home, in small residential units or in specialist hospital services. Nurses working in this field need enhanced communication skills to support families and carers.

In 2002, the UKCC was superseded by the Nursing and Midwifery Council (NMC) as the organisation which regulates nurses and midwives in the United Kingdom, and nursing associates in England. They set standards, hold a register, quality assure education and investigate complaints.

A recent review of nursing [15] concluded that the model created by Project 2000 consisting of only first-level nurses was not ideal, resulting in the revival of a second-level nurse in England only, ensuring this time that they had solid career structures The first cohort of second level nursing students (now called nursing associates) began in 2017 [16].

In May 2018 the NMC published a document titled "Realising professionalism: Standards for education and training" [17].

The document includes the following three parts:

Part 1 Standards framework for nursing and midwifery education

Part 2 Standards for student supervision and assessment

Part 3 Standards for pre-registration nursing programmes

The document also includes: Standards relating to return to practice, and the Pre-2018 Standards still being used by programmes across the UK

These standards help nursing and midwifery students achieve the NMC proficiencies and programme outcomes. All nursing and midwifery professionals must practise in line with the requirements of 'The Code', the professional standards of practice and behaviour that nurses, midwives and nursing associates are expected to uphold.

The standards for pre-registration nursing programmes follow the student journey and are grouped under the following five headings:

1. Selection, admission and progression Standards about an applicant's suitability and continued participation in a pre-registration nursing programme

2. Curriculum Standards for the content, delivery and evaluation of the pre-registration nursing programme

3. Practice learning Standards specific to pre-registration learning for nurses that takes place in practice settings

4. Supervision and assessment Standards for safe and effective supervision and assessment for pre-registration nursing programmes

5. Qualification to be awarded Standards which state the award and information for the NMC register.

The document provides a detailed explanation of the above categories. All three parts of the standards document are explained in detail with instructions for their implementation.

The NMC document "Future nurse: Standards of proficiency for registered nurses" was also published in 2018. The new standards of proficiency for registered

nurses represent the skills, knowledge and attributes all nurses must demonstrate [18]. The document describes the following seven proficiency domains:

1. Being an accountable professional
2. Promoting health and preventing ill health
3. Assessing needs and planning care
4. Providing and evaluating care
5. Leading and managing nursing care and working in teams
6. Improving safety and quality of care
7. Coordinating care

Each domain is defined and the proficiency statements are given. An example of the proficiencies for domain No 5 are given here. At the point of registration, the registered nurse will be able to:

5.1 understand the principles of effective leadership, management, group and organisational dynamics and culture and apply these to team working and decision-making

5.2 understand and apply the principles of human factors, environmental factors and strength-based approaches when working in teams

5.3 understand the principles and application of processes for performance management and how these apply to the nursing team

5.4 demonstrate an understanding of the roles, responsibilities and scope of practice of all members of the nursing and interdisciplinary team and how to make best use of the contributions of others involved in providing care

5.5 safely and effectively lead and manage the nursing care of a group of people, demonstrating appropriate prioritisation, delegation and assignment of care responsibilities to others involved in providing care

5.6 exhibit leadership potential by demonstrating an ability to guide, support and motivate individuals and interact confidently with other members of the care team

5.7 demonstrate the ability to monitor and evaluate the quality of care delivered by others in the team and lay carers

5.8 support and supervise students in the delivery of nursing care, promoting reflection and providing constructive feedback, and evaluating and documenting their performance

5.9 demonstrate the ability to challenge and provide constructive feedback about care delivered by others in the team, and support them to identify and agree individual learning needs

5.10 contribute to supervision and team reflection activities to promote improvements in practice and services

5.11 effectively and responsibly use a range of digital technologies to access, input, share and apply information and data within teams and between agencies, and

5.12 understand the mechanisms that can be used to influence organisational change and public policy, demonstrating the development of political awareness and skills.

All the documents produced by the NMC [19] which govern pre-and post registration education and training for nurses are easily accessible from their website.

3. The legal status of nursing

Legislative framework Article 15(1) of the Nursing and Midwifery Order 2001 ('the Order') [17] requires the Nursing and Midwifery Council (NMC) to establish standards for education and training which are necessary to achieve the standards of proficiency for admission to the register, as required by Article 5(2) of the Order. The standards for pre-registration nursing programmes are established under the provision of Article 15(1) of the Order. Overall responsibility for the day-to-day management of the quality of any educational programme lies with an Approved Education Institution (AEI) in partnership with practice learning partners.

To practise lawfully as a registered nurse in the United Kingdom, the practitioner must hold a current and valid registration with the Nursing and Midwifery Council (NMC). The title "registered nurse" can only be granted to those holding such registration; this protected title is laid down in the Nurses, Midwives and Health Visitors Act 1997 [20]

Like other professional healthcare regulators, the NMC has a set of governing legislation. The main legislation is the Nursing and Midwifery Order 2001 ('the Order'); a series of orders made by the Privy Council and Rules made by the NMC sit underneath the Order.

The legislation was created under powers in the Health Act 1999 [21], as secondary legislation. These pieces of legislation work together to form a detailed legal framework that determines how the NMC operates. To change how the way the NMC operates, it generally requires legislative change.

The Order established the NMC and set out its primary purpose of protecting the public, the structure, functions and activities of the organization. The Order also set out some binding principles and oversight arrangements for the NMC, which is accountable to the Privy Council, the Department of Health and the Professional Standards Authority.

The Order also sets out matters that require either the Privy Council to make orders or the NMC to make Rules. Both the Privy Council orders and Rules that sit underneath the Order serve a number of different functions. Primarily, they set out the detailed approach to NMC's higher-level functions and activities which are set out in the Order. So, the Order must permit certain activities and the Privy Council orders and Rules made by the NMC set out an approach to those.

Any changes to the NMC functions and activities will likely require a change to the legislation, given the detailed nature of this legislation. The NMC must consult with relevant stakeholders on all proposed changes to the legislation. Any changes

are subject to parliamentary processes following consultation, ending in approval by the Privy Council.

The core function of the NMC is to establish and improve standards of nursing and midwifery care to protect the public. Its key tasks are to:

- register all nurses, midwives and nursing associates
- ensure that they are properly qualified and competent to work in the UK.
- set the standards of training and conduct that nurses, midwives and nursing associates need to deliver high quality healthcare consistently throughout their careers.
- set the standards for pre-registration nursing education
- ensure that nurses, midwives and nursing associates keep their skills and knowledge up to date and uphold the standards of their professional code.
- ensure that nurses, midwives and nursing associates are safe to practise by setting rules for their practice and supervision.
- use fair processes to investigate allegations made against nurses, midwives and nursing associates who may not have followed the code.

The powers of the NMC are set out in the Nursing and Midwifery Order 2001. These are included in the statutory instruments 2002/No.253, Nurses and Midwives, which came into force on the 12th February 2002.

Membership of the NMC comprises 6 lay and 6 registrant members appointed by the Privy Council, including at least one member from each of the four UK countries. The registrant members consist of nurses, midwives and nursing associates. The lay members currently include people with diplomatic, legal and business backgrounds.

The NMC register is split into three main parts: Nurses, Midwives and Specialist Community Public Health Nurses (SCPHN). Within the registration it contains several "sub-parts" and qualifications e.g. sub part 1, sub part 2 [20]

4. Nursing in numbers

Nursing shortages in the UK is not a new phenomenon. This was very evident during the first and second World Wars. The launch of the NHS in 1948 provided access to free medical care for the whole population which led to significantly increased demand for nurses. In 1949, the RCN worked with the government to launch campaigns to recruit hospital staff from the Caribbean and Europe, particularly Ireland. Nurses from overseas were often recruited into the least popular areas of health care, such as mental health and learning disability. It is estimated that by 1965, 35% of nursing staff in Britain were born overseas. Today, the NHS across the UK continues to depend on the contribution of nurses from overseas.

A study conducted by the King's Fund [22] which analysed data from the Organisation for Economic Co-operation and Development (OECD), comparing

healthcare spending across 21 countries. They reported that the UK has fewer nurses per head of population than almost any developed country. The UK has 7.9 nurses per 1 000 population which is below the average for the countries looked at.

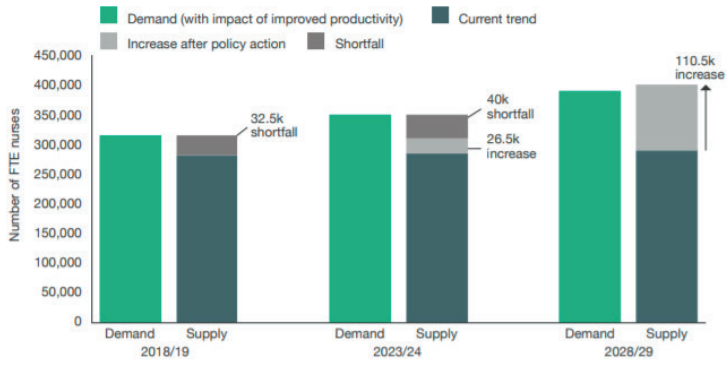
On January 2019, the RCN published 'The UK nursing labour market review' [23] using the 2018 available statistics, most of which were produced by the NMC. The report stated that the number of Nurses, and Specialist Community Public Health Nurses (SCPHNs) on the NMC register was 649 243, whilst the number of registered Midwives was 36 409. In terms of age, the combined numbers of nurses and midwives were:

Under 30 years old = 15.9%
Between 31-40 years old = 21.7%
Between 41-50 years old = 27.4%
Between 51-55 years old = 15.8%
Between 56-60 years old = 12.0%
Age of 61 and over = 7.1%

In 2018 the number of nurses and midwives on the NMC register coming from the European Economic Area (EEA) was 33 874 and those coming from the Non-European Economic Area (Non-EEA) was 70 491. During the same year the NMC reported that the number of leavers from the UK nursing register was 3 560 (from EEA), 1 857 (Non-EEA) and 24 369 (UK).

The "Closing the gap: Key areas for action on the health and care workforce" [24] report, which was published jointly by the Health Foundation, King's Fund, Nuffield Trust in March 2019, predicted continuing demand for nurses and provided the levels of increases in the nursing workforce up to 2029 as the figure4 of this report illustrates.

Figure 4: Nurse demand and supply, 2018/19, 2023/24 and 2028/29



On current trends, in 10 years' time the NHS will have a shortfall of 108 000 full-time equivalent nurses. Half this gap could be bridged by increasing the number of nurses joining the NHS from training. This would require 5 000 more nurses

to start training each year by 2021, reducing the drop-out rate during training by a third and encouraging more nurses to join the NHS once they qualify.

In terms of the ethnic backgrounds of the NHS workforce as a whole it was reported in 2020 that 79.2% of the NHS workforce is of white ethnicity, followed by Asian staff (10.0%), Black staff (6.1%), staff from the Other ethnic group (2.3%), staff with Mixed ethnicity (1.7%) and staff from the Chinese ethnic group (0.6%) [25].

Staff working in the NHS are banded according to their qualifications, skills and years of experience. In 2019 the NHS Health Careers published the pay rates from April 2020 [26].

Band 1 (Not applicable as of 1 December 2018). The banding information below is for 2019.

Band 2

< 1 year experience = £18 005, up to 6+ years =£19 337
Examples of nursing related roles at band 2 - nursery assistant, healthcare assistant.

Band 3

<1 year experience = £19 737, up to 6+ years = £21 142
Examples of nursing roles at band 3- emergency care assistant.

Band 4

< 1 year experience = £21 892, up to 6+years = £24 157
Examples of nursing related roles at band 4 - assistant practitioner, dental nurse and theatre support worker.

Band 5

<1 year experience = £24 907, up to 7+ years = £30 615
Examples of roles at band 5 - junior qualified registered nurses

Band 6

<1 year experience = £31 365, up to 8+ years = £37 890
Examples of roles at band 6 - school nurse, nurse ward manager

Band 7

<1 year experience = £38 890, up to 8+years = £44 50
Examples of roles at band 7 – senior nurse manager, senior nurse practitioner

Band 8a

< 1 year experience = £45 753, up to 5+ years =£51 668
Examples of roles at band 8a - modern matron (nursing) and nurse consultant (mental health nursing).

Band 8b

< 1 year experience = £53 168, up to 5+years = £ 62 001 Examples of roles at band 8b –senior hospital manager, head of nurse led services, head of education and training,

Band 8c

<1 year experience = £63 751, up to 5+ years =£ 73 664 Examples of roles at band 8c – Assistant chief nurse

Band 8d

<1 year experience = £ £75 914, up to 5+ years = £ 87 754 Examples of roles at band 8d include chief nurse

Band 9

<1 year experience = £91 004, up to 5+ years = £104 927 Examples of roles at band 9 include assistant chief executive officer for NHS Trust

Higher positions are outside the banding system.

5. Challenges and prospects

In the 2020 book on clinical education for the health professions [27] it was stated that barriers to nurse education, training and continuing professional development are common across the globe. These can be financial, technological, shortage of teaching/education staff, and heavy workloads.

Societal needs are also changing, creating the need for a continuous review of the ever decreasing nursing workforce. Nursing is facing the challenges of ageing populations across the globe, massive population moves due to wars and natural disasters, the growing super-diverse and multicultural societies, and the speed of technological developments which are being deployed in healthcare environments but also being used for self diagnosis and increasingly for self care.

There is a need for a different preparation of nurses as well as the development of new nursing roles to respond to chronic and complex diseases both in hospitals and in the community. Across the world, the pandemic of Covid-19 has forced many changes to be implemented very quickly using completely different thinking and modes of practice. Nurse educators have had to adapt to massive changes in the delivery of nursing programmes. It is inevitable that the changes made during the pandemic will not be cancelled out in the post pandemic period. It is highly likely that the delivery of theoretical learning will continue on-line rather than in a physical classroom.

Practice is also changing. Shortages of practice placements have existed for a while and the debate about the need for half of the nurse training hours to be

spent with real patients/clients has already started and as a result, UK universities are increasingly using simulation and other embedded technologies in nursing education and practice [28]. Artificially intelligent (AI) social robots have been tested in hospitals and social care [29]. AI devices such as tablets, virtual assistants, AI animals, and Chatbots are already being used in health and social care. The challenge for nursing is to include modules in their curricula and provide training for the current and future workforce on ethical, attitudinal and safety issues, as well as promote the best use of such devices.

The adoption of new technologies in both education and practice in nursing has to be balanced with a highly humane and compassionate training and nursing practice, much needed in highly complex multicultural societies. Only by aspiring, creating and nurturing such educational and working environments will we be able to achieve high quality in nursing education and practice, and be able to establish worthy careers that will excite and attract individuals into nursing.

References

1. The Voice of Nursing 1: The Royal College of Nursing. RCN, London, 2016.
2. Nurses' Registration Act 1919. HMSO, London.
3. Russell RL. From Nightingale to now: nurse education in Australia. Harcourt Brace Jovanovich, Sydney, 1990.
4. Roux GM, Halstead JA. Issues and trends in nursing: essential knowledge for today and tomorrow. Jones and Bartlett Publishers, Sudbury, 2009.
5. Nightingale F. Florence Nightingale: the Nightingale school. In: McDonald L, editor. The Nightingale school. Wilfrid Laurier University Press, Waterloo, 2009.
6. Kalisch PA, Kalisch BJ. The advance of American nursing. 3rd ed. J.B. Lippincott Philadelphia, 1995.
7. https://peopleshistorynhs.org/encyclopaedia/student-nurses-when-is-a-nurse-a-student/
8. Brown GD. Enrolled nurses: where do they go from here? J Nurs Manag. 1994; 2(5):213-6.
9. Bassett J. Nursing aide to enrolled nurse: a history of the Melbourne School for Enrolled Nurses. Melbourne School for Enrolled Nurses, South Yarra, 1993.
10. Seccombe I, Smith G, Buchan J, et al. Enrolled nurses: a study for the UKCC. Brighton, 1997. https://www.employment-tudies.co.uk/system/files/resources/files/344.pdf (Accessed 2020.10.06).
11. Edwards MM. State-enrolled assistant nurses. Am J Nurs. 1945;45:893–4.
12. Clarke L. Foundations of nursing: enrolled division 2 nurses, ANZ ed. South Melbourne: Victorian Cengage Learning Australia; 2016.
13. Briggs A. Report of the Committee on Nursing. Cmnd 5115. HMSO, London, 1972.
14. https://en.wikipedia.org/wiki/Project_2000
15. Francis R. Report of the mid Staffordshire NHS foundation Trust public inquiry. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/279121/0898_iii.pdf (Accessed 2020.11.02).
16. Department of Health. Regulation of nursing associates in England: have your say. *Br J Healthc Assist*. 2017;11:553-5.
17. Nursing and Midwifery Council (NMC). Realising professionalism: Standards for education and training. NMC, London, 2018. https://www.nmc.org.uk/globalassets/sitedocuments/

standards-of-proficiency/standards-for-pre-registration-nursing-programmes/programme-standards-nursing.pdf (Accessed 2020.11.11).
18. NMC. Documents governing pre-and post registration education and training for nurses. NMC 2018. https://www.nmc.org.uk/standards/standards-for-nurses/standards-of-proficiency-for-registered-nurses/ (Accessed 2020.11.11)
19. The Nursing and Midwifery Order 2001. https://www.legislation.gov.uk/uksi/2002/253/contents/made (Accessed 2020.11.23)
20. https://en.wikipedia.org/wiki/Nursing_in_the_United_Kingdom
21. Health Act 1999. HMSO. London. https://www.parliament.uk/about/how/laws/secondary-legislation/ (Accessed 2020.11.11)
22. Ward D, Chijoko L. Spending on and availability of health care resources: how does the UK compare to other countries? King's Fund, London, 2018.
23. Royal College of Nursing (RCN). The UK nursing labour market review 2018. RCN, London, 2019.
24. Beech, J., Bottery, S., Charlesworth, A., Evans, H., Gershlick, B., Hemmings, N., ... & Palmer, B. (2019). Closing the gap: Key areas for action on the health and care workforce. Research Report. The Health Foundation. The Kings Fund and Nuffield Trust. London 2019. https://www.nuffieldtrust.org.uk/files/2019-03/1553101044_heaj6918-workforce-briefing-190320-web.pdf (Accessed 2020.11.21)
25. https://www.ethnicity-facts-figures.service.gov.uk/
26. The NHS Health Careers. Agenda for change - pay rates. 2019 https://www.healthcareers.nhs.uk/working-health/working-nhs/nhs-pay-and-benefits/agenda-change-pay-rates (Accessed 2020.11.21)
27. McKenna L., Davis J., Williams E. Nursing and Midwifery Education: Historical Perspectives. In: Nestel D, Reedy G, McKenna L, et al. (eds.). Clinical Education for the Health Professions. Springer, Singapore 2020:1-18.
28. Grehan M. Visioning the future by knowing the past. In: Daly J, Speedy S, Jackson D. (Eds.). Context of Nursing. Elsevier Australia, Sydney 2017, 17-42.
29. Papadopoulos I, Sgorbissa A, Koulouglioti C. Caring robots are here to help. Nursing Standard. RCNi, 2017. https://rcni.com/nursing-standard/features/caring-robots-are-here-to-help-92736 (Accessed 2020.10.24)

This publication presents the nursing profession in an international context. Each chapter of this scientific monograph describes the nursing profession in different countries and is divided into a few categories: Brief history of nursing, System of education for nurses, The legal status of nursing, Nursing in numbers, Challenges and prospects. Specifically, these countries are presented with the contribution: Czech Republic, Hungary, Israel, Japan, Latvia, Lithuania, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Turkey and United Kingdom. (...)

The scientific monograph very clearly supports the development of nursing in various fields, mainly in nursing education, and focuses on the international priorities and principles of nursing sciences by determining the priority areas of nursing research.

From the review of
Doc. PhDr. Lucia Dimunova, PhD

ISBN 978-83-7996-995-1