



**World Health  
Organization**

REGIONAL OFFICE FOR **Europe**



## ***NURSES AND MIDWIVES:***

***A Vital Resource for Health***

***European compendium of good practices  
in nursing and midwifery towards  
Health 2020 goals***



## ABSTRACT

Health 2020, the European health policy framework and strategy, aims to improve the health and well-being of populations, reduce inequalities and ensure people-centred health systems. In order to support the realization of the Health 2020 goals, the *European strategic directions for strengthening nursing and midwifery towards Health 2020* was developed guiding Member States and the WHO Regional Office to mobilize the potential of the nursing and midwifery workforce. This European compendium was produced to provide operational examples of the new nursing and midwifery roles and new service delivery models currently being employed across the Region. The case studies directly relate to the priority areas in Health 2020 and exemplify the types of activities needed to fully implement the objectives within the Strategic Directions framework.

## Keywords

EUROPE  
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The project was conceived and coordinated by Dr Galina Perfilieva, Programme Manager, Human Resources for Health, WHO Regional Office for Europe.

## **FOREWORD**

To fully realize the goals and ambitions set out in Health 2020, the key policy framework and strategy for Europe that is supporting actions to improve the health and well-being of the people in the European region, it is vital that all health professionals are able to fully play their part. In order to achieve this, health workforce education, service delivery models, regulation, legislation and professional roles must continue to evolve and align with population needs. Equally important is ensuring the health workforce and health service delivery models are orientated to the principles of people-centred care.

This *European compendium of good nursing and midwifery practice towards Health 2020* sets out a range of examples, across the age spectrum and service areas that illustrate the innovative ways nurses and midwives are responding to modern population health requirements in the WHO European Region. The selection of case studies presented not only illustrate the positive effects the various initiatives and approaches have had on patient/population outcomes but also clearly demonstrates the return on health expenditure – investing in the nursing and midwifery workforce makes good economic sense.

The *European strategic directions for strengthening nursing and midwifery towards Health 2020 goals*, the first such document produced in the European Region, was developed as a result of extensive collaboration with senior nurse and midwife leaders and consultation with policy makers. The document provides a consensus view on how the two professions can support delivery of the Health 2020 goals. This Compendium is a supplement to that document, as it provides a range of operational examples that demonstrate different types of approaches to care that will be needed in future. Both documents are being launched in the 65th session of the WHO Regional Committee for Europe.

I would like to thank the many contributors that have led to the production of this Compendium; it is an excellent example of collaborative working across the Region. I hope that the illustrated case studies will act as a motivator and catalyst for workforce developments across the Region as well as encouraging development of a strong evidence base about what is effective.



**Dr Hans Kluge**

Director, Health Systems and Public Health

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## EXECUTIVE SUMMARY

Health 2020, the policy framework for health and well-being in the WHO European Region, highlights nurses and midwives as having key and increasingly important roles to play in society's efforts to tackle the public health challenges of our time, ensure the continuity of care and address people's rights and changing health needs. Nurses and midwives comprise the majority of health care professionals in Europe. As front line health workers they have close contact with many people, and therefore they should be competent in the principles and practice of public health, so that they can use every opportunity to influence health outcomes, social determinants of health, and the policies necessary to achieve change.

The WHO Regional Office for Europe works closely with Member States, government chief nursing and midwifery officers, the European Forum of National Nursing and Midwifery Associations (EFNNMA) and other relevant partners to create evidence-based knowledge on nursing and midwifery and to influence national policies that will lead to the provision of high-quality, accessible, equitable, efficient and responsive health services.

To guide Member States in enabling and enhancing the contribution of the nursing and midwifery workforce to support the Health 2020 implementation, the Regional Office has developed a policy document - *European strategic directions for strengthening nursing and midwifery towards Health 2020 goals*. This framework document – the first of its kind in the Region - aims to develop a strategic approach to action, and to align policies with practice to achieve the 12 defined objectives in the framework and ultimately to contribute to the Health 2020 implementation.

In support of the Strategic Directions, the *European compendium of good practices in nursing and midwifery towards Health 2020 goals* has been developed to demonstrate and promote examples of value-added nursing and midwifery interventions in addressing people's health needs in the Region. In total, 55 case studies from 18 countries were obtained. The Compendium is part of a year-long project led by the Human Resources for Health programme at the WHO Regional Office for Europe.

The key findings of the analysis of the case studies can be summarized by the following conclusions:

- **Good practices in nursing and midwifery exist, supporting Health 2020 implementation** – A variety of new healthcare models and innovative practices have been implemented in various settings across the Region, ranging from small-scale projects to nationwide nursing and midwifery reforms. The good practices and innovation that exist, however, are not always well documented or rigorously evaluated and rarely shared within or across countries.
- **Nurses and midwives enhance health** – The case studies demonstrate a large range of contributions of nurses and midwives in improving health and preventing disease, spanning from health promotion throughout the life-course, to empowering individuals and communities. The roles of nurses and midwives have often evolved and expanded in response to changing healthcare needs of the population. This demonstrates how nurses and midwives are a vital and versatile resource towards achieving the goals of Health 2020.
- **Evidence-based practice and interprofessional collaboration facilitate innovation** – Collaboration within multidisciplinary teams is proven to be effective and feasible. Nurses and midwives are playing an increasing role in developing evidence-based practice, conducting health research and developing innovative practices as part of interdisciplinary teams.

- **Enabling policies to maximize nursing and midwifery potential** – The nursing and midwifery workforce has the expertise and potential to improve population health and much of this is still untapped. The case studies revealed that effective policies and workforce planning, strong professional leadership, regulatory frameworks, educational standards and supportive managerial practices are essential to enable nurses and midwives to work to their highest potential.

The findings presented within this Compendium show that nurses and midwives provide safe, high-quality and person-centred care, improve the coverage and integration of health services and reduce the costs of health care organizations and health systems. Their roles are evolving and expanding, particularly in health promotion, disease prevention and the management and coordination of chronic diseases. Practice development in nursing and midwifery is in response to the health needs of the population. It is generally guided by evidence and quality improvement methods and achieved by strong leadership and supportive systems.

The Compendium establishes that nursing and midwifery practice contributes significantly to the Health 2020 implementation. Nurses and midwives are a vital resource towards improving population health and reducing health inequalities - the goal of Health 2020.

### **Health 2020 priority area 1. Investing in health through a life-course approach and empowering people**

- Nurses and midwives are key players in empowering individuals and families and in promoting health literacy and changes in health behaviour throughout the life-course. Moreover, their services have been shown to be cost-effective and/or cost saving. Midwifery and public health nursing services in the country case studies have demonstrated a remarkable impact on promoting normal births, supporting a healthy start in life, child development, and the health and well-being of families.
- By enhancing health literacy it is possible to enable people to make informed choices, and create supportive environments for health decision-making. These are critical strategies for addressing communicable and noncommunicable diseases now and in the longer term. To support good health through a life-course approach, nurses and midwives can lead the deployment of new health promotion strategies through primary health care, community-based and home-based services.
- Nurses are also key players in supporting healthy ageing and independent living by assessing care needs, providing care counselling and new forms of services to older people that support independence and well-being.

### **Health 2020 priority area 2. Tackling Europe's major health challenges: noncommunicable and communicable diseases**

- In many country case studies, integrated care pathways and person-centred interventions specifically targeted at supporting people in managing noncommunicable diseases are led by nurses who provide expertise, working in one-to-one relationships with patients and in multidisciplinary and multiagency teams. In line with recent trends, nurses used health technology applications to promote self-care for patients, and enhance integration of hospital and community based care. These actions contribute to improving care and well-being and to reducing the costs to health care organizations and systems by decreasing hospitalization rates and preventing misuse of medicines. Thus the use of nursing expertise contributes to proactive approaches to meet patient needs in a timely and cost-effective manner, reducing complications of disease, improving health outcomes and considered best value for health expenditure.



### **Health 2020 priority area 3. Strengthening people-centred health systems, public health capacity and emergency preparedness, surveillance and response**

- Nurses and midwives play important roles in strengthening health systems which adopt the principles of person-centred care. Nurses also form part of public health teams increasing population resilience and are key members of emergency response teams. Examples of good practices include promoting women's choice in childbirth, supporting parents to give their children the best start in life, supporting shared decision-making, promoting self-care management, and the transfer of traditional hospital-based care to community based settings and peoples' homes in accordance with health reforms.
- Expanded roles of nurses and midwives are an efficient and feasible way to extend certain activities and care of specific patient groups, improving access to care and promoting universal health coverage. New nursing and midwifery services are targeted at vulnerable patient groups and improving access to care in rural areas and therefore support universal health coverage.

### **Health 2020 priority area 4. Creating resilient communities and supportive environments**

- Community-based nursing and midwifery services focus on involving people from the communities and generating ownership of health issues. The aim is to promote healthy living among young people and families, provide early interventions to support independence and well-being in older age and promote efficient and quality home care. These practice developments are implemented through integrated service models and facilitated via ICT-supported communication with local communities. In other country cases, new partnerships between academic and health care institutions played an important role in mobilizing the student community.

The Compendium is designed to influence future progress towards better health and well-being of populations. It can provide technical guidance to individual Member States by identifying ways to improve workforce capacity, professional education, working conditions, and to strengthen health care services at institutional, country and regional levels. The aim is to inspire and encourage the development and dissemination of good nursing and midwifery practices and to make the best use of nurses and midwives as a vital resource for better health and well-being.

## 1 INTRODUCTION

*Health 2020, the European policy framework for health and well-being*<sup>1</sup> was adopted by the 53 Member States of the Region at the sixty-second session of the WHO Regional Committee for Europe in September 2012. Health 2020 aims to support action across government and society to “significantly improve the health and well-being of populations, reduce health inequalities, strengthen public health and ensure people-centred health systems that are universal, equitable, sustainable and of high quality”.

The policy framework is evidence-based and peer-reviewed. It gives policy-makers a vision, a strategic path, a set of priorities and a range of suggestions about what works to improve health, address health inequalities and ensure the health of future generations. It identifies strategies for action that are adaptable to the many contextual realities of the WHO European Region (Fig. 1).

**Figure 1. Health 2020 strategic policy framework for the WHO European Region**



Health 2020 highlights nurses and midwives as having key and increasingly important roles to play in society's efforts to tackle the public health challenges of our time, ensure the continuity of care and address peoples' rights and changing health needs. Nurses and midwives together form the largest health professional group in all countries. As front line health care workers, they should be competent in the principles and practice of public health, so that they can use every opportunity to influence social determinants of health, health outcomes and policies necessary to achieve change. With increasing service demands and an ageing population, nurses and midwives are essential to provide safe, high quality and efficient health services across the life-course. Nurses and midwives are therefore a vital resource towards achieving the goals of Health 2020.

<sup>1</sup> World Health Organization (2013) Health 2020: a European policy framework supporting action across government and society for health and well-being ([http://www.euro.who.int/\\_data/assets/pdf\\_file/0011/199532/Health2020-Long.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0011/199532/Health2020-Long.pdf?ua=1) accessed 14 August 2015)

This Compendium generates evidence of good practices in nursing and midwifery and demonstrates the contributions of nurses and midwives towards reaching the goals of Health 2020 through the provision of evidence-based and people-centred care.

The European strategic directions for strengthening nursing and midwifery towards Health 2020 goals<sup>2</sup> policy framework defines the priority areas of action and enabling mechanisms required to develop, implement and support good practices in nursing and midwifery.

These three documents will guide Member States in working towards the goals of improving the health and well-being of populations, reducing health inequalities and ensuring sustainable people-centred health systems.

As acknowledged in *Health 2020*, countries engage from different starting points and contexts and have different capacities. Wide variations exist in the disease patterns and modes of health practice and service delivery in the 53 countries of the Region.

## **1.1 Purpose of the Compendium**

The purpose of this Compendium is to provide examples of good practices in nursing and midwifery and present how these contribute to the implementation of *Health 2020* and the European Strategic Directions. It is hoped that it will provide inspiration, encouragement and guidance by identifying ways to improve workforce capacity, professional education, working conditions, and to strengthen health care services at institutional, country and regional levels. Importantly, demonstrate how to make the best use of the nursing and midwifery workforce as a vital resource for better health and well-being.

## **1.2 Target audience**

This Compendium is intended for ministries of health, policy-makers, academics and service providers interested in how nursing and midwifery contributions, and different models of care, can influence future progress and help meet key health policy targets.

## **1.3 Methods**

Case study examples of good practices in nursing and midwifery were collected by the technical programme Human Resources for Health at WHO Regional Office for Europe with assistance from, and in collaboration with, government chief nursing and midwifery officers, national nursing and midwifery associations and WHO collaborating centers for nursing and midwifery in the Region, from May 2013 until April 2014. In this period 55 case studies from 18 countries were received, reviewed and analysed (Table 1. List of submitted case studies). To keep the Compendium to a manageable length only a selection of case studies, highlighted in blue on the table, are explained in full in this document.

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<sup>2</sup> World Health Organization (2014). European strategic directions towards Health 2020 goals. Copenhagen, WHO Regional Office for Europe ([http://www.euro.who.int/\\_data/assets/pdf\\_file/0004/274306/European-strategic-directions-strengthening-nursing-midwifery-Health2020\\_en-REV1.pdf](http://www.euro.who.int/_data/assets/pdf_file/0004/274306/European-strategic-directions-strengthening-nursing-midwifery-Health2020_en-REV1.pdf) accessed 4 September 2015)

**Table 1. List of submitted case studies**

Country	No.	Title of the country case study	Authors
Belgium	1	Aggression management in mental health care	<i>Dr Sofie Verhaeghe</i>
	2	Implementing nutritional guidelines in acute geriatric wards	<i>Ms Thérèse Van Durme</i>
Croatia	3	Everyday needs and activities of geriatric patients – Users of home care	<i>Ms Valentina Krikšić Mara Županić</i>
Denmark	4	Midwifery-led services in a postnatal clinic. Systematic evaluation of wound healing in hospital	<i>Dr Sara Kindberg</i>
	5	Telemedicine for rehabilitation of COPD patients	<i>Ms Birthe Irene Dinesen</i>
	6	Telemedicine video consultations for COPD patients	<i>Ms Anne Dichmann Sorknæs</i>
	7	Using telemedicine in rehabilitation of cardiac patients	<i>Ms Christina Skov</i>
Finland	8	Supporting families in a Baby Friendly Hospital	<i>Ms Tuija Tuominen</i>
	9	Implementing the role of Case Manager and the Chronic Care Model	<i>Ms Sirpa Luukkainen</i>
	10	New approach to improve health of families with children	<i>Dr Marjaana Pelkonen Dr Tuovi Hakulinen-Viitanen</i>
	11	Nurse consultations for acute health problems and noncommunicable diseases	<i>Dr Marjukka Vallimies-Patomäki</i>
Germany	12	Improving pain management in nursing homes in Muenster	<i>Dr Jürgen Osterbrink</i>
Hungary	13	Cervical Screening Programme by Health Visitor Nurses	<i>Ms Gabriella Erdélyi Kissné</i>
Iceland	14	Outpatient clinic for children and adolescents with diabetes	<i>Ms Elisabet Konradsdottir</i>
Ireland	15	Midwife-led antenatal clinic for adolescents, Rotunda Hospital	<i>Ms Deborah Browne</i>
	16	Early discharge and integrated care for COPD patients, St. James's Hospital, Ireland	<i>Ms Maria Kane</i>
Israel	17	MOMA – First national call centre for treatment by nurses	<i>Dr Galit Kaufman</i>
	18	Public health unity in the struggle against polio in Israel	<i>Dr Yafa Haron Mira Honovich</i>
Lithuania	19	Independent practice of diabetes nurse: Better focus on patient needs	<i>Ms Virginija Bulikaite</i>
Norway	20	A solution-focused approach to improve self-esteem in socially withdrawn school children	<i>Ms Lisbeth Gravdal Kvarme</i>
	21	Redesigned community care to prevent and treat postpartum depression in women	<i>Dr Kari Glavin</i>

Country	No.	Title of the country case study	Authors
Portugal	22	A nursing pain management group towards a pain-free hospital	<i>Prof. Ananda Fernandes</i>
	23	Before you get burnt: health promotion and harm reduction in youth recreational nightlife	<i>Dr Irma Brito</i>
	24	Improving the assessment of pain intensity in a paediatric hospital	<i>Dr Luís Manuel Cunha Batalha</i>
	25	Individualized care for quality and effectiveness of nursing care	<i>Dr António Fernando Salgueiro Amaral</i>
	26	Mobilization of higher education communities to promote healthy settings	<i>Dr Irma Brito</i> <i>Dr Fernando Mendes</i>
	27	Tender adventure: Launching a centre for childbirth and parenthood preparation	<i>Dr Rosa Maria dos Santos Moreira</i>
	28	White Ribbon: Preventing violence in dating relationships	<i>Ms Maria Neto Leitão</i>
Russian Federation	29	Early physical activity and education for patients after lower limb amputation	<i>Ms Marina Anatolyevna Klimeniuk</i>
	30	Independent and advanced nursing services in Samara city polyclinic No 15	<i>Ms Larisa Yuldashevna Pudovinnikova</i>
	31	New nursing role – teaching family members to care for severely sick patients	<i>Ms Marina Anatolyevna Yashenko</i>
	32	Strengthening the role of nurses in providing primary care to children in a Toliatty polyclinic	<i>Ms Natalia Vladimirovna Borovik</i> <i>Ms Liudmila Viktorovna Vasyleva</i>
	33	Tuberculosis and HIV controlled treatment coordinated by ward nurses of the dispensary unit, Samara region	<i>Ms Irina Alexeevna Lyapina</i>
Spain	34	Establishment of a Centre for Evidence Based Healthcare: a collaborating center of the Joanna Briggs Institute	<i>Dr Teresa Moreno-Casbas</i>
	35	Implementation of evidence-based guidelines to establish a Network of Centres committed to using best care practices	<i>Ms Esther González-María</i>
	36	Involving the midwife in screening and emergency obstetric care	<i>Ms Concepción Cuenca Calabuig</i>
	37	National Nursing Research Strategy in Spain: Engaging nurses in evidence-based practice and research	<i>Dr Teresa Moreno-Casbas</i>
	38	School of caregivers	<i>Ms Carmen Ferrer Arnedo</i>
Sweden	39	Designing interactive ICT-supported health communication to support District Nurses' health promotion and disease prevention efforts in primary health care	<i>Dr Amina Jama Mahmud</i>
Switzerland	40	Linking nursing practice and research to support Pain management in the Neonatal Intensive Care Unit	<i>Dr Eva Cignacco</i>

Country	No.	Title of the country case study	Authors
United Kingdom, England	41	Creating a dementia friendly hospital	<i>Ms Karen Bowley</i>
	42	Developing a nursing strategy that delivers compassionate patient care	<i>Ms Helen Mackenzie</i>
	43	Enhancing the life chances of children and young people: School nursing services to support local population needs	<i>Ms Wendy Nicholson Ms Linda Arnot</i>
	44	Health visiting contribution to youth and family early intervention teams	<i>Ms Emma McDonough</i>
	45	Relaunch of a freestanding birth centre to promote normal birth	<i>Dr Tracey Cooper</i>
United Kingdom, Northern Ireland	46	Bereavement support midwife post	<i>Ms Hilary Patterson</i>
	47	Improving health outcomes for people with learning disabilities	<i>Mr Maurice Devine</i>
	48	Improving health outcomes for women with faecal incontinence	<i>Ms Janice Reid</i>
United Kingdom, Scotland	49	Improving palliative care for heart failure patients and their carers	<i>Ms Yvonne Millerick</i>
	50	Pre-birth planning service	<i>Ms Val Arbuckle</i>
	51	Weight Management in Pregnancy Intervention - 'optiMum'	<i>Ms Linda Arnot Ms Carol Barnett</i>
United Kingdom, Wales	52	Development of a community based falls telerehabilitation service	<i>Ms Jayne Sankey</i>
	53	Fostering influence: Clinical expertise and leadership in diabetes nursing	<i>Ms Julie Lewis</i>
	54	Nurse colposcopists and their positive impact on the Cervical Screening Programme	<i>Ms Bethan Morgan</i>
	55	Provision of home blood transfusions and IV therapy service	<i>Ms Jayne Sankey</i>

\* Highlighted case studies are summarized in Section 2 of this document

A standard template (Annex 1. WHO template for reporting country case studies) and manual<sup>3</sup> were distributed to assist in identifying and reporting good nursing and midwifery practices. All case studies received were reviewed for completeness and to ensure that they fit the inclusion criteria for the Compendium. Case study analysis was initially conducted by a team at the WHO Regional Office for Europe and thereafter negotiated and checked for comprehension with a larger number of experts within the fields of nursing and midwifery.

<sup>3</sup> World Health Organization (2013). Good practices in nursing and midwifery – from expert to expert. A manual for creating country case studies. Copenhagen, WHO Regional Office for Europe. ([http://www.euro.who.int/data/assets/pdf\\_file/0007/234952/Good-practices-in-nursing-and-midwifery.pdf?ua=1](http://www.euro.who.int/data/assets/pdf_file/0007/234952/Good-practices-in-nursing-and-midwifery.pdf?ua=1) accessed 14 August 2015).



The case studies were analysed using the European Strategic Direction's priority action areas and enabling mechanisms as a framework for mapping themes that illustrate how nursing and midwifery practice and models of care contribute to the implementation of Health 2020.

Additional analysis was done by main outcome and key activities in nurse- and midwife-led services, on expanded and supplementary roles of nurses and midwives and by community and home-based service provision. Tables presenting these data are provided as an Annex to this document (Annex 2. Tables presenting analysis of case studies).

## **1.4 Limitations of the Compendium**

The case studies in this Compendium provide examples of good practices in nursing and midwifery development but the limitations of this piece of work must be acknowledged.

The inclusion of case studies was restricted by the outreach of government chief nursing and midwifery officers, national nursing and midwifery associations and WHO collaborating centers for nursing and midwifery.

The quality of the data could not be validated. Country case studies provided different levels of evidence; some case studies were based on research projects, randomized control trials, pilot studies or other forms of research. In other cases evidence was based on local data from the health care institution or from internal audits and evaluations, while some cases did not clearly state how the evidence was developed. Several cases clearly defined how the data and evidence was developed but references were not provided.

## **2 CASE STUDIES: CONTRIBUTIONS TO HEALTH 2020**

### **2.1 Overview of priority areas**

The 55 case studies all demonstrated evidence of innovative nursing and midwifery practices within the country context and provide good examples of nursing and midwifery contributions to each of the four priority areas of Health 2020.

*Investing in health through a life-course approach and empowering people* is the first of the four priority areas in Health 2020. With demographic changes underway, promoting health, preventing disease and improving health literacy are major priorities within a life-course approach.

The development of nursing and midwifery services in line with this priority addresses empowerment and the life-course approach through education, counselling, screening, health examinations, and providing tailored support. It also includes early interventions for women in pregnancy, during birth and during the postpartum period as well as for children, families and older people. The shared aim is to promote a healthy and safe start in life, normal child development, health literacy, healthier life choices, social and behavioural change as well as healthy aging and independent living. These services are provided in patients' homes, as outpatients and as part of inpatient hospital care.

*Tackling Europe's major health challenges: noncommunicable and communicable disease* is the second priority area. These challenges are addressed through integrating strategies and interventions in whole-of-government and whole-of-society approaches, focusing on equity and social determinants of health.

Nurses tackle noncommunicable diseases by employing ambulatory and outreach services, call centres and using telehealth to support people to continue living in their homes. Rehabilitation and self-care capacities are also promoted through structured individual and group patient education sessions as a core part of strategies addressing noncommunicable diseases. Because patients often have a complex mix of service needs, nurses apply care and disease management approaches, coordinated care pathways and are involved in multiagency service delivery. In addition, public health nurses use media and other channels to raise awareness regarding the importance of vaccination and provide counselling for local communities during communicable disease outbreaks.

***Strengthening people-centred health systems, public health capacity and emergency preparedness, surveillance and response*** is the third priority area. This includes reorienting health systems with new integrated forms of service delivery, relocating care and improving access to high-quality and affordable care. Revitalizing public health and transforming service delivery to achieve better health outcomes requires a flexible, multi-skilled and team-oriented workforce.

In line with this priority area, nurse consultations are created in order to improve access to care and screening in primary health care facilities, outpatient hospital care and in remote areas. Services traditionally based in hospitals are transferred to the community in order to support patients with chronic conditions to receive the care they need in their own homes. Nurses established a comprehensive dementia friendly hospital in order to ensure person-centred care. In addition, care and support is provided for vulnerable population groups through new nursing and midwifery services such as tailored planning, service schemes and care pathways as well as working as collaborative partners across sectors. Telehealth is used to integrate community and hospital based nursing services and medical consultations in remote areas.

***Creating resilient communities and supportive environments*** is the fourth priority area. This entails generating health promoting settings, involving people and generating community ownership in collaborative and intersectoral environments.

Communities of school children, young persons and local citizens are engaged in enhancing healthy lives through health promotion, counselling and behavioural change strategies as well as early intervention health communication that is supported through Information and Communication Technology (ICT). Universities also mobilize communities to prevent harmful behaviour and develop healthy settings through peer education. Hospital nurses provide education for family members and caregivers in order to support rehabilitation and quality home care for patients.

The following summaries of case studies are presented as selected examples of the range of practice development and innovations provided by countries.

## 2.2 Priority area 1

### **BELGIUM: Implementing nutritional guidelines in acute geriatric wards**

(Case study 2)

#### **Background**

Prevalence studies in Belgian geriatric wards showed that older patients at risk of malnutrition, or already malnourished, were rarely identified. Benefiting from a nationwide nutritional plan, three researchers supported the implementation of nutrition guidelines in eight acute geriatric wards of six hospitals.

Nurses developed new skills relating to nutritional assessment, delivering person-centred nutritional care and in the management and follow-up of patients. These included screening and assessment of newly admitted patients using the Mini Nutritional Assessment scale<sup>4</sup> and on-going review and assessment of each patient to monitor their nutritional status.

Participating nurses were provided with educational training to enable them to correctly use the nutritional screening tool and to interpret the results and respond appropriately.

Researchers and dieticians supported the implementation of the new practice. This model of care was applied in other wards of those hospitals that took part in the pilot study. This project led to the introduction of nurse-led nutritional teams in the hospital that took over the monitoring of the process.

#### **Outcomes and quality of care**

A higher level of awareness about the prevalence and incidence of malnutrition in the wards led to improved nutritional care and systematic evaluation of the interventions.

Nurses reported feeling empowered to providing high-quality nutritional care and to interact more effectively with other healthcare providers after the protocol and tools were implemented, feeling that their input was valued by other healthcare professionals.

Patients expressed satisfaction about the attention provided to the way the food was prepared, presented and that their preferences were taken into account. A key success of this project was the identification of stakeholders in the nutritional care of patients and continuous engagement between these stakeholders during the implementation process through face-to-face meetings. This project demonstrated that nurses were ideally positioned to implement innovative practices involving a multidisciplinary team.

<sup>4</sup> Vellas B, Guigoz Y, Garry P, Nourhashemi F, Bennahum D, Laugue S, Albarede J, The Mini Nutritional Assessment (MNA) and its use in grading the nutritional state of elderly patients. *Nutrition*, 1999; 15(2): 116-122.

## **DENMARK: Midwifery-led services in a postnatal clinic. Systematic evaluation of perineal wound healing in hospital**

(Case study 4)

### **Background**

About 80% of all women who give birth to their first baby sustain some injury to the vulva or perineum. In Denmark, midwives are responsible for the assessment and surgical repairs to trauma not involving the anal sphincter.

Aarhus University Hospital services 4500 births annually and encourages early discharge within 2 to 4 hours after uncomplicated births. Assessment of perineal wound healing in the postnatal period was previously not routinely performed. Early secondary repair was previously performed by obstetricians without postoperative assessment and follow-up.

A midwifery-led postnatal clinic was introduced to provide a one-stop service at two or three days postpartum. In addition to the introduction of assessment of wound healing after perineal repair, neonatal assessment, breast-feeding support and birth experience evaluation were also provided.

### **Practice development**

A specific guideline on wound healing assessment (including normal and pathological healing) and secondary perineal repair was developed. Training was provided in wound healing assessment and postnatal pain management. Clinical assessment of wound healing was offered to all women who experienced perineal injury.

Additionally, some midwives were trained to perform secondary perineal repair through an e-learning programme that was developed in collaboration with senior obstetricians and urogynaecologists.

In the implementation phase a small group of three midwives were responsible for early secondary repairs. This group of midwives were clinically trained to perform secondary repairs by a urogynaecologist with expertise in the field.

An audit of all secondary repairs in terms of anatomical alignment, postoperative pain, wound infection and over-all patient well-being was performed 7-14 days postoperatively by a clinical midwife with research background.

### **Outcomes and quality of care**

As a quality improvement initiative, in situations of wound breakdown or suboptimal primary repair this information was shared with the midwife or doctor responsible for the repair.

Wound healing after primary perineal repair performed by midwives was successful in 93% of all cases as judged by visual assessment two to three days postpartum. The remaining 7% of wounds were either insufficiently repaired or showed signs of wound break down. Preliminary results indicate high patient satisfaction and anatomically good healing after early secondary repairs by midwives.

Midwives working in the new service expressed increased work satisfaction.

## FINLAND: Supporting families in a Baby Friendly Hospital

(Case study 8)

### Background

In 1994 a group of midwives gathered to discuss how to support families in parenthood better and get them actively involved in maternity care. As a result, The Haikaranpesä, in English Stork's Nest (SN), project was set up to offer mothers and families of the Helsinki area a midwife-led birthing unit where the normality of the birth process was emphasized and families were empowered to take an active role. Other priorities in planning the care path were safety and health promotion. In 1996, after extensive background work, a pilot group of 20 families were the first to try out SN. The project was fully supported by the team of a large maternity hospital.

### Practice development

Midwives care for low obstetric risk mothers along the continuum of care through pregnancy, birth and the postpartum period. They provide antenatal education on birth, relaxation and exercises for mothers as well as baby care, breastfeeding, mental preparedness and sexuality following birth. Birth planning meetings and peer support groups are also arranged for fathers. Support is offered in the postnatal period through clinic appointments for those who are discharged early from hospital and those needing support with breastfeeding.

Midwives received training on many topics including non-pharmacological pain relief methods and how to counsel mothers suffering fear of childbirth. International Board Certified Lactation Consultants (IBCLC)<sup>5</sup> training was completed by two midwives to improve the support for breastfeeding mothers and workshops were also conducted for midwives in the Helsinki area.

The care path was planned to involve the partner or the family unit in all aspects of care. The model for the birth plan was adapted from the Swedish model incorporating Finnish recommendations<sup>6</sup>.

### Outcomes and quality of care

The model supported mothers arriving at the hospital late in labour and being discharged from hospital earlier, resulting in cost savings. Enhanced training of parents and comprehensive follow-up care had positive outcomes and there was no increased risk to the newborns with the new model. Satisfaction among families was 20% greater in SN than in other maternity units within the area. Women in labour were better aware of their preferences regarding childbirth and had more knowledge of the birthing process resulting in reduced anxiety. Recognizing partners as equal participants has been one of the unit's main principles. Support from partners and more antenatal information improved breastfeeding outcomes. Breastfeeding within the first two hours of birth was found in 89.8% of cases compared to 63.3% and 67.3% in the sister units. 80.1% of babies were fully breastfed on discharge compared to 69% in another low risk unit. Student evaluations of SN as a learning environment were very positive.

<sup>5</sup> International Board of Lactation Consultant Examiners [website] <http://ibclce.org/>

<sup>6</sup> Klemetti R, Hakulinen-Viitanen T, (2013). Äitiysneuvolaopas. Suosituksiaäitiysneuvolatoimintaan. The Finnish National Institute for Health and Welfare, [in Finnish] [http://www.julkari.fi/bitstream/handle/10024/110521/THL\\_OPA2013\\_029\\_verkko.pdf?sequence=1](http://www.julkari.fi/bitstream/handle/10024/110521/THL_OPA2013_029_verkko.pdf?sequence=1) accessed 14 August 2015).

## **IRELAND: Midwife-led antenatal clinic for adolescents, Rotunda Hospital Dublin**

(Case study 15)

### **Background**

Benefits of midwife-led care for low-risk women during pregnancy have been demonstrated through previous international research<sup>7</sup> and this model of care is advocated as an option for the majority of women during pregnancy<sup>8</sup>. The audit undertaken prior to the development of the midwife-led clinic demonstrated that a large proportion of adolescents remain low-risk throughout pregnancy. Many of the obstetric risks associated with pregnancy during adolescence appear to be strongly linked to social factors that can be reduced through high-quality antenatal care, for example smoking.

### **Practice development**

A multidisciplinary antenatal adolescent clinic was established in 2012. A midwife working within the adolescent service, as a result of an identified service need, initiated the midwife-led clinic. The outpatient clinic is comprised of a midwife-led clinic and an obstetric consultant-led clinic that run on the same day in the Rotunda maternity hospital in Dublin.

Adolescents with an uncomplicated pregnancy are offered the option of attending the midwife-led adolescent clinic. An individual midwife is assigned to each pregnant adolescent and they provide the majority of the antenatal care. Upon meeting at their first antenatal appointment, the midwife evaluates the risk status of the adolescent and monitors this continually throughout the pregnancy. Local guidelines have been established within the hospital regarding the adolescent service.

### **Outcomes and quality of care**

A high proportion of the adolescents in the sample were low-risk at the time of the booking visit (81.7%) and more than half of the sample (56.7%) remained low-risk throughout pregnancy. A large proportion (66.7%) of the risk factors occurred after 36 weeks gestation.

The midwife-led clinic benefited adolescents by improving continuity of care during pregnancy and increased opportunities for health promotion and antenatal education. The service also fostered trusting professional relationships and communication between the midwife and the adolescents. This is vital for the provision of effective, high-quality antenatal care for this vulnerable group. The multidisciplinary team was enhanced by effective communication and professional working relationships that fostered mutual respect between the professionals. The provision of evidence-based care that was tailored to meet the needs of this group of pregnant women resulted in great job satisfaction for the midwives. The existence of the midwife-led clinic also reduced the consultant obstetrician's workload within the adolescent service and allowed re-allocation of obstetric time to other hospital departments.

<sup>7</sup> Sandall J, Soltani H, Gates S, Shennan A, Devane D. (2013). Midwife-led continuity models versus other models of care for childbearing women (Review) The Cochrane Library 2013, Issue 8. (<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004667.pub3/epdf> accessed 14 August 2015).

<sup>8</sup> National Collaborating Center for Women's and Children's Health (2010). Pregnancy and complex social factors: A model for service provision for pregnant women with complex social factors. Royal College of Obstetricians and Gynaecologists, (<https://www.nice.org.uk/guidance/cg110/evidence/cg110-pregnancy-and-complex-social-factors-full-guideline3> accessed 14 August 2015).



## **FINLAND: New approach to improve health of families with children**

(Case study 10)

### **Background**

The way a family functions has major effect on the health and well-being of children. The focus of health examinations in maternity and child health clinics and in school health care has been either on pregnant women or children's health and well-being. Research revealed the need for wider health examinations, introducing earlier support and strengthening empowerment of families and multiprofessional collaboration. A working group nominated by the Ministry of Social Affairs and Health developed extensive family health examinations in 2007-2009 and these were piloted in 2009-2010.

### **Practice development**

Altogether seven extensive health examinations were conducted by a public health nurse or midwife together with a physician during pregnancy, in under school age and in school age children. The role of these professionals was enhanced to cover the assessment of health and well-being of the parents and the whole family. This meant evaluating the psychological and social aspects of the family, including living conditions, income and support networks. Multiprofessional teamwork and sharing of tasks and information were also learning objectives. Information gained from the extensive health examinations was also used in evaluating the school environment.

Extensive health examinations demand theoretical knowledge of family health nursing, health promotion and non-communicable diseases. Primary skills needed are interaction based on dialogue and partnership, empowerment, early identification of needs and targeted support. Skills to intervene with difficult problems, such as alcohol, drugs and violence are also needed. Skills and competencies were developed via continuous education and a guidebook.

### **Outcomes and quality of care**

Extensive health examinations comprising more than 400,000 examinations a year can have a major effect in the health of children and families. According to a nationwide survey<sup>9</sup>, public health nurses, midwives and physicians reported that extensive health examinations helped them to identify support needs and potential health problems earlier and allowed them to target support to children and families most in need. Interactions based on dialogues helped parents and personnel to discover new viewpoints in the promotion of child health for the benefit of the entire family. Extensive health examinations emphasized the importance of the family in child health promotion and empowered parents as primary carers of their children. As they improve health habits, they also helped to decrease non-communicable diseases.

<sup>9</sup> Hakulinen-Viitanen T, Hietanen-Peltola M, Bloigu A, Pelkonen M, (2012). Äitiys- ja lastenneuvolatoiminta sekä kouluterveydenhuolto. Valtakunnallinen seuranta 2012. Raportti 12/2014. Terveysten ja hyvinvoinnin laitos. Äitiys- ja lastenneuvolatoiminta sekä kouluterveydenhuolto. (<http://www.julkari.fi/handle/10024/116122> accessed 14 August 2015).

## **NORWAY: A solution focused approach to improve self-esteem in socially withdrawn school children**

(Case study 20)

### **Background**

Social skills and health in young people can be improved by increasing self-esteem. Self-esteem helps young people believe in themselves, to become more self-confident, improves their ability to stand up for themselves and to reach their goals in school. Socially withdrawn children were reported to have less success in achieving assertive goals.

The role of the school nurse is important in health promotion, using practices that are supportive and promote healthy decision-making. This intervention study was based on a Solution Focus Approach (SFA) group that was delivered by school nurses to improve self-esteem among socially withdrawn school children. The focus in SFA highlights the children's personal strengths and successes as valuable learning experiences rather than dealing with their experience of deficits and failures.

### **Practice development**

In this study, the school nurses received training on the SFA and subsequently led all SFA group meetings. The school nurses enhanced their role by supporting vulnerable children in elementary school to believe in their abilities in addition to learning new skills on how to use SFA in groups. The school nurses received regular support from professional supervisors.

### **Outcomes and quality of care**

The results from this study indicate that the self-esteem of socially withdrawn children aged 12 to 13 is improved using a school-based intervention with SFA. Compared to the control group, the self-esteem scores among the girls in the experimental group increased significantly at the first post-intervention evaluation. Self-esteem scores increased from the baseline to the second post-intervention evaluation in both experimental and control groups but a larger increase was seen in the children of the experimental group

This study demonstrates that socially withdrawn children can benefit from a group SFA intervention to develop social competence and skills and reach their goals. Participating in a group assists in learning from other participants, sharing feelings, experiences, gaining and providing support. These results indicated that the SFA is suitable for school nurses in their work with children with special needs.

Collaborative interprofessional relationships were fostered between the school nurses, teachers and professors.

School nurses reported improved job satisfaction, improved communication with school staff, and the overall environment among the group members also improved.

## **RUSSIA: Early physical activity and education for patients after lower limb amputation**

(Case study 29)

### **Background**

Over a three year period, the number of amputations increased by 56.3%. These patients suffered mobility problems and impaired ability to care for themselves. The Omsk Nurses' Association conducted a study on a new model of care of patients who underwent lower limb amputation. Nurses established and tested the programme of early physical rehabilitation that focused on patient education and improvement in their quality of life. The government chief physician provided the regulatory framework for the implementation of the project.

### **Practice development**

Special nursing positions dedicated to patient training were established for ward nurses. The enhanced role included patient education and support of early mobilization after surgery by means of improving the ability for patient self-care. Nurses taught patients wound care and wound dressing, individual hygiene while staying in bed, breathing exercises and physical training to enhance early mobilization and prevention of pressure ulcers. Thirty minutes each day were allocated to each patient for education.

All nurses in the unit attended professional development programmes on modern approaches and innovative technologies in professional training through the local centre of post-diploma education.

Nurses also participated in the study by testing the new model of care and assessing the health and performance outcomes. The head nurse of the unit was trained as a nurse researcher within the project of the Omsk Nurses' Association.

### **Outcomes and quality of care**

Outcomes were examined through a multi-centre clinical study. Patients in this programme performed physical activity four days earlier, used crutches six days earlier and wounds healed four days earlier compared with patients receiving standard care. The care provided in the new model was cost-efficient.

Of the patients surveyed, 99.5% were satisfied with the quality of care and the patient education received after surgery. Patients actively participated in care and they were motivated to perform physical exercises and overcome physical barriers. The new care model supported patients adapting to their new life situation and improved the quality of their lives.

Physicians regarded nurses as trusted partners. Positive outcomes strengthened the professional interests and satisfaction of nurses and provided evidence on the effectiveness of establishing special nursing positions for patient education.

## **ENGLAND, UK: Relaunch of a freestanding birth centre to promote normal birth**

(Case Study 45)

### **Background**

The freestanding birth centre at Chorley and South Ribble District General Hospital was in a poor state. The number of women using the birth centre had fallen and midwives were beginning to believe that there was no future for it.

To make the case for relaunching the birth centre the consultant midwife used evidence<sup>10, 11</sup> and the potential advantages of the new maternity payment structure in England to lobby for its reopening, which occurred in May 2013.

### **Practice development**

The Chorley Birth Centre provides midwife-led care that promotes the normal birth processes with the involvement of partners. The philosophy of inspiring women to believe in the normal physiological birth process and taking ownership of their birth experience is shared among staff. The birth centre is in a community hospital setting 14 miles from the main hospital site.

The skills of midwives in normal and water births have been developed. Annual mandatory training has supported staff. In addition, organizational guidelines developed by a multidisciplinary group and guided by the National Institute for Health and Care Excellence were applied.

### **Outcomes and quality of care**

Prior to its relaunch, the birth centre provided care for 1.1% of all births in the local NHS Foundation Trust. This rose to 5.5% in August 2013. Normal birth rates, water births and women using water during labour increased. Of women attending the Chorley Birth Centre, 86% of women had a normal birth, 68% had a water birth and 92% used water during labour. The financial position for the service improved and will be monitored to provide evidence on further cost savings.

The project increased well-being of families by promoting normal birth, reducing interventions, including partners in the birth process, providing a healthier start for newborns and supporting women to resume a normal lifestyle quicker. A 24-hour stay for partners provided the opportunity for more women and their families to be in a relaxed and comfortable environment and have positive and satisfying birth experiences.

This integrated model of care with midwives working between the community setting and the Chorley Birth Centre, improved continuity of care. The Chorley Birth centre has led to increased job satisfaction and improved retention of staff. Midwives have also been working with service users, local newspapers and radio to raise the profile of midwife-led care.

<sup>10</sup> Hollowell J et al. (2011). Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. *British Medical Journal*, 2011:343:d7400. (<http://www.bmj.com/content/343/bmj.d7400> accessed 14 August 2015).

<sup>11</sup> Schroeder E, Petrou S, Patel N, Hollowell J, Puddicombe D, Redshaw M, Brocklehurst P, et al. (2012). Cost effectiveness of alternative planned places of birth in woman at low risk of complications: evidence from the Birthplace in England national prospective cohort study. *British Medical Journal*, 2012:344:e2292. (<http://www.bmj.com/content/344/bmj.e2292> accessed 14 August 2012).

## SCOTLAND, UK: Weight management in pregnancy intervention - *optiMum*

(Case Study 51)

### Background

Obesity in pregnancy is known to impact on both the short- and long-term health of women, including an increased risk of cardiovascular disease, type 2 diabetes, pre-term delivery and birth complications. Maternal obesity can also impact on the well-being of the foetus and poses an increased risk of stillbirth or neonatal death, as well as development of chronic conditions in later life, for example hypertension. Maternal obesity has been shown to have a financial cost to the National Health Service (NHS) and logistical issues due to provision of appropriate equipment and safety issues.

In Tayside in 2009, one-third of pregnant women were noted as obese at their antenatal booking appointment. Scottish government funding to support improvement in maternal and infant nutrition provided an opportunity to target obese pregnant women and offer a tailored, supportive evidence-based package of care called *optiMum*. *OptiMum* promotes appropriate weight management through healthy lifestyle counselling during pregnancy and weight loss during the postpartum period. At the time no known interventions in Scotland were available for the management of obese pregnant women.

### Practice development

*OptiMum* is primarily a midwife-led intervention where support is provided from an obstetrician and an anaesthetist when needed. Nutrition support was provided by the midwife and also by a nutritionist who attends selected *optiMum* clinic sessions.

Midwives were surveyed prior to launching the intervention to identify their training needs and as a result additional training was provided in nutrition and behaviour change counselling. Midwives increased their confidence to identify and counsel women who had a body mass index (BMI) of greater than 40kg/m<sup>2</sup>. Since the launch of *optiMum*, a pathway for obese women accessing maternity services has been developed. This pathway supports midwives to confidently support obese women to manage their weight during pregnancy and ensures that a consistent approach to their care is followed across the Health Board.

### Outcomes and quality of care

The number of women seen at *optiMum* clinics has increased from 85 women in 2010/11 to almost 200 in 2012/13 with the intervention now offered at two sites. In the first year, women who participated in *optiMum* had an average weight gain of 7.1 kg compared with the average pregnancy weight gain of approximately 12 kg. Feedback from women who have attended *optiMum* has been positive.

The pilot project has now been incorporated into core services in Dundee. NHS Health Scotland has used the *optiMum* intervention as an example for other Scottish Health Boards. *OptiMum* has been shared widely at international conferences, in journals and through other media opportunities.

## 2.3 Priority area 2

### WALES, UK: Fostering influence: Clinical expertise and leadership in diabetes nursing

(Case Study 53)

#### Background

The Local Health Board for the North Wales region determined in 2009 that a cost saving initiative should be re-directed to implement a community diabetes lead nurse role. This was a response to requests for access to an expert diabetes nursing resource from general practitioners and the wider community. From the outset, the responsibility for service development lay with the lead diabetes nursing role, thereby instilling an expectation of clinical leadership and decision-making within the post-holder. A wider consideration of health care delivery was also important, enabling opportunities for specialist clinical leadership to contribute to collaborative approaches for service design and decision-making.

#### Practice development

The role had a three-fold focus in clinical leadership:

1. To develop and provide diabetes education opportunities for the community and primary health care staff including designing and implementing a validated diabetes management curriculum at a post-graduate certificate level.
2. To facilitate cooperative work alongside community and primary health care professionals to support delivering and monitoring a negotiated plan of diabetes care.
3. To contribute to delivering structured education for adults with diabetes.

Additionally, the nurse also represented the Diabetes Specialist Nursing Network in the Diabetes National Service Advisory Group whose purpose was to inform the Welsh Government regarding the delivery of diabetes services and care.

#### Outcomes and quality of care

The Specialist Nurse had a remarkable influence both on clinical and strategic service development. Numerous diabetes joint clinical sessions were undertaken in primary and community settings and independent care establishments. Joint sessions conducted at general practitioners (GPs) practices contributed to improved access to quality diabetes management at the primary health care level of service delivery. Individualized plans of care and timely and appropriate specialist referrals were provided, resulting in the provision of a people-centred service. Numerous educational modules in diabetes were offered for professionals and an educational booklet on Type 2 diabetes was developed for distribution to patients when newly diagnosed.

Generating evidence on the low delivery rate of structured diabetes education and on the declining numbers of diabetes nursing specialists in Wales also contributed to the Diabetes Delivery Plan for Wales (2013)<sup>12</sup>.

<sup>12</sup> Welsh Government (2012). Together for Health – A diabetes delivery plan. A Delivery Plan up to 2016 for NHS Wales and its partners. Cardiff. (<http://www.wales.nhs.uk/sitesplus/documents/901/Together%20for%20Health%20-%20A%20Diabetes%20Delivery%20Plan.pdf> accessed 14 August 2015).



## ICELAND: Outpatient clinic for children and adolescents with diabetes

(Case study 14)

### Background

A team consisting of a physician and a nurse identified an increased need for health education and support in managing diabetes mellitus (DM) among their clients. An enhanced nursing service was developed that prioritized multidisciplinary ambulatory care for youth living with DM. The nurse-led service focused particularly on providing information, education and support according to the expressed needs of parents, children and adolescents.

### Practice development

Skills and competencies for this new role were developed over time through training and continuing education opportunities including academic degrees at the bachelor, master and nurse specialist levels. With this training, nurses could observe and measure the needs of clients using scientific methods thereby increasing competence in understanding and enabling the provision of person-centred care.

As part of multidisciplinary teams, nurses conducted scientific research and participated in conferences and workshops. The service was supported through specific guidelines and checklists were developed at the clinic. Support from nursing academia was very important in developing the skills to conduct research and writing papers resulting in the ability of the nurses to contribute to the scientific literature.

### Outcomes and quality of care

Nursing services were provided to approximately 130 clients annually. Benefits for clients included increased satisfaction, improved ability to deal with the disease with the support of the clinic and better treatment compliance.

Several improvements were made to the service including the development and provision of individual, group and family counselling sessions and motivational interviewing sessions. Special focus was on psychosocial needs as an important addition to treatment support of DM. This initiative was followed by other nurse-led services that were developed and integrated into the hospital's model of health care delivery.

Better health outcomes for clients and the health system affirmed the importance of this enhanced role of the nurse. Benefits to the nursing profession included the creation of professional development opportunities and government approval of a new nursing role as a specialist in paediatric nursing. Several reports and scientific papers were also produced based on this initiative<sup>13</sup>.

<sup>13</sup> Konradsdottir E, Svavarsdottir EK, (2011). How effective is a short-term educational and support intervention for families of an adolescent with type 1 diabetes? *Journal for Specialists in Pediatric Nursing*, 2011, 16(4): 295–304. (<http://www.ncbi.nlm.nih.gov/pubmed/21951355> accessed 14 August 2015).

## **LITHUANIA: Independent practice of diabetes nurse: Better focus on patient needs**

(Case study 19)

### **Background**

Since 1990 classes to promote diabetes education have been established in hospitals with the aim of educating patients to manage the disease. In order to improve services and prevent late complications of diabetes mellitus, hospital nurses needed unified official recognition for their roles in working with diabetic patients in primary health care settings and hospitals. Ensuring direct access for patients from general practitioners (GPs) to diabetes specialist nurses was also essential to reduce unnecessary visits to endocrinologists. Formal continuing professional education requirements for diabetes nurses were developed and mandated by the Ministry of Health. Coinciding with this change, a separate tariff was introduced for nurse services. As a result of this, diabetes nurses have provided independent services in their offices since July 2011.

### **Practice development**

With this role expansion, nurses increased their competence in monitoring patients according to their needs, making autonomous decisions, delivering educational programmes and coordinating patient care in collaboration with GPs and endocrinologists. Nurses have also increased their competence in reporting on nursing activities through better documentation. Nurses are able to book individual patients for visits when necessary, assess and discuss their health status with GPs and endocrinologists and refer them to psychologists. The work of nurses in diabetes care has become more focused on individual patient needs, such as education, foot care and skill development.

### **Outcomes and quality of care**

This change allowed the diabetes care service to be more accessible to the patient, and established new independent places of work for diabetes specialist nurses. The 120 diabetes nurses in the 38 health care institutions now have a licence to provide diabetic care services. This change has led to a diversion of services from endocrinologists for routine prescriptions and care of diabetic patients to diabetes nurses, allowing the specialist physicians to focus on more serious health problems of their patients.

Both diabetes specialist nurses and patients with diabetes have expressed greater satisfaction; there has been more effective management of patient care with greater knowledge, skills and education on late complications. Recording of patient information in separate nursing files has also been essential for continuity of care. Diabetes nurses are treated as professionals and their work has become more visible. There is now better collaboration between GPs and diabetes nurses.

The Association of Diabetes Nurses and the Ministry of Health continue to have discussions on additional functions for nurses, including the prescription of diagnostic tests. Nursing research on new roles and functions of diabetes nurses has also been initiated at university bachelor and master programmes in order to measure the results of these changes and their potential benefits.

## DENMARK: Telemedicine for rehabilitation of COPD patients

(Case study 5)

### Background

Patients with chronic obstructive pulmonary disease (COPD) belong to the group of the five most resource-demanding illnesses in Denmark. The disease accounts for 20% of all emergency admissions to the medical wards. After being admitted, COPD patients often have many bed-stay days and a re-admission frequency of about 24% within a month.

The effectiveness of medical treatment is limited, and many COPD patients must live with reduced levels of function, inactivity, frustration and social isolation. It is important to break this negative spiral and increase the quality of life of patients. The TELEKAT<sup>14</sup> research project focuses on developing new preventive care and treatment methods for chronic respiratory patients in their own homes utilizing tele-homecare technology. Patients are now offered rehabilitation when their clinical symptoms reach a level which impacts on their functioning and quality of life. Rehabilitation includes physical training, instruction about the disease, nutrition, lung physiotherapy, and assistance to stop smoking. The rehabilitation typically occurs as courses of a few weeks duration in an outpatient setting.

### Practice development

An educational programme helped develop practitioners' competencies with the technology and to interact and support patients by providing care remotely. Physiotherapists were involved in guiding the patients in the telerehabilitation programme. Nurses working in the hospital setting, district nursing and in general practitioners' offices had their roles enhanced to coach patients in managing their own disease and respond to worsening symptoms in everyday life. New clinical guidelines were developed for telerehabilitation of COPD patients. The programme included patients measuring their own blood pressure, pulse, spirometry and weight during a 4-month period using the tele-homecare technology. Patients also used a step counter and did home exercises. The patients were educated to be able to act on their own data to identify worsening of symptoms in order to avoid readmissions. Video meetings were held between healthcare professionals across sectors in order to coordinate the care and rehabilitation of the COPD patients.

### Outcomes and quality of care

COPD patients were empowered to monitor their own health and act on worsening symptoms. The majority of the patients expressed better quality of life as they learned to cope with their disease and symptoms. The hospital readmission rate was reduced by 54% over a 10-month period<sup>15</sup>.

Multidisciplinary team dynamics were developed across sectors and between district nursing, general practitioners and hospitals. The project continues as part of a multicentre randomized control trial (iTrain) on long-term telerehabilitation between Norway, Australia and Denmark.

<sup>14</sup> Telehomecare, chronic patients and the integrated health system [website] [www.telekat.eu](http://www.telekat.eu)

<sup>15</sup> Dinesen B, Hæsum L, Korsbakke E, Sørensen N, Nielsen C, Grann O, Hejlesen O, Toft E, Ehlers L H. (2012). Using preventive home monitoring to reduce hospital admission rates and reduce costs: A case study of telehealth among chronic obstructive pulmonary disease patients. *Journal of Telemedicine and Telecare* 2012;4: 221–225. (<http://www.ncbi.nlm.nih.gov/pubmed/22653618> accessed 14 August 2015).

## FINLAND: Implementing the role of case manager and the Chronic Care Model

(Case study 9)

### Background

Evidence shows that the care of people with chronic conditions consumes about 78% of all healthcare spending<sup>16</sup>. Around 2% to 5% of people with chronic diseases have complex care needs including multiple health conditions and social problems<sup>17</sup>. The Chronic Care Model has shown that good management of patients with chronic diseases and complex needs can greatly improve care, reduce resource use and improve the quality of life of patients<sup>18</sup>. The Model was developed as part of implementing the National Development Programme for Social Welfare and Health Care in Norway. There were several regional projects implemented with municipal health care management support. The focus was on person-centred activities, proactive care, developing disease management by improving pathways and processes to facilitate care coordination within and across organizations as well as developing self-management support strategies.

### Practice development

Developing new roles and ways of working with multidisciplinary teams were key to redesigning services. The role of nurses as case managers was expanded to include coordination of care and resources and managing caseloads. Certain responsibilities were redistributed between nurses and doctors, and nurse prescribing was applied within legislative requirements. Training criteria were developed for postgraduate education of case managers in cooperation with health professionals and teachers. Competencies needed included identifying at-risk groups, performing health checks and follow-up of patients with a complex mix of chronic diseases and service needs. Nurses were also responsible for the provision of intensified patient education and support of self-care. The role called for a holistic and creative problem-solving approach to help people manage their specific health conditions. In addition, diversified information technology skills, ethical knowledge and skills for autonomous decision-making and negotiating were needed.

### Outcomes and quality of care

According to indicators for monitoring the effectiveness of the Model, the number of emergency visits made by patients with chronic diseases reduced<sup>19</sup>. Patients' active participatory role and satisfaction with the treatment improved. The self-care guide was generated to support the teaching of 'self-management' for health care professionals, and self-care tools were introduced to patients. Patient record systems were also developed to improve shared information and facilitate individual patient care planning. Furthermore, interactive electronic services were established to provide patients faster access to services, more choices and support for self-management.

<sup>16</sup> Nugent R. (2008). Chronic Diseases in Developing Countries. Health and Economic Burdens. Reducing the Impact of Poverty on Health and Human Development. *Annals of the New York Academy of Sciences* 2008, 1136:70-79. (<http://onlinelibrary.wiley.com/doi/10.1196/annals.1425.027/epdf> accessed 14 August 2015).

<sup>17</sup> Nolte E, McKee M, (). *Caring for People with Chronic Conditions: A Health System Perspective*. Open University Press, 2008. ([http://www.euro.who.int/\\_data/assets/pdf\\_file/0006/96468/E91878.pdf](http://www.euro.who.int/_data/assets/pdf_file/0006/96468/E91878.pdf) accessed 14 August 2015).

<sup>18</sup> Zwar N, Harris M, Griffiths R, Roland M, Dennis S, Davies G P, Hasan I. (2006). *A Systematic Review of Chronic Disease Management*. Sydney: Australian Primary Health Care Institute. ([http://files.aphcri.anu.edu.au/research/final\\_25\\_zwar\\_pdf\\_85791.pdf](http://files.aphcri.anu.edu.au/research/final_25_zwar_pdf_85791.pdf) accessed 14 August 2015).

<sup>19</sup> POTKU. Väli-Suomen POTKU loppuraportti, Linna-Potku. Hämeenlinnan terveystalvet, 2012. (<http://www.fshky.fi/UserFiles/fshky/File/hyvinvointikuntayhtyma/hankkeet/Loppuraportti%20POTKU%20%202012-2014.pdf> accessed 14 August 2015).

## **IRELAND: Early discharge and integrated care for COPD patients, St. James's Hospital**

(Case study 16)

### **Background**

In response to pressure on hospital beds, an early discharge initiative was set up within St. James's Hospital for patients with exacerbations of chronic obstructive pulmonary disease (COPD). The project initially consisted of the nurse or physiotherapist visiting the patient at home, but has progressively evolved towards a more comprehensive nurse-/physiotherapist-led service, managing all aspects of COPD in the community in an integrated care model, while minimizing in-patient hospital stays.

### **Practice development**

The nurse-/physiotherapist-led service is comprised of three levels of care:

*Level 1: Early discharge* – patients are discharged early with hospital-in-the-home care of three visits;

*Level 2: Respiratory assessment unit (RAU) evaluation* – a nurse/physiotherapist-led clinic for assessment and management of all aspects of the disease with on-going telephone support; and

*Level 3: Pulmonary rehabilitation* – patients enter a pulmonary rehabilitation programme comprising of education and exercise in outpatient group sessions.

The programme has expanded to include two clinical nurse specialists and a larger unit with additional outreach programmes for other respiratory conditions. The service accepts direct referrals from GPs, provides palliative and supportive care visits and referral pathways to hospice and long-term assessment clinics. Scope of practice has expanded through continuing professional development including education and mentorship. Enhanced competencies include taking arterial blood gases and interpreting diagnostic imaging. Clinical practice was based on local, national and international guidelines. The service was supported by the expertise and services of other multidisciplinary teams within the hospital and community, including social workers, respiratory technicians, public health nurses, a community intervention team and a hospice.

### **Outcomes and quality of care**

This service has provided benefits for patients by reducing hospital admissions and length of hospital stays. Reduced bed stays demonstrate the cost-effective nature of the service. Results of an evaluation show that patients receiving care at the first level of service have a reduction in hospital length of stays from 10.5 days to 1.5 days. Similarly level two services has led to better disease control and a 75% reduction in readmission rate at year one<sup>20</sup>. Level three services have shown to improve exercise capacity, reduce symptoms and improve the quality of life of enrolled patients<sup>21</sup>. With this new service, not only are patients spending less time in hospitals but also there is now a central place to refer patients for holistic management of COPD.

<sup>20</sup> Lawlor M, Kealy S, Agnew M, Korn B, Quinn J, Cassidy C, Silke B, O'Connell F, O'Donnell R. (2009). Early discharge care with ongoing follow-up support may reduce hospital readmissions in COPD. *International Journal of Chronic Obstructive Pulmonary Disease*, 4:55–60. (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2672799/> accessed 14 August 2015)

<sup>21</sup> Qaseem A, Wilt TJ, Weinberger SE, Hanania NA, Criner G, van der Molen T, Marciniuk DD, Denberg T, Schünemann H, Wedzicha W, MacDonald R, Shekelle P, (2011). Diagnosis and management of stable chronic obstructive pulmonary disease: a clinical practice guideline update from the American College of Physicians, American College of Chest Physicians, American Thoracic Society and European Respiratory Society. *Annals of Internal Medicine*; 155(3):179–191.



## **ISRAEL: MOMA- First national call centre for treatment by nurses**

(Case study 17)

### **Background**

The Israeli healthcare system is facing a scarcity of resources yet demands for care of complex chronic conditions are increasing. To ensure the supply of quality care in response to population needs and demands as well as controlling costs a new model for disease management was developed. The first national call centre MOMA was established in 2012. The MOMA model applies telehealth for the treatment of a range of chronic conditions.

### **Practice development**

The goal of the model was to monitor and provide care for diverse client groups with chronic conditions, including clients who needed attention day and night, and clients whose limited mobility made it difficult for them to travel to the physician's office. The care was delivered at a primary care level in a multidisciplinary team and the service facilitated coordination between all professionals involved in the patient's treatment. Moreover, MOMA served as an integrator along the continuum of care.

MOMA applied a disease management model based on multidisciplinary teamwork. Telehealth care was delivered by MOMA nurses in collaboration with primary physicians. Nurses worked as disease managers alongside the primary physicians who also worked as case managers. MOMA nurses performed follow-up visits, monitored patient's conditions and provided patient health education, problem solving and consultation in accordance with the disease management model. MOMA nurses were also authorized to titrate certain medication according to guidelines.

All nurses recruited to MOMA participated in a comprehensive training programme that included telehealth communication skills. Detailed protocols were derived from international guidelines and endorsed by physicians for use by the nurses.

### **Outcomes and quality of care**

Initial evaluation indicated significant improvement in the ability of patients to cope with the disease. Patients felt they had the knowledge for self-treatment and were less worried regarding the disease. Findings showed improvement in the mental health of patients with a significant decline in rates of depression. A significant improvement was achieved regarding life style factors. Patients complied well with drug regimes, diet and kept a routine of physical exercise.

According to patient reports, in most cases (94%) there was coordination between the primary physician and MOMA. 75% of primary physicians reported they would recommend patients join the MOMA service.



## **2.4 Priority area 3**

### **HUNGARY: Cervical Screening Programme by Health Visitor Nurses**

(Case study 13)

#### **Background**

A public health programme for cervical screening has been in operation since 2004, however despite this, approximately 400 deaths caused by cervical cancer occur in Hungary each year. The public health Cervical Screening Programme invites women aged between 25 and 65 years to participate in screening every 3 years, if their test results in the past have been negative. Despite these measures, uptake of the screening programme is still very low (30% of the target population).

#### **Practice development**

A new pilot Cervical Screening Programme (CSP) started in 2009 in order to increase the participation rates of women. This new programme involved Health Visitor Nurses (HVN) doing the screening. This programme is not exclusive to taking cytological smears, sending samples to the laboratory and other screening activities, but also includes health promotion activities such as providing guidance, counselling, and motivation to the patient, visiting the local population and communicating information on lab results. HVNs receive additional accredited training in cervical screening to expand their role and scope of practice.

#### **Outcomes and quality of care**

By the end of 2012, 285 HVNs voluntarily attended the CSP training. The programme showed good results and based on this experience, HVNs are competent in performing cervical screening, taking appropriate grade smears, contacting and motivating women to take part in the screening programme. HVNs convinced a number of women to participate in the screening programme who had not visited a gynaecologist in 10 or more years.

Involving HVNs in the CSP was not only in alignment with international trends, but personally connected health professionals with the local populations. Access to cervical screening improved by making screening available to women living in small settlements and disadvantaged areas, since this population is the least likely to travel to distant gynaecologists or specialist health centres due to lack of time and money, as well as transport and travel barriers.

CSP training will be available in the bachelor programme of health visitors from 2014. Legislative amendment (Decree No. 49/2004) will come into effect in 2015 to support HVNs performing cervical screening after possessing the required competences.

## **FINLAND: Nurse consultations for acute health problems and NCDs**

(Case study 11)

### **Background**

Increasing physician shortages in primary health care, declining access to treatment and growing interest in improving nursing competencies were drivers for developing advanced nursing roles. The Ministry of Social Affairs and Health initiated the advancement of the roles of nurses, public health nurses and midwives (hereby referred to as nurses) as part of a health service reform based on the national social welfare and health policy programme adopted by the Finnish Government. The Ministry has used state grants for municipal projects on advanced roles of nurses since 2002.

### **Practice development**

New roles for nurses were developed in order to reallocate certain patient groups with acute health problems and non-communicable diseases from the care of physicians to nurses. Nurses consult within the multiprofessional team or work in pairs with physicians in health centres and emergency care units. In some cases, nurses work in nurse-led health stations supported through e-consultation by physicians working in larger health stations.

Nurses have the authority, knowledge and skills to examine, assess, treat and follow-up different patient groups. Health promotion, patient education and ensuring patient safety are other essential competences. In these cases, if nurses have passed regulated postgraduate education, they can also re-prescribe medications prescribed by a physician and have prescription authority if the medication is from a predefined national list of authorized medicines. Legislation on nurse prescribing authority came into effect in 2010 and on corresponding postgraduate education requirements in 2011. Postgraduate education on nurse prescribing is based on nationally defined curriculum requirements. Learning opportunities have been interdisciplinary and held with medical students. Evidence-based guidelines, available online, have been prepared with multidisciplinary collaboration to guide the decision-making of the nurses.

### **Outcomes and quality of care**

Nurse consultations represented almost one-third of acute health visits and almost 60% of the total number of visits by patients regarding acute health problems and non-communicable diseases in outpatient pilot sites<sup>22</sup>. Some health stations have reported improved productivity<sup>23</sup>. Patients have experienced better access to care and greater satisfaction with the counselling and support for self-care provided by nurses. Nurses working in remote health stations, supported by e-consultations with physicians, were capable of managing 70% of the service demands while referring only 22% of patients to the physician<sup>24</sup>. Nurses and physicians also reported improved multiprofessional collaboration and well-being at work.

<sup>22</sup> Hukkanen E, Vallimies-Patomäki M. (2005). Yhteistyö ja työnjako hoitoon pääsyn turvaamisessa. Sosiaali- ja terveysministeriön selvityksiä:21. [in Finnish] (<http://www.julkari.fi/handle/10024/112544> accessed 14 August 2015).

<sup>23</sup> Koski J, Elonheimo O, Linna M. (2004). Työvoimapula perusterveydenhuollon avotoiminnassa – mitä keinoja avuksi? In Mikkola H, Klavus J, (Editors)(2004). Terveystaloustiede 2004. Helsinki, Stakes, Aiheita 3/2004:21–24. [in Finnish] (<https://www.julkari.fi/bitstream/handle/10024/76808/Aiheita3-2004.pdf?sequence=1> accessed 14 August 2015).

<sup>24</sup> Jaatinen P, Vanhatalo R, Tasanko A, (2002). Miten terveysaseman hoitaja toimii, jos terveysasemalle ei ole saatu lääkäreitä. Suomen Lääkärilehti [Finnish Medical Journal], 2002, (25–26):2795–2799.

## GERMANY: Improving pain management in nursing homes

(Case study 12)

### Background

Pain is a common phenomenon among people over the age of 65 that significantly impacts on their quality of life. The need for adequate pain management becomes even more apparent as demographic changes occur and more people are expected to suffer from chronic pain, especially among nursing home residents. To ensure optimal pain care for this population, innovative care delivery models and a sophisticated integration of already proven models are needed.

### Practice development

Nurses were taught how to claim specific areas of responsibilities by developing and implementing a nursing care plan in accordance with the National Standard for Pain Management in Nursing<sup>25</sup>. For this, nurses were invited to participate in training workshops that were based on the results of a preceding needs assessment (pre-test) that was executed in the context of a health services study<sup>26</sup>. During the workshops, particular focus was placed on conducting and documenting a comprehensive pain assessment (especially proxy-assessments) and providing information, education and support according to the individual needs of residents.

The “Pain Nurse” training programme was designed to sharpen the competency of nurses in the area of pain assessment and management, to enable nurses to actively co-steer the pain management process in their particular facilities and act as multipliers to disseminate their newly acquired knowledge. Project partners from the areas of public health, politics and professional organizations supported raising awareness among the general public by endorsing the project through participating in various education and outreach activities.

### Outcomes and quality of care

The project fostered professional links between general practitioners and nurses in their effort to provide better care. It demonstrated that nurses play a vital role in the provision of adequate pain treatment within the larger framework of pain care. Benefits for the health care system included the collection of data on the prevalence of pain in nursing home residents. While the pre-test results suggested that few of the nursing homes used proxy-assessment tools for nurses to assess pain in the cognitively impaired, the post-test results showed that such tools were eventually implemented in each of the participating nursing homes during the intervention phase. The study results are now used as a basis to develop standardized certification criteria for nursing homes.

By placing the topic of pain on the “public agenda” through targeted outreach and education programmes, people can become better informed, which can increase their level of health literacy and support patient empowerment.

<sup>25</sup> Schüssler N, Osterbrick J, (2012). Expertenstandard Schmerzmanagement in der Pflege bei akuten Schmerzen. *Der Schmerz*, 2012;26:2:206-207.

<sup>26</sup> Osterbrink J, Hufnagel M, Kutschar P, Mitterlehner B, Kruger C, Bauer Z, Aschauer W, Weichbold M, Sirsch E, Drebenstedt C, Perrar KM, Ewers A, (2012). Die Schmerzsituation von Bewohnern in der stationären Altenhilfe. Ergebnisse einer Studie in Münster. *Schmerz* 2012 Feb; 26(1):27-35.

## **PORTUGAL: A nursing pain management group towards a pain-free hospital**

(Case study 22)

### **Background**

Efficient and effective pain assessment and pain management would be possible if scientific evidence were translated into nursing practice. In order to change the culture regarding pain in the hospital, education of nurses has to be linked to research and to the development of practice<sup>27</sup>. Creating a nursing pain management group was crucial to foster evidence-based practice in pain management in a paediatric hospital.

### **Practice development**

A team composed of paediatric specialist nurses and a facilitator from the faculty led the changes in pain management practices in one hospital. Nurses appointed to the pain group implemented the change through an approach combining education, research and practice development that focused on knowledge, skills, attitudes and organization of care. The pain management group was responsible for identifying unmet needs in pain management, collecting evidence from the literature, organizing education for ward nurses, developing pain assessment and pain management guidelines by negotiating with other professionals and coaching ward nurses in changing their practice.

Local guidelines for pain assessment and pain management were developed based on scientific evidence and international guidelines and recommendations<sup>28</sup>. The national regulation that described the job and nursing career structure supported a differentiated role for the nurses in the pain management group. Nurses in the pain management group developed personal and professional competencies in searching for evidence from the literature, building standards for nursing practice and driving a planned change. The development of skills in leadership, education, organizing events, interprofessional communication and advocacy were also acknowledged.

### **Outcomes and quality of care**

Internal audits showed an improvement in pain care by facilitating the access of children to effective pain management interventions. At the individual level, nurses developed knowledge, skills and changed attitudes. In clinical practice the changes included a pain history being taken from all children on admission to hospital, pain assessed and documented in all children as a fifth vital sign, procedural pain managed through non-pharmacological interventions and use of pain management guidelines, namely for the prevention of procedural pain with anaesthetic cream.

Communication between different wards significantly improved as a result of nurses in the pain group sharing their concerns. An organizational culture of pain awareness and care was created through the mobilization of all professional groups in identifying gaps in service provision, training activities, in the definition of policies, standards and guidelines, and in the organization of public events.

<sup>27</sup> Ellis JA, O'Connor BV, Cappelli M, Goodman JT, Blouin R, Reid CW, (2002). Pain in Hospitalized Pediatric Patients: How Are We Doing. *The Clinical Journal of Pain*, 18(4), 262-9.

<sup>28</sup> Ordem dos Enfermeiros. (2001). Padrões de Qualidade dos Cuidados de Enfermagem. Lisboa, Ordem dos Enfermeiros, [in Portuguese] (<http://www.ordemenfermeiros.pt/publicacoes/Documents/divulgar%20-%20padroes%20de%20qualidade%20dos%20cuidados.pdf> accessed 14 August 2015).

## SWITZERLAND: Pain management in the neonatal intensive care unit

(Case study 40)

### Background

Preterm infants hospitalized in a Neonatal Intensive Care Unit (NICU) are exposed to a high number of acutely painful procedures. Poorly managed pain in infants can alter pain processing and can negatively impact on physiological, social and neurocognitive developmental outcomes in later life. Despite this knowledge, the relief of pain was poorly performed in most of the clinical NICU settings across Switzerland. In 1996, on-going development of practice began in the NICU in the Children's University Clinic Bern, in order to prevent deleterious long-term consequences to these infants.

### Practice development

The role enhancement has taken place particularly among clinical nurses who have developed a high sensitivity toward the impact of untreated pain in the infant patient population. The developed guidelines primarily defined and established the role of nurses in preventing and assessing pain, evaluating outcomes, providing non-pharmacological interventions and administering pharmacological interventions after prescription and documentation. For the development of the pain assessment tool and guidelines<sup>29</sup>, several systematic literature searches were performed. Several studies were performed by the project group to evaluate the effectiveness of the efforts undertaken.

The growth of professional expertise among the nursing and medical profession was supported by continuous practice development with regular educational sessions, bedside teaching, mentoring and participation in research projects. In addition, a multiprofessional pain team provided opportunities to discuss pain management issues on a regular basis.

### Outcomes and quality of care

A retrospective chart analysis provided the following results<sup>30</sup>: Nurses measured and documented pain systematically in 99% of the cases. None of the hospitalized infants were neglected for pain treatment. In 2012, a pain relieving intervention was documented for all infants, which was either a non-pharmacological or a pharmacological intervention. This initiative led to:

- General reduction of the number of painful procedures performed in infants
- Adequate pharmacological and non-pharmacological management of pain
- Reduced risk of infections as a result of intact skin, i.e. less stress/pain
- Support for parents to cope with their stress by active parental involvement in pain management e.g. "facilitated tucking" by parents during endotracheal suctioning
- Increased interdisciplinary communication regarding pain management
- Continuing professional development (since 1996) resulting in a steady intervention.

<sup>29</sup> Cignacco E, Gessler P, Müller R, Hamers JPH, (2004). Pain assessment in the neonate using the Bernese Pain Scale for Neonates. *Early Human Development*, 2004, 78(2),125-131. (<http://www.ncbi.nlm.nih.gov/pubmed/15223117> accessed 14 August 2015).

<sup>30</sup> Cignacco E, Hamers JPH, van Lingen RA, Stoffel L, Büchi S, Müller R, Schütz N, Zimmermann L, Nelle M, (2009). Neonatal procedural pain exposure and pain management in ventilated preterm infants during the first 14 days of life. *Swiss Medical Weekly*, 2009, (15-16), 139: 226-232. (<http://www.ncbi.nlm.nih.gov/pubmed/19418306> accessed 14 August 2015).

## **RUSSIA: Independent and advanced nursing services in Samara city Polyclinic No 15**

(Case study 30)

### **Background**

The aim of the initiative was to provide quality preventive care. This involved establishing an advanced and independent role for nurses to work with general practitioners. New approaches to care provision in primary health care settings were strongly supported by the administration of the Russian Nurses' Association branch in Samara.

### **Practice development**

Independent nursing receptions were established in 1997 for patients with non-communicable diseases and at-risk patient groups. The polyclinic launched a two-level screening programme that consisted of the patient being surveyed at home or at the polyclinic, and a more targeted screening that included blood analysis, blood sugar level, cholesterol checks and an oncologic review of identifiable cancers. The remit of the nurses also covered organizing patient education, providing vaccinations, fluorography checks and ECG, monitoring the efficiency of treatment, quality of life and financial constraints, and completing electronic medical forms.

The chief nurse, in collaboration with head nurses of the units and medical specialists, developed instructions for the independent nursing receptions and patient survey forms. The reception desk assigned the patients to visit nurses if the physician's care was not needed, based on orders made by the medical specialists. Nurses completed specialization education and followed available standards of care developed in accordance with nursing procedure algorithms. Nurses and physicians were also offered financial incentives to decrease the rates of sickness in the population and increase quality of life.

### **Outcomes and quality of care**

Joint work of nurses and physicians promoted the advanced role of nurses and the effectiveness of prevention, symptom management and early detection of non-communicable diseases. In 2012, 29,486 patients visited nursing receptions compared with 21,200 patients in 2010. Home based hospital services encountered 4897 nursing visits with certain medical procedures performed by nurses at home compared with 3256 visits in 2010. Nurses observe all patients, but those who need more consultations, diagnostics and treatment are referred to doctors and different units in the polyclinic. The number of patients with asthma observed by the polyclinic increased up to 8 times in the last decade, while the levels of hospitalization decreased 10 times. The number of emergency calls from these patients decreased six times. The number of patients with hypertension observed by the polyclinic increased from 1700 in 1998 to 12,002 in 2012, while the number of emergency calls by this patient group decreased.

Nurses working with targeted patient groups on a "Healthy Heart" programme taught 759 patients. These patients, on average, achieved a decrease in their body mass index by 5.2% and decreased their cholesterol levels without using medication by 11.4%. From 1996, the annual number of heart attacks decreased from 236 to 152 and the number of strokes decreased from 264 to 159.



## **RUSSIA: Tuberculosis and HIV controlled treatment coordinated by ward nurses of the dispensary unit, Samara region**

(Case study 33)

### **Background**

Tuberculosis treatment was coordinated by nurses at the *Tuberculosis Dispensary* that is the leading institution for providing tuberculosis treatment in Toliatty. Before 2012, HIV-positive patients in the *Tuberculosis Dispensary*, or their family members, had to visit the AIDS centre to receive their HIV drugs. An agreement was made between the AIDS centre and the Tuberculosis Dispensary to allow nurses to coordinate the whole process of treatment, including anti-retroviral drugs prescribed by the physicians, because effective treatment of HIV helps to increase the immune status of the patient and therefore is beneficial for the treatment of tuberculosis<sup>31</sup>. The federal law on the provision of tuberculosis treatment for HIV positive patients provided the legislative framework for the role enhancement.

### **Practice development**

The head nurse served as a coordinator between the two institutions and prepared information for each patient, based on patient records and laboratory tests, for consultation with an infection diseases specialist. Patients gave informed signed consent and entrusted the prescriptions of HIV drugs to the head nurse for the provision of controlled treatment.

Chief and head nurses organized on-going training and study materials for the ward nurses on controlled HIV treatment and the importance of adherence to treatment. They also organized site visits to learn about multiprofessional team work and provided guidelines on care of HIV positive patients to ward nurses.

### **Outcomes and quality of care**

The advanced nursing role for treating both HIV and tuberculosis resulted in better treatment outcomes for patients. Out of all patients who received treatment in 2012, 79% were discharged with TB bacteria negative tests, and in 2013 this had increased to 86%. In 2012, 66% of patients had closed their pulmonary cavity and in 2013 this had increased to 73%.

This project advanced the nursing role in providing independent and valuable input into service development for patients who had both TB and HIV. Ward nurses and the head nurse played an important role in the multiprofessional team and were recognized as equal partners with different medical specialists and patients, thereby providing complex and person-centred tuberculosis and HIV care and treatment. Nurses gave positive feedback to HIV physicians for timely and accurate antiretroviral therapy.

The work environment was positive in the unit with no reported staff turnover. The ward nurses of the tuberculosis and HIV units had salaries that were 80% higher compared to other tuberculosis units.

<sup>31</sup> Panteleev AM, Rakhmanov AG, [in Russian] ([http://tb-hiv.ru/publikation/collaborative\\_study3/](http://tb-hiv.ru/publikation/collaborative_study3/) accessed 14 August 2015).

## **SPAIN: Implementation of evidence-based guidelines to establish a network of centres committed to using best care practices**

(Case study 35)

### **Background**

Lack of fully implemented evidence-based health care interventions and variability in clinical practice led to the establishment of a network across eight clinical settings to provide the best available evidence for changing clinical practice. The Nursing and Healthcare Research Unit of the Institute of Health Carlos III and the Spanish collaborating center of the Joanna Briggs Institute led the programme as a host organization based on the Registered Nurses' Association of Ontario's Best Practice Guideline initiative.

### **Practice development**

A number of evidence-based assessment tools, clinical guidelines and care pathways were implemented in various clinical practice settings. The evidence-based guidelines were related to a number of clinical areas as well as other areas such as professionalism in nursing, collaborative practice among nursing teams and developing and sustaining nursing leadership. Nurses were included in committees that were created for each guideline in order to actively engage nurses in the development and implementation process.

Examples of guidelines developed and implemented include:

- Fall and injury prevention for older adults
- Assessment and management of pain
- Breastfeeding
- Stroke assessment across the continuum of care
- Assessment and management of diabetic patients with foot ulcers

Nurses were trained in implementing evidence-based care. Patients and caregivers were provided training through individual and joint workshops; identifying the variability in practices and processes, by developing reporting systems, supported the implementation of evidence-based practice and evaluation plans for each guideline.

### **Outcomes and quality of care**

Health and performance outcomes were measured on a monthly basis and the preliminary results have been published<sup>32</sup>.

- Access to evidence-based tools was improved and systematic recording was enhanced.
- The care process was improved and there was a positive effect on a number of health and process outcomes.
- Patient satisfaction improved and nurses experienced increased professional satisfaction and motivation.
- Multiprofessional work and teamwork was enhanced.
- Organizational structures improved and the use of evidence-based guidelines increased.

<sup>32</sup> Instituto de Salud Carlos III (2013). XVII Nursing Research International Congress. 17th International Nursing Research Conference. Libro de Ponencias. Unidad de Investigación en Cuidados de Salud. ([http://www.isciii.es/ISCIII/es/contenidos/fd-el-instituto/fd-organizacion/fd-estructura-directiva/fd-subdireccion-general-servicios-aplicados-formacion-investigacion/fd-centros-unidades/fd-investen-isciii-2/docus/2013\\_XVII\\_encuentro\\_In-vesten\\_Lleida.pdf](http://www.isciii.es/ISCIII/es/contenidos/fd-el-instituto/fd-organizacion/fd-estructura-directiva/fd-subdireccion-general-servicios-aplicados-formacion-investigacion/fd-centros-unidades/fd-investen-isciii-2/docus/2013_XVII_encuentro_In-vesten_Lleida.pdf) accessed 14 August 2015).

## **SPAIN: National nursing research strategy: Engaging nurses in evidence-based practice and research**

(Case study 37)

### **Background**

Nursing research in clinical settings is not widespread and nurses infrequently participate in conducting research including writing scientific papers and disseminating results. To promote nursing research, a national nursing research strategy has been established and led by the Nursing and Healthcare Research Unit, Institute of Health Carlos III, consisting mostly of nursing professionals. The Unit strives to bring together the best knowledge to build the scientific foundation for nursing clinical practice and to enhance and evaluate practice and outcomes. The Unit has collaborative agreements within the Spanish national health system with institutions from all regions as well as with international institutions.

### **Practice development**

Nurses were involved in research as an integral part of their work across different regions and institutions. Nursing research is considered a basic tool to improve nurse competencies in daily practice. Training was provided for nurses to improve their skills and knowledge in research methodology. Informative sessions related to funding for nursing research were offered across all regions and health institutions. The new nursing role was also supported through different types of platforms with free access to all documents generated by the research unit.

Multidisciplinary teamwork was enhanced as different health professionals and senior researchers worked together as part of the steering committee and the advisory group as well as sharing knowledge at yearly scientific international forums. The steering committee representing nurses and allied health care professionals from all regions of Spain provided strategic directions in the areas of interest: training, advice, transfer, use of innovation and research coordination. In addition, nurses became members of evaluation committees and decision-making bodies.

### **Outcomes and quality of care**

The results of nursing research were translated into clinical practice and they were well accepted by other professionals. This initiative improved overall job satisfaction and motivation as well as multiprofessional teamwork.

Nurses improved their skills in critical appraisal and research methodology and their clinical practice is now based on evidence generated from research results. Access to evidence-based tools for clinical practice was promoted and infrastructural arrangements were improved. There was an increase in nursing research projects and nurses were further involved in multidisciplinary and multisite research projects. Additionally, there was an increase in international agreements and research projects established.

## England, UK: Creating a dementia friendly hospital

(Case study 41)

### Background

Acute care hospital admissions for people living with dementia often lead to longer hospital stays, poorer clinical outcomes and negative experiences for patients and their carers, often resulting in a higher number of complaints. The Royal Wolverhampton Trust set out to change the care for all patients with dementia by creating a dementia friendly hospital to improve the quality of patient care and to improve patient outcomes. This was underpinned by National Health Service England's national strategy, *Compassion in Care*<sup>33</sup>.

### Practice development

A model of care for people with dementia requiring acute hospital in-patient treatment was developed. The initiative introduced a multidisciplinary team dementia outreach service for all acute wards to provide more personalized care for patients with dementia. Led by a consultant nurse, the team was made up of mental health trained nurses, an occupational therapist, dietician, speech and language therapist and advice was offered by a consultant geriatrician. The care provided was person-centred and uniquely at its heart was a care bundle focused on three areas - communication, environment and nutrition and hydration - designed specifically for people with dementia in acute hospitals.

The Trust has also developed a dementia friendly ward for patients with an acute physical illness and dementia friendly environment in the medical admissions unit. The 20-bed ward was designed to help patients engage in activities, increase orientation and feelings of well-being.

### Outcomes and quality of care

The project is now mainstreamed into the Trust's normal working practice and the organizational culture has been changed based on the national strategy of *Compassion in Care*. Staff is now better prepared to manage patients with dementia as a result of appropriate training and support from the dementia outreach service.

Patients benefit from high-quality care in an environment tailored to meet their needs. There have been fewer incidents related to patient behavioural problems because staff now recognize the individual care needs of patients and their behavioural triggers, using a personalized care plan with managed regular pain relief where required. The Trust has reduced the number of complaints and has achieved a higher level of patient and caregiver satisfaction based on feedback received from patient surveys.

The service has reduced costs for the wider health service but more importantly there has been improved patient care and patient outcomes. A reduction in emergency readmissions, disability and falls has been evident. Decreased admissions to residential care facilities have resulted in patients maintaining their independence in the community for longer. The service has also reduced the use of anti-psychotic and sedative medication by patients.

<sup>33</sup> Department of Health, (2012). *Compassion in Practice*. Nursing, midwifery and care staff. Our vision and strategy London: . (<http://www.england.nhs.uk/wp-content/uploads/2012/12/compassion-in-practice.pdf> accessed 14 August 2015).

## **NORTHERN IRELAND, UK: Bereavement support midwife post**

(Case study 46)

### **Background**

The need for dedicated bereavement support for grieving families was recognized by the Royal College of Obstetricians and Gynaecologists<sup>34</sup> and the Perinatal Institute. The Bereavement Support Midwife Post was developed in partnership with a management team, colleagues and bereaved parents in response to a recognized service gap in Northern Ireland. The British Association of Counsellors and Psychotherapists accredited the service.

### **Practice development**

The bereavement service provides a confidential support for couples grieving the loss of their baby following miscarriage, stillbirth, neonatal death or the loss of an older child. The remit was expanded to childbearing women grieving the loss of a loved one and parents who have received bad news about the well-being of their baby before or after birth. The service covers the maternity unit, gynaecology ward, neonatal unit and children's wards and also incorporates strategic policy involvement at the regional level.

The post promoted the integration of the service within the wider regional health care team and improved communication and ease of contact with patients. The post holder developed pathways of care for each stage of pregnancy loss and death of a child, which provided a framework of choice for parents and guidance for staff. These care pathways were underpinned by local and national guidelines, policy and law. The role was central to the multidisciplinary team by providing dedicated support, advice and care resources. Bereavement training was also provided to health professionals to ensure that they were skilled and equipped to provide sensitive care. In addition, the post holder established the "Forget Me Not Group", a support group for bereaved parents and this had a major influence on enhancing care and service provision.

### **Outcomes and quality of care**

Evaluation of the service demonstrates that input from the bereavement support midwife has been indispensable for the bereaved parents. Almost 1000 women have been referred for support since the post was established. In 2013, 135 bereaved women or couples were offered counselling every two weeks or monthly and 14 women received support throughout their next pregnancy, thereby promoting confidence in returning to the maternity unit to have healthy babies. Levels of safety and satisfaction of women were enhanced by the easy access to the post holder who acted as a point of contact with other members of the maternity team. The post raised awareness of the needs of grieving women locally, regionally and nationally. Through the work of the "Forget Me Not Group" parents made a presentation to the Trust board on their experience of their care and suggestions for quality improvements. The users of the services were also central to developing a new bereavement suite inside the labour ward.

<sup>34</sup> Royal College of Obstetricians and Gynaecologists, (2008). Standards for Maternity Care Standards Database. 20. London.: Royal College of Obstetricians and Gynaecologists, 2008. (<https://www.rcog.org.uk/globalassets/documents/guidelines/maternitystandardsdatabase0608.pdf> accessed 14 August 2015).

## **NORTHERN IRELAND, UK: Improving health outcomes for people with learning disabilities**

(Case study 47)

### **Background**

People with a learning disability die 20 years younger and are 58% more likely to die before the age of 50 compared with people in the general population<sup>35</sup>. Additionally, they experience unequal access to health services and inequality of service provision, with higher levels of delayed diagnosis and diagnostic overshadowing. To address these inequalities in Northern Ireland, both strategic drivers for change and new approaches to care delivery were introduced. A Direct Enhanced Service (DES) scheme was developed where learning disability nurses, as healthcare facilitators, support general practitioners (GPs) and practice nurses in the development and implementation of an annual health check and onward referral for appropriate investigations, health promotion and/or treatment. Learning disability nurses also played a key outreach component in providing care for this specific population.

### **Practice development**

An enhanced learning disability nursing role was developed and implemented. The role was predominantly clinical and leadership oriented to assist primary healthcare services implement the DES. The enhanced nursing role centred on coordinating an effective multidisciplinary response to ensure improved access to services, completing validated health assessment/screening tools and providing necessary follow-up on the implementation of individual health action plans towards health improvement.

### **Outcomes and quality of care**

Based on an evaluation, 69% of people with a learning disability in Northern Ireland had received at least one annual health check<sup>36</sup>. There has also been an increase in the number of GP practices signing up to DES. With improvements in quality of care, people with learning disabilities were identified who were previously unknown to services. Patients also had greater equitable access to primary health care services and onward referral.

Health facilitators worked alongside primary care staff to provide specific services, bridging the gap among these healthcare professionals. This work promoted staff confidence and patient safety that has led to a more focused and effective health assessment process. Additionally, awareness training has provided staff with the knowledge of health risks associated with specific syndromes and conditions within this population. The DES has also captured the unmet needs of formal and informal carers.

This programme ensures that practice is underpinned by the latest evidence-base and expands the knowledge and skills of nurses. Along with greater job satisfaction for learning disability nurses, GPs and practice nurses, the programme provides opportunities for nurses to influence change in service delivery and be better recognized for their value.

<sup>35</sup> Heslop P, Blair P, Fleming P, Hoghton M, Marriott A, Russ L, (2013). Confidential Enquiry into premature deaths of people with learning disabilities (CIPOLD). Final report. Bristol: Norah Fry Research Centre. (<http://www.bristol.ac.uk/media-library/sites/cipold/migrated/documents/fullfinalreport.pdf> accessed 14 August 2015).

<sup>36</sup> Northern Ireland Assembly, Committee for Health, Social Services and Public Safety (2013). Official Report (Hansard). Transforming your care – Learning Disability Services: DHSSPS Briefing, 16 October 2013. ([http://www.niassembly.gov.uk/globalassets/documents/official-reports/health/2013-2014/131016\\_transformingyour-care-learningdisabilityservicesdhssps.pdf](http://www.niassembly.gov.uk/globalassets/documents/official-reports/health/2013-2014/131016_transformingyour-care-learningdisabilityservicesdhssps.pdf) accessed 14 August 2015).



## SCOTLAND, UK: Improving palliative care for heart failure patients and their caregivers

(Case study 49)

### Background

Persons living with advanced heart failure (and other non-malignant conditions) frequently experience unequal access to high-quality palliative care and social and charitable care support at the end of life. Consequently, patients with heart failure can have poorer quality of life and worse prognosis than many of their peers living with cancer. The British Heart Foundation, Marie Curie Cancer Care, National Health Service Greater Glasgow and Clyde, and Glasgow Caledonian University are working in partnership to improve palliative care for persons living with advanced heart failure, called the Caring Together Programme<sup>37</sup>.

### Practice development

The aim of the *Caring Together Programme* was to improve multidisciplinary working and collaboration between cardiology, palliative care and voluntary care settings to enhance integrated care for patients and caregivers living with advanced heart failure.

The Heart Failure Specialist Nurse Team, community, acute and palliative care professionals working within three pilot sites received training awareness education sessions to support earlier patient identification, provide comprehensive assessment and to facilitate patients' preferred priorities of care including place of death. Skills and competencies for professionals working within the pilot sites were provided through formal training days, multidisciplinary team working, shadowing opportunities and attendance at a heart failure supportive palliative care clinic which was used as an educational hub for professionals working locally, within the UK and abroad.

### Outcomes and quality of care

The programme has benefited patients and caregivers by addressing their unmet palliative care needs in addition to facilitating their preferred care options, including place of death. More patients are dying in their preferred place of care. Hospital admissions in the last year of life have either been reduced or avoided completely. Furthermore, the reduction in bed days resulted in significant cost savings.

Earlier patient identification using specific inclusion criteria led to a comprehensive cardiology and holistic assessment of patient and caregiver's needs. Needs were assessed using validated assessment tools and facilitation of care wishes was coordinated by the care manager in partnership with all other service providers. This included access to specialist and/or generalist palliative care as well as social, psychological, spiritual and caregiver support as appropriately indicated. Training blended with multidisciplinary teamwork encouraged cross-fertilization of knowledge and skills between cardiology and palliative care specialities. Initially professional attitudes towards palliative care for persons living with advancing heart failure were sceptical. However, a mix of passion, enthusiasm and perseverance as well as formal training has resulted in beneficial changes to professional, patient and caregiver outcomes.

<sup>37</sup> Marie Curie Cancer Care, (2014) Caring Together. Scotland. (<http://www.mariecurie.org.uk/en-GB/Commissioners-and-referrers/Partnerships-and-innovations/Caring-together/> accessed 15 August 2015).

## **WALES, UK: Nurse colposcopists and their positive impact on the Cervical Screening Programme**

(Case study 54)

### **Background**

Increasing numbers of women were being referred for colposcopy, resulting in prolonged waiting times for women and immense pressure for services to meet demands and required standards. In addition, a shortage of colposcopists led to a reliance on locum cover that resulted in a lack of continuity in care for women and locum doctors were not always up-to-date with the Cervical Screening Wales (CSW) policies and procedures<sup>38</sup>. The introduction of a national colposcopy-training programme allowed nurses to attain the same standards of practice as physicians, leading to British Society of Colposcopy and Cervical Pathology (BSCCP) accreditation. The BSCCP, CSW and individual medical colposcopists have been instrumental in supporting the development of nurse colposcopists and clinics in Wales.

### **Practice development**

The formalized training programme, comparable to the training of physicians, allows nurse colposcopists to manage their own caseloads including assessing, diagnosing, treating and discharging women with cervical abnormalities. Nurse colposcopists undergo the same audit requirements and continuing professional development as their medical colleagues.

Colposcopy is performed as part of an outpatient procedure in the hospital setting. Monthly multidisciplinary meetings where complex cases are discussed support a quality service. Nurses are also supported through national guidelines, a professional network and a website.

### **Outcomes and quality of care**

Nurse colposcopists are able to provide more flexible clinics and cover for medical colleagues if required. Having nurse colposcopists in a service also allows women to gain confidence in individual members of staff and provide continuity of care. This in turn lowered non-attendance rates, reduced anxiety for women and improved satisfaction with the service. Other benefits included increased acceptability and improved compliance through the creation of a supportive environment for women. Not only do nurse colposcopists have enhanced counselling skills, but they can also spend more time with patients. All nurse colposcopists in Wales are female which increases choice for women.

Practice development opportunities have been created for nurses to work at an advanced level. Nurses have their own caseloads, are recognized as experts in the field and as valuable members of the team, which promotes greater job satisfaction. Multidisciplinary team discussion is a requirement for this practice that enables better diagnosis and the avoidance of over-treatment.

<sup>38</sup> National Health Service (2010). Colposcopy and Programme Management. Guidelines for the NHS Cervical Screening Program Cancer Screening Programmes. London. (<http://www.cancerscreening.nhs.uk/cervical/publications/nhscsp20.pdf> accessed 14 August 2015).

## 2.5 Priority area 4

### **NORTH WALES, UK: Provision of home blood transfusion and IV therapy service**

(Case study 55)

#### **Background**

In 2012, an Intravenous (IV) Suite was opened at the Maelor Hospital in Wrexham, North Wales, with the support of the Betsi Cadwaladr University Health Board. The aim of the service was to provide an outpatient IV and blood transfusion service that would enable patients to be discharged in a more timely way and allow them to return back to the Suite for IV or blood transfusion administration when needed.

The IV suite team comprised of an advanced nurse practitioner, two registered nurses and a health care assistant. A consultant microbiologist and a physician were also linked to this service. Staff soon discovered that many patients were utilizing the service, but that there were also a number of patients who could not attend the Suite due to their general condition.

This resulted in the development of a programme to link with district nursing services across a number of localities in order to administer IV antibiotics and blood transfusions in the setting that was most appropriate for the patient and carer. The patient had the option of attending the IV Suite, being visited at home or at a 24-hour care setting. During this time a protocol for the management of IV antibiotics and blood transfusion in the community setting was written and ratified by the Health Board.

#### **Practice development**

The IV Suite team remained as the gatekeeper of the service in order to ensure that all governance arrangements were met and that all patients were linked to a defined medical consultant. The acute hospital medical team were also challenged to work in new ways to ensure clear and on-going communication with the patient's General Practitioner. Acute-care based and community nurses worked closely together in the discharge planning and management of patients along with medical teams from a number of specialities.

#### **Outcomes and quality of care**

Since the beginning of the project, the IV Suite team has supported 750 patients, which translated into a savings of 4,339 bed days. The estimated overall cost savings accounted for £1,725,085.

Depending on the general health condition of the patient, the team could adapt the care provision within various settings. In particular, the team effectively supported palliative care patients in their own home. While these patients required blood transfusions, they also requested not to be admitted to hospital for care. It has been very appropriate for this group of patients to be cared for by their families and the community team at home. The IV Suite team continue to lead and support this care, jointly with district nursing services.

The enhanced role of delivering IV services within the district nursing service has been extremely positive in engaging community nursing in this area, and in delivering care in the homes of patients and in residential care facilities. The service is supported locally through nurse case management of the most complex patient care needs.

## **SWEDEN: Designing interactive ICT-supported health communication to support district nurses in health promotion and disease prevention efforts in primary health care**

(Case study 39)

### **Background**

Information and Communication Technology (ICT) supported health communication tools are increasingly used to promote health and enable people to make healthy choices. However, many of the existing ICT based efforts are narrow in scope, medically oriented and often inadequate to address the complexity of lifestyle-related diseases and equity issues in primary health care (PHC) settings. A need to design user-friendly ICT systems that better responded to the needs and preferences of its users and context for its use was identified. District nurses working with health promotion and disease prevention strategies in PHC joined researchers to create an interactive internet based health portal, “*Virtual Hälsotorg*” or Health Plaza<sup>39</sup>. Four PHC units in the region took part in the project. The pilot study was conducted in one of these units.

### **Practice development**

The *Virtual Hälsotorg* was designed by a multidisciplinary research group of professionals and laymen, headed by a district nurse and a nurse/research student. To ensure that *Virtual Hälsotorg* responded to the actual needs of the local people and adhered to PHC policy and programmes, other health care professionals including IT-specialists, youth from a high school, pensioners, immigrants and local politicians in the region were used as reference groups to continually monitor and evaluate each prototype. The *Virtual Hälsotorg* consisted of traditional web-based health information from trusted local and national health websites, information on local health promotion initiatives and events and video and audio resources on a variety of health topics. In addition it offered interactive functions connected to PHC services through a chat forum, time booking system and quizzes. Training in IT and web publishing was provided to the district nurses who expressed an interest in the project during the design process.

### **Outcomes and quality of care**

The collaborative design process resulted in a health portal that was needs based, accessible, user friendly and well aligned with the PHC mission. District nurses expanded their health promotion efforts to hard to reach groups such as youth and immigrant groups, both important target groups for primary prevention. District nurses applied the acquired e-health skills and knowledge they gained to establish internet-based schools for patients with diabetes, hypertension and asthma.

The pilot study showed that ICT tools, if designed properly, have the ability to enhance health literacy among users. Results from the health literacy test showed an increase in awareness of the availability of health resources on the internet as well as improved skills to access, critically appraise and apply the retrieved health information in everyday life. Increased knowledge on self-care and health management of chronic conditions was also noted among the study group participants.

<sup>39</sup> Jama Mahmud A, (2013). Designing ICT-Supported Health Promoting Communication in Primary Health Care. PhD Thesis 2013. School of Health Sciences, Blekinge Institute of Technology. ([http://www.bth.se/fou/forskinforfnsf/all/b1f057901e99ef06c1257c20003a88e2/\\$file/JamaMahmud\\_diss.pdf](http://www.bth.se/fou/forskinforfnsf/all/b1f057901e99ef06c1257c20003a88e2/$file/JamaMahmud_diss.pdf) accessed 14 August 2015).

## ENGLAND, UK: Enhancing the life chances of children and young people: School nursing services to support local population needs

(Case study 43)

### Background

Recognizing the importance of school nursing in the public health strategy “Healthy Lives, Healthy People”, the UK government committed to developing a new vision for services that reflected the public health nursing role in the school community. The School Nursing Development Programme focuses on improving the life chances of children and young people through effective preventative services and the provision of early intervention and support. The programme has been developed within the context of the *Healthy Child Programme from 5-19 years old*<sup>40</sup>, recognizing the importance of health and well-being in children and young people and the key role of school nurses in providing support during these developing years. Children and parents were not always clear about the services available<sup>41</sup>. A service model for school nursing was developed based on levels around the theme of safeguarding. The levels outline the continuum of support that children and young people can expect to receive from school nursing services and multidisciplinary working. School nursing is a *Universal Service*, which also intensifies its delivery offer for children and young people who have more complex and longer-term needs (*Universal Plus*). For children and young people with multiple needs, school nurse teams are instrumental in coordinating services (*Universal Partnership Plus*).

### Practice development

The vision of the school nursing team was to provide an integrated service model that understands and promotes the dynamic process of interaction between the child, the family, the school and the community. The new role of the school nurses included; increasing the awareness of the impact of caring roles on children and young people, utilizing early identification tools and public health profiling to determine needs, providing expertise with integrated packages of care and working with schools to improve attendance and educational attainment. School nurses also worked in partnership with other agencies and as part of a wider multidisciplinary team to support the health and well-being of school-aged children.

### Outcomes and quality of care

School nursing teams provided a range of skilled activities and communications at the individual, group and community level. School nurses supported improvements for children and young people including improvements in readiness for school, population vaccination coverage, and emotional well-being of children<sup>42</sup>. Furthermore, the project reduced school absences, tooth decay in children aged 5, excess weight and alcohol and drug misuse. To ensure the implementation of the new model in accordance with the wider health policy framework, school nurses worked with a number of stakeholders, such as teachers, local authorities, youth services, colleges and higher education institutes.

<sup>40</sup> Department of Health and Department for Children, Schools and Families (2009). *Healthy Child Programme: from 15- 19 years old*. London. ([http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_108866.pdf](http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_108866.pdf) accessed 14 August 2015).

<sup>41</sup> British Youth Council (2011). *Our school nurse: Young people’s view on the role of the school nurse*. London. ([http://www.byc.org.uk/media/75447/byc\\_school\\_nurse\\_report\\_web.pdf](http://www.byc.org.uk/media/75447/byc_school_nurse_report_web.pdf) accessed 15 August 2015).

<sup>42</sup> Department of Health (2012). *Public health outcomes framework*. London. ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/216159/dh\\_132362.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216159/dh_132362.pdf) accessed 15 August 2015).



## **PORTUGAL: Mobilization of higher education communities to promote healthy settings**

(Case study 26)

### **Background**

Newly entered university students (freshmen) experience life transitions during which they are subject to the influences of older peers often leading to immoderate and risky health behaviours. Such situations may produce profound changes in individuals lives, in their significant others and may have key implications for their well-being and future health. There is a need to mobilize both freshmen and more experienced peers to be engaged, individually and collectively, in promoting their own health projects. In this project, the toolkit PEER-IESS was developed to mobilize higher education communities in promoting healthy settings. It is designed for nursing schools (health sciences faculties) that want to use participatory action research to foster a healthier educated community.

### **Practice development**

A group of nursing professors and students identified the health needs of their student community and prioritized the problems found in order to empower people. These data generated evidence to design local bottom-up strategies of health promotion, prevention and harm reduction, according to the principles of healthy universities<sup>43</sup>. Health professionals involved in these activities expand their role by engaging in community anticipatory care, instead of traditional treatment of acute/chronic conditions such as depression and anxiety, alcohol and drug abuse, traffic accidents, sexually transmitted diseases, unwanted pregnancies and nutritional disorders.

Each institution organized health promotion activities and community interventions in their own setting and mobilized volunteer students to take on social responsibility to solve health problems.

Nursing schools promoted activities that involved students in exercising nursing skills such as assessing health needs, prioritizing education needs, teaching health topics, mobilizing groups, delivering health promotion and evaluating the impact of the interventions. Participants also developed research skills and received credits towards their degrees for all elements of the intervention.

### **Outcomes and quality of care**

Initiated in 2009, there were nine institutions involved. Healthy behaviour of nursing students was promoted by means of participatory action research and a multi-centre and multi-case research project. Indicators of successful transitions included subjective well-being, role mastery and well-being in relationships.

Increased job satisfaction among teachers, nurses, students and stakeholders was found following the bottom-up strategy. These activities enhanced professional status, especially the social recognition of the role of nurses in mobilizing communities.

<sup>43</sup> Green LW, Kreuter MW, (2005). Health Program Planning: An Educational and Ecological Approach. 4th edition. New York (NY): McGraw-Hill Higher Education.



**Table 2. Examples of case studies contributing to action lines of Health 2020 priority areas**

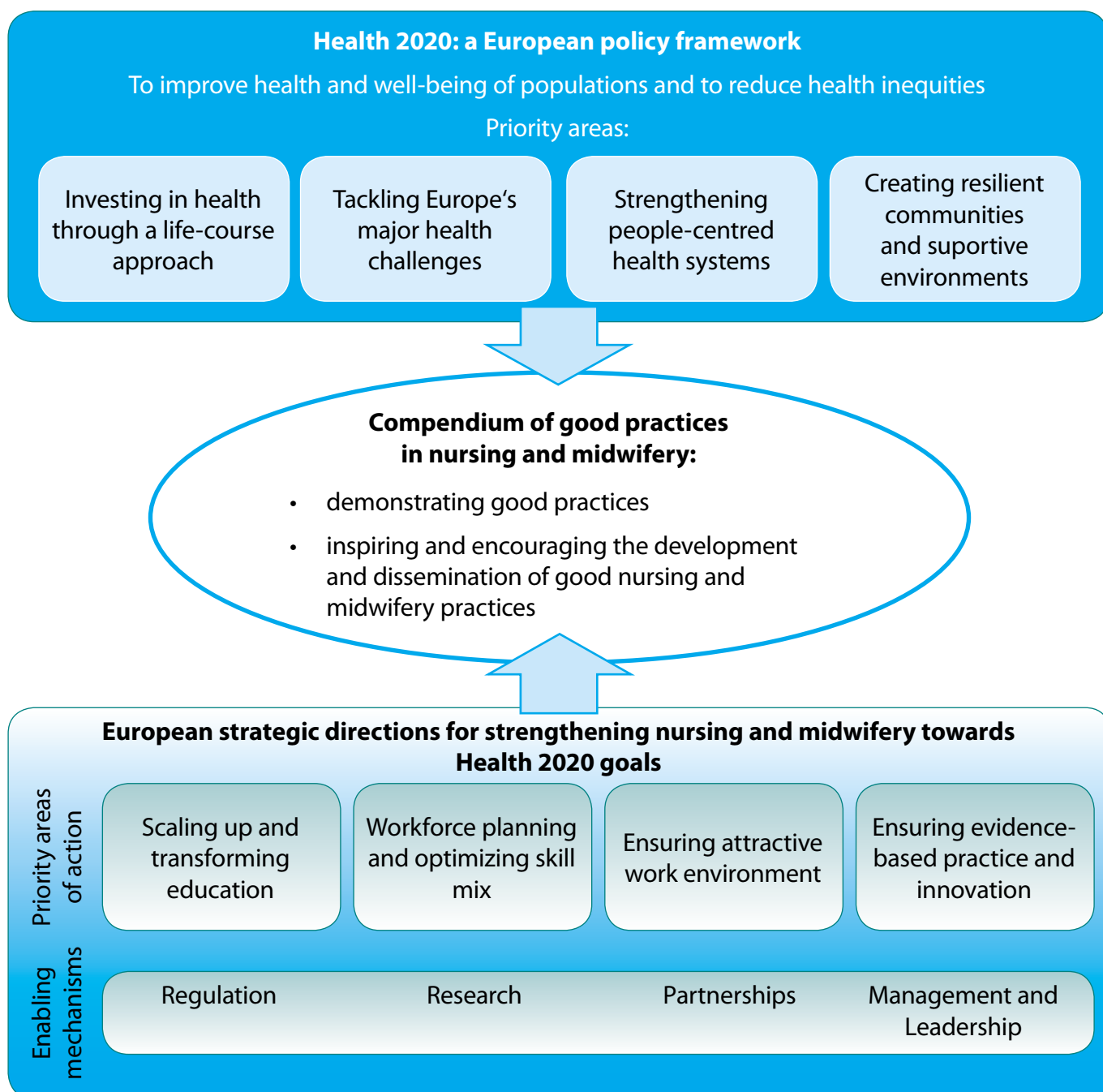
<b>Priority area 1: Life-course approach, empowering people</b>	<b>Priority area 2: Noncommunicable and communicable diseases</b>	<b>Priority area 3: Health systems, public health capacity</b>	<b>Priority area 4: Resilient communities, supportive environments</b>
<p>Promoting safe pregnancies, normal births, healthy start in life and adjustment to the new life situation for women with low obstetric risk and their families via midwife-led antenatal and postpartum outpatient clinics and birth units (4, 8, 36, 45).</p> <p>Promoting antenatal and postpartum health through education, screening, counselling and tailored support via midwife-led antenatal and postpartum outpatient care and home visits (15, 21, 27, 51).</p> <p>Promoting child development, health literacy and behavioural changes in families via health examinations, empowerment, targeted support and early intervening (10, 20).</p> <p>Supporting healthy aging and independent living via assessing daily living and care needs and providing individual counselling, home-based services and rehabilitation (2, 3, 29).</p>	<p>Supporting early discharge, promoting rehabilitation in the community and strengthening self-care, coping capacities and treatment compliance for patients with NCDs through ambulatory and outreach services, individual and group sessions and telephone support (14, 16).</p> <p>Addressing care needs, self-care and coping capacities and facilitating the continuity of care for patients with NCDs and a complex mix of service needs via care and disease management and coordination of care pathways in health centres and call centres (9, 17).</p> <p>Facilitating proactive approach and timely access to care via structured patient education, coordinating service delivery and development by clinical leadership in diabetes care (53).</p> <p>Promoting rehabilitation, observation and self-care capacities through patient education and coaching via telehealth (5, 6, 7).</p> <p>Raising awareness and ensuring vaccination coverage during epidemics (18).</p>	<p>Improving access to care through new forms of services in primary health care and outpatient hospital care for patients with chronic conditions and communicable diseases (11, 30, 32, 33).</p> <p>Improving access to care and screening in remote areas through new forms of services in primary health care and outpatient hospital care and integrating services via telehealth (11, 13, 52, 54).</p> <p>Supporting patients with chronic conditions to stay in their homes through palliative care and home based hospital care (49).</p> <p>Implementing person-centred care for patients with dementia through transforming the organizational culture and the hospital environment and creating an outreach service (41).</p> <p>Addressing care and support needs of vulnerable population groups through tailored planning, service schemes and care pathways as well as collaborative working across partner agencies (46, 47, 50).</p>	<p>Enhancing healthy lives and life changes among school children, young people and their families through counselling, support and early intervening based on an integrated multiagency service model (43, 44).</p> <p>Creating supportive virtual environments for health to support healthy lifestyle and decision-making. Contribute to an empowered, health and e-health literate population and health personnel (39).</p> <p>Improving health literacy and preventing harmful behaviour among young people and creating healthy settings via peer education and mobilizing communities (23, 26, 28).</p> <p>Promoting rehabilitation and home care through strengthening knowledge and developing skills of family members and caregivers (31, 38).</p>

### 3. KEY FINDINGS IN RELATION TO EUROPEAN STRATEGIC DIRECTIONS

The four priority action areas and four enabling mechanisms that comprise the *European Strategic Directions for strengthening nursing and midwifery* are key elements to achieving Health 2020.

The key findings presented below show that nurses and midwives contribute to improving population health and well-being and reducing health inequities. Through practice development as evidenced by adapting, expanding and enhancing their professional roles they contribute to strengthening and revitalizing health care system and meeting the needs of the population (Fig. 2).

**Figure 2. Compendium of good practices in nursing and midwifery in the context of ESD and Health 2020**



### **3.1 Priority areas of action**

This section provides an overview of the findings regarding the priority areas of action identified within the ESD framework that are necessary for supporting nurses and midwives in contributing effectively to the health of their communities. These priority areas of action are scaling up and transforming education, workforce planning and optimizing skill mix, ensuring positive work environments and evidence-based and innovative practice.

#### *Scaling up and transforming education*

Continuing professional education and training are essential to enhance the role and scope of practice for nurses and midwives. In most case studies, nurses and midwives received additional education or training to update and expand their knowledge and skills in order to fulfil the role.

In most cases the professional development was done at the workplace through a short course or seminar attended by the health professional during regular working hours. Major areas of focus in the training were on developing competencies in disease prevention, health promotion and empowerment of people and patients.

In more than one-third of cases, role enhancement was part of specific career advancement opportunities that led to higher positions, greater autonomy and responsibility.

#### **Box 1. Career advancement opportunity as a result of nationally recognized formal education**

The role of nurse colposcopists from Wales demonstrated how a nationally recognized formal education programme enabled the advancement of the nursing profession by providing opportunities for career development. The introduction of a national colposcopy training programme allowed nurses to attain the same standards of practice in colposcopy as doctors, leading to British Society of Colposcopy and Cervical pathology accreditation and becoming colposcopists in their own right. This case also provides an example of innovative on-the-job training, where an accredited trainer in the workplace along with the lead colposcopist provided clinical support, and monthly meetings were held between colposcopists, cytopathologists and histopathologists to discuss cases.

(Case study 54)

#### *Workforce planning and optimizing skill mix*

Effective service delivery requires that there is sufficient staff available at the right time with the right skill mix to deliver high quality health care. The case studies that focused on workforce planning or optimizing skill mix identified shortages of physicians, workload of nurses and the need for more efficient use of nursing cadres as being important initiators of change that lead to practice development (Table 3. Examples of case studies with workforce planning engagement).

**Table 3. Examples of case studies with workforce planning engagement**

<p>Increasing shortages of physicians in primary health care, declining access to treatment and growing interest in improving nursing competencies led to a need for workforce planning. In response, new roles of nurses were developed to reallocate certain patient groups from physicians to nurses' care.</p>	<p><i>(Case study 11)</i></p>
<p>With increasing demands, an insufficient supply and coverage of birth centres and services for parenthood preparation led to the establishment of a birth and parenthood preparation centre. In addition, there was a wish to improve the quality of training for midwives and involvement in research. Midwifery professors expanded their scope of work by adding clinical activities to their teaching and research commitments. Masters students in midwifery supported the centre. The management board of the nursing school supports the initiative by providing human resources, simulation laboratories and equipment for the activities of the centre.</p>	<p><i>(Case study 27)</i></p>
<p>Understaffing of physicians in a polyclinic led to workforce changes to optimize the use of nursing staff. An independent nursing reception service was established which allowed nurses to receive patients and carry out the consultation. Physicians were asked to assist when needed. Establishment of an independent nursing reception enabled a re-distribution of the workload between nurses and physicians, enabling physicians to treat the patient most in need of their expertise.</p>	<p><i>(Case study 32)</i></p>
<p>Increasing numbers of women being referred for colposcopy resulted in prolonged waiting times and pressure for services to meet demands and standards. A shortage of colposcopists, combined with a reduction in junior doctors working hours meant less coverage. A reliance on locum coverage resulted in lack of continuity of care and locum doctors were not always up-to-date with cervical screening policies and procedures. The introduction of a national colposcopy training programme allowed nurses to attain the same standard of practice as physicians. Nurse colposcopists can manage their own caseload including assessing, diagnosing, treating and discharging women.</p>	<p><i>(Case study 54)</i></p>

Nurses and midwives demonstrated interprofessional and intersectoral working relationships. Consultant physicians, medical specialists, dieticians, mental health experts, physiotherapists, psychologists and social workers were reported to work alongside nurses and midwives in multidisciplinary teams and researchers acted as collaborators and coaches to nurses.

Nurses and midwives worked as key partners in assessing and planning care and in some cases working with community stakeholders in mobilizing communities. In another case, participatory action research was applied in order to engage stakeholders in the development and implementation process of a project or service.

Several approaches to developing the workforce were reported including new job descriptions to promote role enhancements, career structures directed by national regulations, development of an operations manual defining the expanded functions of midwives in the delivery room and development of a workforce plan to explore the role of the health visitor.

**Box 2. A Model for optimizing the structure of nursing personnel to provide high quality care**

In Portugal, a data model and a tool were developed to allow hospital nurse administrators to monitor different nursing qualifications and interventions, and their impact on outcomes in the health and well-being of local populations. Nurses applied an individualized care model to achieve nursing sensitive outcomes that focused on high quality, efficient and person-centred nursing care.

*(Case study 25)*

**Ensuring positive work environment**

Positive work environments for nurses and midwives are defined as practice settings that maximize the health, safety and well-being of health workers and improve and sustain their motivation<sup>44</sup> and have been shown to improve patient and organizational outcomes.

Various mechanisms were used to engage nurses and midwives in expanding their roles including multidisciplinary and nursing committees, participation in workshops and learning platforms, and local and national working groups.

Receiving feedback is important for reflective practice and quality improvement. Nurses and midwives received feedback on their new roles through numerous channels including managerial feedback, patient satisfaction and organizational surveys, through local networks of expert nurses, stakeholder meetings, the media and awards of recognition. One health care organization gave annual rewards to staff for the top-performing specialties, however, only a few case studies reported on resulting wage increases or the development of new salary schemes.

The majority of case studies reported findings of increased job satisfaction (Table 4. Examples of case studies having a positive impact on work environments). Greater job satisfaction was attributed to enhanced roles that resulted in increased responsibility and authority, acquisition of new skills, positive health outcomes and positive patient feedback. Additionally, participation in resource development and positive, respectful collaborative relationships with other professionals contributed to greater levels of job satisfaction. Two case studies also focused on changing the organizational culture in order to promote higher standards of staff behaviour and values. Job satisfaction contributed to staff retention.

**Table 4. Examples of case studies having a positive impact on work environments**

In Finland, implementing the role of Case Manager and the Chronic Care Model created new ways of working. As an expected outcome, development of primary health care had a positive effect on ensuring the sustainability, retention and well-being of staff.

*(Case study 9)*

<sup>44</sup> International Council of Nurses (2008) Fact Sheet: Positive Practice Environments for Health Care Professionals, [http://www.icn.ch/images/stories/documents/publications/fact\\_sheets/17d\\_FS-Positive\\_Practice\\_Environments\\_HC\\_Professionals.pdf](http://www.icn.ch/images/stories/documents/publications/fact_sheets/17d_FS-Positive_Practice_Environments_HC_Professionals.pdf)

Organization models that increase the autonomy of nursing and enhance the relationship among nurses and physicians possess better outcomes, including better job satisfaction. In Portugal, data collection and assessment on the nursing work environment and patient environment in the acute care setting showed a positive relationship between favourable environments and good patient outcomes. The data also showed a good climate between nurses and doctors.

*(Case study 25)*

In Portugal, a toolkit “PEER” was designed for nursing schools to be used for participatory action research in supporting their work towards healthy settings. The toolkit included a seed group training course and a framework for community assessment.

*(Case study 26)*

In Spain, involving midwives in screening and emergency obstetric care resulted in an increased feeling of job security, improved job satisfaction as well as increased responsibility and autonomy of midwives.

*(Case study 36)*

The attitudes and behaviours of health professionals are linked to improved patient satisfaction. In England, a nursing strategy that delivers compassionate patient care embedding the ‘6Cs’ (care, competence, compassion, courage, communication, and commitment) values was developed, aiming to secure high standards of staff behaviour. All nurses were engaged in shaping the strategy and practical tools.

*(Case study 42)*

In England, introduction of health visitors working in multiprofessional teams towards an early intervention for families, children and young people, reduced professional barriers through improved understanding of roles and responsibilities as well as improved partnerships and integrated working. As a result, an open culture with shared values and outcomes was created. A trusting professional climate led to improved access and communication.

*(Case study 44)*

### ***Promoting evidence-based practice and innovation***

Health services should be delivered using the best available evidence to ensure safe and efficient care. Evidence-based practice should be promoted through education, research and leadership while nurses and midwives should be supported in their efforts to apply evidence-based practice in their clinical work. Nearly all country cases used evidence-based practice in expanding nursing and midwifery roles or developing new practices. Most cases reported on evidence-based guidelines to direct clinical practice or used management support to ensure that evidence-based interventions were applied (Table 5. Examples of outcomes of applying evidence-based practice). Furthermore, research was produced to provide the best available evidence to guide clinical decision-making. Less than one-third of cases did not clearly define the use of evidence-based practice.

#### **Box 3. Supportive virtual environment for health promotion**

In collaboration with a multidisciplinary group of professionals and laymen district nurses designed a needs based, user friendly interactive ICT-based health channel to support the efforts of district nurses in health promotion and disease prevention in primary health care. The health channel enabled district nurses to disseminate health information, support healthy lifestyle and enhance health literacy by providing access to reliable, evidence-based health information and decision support to the community in their homes. The district nurses expanded their health promotion efforts to engage hard-to-reach groups including youth and immigrant groups.

*(Case study 39)*



**Table 5. Examples of outcomes of applying evidence-based practice**

Evidence-based practice	Outcome
<p>An evidence-based and validated instrument for aggression management was implemented in mental health care (1)</p>	<ul style="list-style-type: none"> <li>• Positive effect on the self-efficacy of nurses</li> <li>• Positive effects on the self-efficacy and coping mechanisms of patients; a shift to more non-physical interventions in managing aggression may be expected</li> <li>• Staff felt able to intervene in a professional and therapeutic manner</li> </ul>
<p>Evidence-based guidelines on best-practice in nutritional care for older patients were implemented in geriatric wards (2)</p>	<ul style="list-style-type: none"> <li>• Improved person-centred nutritional care</li> <li>• More in-depth analysis of patient nutritional status</li> <li>• Increased counselling for older patients</li> </ul>
<p>A nursing pain management group was established to improve pain management by using evidence-based practices The pain group identified gaps in pain management, collected evidence from the literature, organized education for ward nurses, developed pain assessment and pain management guidelines (22)</p>	<ul style="list-style-type: none"> <li>• Pain assessed and documented in all children</li> <li>• Use of pain management guidelines</li> <li>• Defined policies, standards and guidelines</li> </ul>
<p>The best clinically usable and evidence-based scales were selected to assess pain intensity in a paediatric hospital (24)</p>	<ul style="list-style-type: none"> <li>• A protocol for pain assessment was designed based on: data on the child's pain, pain scales based on the type of pain, clinical condition and child's age, guidelines to assess pain intensity</li> </ul>
<p>A nursing and healthcare research unit collaborated with other stakeholders to implement and ensure the use of evidence-based practices across eight healthcare settings (35)</p>	<ul style="list-style-type: none"> <li>• Committees were created on each guideline for the implementation process</li> <li>• Increased professional satisfaction</li> <li>• Improved patient satisfaction</li> </ul>
<p>Pain assessment guidelines and tool were developed for paediatric pain management by conducting several systematic literature searches and attending international paediatric pain conferences (40)</p>	<ul style="list-style-type: none"> <li>• General reduction in the number of painful procedures performed in infants</li> <li>• Adequate pharmacological and non-pharmacological management of pain</li> <li>• Reduced risk of infections</li> <li>• Support for parents to better cope with stress through active involvement in pain management</li> </ul>
<p>Nurses facilitated the implementation of the direct enhanced service for people with learning disabilities by expanding their scope of practice through continuing professional development, ensuring practice was underpinned by the latest evidence-base, knowledge and skills (47)</p>	<ul style="list-style-type: none"> <li>• Increase in people with learning disabilities accessing GP practices and receiving health checks every year</li> <li>• Increased number of GP practices signing up to service</li> <li>• New health needs were identified</li> <li>• Identification of people with learning disabilities not previously known to services</li> <li>• Accurate registration of people with learning disabilities recorded in GP practices</li> </ul>

### 3.2 Enabling mechanisms

This section provides an overview of the findings in relation to the enabling mechanisms identified within the ESD framework that are necessary for nurses and midwives to be able to deliver on the Priority Areas of Action. These four specific enabling mechanisms are regulation, research, partnership and management and leadership.

#### *Regulation, regulatory framework and guidelines*

Regulation in nursing and midwifery is critical for public protection and needs to encompass entry to practice, scope of practice and professional conduct. Regulatory frameworks in legislation are essential for the professions' and public's protection, for example Nursing and Midwifery Acts. Guidelines should be available for nurses and midwives to define standards of practice and disseminate best practice.

Legislation and guidelines can act as enabling as well as limiting mechanisms for changing practice and enhancing the roles of nurses and midwives. Over one-third of the cases reported have regulatory frameworks in place that supported the professional practice (Table 6. Legislative frameworks directing change) and more than half of the cases reported guidelines or care pathways directing the change in practice (Table 7. National programmes and guidelines leading to practice development). In nearly all cases the role enhancement and change in practice was supported by other foundational structures such as National Boards of Health, committees, research institutions or guidance from national health plans and strategies.

**Table 6. Legislative frameworks directing change**

Case study	Legislative framework
Telemedicine video consultation between hospital-based nurses and discharged patients with severe COPD (6)	Teleconsultation with discharged patients in Denmark is legally comparable to a visit at an outpatient clinic. Nurses can use teleconsultation which is equivalent to a clinic-based consultation
New approach to improve health of families with children (10)	Legislation on maternity and child health clinics and school health care regulating extensive health examinations came into force in Finland in 2011
Nurse consultations for acute health problems and NCDs (11)	In Finland, legislation on nurse prescribing authority came into force in 2010 and postgraduate education requirements in 2011
Cervical screening programme by health visitor nurses (13)	In Hungary, a legislative amendment (decree) of the Minister of Health, Social and Family Affairs served as a regulatory framework. Health Visitor nurses were entitled to perform screening if they possessed the required competency
Nurses work independently as specialist diabetes nurses (19)	In Lithuania, the diabetes nurse practice and education are regulated by the Decree of the Ministry of Health. The same legal document describes the requirements for establishing offices for specialist diabetes nurses

**Table 7. National programmes and guidelines leading to practice development**

National programmes and guidelines	
<ul style="list-style-type: none"> <li>• Implementation of nutritional guidelines on eight acute geriatric wards of six hospitals.</li> <li>• A multidisciplinary team implemented systematic screening, full assessment and person-centred nutritional care for the elderly over a six-month period.</li> </ul>	<i>(Case study 2)</i>
<ul style="list-style-type: none"> <li>• As part of the National Development Programme for Social Welfare and Health Care adopted by the government, nurse consultations for acute health problems and NCDs and the role of case managers based on the Chronic Care Model were developed.</li> <li>• New care pathways and processes facilitating care coordination within and across organizations were implemented based on the initiatives.</li> </ul>	<i>(Case studies 9 and 11)</i>
<ul style="list-style-type: none"> <li>• To improve pain management in nursing homes, pre-defined nursing care plans in accordance with the National Standard for Pain Management in Nursing, were implemented as a key element of a multiprofessional pain management agenda.</li> </ul>	<i>(Case study 12)</i>
<ul style="list-style-type: none"> <li>• Based on the government public health strategy and directions ‘Healthy Lives, Healthy People’, a four-level service model for school nursing was developed and implemented that reflected the role of nursing in public health in the school community.</li> </ul>	<i>(Case study 43)</i>
<ul style="list-style-type: none"> <li>• Clinical governance, clinical guidelines and interventional procedure guidance were used to develop specific guidelines and treatment pathways within the service to treat patients with faecal incontinence.</li> </ul>	<i>(Case study 48)</i>

## Research

Research in nursing and midwifery should be integrated in planning and assessing health services. It is equally important to incorporate partnerships with nursing, midwifery and multidisciplinary researchers to generate evidence regarding the entire continuum of care and bring nursing and midwifery knowledge and understanding into understanding wider health systems.

Country case studies provide examples of a variety of ways in which nurses or midwives undertook research in clinical settings. Some case studies provided additional examples on how to engage nursing students in developing and evaluating nursing practices by means of participatory action research. At the same time this method was applied as a new kind of teaching method regarding health promotion and community empowerment.

An evaluation phase was incorporated into most case studies. Evaluation was usually conducted by nurses and midwives or by university researchers engaged in the project. Staff skills and competencies in data collection were developed as part of the initiatives. Some case studies were part of academic or wider multi-agency or multi-country research projects. In addition, external universities and research institutions were involved in the evaluation phase. For example in one case, the university initiated research on new roles and functions for specialist diabetes nurses. Several studies were used as pilots for other health care settings to learn from and provided evidence for strategic health service designs and dissemination of new practices.

Outcomes and changes as a result of the initiatives were reported through research and project reports, thesis, patient surveys and statistical data. Some initiatives were also shared through media. One case study provided an example of how nationwide surveys were used for evaluating and disseminating findings regarding the implementation and outcomes of role expansion of public health nurses and midwives in conducting extensive health examination of children in maternal and child health counselling clinics and school health care.

**Box 4. Research and evidence-based practice**

A national nursing research strategy has been established to expand nursing research and to build the scientific foundation for evaluating and enhancing practice and outcomes. Nurses took part in training and continuing professional education to improve their skills and knowledge in critical appraisal and research methodology. Research became an integral part of their work and the results were translated into improved clinical practices.

*(Case study 37)*

**Partnerships**

Building intersectoral collaboration and partnerships in health, across society, is important to address health challenges in a cost-effective, comprehensive and responsive manner.

In more than two-thirds of case studies, partnerships were essential and an integrated component of the services provided. Of these, more than one-third had partnerships in place between different health care institutions such as hospitals partnering with other hospitals, health centres, clinics and general practitioners. Many partnerships were also established between non-health care institutions or organizations including universities and research institutions, schools and professional advisory boards. Additionally case studies reported establishing partnerships with non-government organizations such as local grass-root, nursing and patient organizations.

**Box 5. Partnerships in school nursing**

The *School Nursing Development Programme* in the United Kingdom focused on improving the life chances of children and young people through effective preventative services and the provision of early help. School nurses worked in partnership with other agencies and as part of a wider multidisciplinary team. To ensure the model was owned and led by the school nursing profession, a stakeholder advisory board and focused task groups were established. Professional organizations for the school of nursing and school nurses were key partners. The programme was co-produced with children, young people and parents in developing a vision based on evidence and feedback. The engagement with children and young people was led by key partners including the British Youth Council, National Children's Bureau and Netmums.

*(Case study 43)*

Overall, partnerships provided the means to share information and deliver coordinated, high quality and integrated care in a safe and feasible manner. Partnerships between health care and research institutions were especially effective in terms of enhancing evidence-based practice while partnerships with authorities and civil society provided sustainable frameworks for larger reforms and changes in practice.

## **Management and leadership**

Good clinical practice is based on integrating nursing and midwifery management structures into the organizational culture to engage nurses and midwives in decision-making.

In nearly all case studies, nursing and midwifery management supported role expansions. Likewise, other structures, including broader health care management and stakeholders of the new practice, supported the role enhancement. Most of these were at a local level while less than one-third of management support came from national or sub-national levels, such as ministries of health or regional health authorities.

Although nurses and midwives were included in different levels of decision-making, very few cases reported having formal structures in place to promote their inclusion in this process. Formal structures were found primarily in cases where nurses and midwives took on leading roles. These included signed agreements that served as a contract for implementing the project and included nurses and midwives in decision-making, workforce development plans and organizational structures which place nurses and midwives in leading management positions.

### **Box 6. Clinical leaders facilitating the development of pain management**

The case study from Switzerland provides an example of how a transformational culture of medical and nursing leadership supported the development and implementation of evidence-based interdisciplinary pain management for preterm infants in a neonatal intensive care unit. All staff members participated in tailored educational sessions in pain management on a regular basis, and instructions on pain management were included in orientation sessions for new and returning staff. Opportunities were also provided for bedside teaching, supervision of novice professionals and discussion of individual cases. Infants underwent pain assessments and evaluations several times a day by means of a validated tool to assess the effectiveness of treatments, and evidence-based guidelines were used in determining non-pharmaceutical and pharmaceutical standardized pain treatments. This project was aligned and evaluated through research and the results were disseminated in scientific publications. Nurses were also engaged in the research projects. This initiative which took place over several years led to national awareness of the importance of better pain management.

*(Case study 40)*

Country case studies also provided examples of the promotion of nurses and midwives to senior posts in order to lead or support multidisciplinary teams and multiagency work (Table 8. Examples of professional posts and service contributions). These posts were focused on coordination of resources to provide services and improve access to services for patients with a primary focus on targeted and vulnerable groups. Post-holders were also responsible for developing care pathways, person-centred care packages, individualized care plans and processes for health check-ups and referrals.

**Table 8. Examples of professional posts and service contributions**

Examples with senior nursing and midwifery posts	Main contribution to the services
Nursing pain management group in a paediatric hospital (22)	<ul style="list-style-type: none"> <li>• Identifying gaps in pain management</li> <li>• Collecting evidence from the literature</li> <li>• Organizing training and coaching of nurses in practice changes</li> <li>• Developing guidelines</li> </ul>
Bereavement Support Midwife providing support for miscarriage, stillbirth and neonatal death (46)	<ul style="list-style-type: none"> <li>• Integration of the wider regional health care team</li> <li>• Dedicated support and care resources for the multidisciplinary team</li> <li>• Care pathways providing a framework that reduces complex documentation and gives parents the confidence to return to the unit</li> </ul>
Enhanced learning disability nurse in primary health care and community settings (47)	<ul style="list-style-type: none"> <li>• Support for the development and implementation of annual health checks and referral processes</li> <li>• Ensuring follow-up and implementation of individual health action plans</li> <li>• Validating health assessment tools and provision of specific services</li> <li>• Coordinating an effective multidisciplinary response to ensure improved access to services</li> </ul>
Midwife Practitioner providing pre-birth planning services for vulnerable families (50)	<ul style="list-style-type: none"> <li>• Proactive approaches and early interventions in supporting families</li> <li>• Encouraging women to take control of adverse situations and leading care</li> <li>• Improved communication and collaborative work with partner agencies</li> </ul>
Community diabetes lead nurse role (53)	<ul style="list-style-type: none"> <li>• Access to structured diabetes education and implementation of individualized plans of care for adults with diabetes in primary health care</li> <li>• Avoiding admissions to specialist outpatient and inpatient services</li> <li>• Multidisciplinary approaches to promote clinical and service development opportunities</li> </ul>



## 4. CONCLUSIONS

This Compendium illustrates innovative and good practices in nursing and midwifery across the Region that contribute to Health 2020 goals. Based on 55 case studies from 18 countries, the Compendium demonstrates the variety of existing and evolving roles of nurses and midwives in health systems and their contribution to accessible, cost-effective, person-centred and high-quality services.

Four key conclusions resulted from the analyses of the case studies. While these conclusions are by no means exhaustive or a full synthesis of the case studies, they have been selected for their policy- and workforce- relevance and their potential to guide future action.

The four key conclusions are:

1. **Good practices in nursing and midwifery exist supporting Health 2020 implementation** – A variety of new healthcare models and innovative practices have been implemented in various settings across the Region, ranging from small-scale projects to nationwide nursing and midwifery reforms. The good practice and innovation that exists, however, is not always well documented or rigorously evaluated and rarely shared within or across countries.
2. **Nurses and midwives enhance health** – The case studies demonstrate a large range of contributions of nurses and midwives in improving health and preventing diseases, spanning from health promotion throughout the life-course, to empowering individuals and communities. The roles of nurses and midwives have often evolved and expanded in response to changing healthcare needs of the population. This demonstrates how nurses and midwives are a vital and versatile resource towards achieving the goals of Health 2020.
3. **Evidence-based practice and interprofessional collaboration facilitate innovation** – Collaboration within multidisciplinary teams has shown to be effective and feasible. Nurses and midwives are playing an increasing role in developing evidence-based practice, conducting health research and developing innovative practices as part of interdisciplinary teams.
4. **Enabling policies maximize nurses' and midwives' potential** – The nursing and midwifery workforce has the expertise and potential to improve population health and much of this is still untapped. The case studies revealed that effective policies and workforce planning, strong professional leadership, regulatory frameworks, educational standards and supportive managerial practices are essential to enable nurses and midwives to work to their highest potential.

The Compendium has for the first time documented good practices in nursing and midwifery across the entire health spectrum. The case studies are aimed at feeding into a larger process to increase the sharing of good practice across the Region, to be guided by the WHO policy framework – Strengthening nursing and midwifery: European Strategic Directions towards Health 2020 goals (ESD). The majority of country case studies have been implemented as small-scale projects, at single healthcare facilities or in specific regions. Seldom have they been implemented nationwide – which is an opportunity waiting. Sharing evidence and evaluating results, discussing the transferability and scalability of such models and implications for policy, planning, regulation and education can provide important lessons for those countries that plan similar reforms or are at different stages of implementation.

A sustainable health workforce requires solid workforce policies, effective financing and funding mechanisms, and the evaluation of reforms. Improving Europe's population health is directly linked to an effective and efficient health workforce, including nurses and midwives. Maximizing health gains in the Region – the goal of Health 2020 – can be accelerated by strengthening nursing and midwifery, in line with strengthening the health workforce overall.

To ensure high quality care and sustainable services, it is important to promote evidence-based practice and monitor and evaluate the contribution of nurses and midwives. This contribution should be enabled through education, research and regulation.

Despite the role enhancements found in many country case studies, there is still a need in the Region to develop the education of nurses and midwives further and match nursing and midwifery services to the health needs of the population. Member States are encouraged to take a lead and expand the scope of practice for nurses and midwives further so they can work to their full extent of education and highest potential. In addition, there is a need to integrate the field of nursing and midwifery into national policies within a whole-of-society framework that involves all stakeholders including local communities and civil society.

## ANNEX 1. WHO TEMPLATE FOR REPORTING COUNTRY CASE STUDIES

Title and country of the case study	
Foundation	Driver for change
	Role expansion
	Initiator of the service change
	Area of health care
	Stakeholders
	Evidence-based practice
	Other (please define): _____
Process	Skills and competencies developed
	Management support
	Multidisciplinary team support
	Guidelines, legislation and regulatory framework
	Other (please define): _____
Benefits	Performance outcomes
	Improved quality of care
	Professional climate
	Multidisciplinary team dynamic
	Other (please define): _____
Personal reflection:	
Contact person: Name, job title, institution and country	
E-mail:	

**ANNEX 2. TABLES PRESENTING ANALYSIS OF CASE STUDIES**

**Table 9. Analysis by main outcomes and key activities by nurse-and midwife-led services**

Nurse-led services		Midwife-led services	
Case study (No.)	Main outcomes	Key activities	Case study (No.)
A nurse-led health station in primary health care in a rural area supported by e-consultation with a physician in the health centre (11)	<ul style="list-style-type: none"> <li>Nurses managed, with the support of e-consultation, approximately 70% of the service needs and referred approximately 22% of patients to the physician</li> </ul>	<ul style="list-style-type: none"> <li>Management of the communities' health needs with the support of physician e-consultations</li> <li>Patients referred to the physician if needed</li> </ul>	<ul style="list-style-type: none"> <li>High patient satisfaction</li> <li>Anatomically good healing after early secondary repair</li> </ul>
A nurse-led clinic of ambulatory nursing services in hospital for children and adolescents with diabetes and their families (14)	<ul style="list-style-type: none"> <li>Improved diabetes treatment compliance</li> <li>Increased patient satisfaction with education</li> <li>Improved coping mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>Proving information, education and support according to the expressed needs of children/ adolescents with diabetes and their families.</li> </ul>	<ul style="list-style-type: none"> <li>Higher awareness of preferences, more knowledge about the birthing process and reduced anxiety among mothers</li> <li>Later arrivals to hospital and earlier discharges</li> <li>No increased risk to the newborn</li> <li>Higher breastfeeding rates</li> </ul>
Nurse-/ physiotherapist-led service managing all aspects of COPD* in the respiratory assessment unit of a hospital (16)	<ul style="list-style-type: none"> <li>Improved quality of life for patients due to:                             <ul style="list-style-type: none"> <li>decreased length of inpatient care</li> <li>decreased readmission rate by up to 75%</li> </ul> </li> <li>Improved performance in the community</li> <li>Reduced hospital costs</li> </ul>	<ul style="list-style-type: none"> <li>Nurses in collaboration with physiotherapists and consultant GPs manage all aspects of COPD:                             <ul style="list-style-type: none"> <li>early discharge</li> <li>outpatient clinic assessment</li> <li>telephone support</li> <li>rehabilitation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Care tailored by a multidisciplinary team to meet individual needs</li> <li>Improvements in health promotion, antenatal education and continuity of care</li> <li>Decreased workload for the obstetrician</li> </ul>
			<ul style="list-style-type: none"> <li>Midwifery-led services in a postnatal clinic for systematic evaluation of wound healing in hospital (4)</li> </ul>
			<ul style="list-style-type: none"> <li>Midwife-led birthing unit in the Baby Friendly Hospital (8)</li> </ul>
			<ul style="list-style-type: none"> <li>Midwife-led antenatal clinic for adolescents having an uncomplicated pregnancy (15)</li> </ul>
			<ul style="list-style-type: none"> <li>Midwives performing risk assessment throughout pregnancy</li> <li>Option for midwife to provide all antenatal care</li> </ul>

Nurse-led services		Midwife-led services	
Case study (No.)	Main outcomes	Key activities	Case study (No.)
Nurses as coordinators of the controlled TB and HIV treatment in the dispensary unit (33)	<ul style="list-style-type: none"> <li>Increased number of patients receiving coordinated care</li> <li>Decreased number of patients refusing care</li> </ul>	<ul style="list-style-type: none"> <li>Coordinating the whole process of TB and HIV treatment</li> <li>Delivering the drug treatment</li> </ul>	Midwife-led freestanding birth centre in a district hospital promoting normal births (45)
Consultant nurse leading a multidisciplinary team in a dementia friendly hospital (41)	<p>Improvements in:</p> <ul style="list-style-type: none"> <li>preparedness to care for patients with dementia</li> </ul> <p>Reductions in:</p> <ul style="list-style-type: none"> <li>use of antipsychotic and sedative medication</li> <li>emergency admissions and admissions to residential care</li> <li>disability, falls and incidents related to behaviour problems</li> <li>costs for the wider health service</li> </ul>	<ul style="list-style-type: none"> <li>Dementia outreach service for the wards</li> <li>An acute dementia ward</li> <li>Applying a person-centred care package for patients with dementia</li> <li>Operating a dementia friendly medical admissions area</li> </ul>	Midwife-led clinics for weight management and healthy lifestyle counselling for obese women during pregnancy and post-partum periods (51)
			<p>Main outcomes</p> <ul style="list-style-type: none"> <li>Increased number of normal births, water births and women using water in labour</li> <li>The approach reduced interventions, included partners and lead to a healthier start in life</li> </ul> <p>Key activities</p> <ul style="list-style-type: none"> <li>Promoting:                             <ul style="list-style-type: none"> <li>normal birth</li> <li>women and their families having a satisfying birth experience</li> <li>improved birth environments</li> </ul> </li> </ul>
			<p>Main outcomes</p> <ul style="list-style-type: none"> <li>Decrease in pregnancy weight gain</li> <li>Increased number of women receiving the service</li> <li>Improved quality of maternity care</li> </ul> <p>Key activities</p> <ul style="list-style-type: none"> <li>Counselling obese pregnant women on behaviour change, nutrition and weight management during pregnancy and post-partum</li> </ul>

\* Chronic Obstructive Pulmonary Disease

Table 10. Analysis by main outcomes and key activities by expanded and supplementary roles

Expanded roles		Supplementary roles			
Case study (No.)	Main outcomes	Key activities	Case study (No.)	Main outcomes	Key activities
Nurse consultations for acute health problems and noncommunicable diseases in primary health care and emergency care (11)	<ul style="list-style-type: none"> <li>Improved access to care</li> <li>Improved productivity</li> <li>Patient satisfaction with counselling</li> <li>Improved multiprofessional collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Reallocating certain patient groups from the care of physicians to the care of nurses</li> <li>Examining, assessing, treating and following-up with patient groups</li> <li>Prescribing and re-prescribing</li> </ul>	Nurses implementing nutritional guidelines and discussing nutritional care for older patients as part of a multidisciplinary team in acute geriatric wards (2)	<ul style="list-style-type: none"> <li>Improved person-centred nutritional care</li> <li>More in-depth analysis of patients' nutritional status</li> <li>Increased counselling for older patients</li> </ul>	<ul style="list-style-type: none"> <li>Developing and implementing a systematic screening process for newly admitted patients</li> <li>Analysing nutritional status and addressing patients' nutritional needs who are at risk of malnourishment</li> </ul>
Cervical screenings performed by health visitor nurses (13)	<ul style="list-style-type: none"> <li>Improved access to care in rural and disadvantaged areas</li> <li>Increased participation in cervical screening</li> <li>Empowering women through health guidance</li> </ul>	<ul style="list-style-type: none"> <li>Cytological smears</li> <li>Educating and counselling patients</li> <li>Contacting and motivating women to take part in the screening programme</li> </ul>	Case manager nurses coordinating the care of highly complex patients with noncommunicable diseases in primary health care multidisciplinary teams (9)	<ul style="list-style-type: none"> <li>Care pathways facilitated</li> <li>coordination and early identification of risks</li> <li>Interactive network services and tools supported self-care</li> <li>Reduced numbers of emergency visits</li> <li>Increased patient satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>Performing needs assessments and health check-ups</li> <li>Intensified patient education and support of self-care</li> <li>Caseload management</li> <li>Coordinating resources</li> </ul>
Special diabetes nurse consultations for patients with diabetes (19)	<ul style="list-style-type: none"> <li>More effective management of patients' knowledge and skills on complications</li> <li>Improved coordination of care</li> <li>Services were brought closer to the patients</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring care</li> <li>Patient education</li> <li>Directing patients to other health professionals if needed</li> <li>Coordinating care</li> </ul>	Nurses as disease managers performing follow-up visits and providing health education for client groups with chronic conditions through telehealth via a national call centre (17)	<ul style="list-style-type: none"> <li>Improved ability to cope with the disease</li> <li>Decline of depression rates</li> <li>Improved compliance with drug regimen, diet and physical exercise</li> <li>Coordinated care</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring patients' condition and providing health education</li> <li>Authorized to titrate certain medications</li> <li>Care coordination</li> </ul>



Expanded roles			Supplementary roles		
Case study (No.)	Main outcomes	Key activities	Case study (No.)	Main outcomes	Key activities
Independent and advanced nursing receptions in primary care clinics for patients with NCDs (30)	<ul style="list-style-type: none"> <li>• More patients with health risks identified</li> <li>• More patients observed by nurses and number of hospitalizations decreased</li> <li>• Fewer emergency calls</li> </ul>	<ul style="list-style-type: none"> <li>• Performing screenings</li> <li>• Monitoring the efficiency of the treatment</li> <li>• Providing home-based hospital care</li> <li>• Providing vaccinations and fluorography campaigns</li> <li>• Teaching patients</li> </ul>	Special nurses as patient teachers for self-care after lower limb amputation in a surgical hospital unit (29)	<ul style="list-style-type: none"> <li>• Earlier mobilisation</li> <li>• Earlier use of crutches post-operative</li> <li>• Improved wound healing</li> <li>• Active participation in care and better adaptation to the new life situation</li> </ul>	<p>Teaching and motivating patients on:</p> <ul style="list-style-type: none"> <li>• caring for wounds</li> <li>• dressing themselves</li> <li>• performing personal hygiene</li> <li>• breathing techniques</li> <li>• early mobilization</li> <li>• preventing pressure ulcers</li> </ul>
Independent nursing receptions for children in primary care clinics (32)	<ul style="list-style-type: none"> <li>• Timely services available for patients at nursing receptions</li> <li>• Decrease in physician workload</li> </ul>	<ul style="list-style-type: none"> <li>• Health check-ups and treatment</li> <li>• Preparing and checking laboratory tests</li> <li>• Re-prescribing according to physician prescription</li> <li>• Completing medical certificates</li> <li>• Teaching patients</li> </ul>	Nurses teaching family members in a stroke unit (31)	<ul style="list-style-type: none"> <li>• Level of knowledge and the quality of home care increased</li> <li>• Need for hospital and social care decreased</li> </ul>	<p>Teaching family members in:</p> <ul style="list-style-type: none"> <li>• skin assessment and management</li> <li>• preventing complications</li> <li>• general and specific areas of care</li> </ul>
Midwives performing screening and emergency obstetric care in the delivery room and the obstetric emergency room in a hospital (36)	<ul style="list-style-type: none"> <li>• Reduction in interventions and patient anxiety</li> <li>• Improvements in:                             <ul style="list-style-type: none"> <li>- participation and satisfaction of mothers</li> <li>- birth positions</li> <li>- uninterrupted skin-to-skin contact</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Screenings and obstetric decisions on admission, discharge and referrals for women in childbirth</li> <li>• Collaborative care with obstetricians for high-risk patients</li> </ul>	Nurses as caregiver trainers and coaches (38)	<p>Improvements in:</p> <ul style="list-style-type: none"> <li>• Caregivers competence in mobilization, therapeutic regime and nutrition</li> <li>• Identification of overload risk</li> </ul>	<ul style="list-style-type: none"> <li>• Assessing caregivers' capabilities, resources and risk of fatigue</li> <li>• Training in patient care skills</li> </ul>
Cervical screenings performed by nurse colposcopists in outpatient hospital care (54)	<p>Improved:</p> <ul style="list-style-type: none"> <li>• continuity of care</li> <li>• counselling services</li> <li>• patient satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• Performing colposcopy independently</li> <li>• Detecting and diagnosing genital tract abnormalities</li> <li>• Making referrals</li> <li>• Managing caseloads</li> </ul>	Continence Specialist Nurses performing nerve stimulation for women with faecal incontinence in primary care settings (48)	<ul style="list-style-type: none"> <li>• Improved quality of life</li> <li>• Successful health outcomes</li> </ul>	<p>Performing percutaneous tibial nerve stimulation for the treatment of faecal incontinence in women</p>

**Table 11. Analysis by main outcomes and key activities by community- and home-based practices**

Case study (No.)	Main outcomes	Key activities
Nurses assessing activities of daily living and providing home nursing services for older people with chronic diseases (3)	<ul style="list-style-type: none"> <li>Improved provision of home care services and an individual approach to home care</li> <li>Improved cooperation between physicians, visiting nurses and nurses in home care</li> </ul>	<ul style="list-style-type: none"> <li>Assessing activities of daily living</li> <li>Providing home health care based on the daily living needs of older people</li> </ul>
Nurses providing rehabilitation services for patients with COPD through telehealth (5)	<ul style="list-style-type: none"> <li>Patients were empowered and expressed higher quality of life</li> <li>Readmission rate reduced by 54% over a 10-month period</li> <li>Nurses developed new competences in counselling self-management through tele-homecare technology</li> </ul>	<ul style="list-style-type: none"> <li>Using tele-homecare technology as part of a comprehensive rehabilitation programme</li> <li>Coaching and supporting patients in managing their own disease and react on worsening in symptoms in everyday life in order to avoid readmissions</li> <li>Video meetings between healthcare professionals across sectors in order to coordinate the care and rehabilitation</li> </ul>
Video consultations between hospital based nurses and discharged patients with COPD (6)	<ul style="list-style-type: none"> <li>Telehealth changed the way nurses performed and their professional identity</li> <li>Patients took an active role in observing and measuring their condition</li> <li>Teleconsultation was a safe and effective way to provide care remotely, even if readmissions did not reduce significantly</li> </ul>	<ul style="list-style-type: none"> <li>Teleconsultations performed as structured virtual out-patient visits, using a check-list and based on patients' needs and wishes</li> <li>Providing patients advice on measurements, treatment, managing and living with the disease</li> <li>Organizing quick treatment or home care in consultation with physicians and home care services, if needed</li> </ul>
Nurses providing rehabilitation services for patients with cardiovascular disorders using telehealth (7)	<ul style="list-style-type: none"> <li>Reduced waiting times for rehabilitation, and reduced levels of stress of patients</li> <li>Quality of life improved due to an individual rehabilitation programme, involvement of the family and integrated services</li> </ul>	<ul style="list-style-type: none"> <li>Identifying patients' needs for rehabilitation</li> <li>Providing individual telerehabilitation programmes to prevent readmissions</li> <li>Supporting active participation of patients and their families in rehabilitation through telehealth</li> </ul>
Extensive health examinations provided by public health nurses and midwives for children and parents (10)	<ul style="list-style-type: none"> <li>Unidentified problems found</li> <li>Earlier identification of support needs and health problems</li> <li>More appropriate and effective support targeted to children and families most in need</li> <li>Parents were empowered and health behaviours improved</li> <li>Parents felt examinations were useful and provided enough support and knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Assessing health of family members from the viewpoint of psychological and social aspects, living conditions, family income and support networks</li> <li>Identifying support needs and providing targeted support</li> <li>Intervening in families with difficult problems</li> </ul>
Large scale vaccination against polio operated by public health nurses in family wellness clinics in a short timeframe (18)	<ul style="list-style-type: none"> <li>Within three months 79% of the national target population was vaccinated, and in some areas 100% coverage was achieved</li> <li>Ability of public health nurses to deal successfully with a national crisis</li> </ul>	<ul style="list-style-type: none"> <li>Providing guidance and counselling on the vaccine for professionals and the public</li> <li>Increasing public willingness to vaccinate children</li> <li>Providing help through direct channels or the media and various community settings</li> <li>Vaccinating a massive population efficiently within a tight schedule, while proceeding with their normal duties</li> </ul>

Case study (No.)	Main outcomes	Key activities
Promotion of behavioural changes among socially withdrawn children through Solution Focus Approach group meetings led by school nurses (20)	<ul style="list-style-type: none"> <li>Increased self-efficacy among socially withdrawn school children</li> </ul>	<ul style="list-style-type: none"> <li>Implementing a solution focused approach to improve self-efficacy among socially withdrawn school children</li> </ul>
Public health nurses preventing and treating postpartum depression as part of the redesigned community care model (21)	<ul style="list-style-type: none"> <li>Supporting parents can make significant differences in their lives and in child development</li> <li>Improved quality of care</li> </ul>	<ul style="list-style-type: none"> <li>Identifying mental health problems by using a postnatal depression scale and by providing counselling</li> <li>Preventive home visits made two weeks postpartum</li> <li>Supportive counselling sessions for depressed women</li> <li>Follow-up during the first year</li> </ul>
Peer to peer counselling by nursing students with supervision of nurses or physicians to reduce harm during festivals (23)	<ul style="list-style-type: none"> <li>98% decrease in peer educators' binge drinking and drunkenness</li> <li>More awareness, critical literacy and avoidance of driving under the influence of alcohol among target students</li> </ul>	<ul style="list-style-type: none"> <li>Interviewing students and prioritizing educational needs</li> <li>Assessing drinking patterns</li> <li>Establishing relationships based on dialogue</li> <li>Teaching self-assessment of blood alcohol levels and reducing sexual risk behaviours</li> </ul>
Teachers and nursing students promoting healthy settings through participatory action research (26)	<ul style="list-style-type: none"> <li>Subjective well-being and role mastery enhanced</li> <li>Recognition of the role of nurses in mobilizing communities</li> </ul>	<ul style="list-style-type: none"> <li>A trained group of students, teachers, staff and community stakeholders mobilizing the community to create healthy nursing schools</li> <li>Analysing and documenting the needs of communities</li> </ul>
Professors and postgraduate degree students in midwifery in collaboration with a midwife in a primary health care centre providing educational sessions in childbirth and parenthood for pregnant women and couples (27)	<ul style="list-style-type: none"> <li>Better prepared for the birth giving experience and care of the newborn</li> <li>Couples went through the pregnancy peacefully and felt attached to their baby</li> <li>The conjugal relationship strengthened, allowing the father to feel very involved during pregnancy</li> <li>Reinforced the relationship of the couple</li> </ul>	<p>Providing:</p> <ul style="list-style-type: none"> <li>theoretical and practical education for pregnant women and/or couples on the preparation for childbirth and parenthood</li> <li>pre- and postnatal individual session on the affective relationship between parents and children</li> <li>Monitoring and evaluating the impact of the strategies</li> </ul>
Teachers and nursing students in collaboration with nurses providing peer education in partner violence for young people (28)	<ul style="list-style-type: none"> <li>Significant change in knowledge and attitudes</li> <li>Effective impact on preventing violence in dating relationships among young people</li> </ul>	<ul style="list-style-type: none"> <li>Implementing an intervention programme to raise awareness among adolescents and young people of intimate partner violence through workshops and peer education</li> </ul>
District nurses in collaboration with other professionals and community members developed an interactive ICT supported health channel connecting primary health care and the homes of the local community (39)	<ul style="list-style-type: none"> <li>A needs based, accessible and usable health channel that is well aligned with primary health care (PHC) mission</li> <li>Transferable e-health skills applicable to other areas such as internet-based schools for patients with chronic diseases</li> <li>Enhanced e-health literacy and awareness of available electronic health resources among community members and health personnel</li> </ul>	<ul style="list-style-type: none"> <li>Collaboratively designing, testing, evaluation and improving of different version of prototypes of the health channel</li> <li>Piloting the final prototype and testing its accessibility, usability and ability to enhance health promotion</li> <li>Mobilizing and building alliances for broader public health strategies in schools and neighbourhoods</li> </ul>

Case study (No.)	Main outcomes	Key activities
<p>A new model for school nursing to meet the present and future needs of school-aged children and young people</p> <p>(43)</p>	<p>Improved:</p> <ul style="list-style-type: none"> <li>• readiness for school</li> <li>• vaccination coverage</li> <li>• emotional well-being of looked-after children</li> </ul> <p>Reduced:</p> <ul style="list-style-type: none"> <li>• school absences</li> <li>• excess weight in 4 to 5 and 10 to 11 year olds</li> <li>• under 18 conception rates</li> <li>• chlamydia prevalence in 15 to 24 year olds</li> <li>• smoking prevalence in 15 year olds</li> <li>• alcohol and drug misuse</li> </ul>	<ul style="list-style-type: none"> <li>• Implementing a four-level service model for school nursing</li> <li>• Support children and young people with multiple and complex needs through multidisciplinary working</li> <li>• Focus on engaging and listening to children and young people</li> <li>• School nursing teams coordinating services</li> </ul>
<p>Health visitors working in a multi-agency team towards an early intervention agenda for families, children and young people aged 0 to 19</p> <p>(44)</p>	<p>Reduced:</p> <ul style="list-style-type: none"> <li>• smoking and alcohol use</li> <li>• school exclusions and absences</li> </ul> <p>Improved:</p> <ul style="list-style-type: none"> <li>• mental health issues</li> </ul>	<ul style="list-style-type: none"> <li>• Health visitors reach out to families and provide support, with a special focus on domestic violence awareness and child development</li> <li>• Health visitors working one-on-one with families for 12 – 16 weeks and using a common assessment framework</li> <li>• Leading teams and mentoring team members</li> </ul>
<p>Team of specialist nurses providing palliative care for heart failure patients in collaboration with community, acute and palliative care professionals</p> <p>(49)</p>	<ul style="list-style-type: none"> <li>• Earlier patient identification, meeting unmet care needs</li> <li>• Preferred care options including place of death</li> <li>• Reduced and avoided hospital admissions</li> <li>• Reduction in bed days resulting in cost savings for the hospital</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehensive cardiology and holistic assessment of patients' and caregivers' needs by using validated tools</li> <li>• Facilitating care wishes coordinated by care managers in partnership with other service providers</li> </ul>
<p>Virtual consultation on community-based falls between the nurse case manager in district nursing services and the advanced nurse practitioner in an outpatient department of a rehabilitation unit</p> <p>(52)</p>	<ul style="list-style-type: none"> <li>• Early assessment of patients' falls</li> <li>• Early advice and planning of investigations in primary care</li> <li>• Better use of outpatient appointments resulted in shorter waiting lists</li> </ul>	<ul style="list-style-type: none"> <li>• Providing consultations through video conferencing between community and hospital</li> <li>• Providing early advice and planning at the local level</li> <li>• Patients involved in the process of assessing and planning their care</li> </ul>
<p>Advanced nurse practitioner and nurses collaborating with district nurses to provide IV and blood transfusion services in an outpatient suite, patients' homes and 24-hour care settings</p> <p>(55)</p>	<ul style="list-style-type: none"> <li>• More timely discharge and return to the IV and blood transfusion suite</li> <li>• The IV suite team operated as a gate keeper of the service arrangements</li> <li>• Reduction in bed days</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of IV antibiotics and blood transfusion through outpatient services</li> <li>• Ensuring all governance arrangements were met and all patients were linked with a defined medical consultant</li> </ul>

## The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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