

European health and social integrated care ecosystem

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Introduction

For the past decade the European Institutions, and the European Commission (EC) in particular, have been championing a range of initiatives and making steady steps towards improving the quality, safety and efficiency of health service delivery in Europe. The European Federation of Nurses' Associations (EFN) has supported those initiatives engaging the nursing profession and monitored their impact on clinical practice. The present findings are therefore an amalgamation and meta-synthesis of the knowledge collected from the nursing political leaders, with the purpose of identifying the key steps needed to ensure a proper design of the health and social integrated care ecosystem in the EU and Europe. As such, findings can be used as input for the EC's Horizon2020 programme (H2020).

As the single largest occupational group in healthcare, nurses, have a critical and constructive role to play in innovation which is 'fit for practice'. The way forward is simple: promote continuity and integration of care through investment and upscaling of a nursing-led care coordination models; foster efficiency of health and social systems through deploying eHealth services and advanced roles (ANP); improve quality, safety and cost-effectiveness through the development of new skills, including eSkills; and deploying interprofessional education system to improve health and social care outcomes.

Quality and Safety

Patient safety and quality of care are paramount health policy priorities and should continue to remain such. Identifying common ground for EU action is necessary in order to respect the free movement of people across Europe, including both patients and nurses. Patients deserve to receive quality and safe care, and nurses need to be able to work within safe and quality work environments, regardless of the European country in which they may find themselves. The European Union (EU) has a key function in facilitating the sharing of best practice and the development of evidence-based recommendations and guidelines for ensuring the quality and safety of health services. Investment in the development of evidence-based guidelines has real potential to improve the quality of care that patients receive and raise the safety bar in Europe. The development of EU guidelines is especially welcomed in those countries that are still developing their patient safety agenda, since these can be used as a lever to design a multi stakeholder approach to safety and quality. One of the most innovative areas that would benefit from evidence-based guidelines are eHealth services. Innovative, high quality, safe and cost-effective national healthcare systems are dependent upon policy-makers and stakeholders developing and implementing high-quality eHealth services. Based on sharing good nursing and

social care practices in eHealth services (telehealth, telecare) and – through the evaluation and consensus building – ENS4Care created a set of guidelines focusing on: healthy lifestyle and prevention, early intervention and clinical practice in integrated care, skills development for advanced roles and nurse ePrescribing.

- Health Coach in Prevention - knowledge on the use of eHealth applications as tools to enhance healthy lifestyles by prevention in healthcare from a life circle approach is key. The [EU Guideline on Prevention](#) focusses on the use of e-Health and m-Health apps in nursing and social care.
- Clinical Practice – Evidence based clinical practice guidelines for the implementation of eHealth services in ICT are delivered based on existing guidelines and experiences from the field. The [EU Guideline on Ehealth services in Clinical Practice](#) focusses on the deployment of e-Health services in nursing and social care.
- Advanced Nurse Practitioner (ANP) - One of the fundamental pillars to promote high quality healthcare is through a highly educated, motivated and skilled workforce. Advanced roles for nurses and social care workers boost quality, safety, efficiency and cost-effectiveness of the healthcare. The [EU Guideline on Advanced Roles](#) refers to advanced practitioners leading the coordination of care with the use of ICT tools.
- Nurse ePrescribing as ANP - Nurse prescribing is an area of professional development which has made huge steps forward in the past few years and that is being fully implemented in several Member States (UK, Ireland, Finland, Sweden, Spain, etc.). The [EU Guideline on Nurse ePrescribing](#) is about enhancing professional capacity and developing new skills, including eSkills, that lead to e-services that are more patient-centered thereby delivering better patient outcomes.
- ICT enabled Integrated Care and Continuity of Care enables the shift towards the recognition that we need to be in the business of health and social care and not in the business of illness and primarily hospital-based care. The [EU Guideline on Integrated Care](#) provide the evidence for shifting the traditional way of managing care towards an integrated system lowering down the workload of frontline, upscaling person-centred care, enhancing patient empowerment, and ensuring continuity across the primary and secondary health and social care sectors.

In addition, keeping quality and safety high on the political agenda is critical for maintaining patient safety and quality of care at the heart of health and social services in the EU and Europe. Any future initiative should give equal weight both to ensuring safety and quality with regard to patient care, as well as nurses' working environments. Given the fact that promoting gender equality is high on the political agenda, extra attention should be given to working conditions of professions in which the majority is comprised of women (92% of European

nurses are women). Nurses have a vital role to play in ensuring patient-centeredness remains as a key principle in the development of any recommendations or guidelines, and therefore nurses must have an equal and leading role in such policy developments.

Health Workforce

Nurses are the first point of contact for patients in the health and social service and in this way hold great responsibility for the delivery of safe and high quality care in hospitals and in the community. However, many countries in Europe struggle to recruit and retain adequate numbers of nurses and governments tend to make the workforce cheaper by making nurses redundant and replacing them by non-qualified staff. Historically, the nurse shortage has been complicated by continuing portrayals of nursing as a weaker option, not being in the same league as other professions and academic disciplines. However, as a result of the revised Directive 2005/36/EC, the academic imbalance between healthcare professionals is significantly reduced, which makes nursing a more attractive career option.

Because healthcare has become more complex over recent years, with hospitalised patients being more acutely unwell, adequate numbers of highly educated nurses are needed for the health and social care system to cope effectively with the well-known challenges. This realisation has fuelled investment in the education of general care nurses, with many countries supporting a move into higher education. Indeed, there is mounting evidence showing that a 10% increase in the proportion of nurses holding a higher education qualification is associated with a 5% decrease in the likelihood of patients dying within 30 days of admission to hospitals.¹ Degree programmes are accepted to have better completion rates, while better patient outcomes and reduced length of stay in hospitals associated with graduate nurses make higher education a cost-effective option.^{2,3}

Directive 2013/55/EU, in addition to addressing issues of internal market, has a substantial impact on advancing the profession of nursing and the status of nurses across the EU and Europe. In this way, the Directive has been the cornerstone of massive educational reform raising the quality bar of nurse education. Considering that the largest proportion of the nursing workforce is female, upgrading the education and status of nurses is steadily impacting on balancing gender inequalities within the EU and Europe. The Directive therefore is also seen as indirectly having a human rights dimension. Continuing the political and

¹ Aiken L et al. (2003) Educational levels of hospital nurses and surgical patient mortality. *Journal of the American Medical Association* 290(12):1617-1623

² American Association of Colleges of Nursing (2009) 2008-2009 enrolment and graduations in baccalaureate and graduate programs in nursing. Washington, DC

³ Newbold D. (2008) The production economics of nursing: A discussion paper. *International Journal of Nursing Studies* 45(1):120-128

professional support for the development of a highly educated profile of nurses would help reduce the educational disparity among nurses and other healthcare professionals, improve recruitment and retention of youngsters into nursing, upgrade the skill level of the nursing workforce, and thus ensure EU citizens having better access to high quality and safe healthcare services and systems.

Initial educational preparation is, however, not enough to ensure high levels of care provision as developments in healthcare are on-going. In the context of quality of care and patient safety, it is imperative that all healthcare professionals are keeping abreast of new knowledge, techniques and developments related to interprofessional developments. As professionals, nurses have always been engaged in continuing professional development (CPD). Implicit in this is the assumption that nurses will maintain, develop and enhance competence through CPD. The need for nurses to maintain and update their knowledge and skills is essential for achieving and maintaining quality in service provision, and is in keeping with a broader recognition that lifelong learning, embracing both formal and informal post-basic education, is an on-going requirement for all. If the development of competencies is to have a formal value in relation to career development, promotion, job change and upscaled salaries competitive in relation to other sectors, CPD needs to be recognised and documented; for example, through creating an individual standardised CPD portfolio and if needed, an European CPD Framework, going beyond subsidiarity and national accreditation. In order for the individual nurse, or healthcare organisation, to structure activities of informal as well as formal learning, it is important to relate to a common guide or framework. The European Commission should facilitate this design (ex. through the IMI system).

Appropriate educational preparation of nurses is only one part of the equation, next to appropriate and safe nurse staffing levels and composition. A comprehensive and growing body of evidence supports the importance of staffing levels to achieving safe patient care. For example, in the United Kingdom (UK) inadequate staffing has been implicated in investigations into a number of serious care failures, such as in the Mid Staffordshire NHS Foundation Trust public inquiry in England, which recommended the development of evidence-based, nationally accredited staffing guidance and tools. However, evidence from Member States shows further deterioration in staffing levels, as short-term workforce planning and financially motivated policies have over the past few years contributed to the loss of thousands of nursing roles across Europe. The Royal College of Nursing in the UK has warned that growing demand for nursing care is likely to create a significant challenge over the next few years, with current trends pointing to a shortage of over 47,000 nurses in 2016 in the UK alone. Assuring a nurse workforce that is large enough and possesses the right knowledge and skills for

the changing health and illness patterns of our times is nothing short of an imperative for the future sustainability of EU health and social services.

Nurse Led Initiatives (NLI)

One of the major challenges facing healthcare delivery in Europe is the increase in the number of people living with chronic conditions; this is in part the result of the global population ageing. As the citizens of Europe grow older, they live longer with their conditions and require on-going access and support for health services. EFN members believe that positioning citizens and patients in the centre of developing innovative care solutions is fundamental; nurses are ideally placed to support, enable and ensure this happens.

The EU nurses are concerned that too much focus is placed on the medicalisation of chronic illness and ageing. A paradigm shift is needed to move the political discussion from medical treatment to care, prevention and patient empowerment. Nurses are leading in this area. Current examples from EFN members include Community Nurses delivering Home Nursing involving patients and their care-givers in all procedures to get over the barriers of their disabilities and enhance their independency; Diabetic Nurses working in Diabetic Clinics to educate and engage people in their care; Community Nursing for Older Adults involving counselling and guidance to promote independence and greater quality of life, while at the same time reducing healthcare costs. Some EFN members have made substantial progress in this regard. Sweden was one of the first European countries to create nurse-led clinics for patients with long-term conditions such as diabetes and heart failure, but nurse-led clinics are becoming integrated in many countries: nurse-led clinics are present in Denmark (municipality health clinics are mainly led by nurses and provide prevention and rehabilitation care); in England, Estonia, Finland, France, Sweden and two regions of Spain, Andalucía and Catalonia⁴. In Iceland nurse-led clinics have been developing where there is a special emphasis on assisting patients and their families towards greater self-management, particularly in relation to the treatment of chronic illnesses. Nurse-led clinics are operated either in collaboration with hospitals or primary healthcare centres as outpatient clinics for a range of patient groups and their families. The body of evidence from across Europe on the benefits of such nurse-led initiatives is growing. While nurses are ideally positioned to both lead and support such developments, there is limited nursing research in this area. The EFN acknowledges the support of the Commission to date but believes more European support is needed for nurse-led initiatives as well as nursing contribution to multi-disciplinary research.

⁴ Nolte E. et al. (2014) Assessing chronic disease management in European health systems. European Observatory on Health Systems and Policies

Dementia

Another example of such chronic conditions is dementia. Nurses play a crucial role in caring for patients with this condition. Across the world, an estimated 44 million people now live with dementia; this number is set to double by 2030 and triple by 2050.⁵ Dementia is one of the most debilitating conditions in modern society with huge health, social and financial implications.⁶ People's lives, families and communities can be disrupted from the onset of dementia, while dementia is also increasingly considered as one of the leading causes of death among older adults. The direct financial cost of dementia to the EU is estimated to be in excess of €130 billion a year.⁷ It is significant that the majority of people with dementia are women, which compromises the caring capacity of society. In the EU, more than 7 million people suffer from dementia with 5 million being women.⁸ While substantial, these figures considerably underestimate the scale of the issue because dementia continues to remain under-diagnosed in the EU.⁹

Tackling the dementia challenge must become a priority for all EU governments if this is to be contained and not spiral out of control in the coming years. Therefore, coordination at European level is paramount if the EU is to respond to this challenge collectively. Governments must continue to develop strategies that deal with dementia holistically, focussing on prevention and risk reduction, as well as provision of quality care for people with dementia and their families. The 3 million nurses deployed across 35 countries in Europe, represented through the EFN, are in a unique and privileged position of having direct access to the daily care needs of people with dementia, and having a key role to play both in managing and preventing this condition. The Commission needs to recognise this strength. Nurses' unique insight into the patient conditions and familiarity with people's social and family contexts, enables them to form a comprehensive assessment to develop a more holistic picture of needs which form the input for 'personalised care'¹⁰. Nurses have unparalleled access to people's care and treatment profiles, and through regular reviews can ensure their medications are fit for purpose and respond to the complexities of co-morbidities. Nurse prescribers have a key function in supporting people with dementia to cope with their overloaded at times medication regimes, ensuring the appropriateness and accuracy of

⁵ World Alzheimer Report (2014) [Dementia and risk reduction](#). Alzheimer's Disease International and Global Observatory for Ageing and Dementia Care, King's College London

⁶ World Alzheimer Report (2010) [Global economic impact of dementia](#). Alzheimer's Disease International

⁷ European Commission (2009) [Communication on a European Initiative on Alzheimer's disease and other dementias](#). Brussels, EC

⁸ EuroCoDe (2006) [Prevalence of dementia in Europe](#). A Eurocode report. Brussels

⁹ Bamford SM (2010) [A problem shared is a problem halved? Dementia: Learning opportunities from Europe](#). ILC-UK

¹⁰ Griffiths, P., Bridges, J., Sheldon, H. and Thompson, R. (2015), The role of the dementia specialist nurse in acute care: a scoping review. *Journal of Clinical Nursing*, 24: 1394–1405. doi: 10.1111/jocn.12717

prescriptions; providing education to people with dementia, as well as their families and carers about medication safety and proper administration; and reviewing medications regularly to ensure these fit the needs of the individual, and ensure timely referral when relevant investigations are needed to ensure safety of prescriptions¹¹. Nurses as health coaches and as care coordinator have proven to be effective in meeting this challenge¹².

To make personalised care deployable, continuity of care becomes a key enabler, especially when supported by 'fit for practice' ICT solutions, which operate within the 'big data' designed algorithms that should be gender specific, especially in health and social care¹³. As such, dementia, personalised care and gender meet together to make the health and social care ecosystem resilient. Nurses designing health and social policies enabling a flexible and controlled reform of the current traditional medical system towards a model of integrated care which is innovative, gender sensitive and sustainable, reinforcing the shift towards community-based care¹⁴. Horizon 2020 offers unique opportunities to rectify this and pace up the scale and scope of research on care for dementia in Europe. For example, there is scope for work on understanding the pathways of care to increase quality of life. Nurses are the ones best placed to ensure practice, knowledge and research develop in response to and in conjunction with people's needs; and that this gets translated and implemented into the daily practice of professionals towards improving the quality of care and life for people living with dementia, as well as their families and carers.

Redistribute Healthcare Expenditure

As described above, scientific research and practical examples of empowering nurses show how they can contribute to a better and more efficient healthcare system. At the same time, we see the completely opposite policy decisions.

As a result of the global economic downturn of 2009, of which the impact is still today present, health budgets in many countries in Europe were reduced and austerity measures impacted on nurses' posts and salaries. At the time, the EFN had warned that such reactions are short-sighted and urged the EU to invest in health instead. While some warnings were heard, others were not, and the consequences of those actions are seen today. Nursing in Europe has witnessed an unprecedented number of nurses leaving the profession, becoming unemployed, and migrating to North America. For those that decided to stay, and continue to

¹¹ ENS4Care (2015) eHealth guidelines for nurse ePrescribing. www.ens4care.eu

¹² Alcove (2013) [Timely diagnosis of dementia](#). Alcove project report.

¹³ Kummervold, P. E., Chronaki, C. E., Lausen, B. et al. (2008). eHealth Trends in Europe 2005-2007: A Population-Based Survey. *Journal of Medical Internet Research*, 10(4), e42. <http://doi.org/10.2196/jmir.1023>

¹⁴ Bird, C. E., & Rieker, P. P. (1999). Gender matters: an integrated model for understanding men's and women's health. *Social science & medicine*, 48(6), 745-755.

practice in Europe, difficult working conditions triggered in part by low staffing levels have compromised their capacity to deliver high quality and safe care. Effectively, this situation has resulted in nurses all over Europe to work harder than before to maintain safe care, while being asked to provide more for less. Crucially, nurses face the dilemma of providing safe and quality care in an environment dominated by a cost containment discourse that carelessly overlooks the real implications for patient care.

The EU is facing a challenging future consisting of continuous decreases in health budgets that do not facilitate the creation of innovation and the uptake of new technologies supporting the organisational aspects of daily practice (continuity of care). Investing in designing systems that can provide integrated care, moving care outside of hospitals and into community care, establishing interprofessional education and working and innovating with eHealth solutions are necessary ways forward for sustainable and cost-effective health and social care provisions in the EU and Europe.

Integrated care refers to the management and delivery of health and social care services so that citizens receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health and social system. It is generally accepted that failure to better integrate or coordinate health and social care services between primary and secondary care can result in suboptimal patient/health outcomes, such as unnecessary or avoidable hospital re-admissions or adverse drug events. Integrated care along the care continuum is essential to ensuring optimal outcomes are achieved for all people living in the EU, and especially those burdened with chronic disease and complex care needs who require attention from a range of professionals from primary and secondary health and social care sectors. Integrated care can improve the continuity of care for individuals by breaking down any barriers between primary and secondary care settings, in this way ensuring a smooth patient trajectory through the simulation of health and social care pathways. Integrated working of acute, community, primary and social care services is critical to reduce the fragmentation within the health and social care systems and deliver improved patient/health outcomes.

In many countries in Europe integrated care is at its very early stages of development as bringing care closer to citizens is not yet perceived as contributing to the sustainability of health and social systems. Investing in community care and in its workforce will help to deliver positive health outcomes and quality of care, improve cost-effectiveness and free hospitals to provide more acute and specialised care when needed. Community care is not a competitor of hospital care, instead, they are both complementary. A renewed focus on delivering healthcare in the community implies an appropriately designed

frontline community nursing workforce composition at the interface of health and social care services. This is instrumental in co-ordinating care pathways and promoting a healthier population that is empowered and able to live independently.

Success in this area has been boosted by the development of advanced nursing roles, with nurses taking on a more active leadership approach to the provision of primary care – e.g. Denmark, Finland, Portugal, UK. In Denmark, for example, the most vulnerable chronically ill patients are offered the support of a specially trained nurse in their community who can guide them through the health system with active and individual support to manage their disease. For a period of 6-9 months the chronically ill patients have the option of telephone support from a specially trained nurse who gives them personal advice as coach; the nurse also works in close collaboration with the patient's doctor. Similarly, in Finland, new roles of nurses are being developed in order to reallocate certain patient groups with acute health problems and non-communicable diseases from a physician's care to a nurse's care. Nurses consult within the interprofessional team or work in pairs with physicians in health centres and emergency care units. Moreover, the nurse's role as a case manager is expanded to include coordinating care and resources, and managing caseloads. Certain responsibilities are redistributed between nurses and doctors, and nurse prescribing is applied according to legislative requirements. In the UK, a number of nurses working in primary care settings are starting to take on key leadership positions for example with becoming Nurse Partners in GP practices, with several practices now managed by nurses.

Nurses who work in primary and community care are in many countries the key professionals involved in the management and coordination of complex care for individual patients. Their experience and skills are essential to the success of such policy, yet little is known at EU level about what their work involves, how their roles and responsibilities differ between countries and what are their competencies and needs. Crucially, little is known about how many advanced nurse practitioners there are in the EU; what their demographic, personal and work profiles is; and what are their perceptions about the quality and safety of the care provided in community and primary care settings across the EU. Understanding these issues would enable a better understanding of their needs for delivering patient care, coordinating care pathways within an interprofessional team and making cost-effective use of available eHealth solutions.

As the EU health and social care environment continues to undergo change and public demand for quality and safe care increases, interprofessional education and collaboration becomes a key indicator of success. The health and social care

professional team, coordinated by frontline, 24 on 24 hours, 7 on 7 days, is required to work closely and collaboratively to effectively deal with increasing demand and expectations. Recently, a large European project investigating quality in healthcare concluded that the key to progress on quality and safety is a shared understanding across professions¹⁵. Quality relies on doctors and nurses, and allied health and social professions, combining their perspectives on patient care and patient experience in order to deliver holistically positive and safe health and social care. This is as important in hospitals, as the Council Conclusions on Patient Safety¹⁶ note, as it is in primary and community care as a recent EC consultation also made clear¹⁷.

Interprofessional collaboration must start at the early years of education and training where interprofessional education can set the foundations for future collaborative practice¹⁸. Moreover, the amended Directive 2005/36/EC on the mutual recognition of professional qualifications clarifies that through their training student nurses should learn not only how to work in a wider team, but also how to lead a team. Learning how to work as part of an interprofessional team does not rely just on theory, but crucially on practice. Medical and nursing students must, from early on in their training, engage in collaborative activities and group work in order to develop an understanding for each other's discipline, perspective and priorities. Only when different disciplines understand each other's point of view, familiarity can truly develop, out of which will come mutual respect and a collaborative spirit in contrast to a competitive approach in a highly liberalised health and social ecosystem. Also within this context, eHealth has enormous potentials in fostering communication and collaboration between the healthcare team with implications for safety, quality, and efficiency. Such examples include Norway's "Te@mwork" project along with the NNO strategy "Nurses' contribution to Te@mwork through e-cooperation". The EFN believes eHealth has enormous potential in enabling continuity of care, especially for individuals with long-term conditions, and improving the health system's accessibility leading to an optimised and more efficient healthcare service. However, end-users (patients, citizens, healthcare professionals) are not always involved in the conceptualization, development and deployment of new innovative solutions in telecare and eHealth. As such we find ourselves with a large division between the health sector, the social sector and the industry. The ENS4Care (www.ens4care.eu) has provided the evidence we can operate in a different way, engaging key stakeholders in the design and implementation of eHealth services.

¹⁵ QUASER (2014) Talking about quality: exploring how 'quality' is conceptualized in European hospitals and healthcare systems.

¹⁶ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/145976.pdf

¹⁷ http://www.efnweb.be/wp-content/uploads/EFN-Input-Public-Consultation-Primary-Care_1.pdf

¹⁸ http://www.efnweb.be/wp-content/uploads/2011/11/Diversified_Teaching_Programs-final-July2010.pdf

The future: Advanced Nurse Practitioner (ANP)

Within a context of tighter health budgets and rising demands for high quality and safe care, advanced roles for nurses are now necessary to make best use of the resources available and enhance quality. Advanced roles are seen as the way forward in order to improve access to care and patient outcomes, contain provider related costs and improve recruitment and retention rates through enhanced career prospects for nurses. Research identifies a range of positive outcomes from APNs, particularly on patients' Health Status, Quality of Life, Quality of Care, Patient Satisfaction, Length of Stay, and Costs¹⁹. A study commissioned by the OECD²⁰, including 12 European countries, showed that there is an increasing uptake of advanced roles in Europe. APNs are seen as good value for money and a solution to bridging short-term workforce challenges.

The majority of countries in Europe already have Advance Practice Nurses working within their healthcare systems, even if most of the times this category is not recognised as such. To date, three European countries have established regulations for APNs: Finland, Ireland and the Netherlands. However, most countries have already developed relevant postgraduate education for registered nurses to enable them to develop their competencies and advance their career. Master degrees in advanced practice nursing are now available in most countries, although these do not always lead to registration as APNs.

The advanced competencies acquired by APNs include leadership and consultancy skills, patient-centred care, autonomous practice and decision-making, collaborative working, chronic disease management, expert clinical knowledge and commitment to education, research and development. Some APNs can have extended roles with legally defined scope of practice, such as prescribing. However, whilst nurses across Europe already possess well-developed core skills and values, there is a wide variation in the organisation and management of services and the advanced roles that nurses are increasingly required to undertake in different countries. Examples of these include those that arise from the need to work in interprofessional teams, assess people's requirements holistically and commission and coordinate complex packages of care. Notably, the practice of nurse prescribing which has been successfully developed in a number of countries clearly requires advanced skills for nurses.

There is an increasing consciousness across European countries on the importance of developing nurse prescribers. Nurse prescribing shows numerous benefits, including improved services to patients through reduced waiting times

¹⁹ Rafferty AM et al (2015) Post-graduate education and career pathways in nursing: a policy brief. National Nursing Research Unit, King's College London

²⁰ Delamaire ML, Lafortune G (2012) Nurses in advanced roles: a description and evaluation of experiences in 12 developed countries. OECD Health Working paper No 54.

and the more efficient and effective utilisation of the skills of nurses, all of which lead to better patient outcomes. With the introduction of ePrescribing solutions this movement is expected to grow further.

The main objective of nurse ePrescribing is to improve patient and drug safety and to make prescribing and dispensing of medicines easier and more efficient, slowing down the unattainable demand for physicians. Ireland was the first EU country to propose and endorse nurse ePrescribing (2006). The process across the member states is still at the beginning and to date Finland, Ireland, the Netherlands, Sweden, Spain and the UK have implemented or started the implementation process. This shows an increasing acknowledgement of the benefits of having nurse prescribers within national healthcare systems. Few EU countries report that they have a full operational ePrescribing system implemented at a national level, however it would appear that most are in various stages of deployment, although jurisdictional conditions relating to prescribing varies across member states.

Different workforce planning configurations, as well as a shift in professional scope of practice, predict the expanding role of the nurse to become registered nurse prescriber, and to include ePrescribing, as a priority. Whilst legal organisational and educational conditions are required to be in place across differing countries, shared challenges relating to efficiency, tackling shortage of physicians, and unmet medication needs necessitate the expansion of nurse prescribing in Europe.

Developing greater cohesion in models of integrated and continuity of care implies giving a gender approach to its scaling-up design. Traditionally, healthcare has not taken into account any gender aspect and technology has equally disregarded special gender lenses. When designing an integrated ecosystem, which is gender sensitive, implies connecting EU Research & Innovation to the field work, there where people live and work. This equally implies the commitment of the highest political authority in health and social care and the analysis of policies and political strategies to make the integrated health and social ecosystem work together and share one budget to increase cohesion, leading to better health and social outcomes, being the building blocks for a sustainable ecosystem. We need to be in the business of health and not in the business of illness and diseases. This requires a balance between illness-focused, primarily hospital-based care and health promotion and wellness strategies in the community. Financing of healthcare is still following the traditional model of medicalised care and investments shall go now to build adequate structures in the communities to bring health closer to the EU citizens. Healthcare is a growing economy and creates opportunities for employment.

Conclusion

It is important to take the pulse of daily practice and remain informed of the reality of health and social service delivery safety and quality. The systematic knowledge development can make a significant contribution to the development of evidence-based policy towards effective health and social ecosystem reform in Europe.

The present report has identified the key challenges facing EU health services and the necessary steps to take in order to move forwards towards sustainable and effective health system reform. In response to the patient safety and quality of care challenge, EFN members note the importance of collective EU action and call for further support in order to develop evidence-based guidelines to inform nursing practice. With regard the health workforce challenge, support for high-quality initial and continuing educational preparation will ensure a high-quality, and highly-educated workforce that is able to deliver the high standards of care EU citizens expect from the health system. Managing the challenge of chronic conditions sees nurses taking a leading role in developing innovative solutions and services, encompassing the principles of prevention, self-management, patient involvement and independence. The biggest challenge EU health systems face is perhaps the rising healthcare costs – the EFN members note that integrated care will ensure coordination of services for patients, continuity of care and patient-centeredness; moving care closer to people's homes will see both a reduction in costs as well as an increase in patient satisfaction with regard quality of care provided; and appropriate application of eHealth solutions can foster efficiency in the system and support nurses to delivery care of the highest standards.

Finally, EFN members emphasise that the single most effective way of managing all of the above challenges is through the development of advanced practice nursing. APNs can develop and lead the implementation of evidence-based guidelines; contribute to the training of the workforce and inspire new recruits; coordinate and innovate in the management of chronic conditions, concurrently improving quality and reducing costs; make effective use of eHealth solutions and contribute to further innovation in this field. Last but not least, development of nurse prescribing will have a tremendous effect in ensuring cost-effective and highly accessible healthcare for the citizens of Europe.

The future of EU health services lies in serious health system reform. The nurses of Europe, represented through EFN, have first-hand knowledge of the weaknesses and strengths of the healthcare system and can share valuable insights to inform needed actions towards sustainability, efficiency, quality and safety in EU healthcare. The EFN members acknowledge that health system reform requires substantial effort and investment, but the potential benefits to EU society make it worth the pursuit.

The [European Federation of Nurses Associations \(EFN\)](#) was established in 1971 and is the independent voice of the profession. The EFN consists of National Nurses Associations from 35 EU Member States, working for the benefit of 6 million nurses throughout the European Union and Europe. The mission of EFN is to strengthen the status and practice of the profession of nursing for the benefit of the health of the citizens and the interests of nurses in the EU & Europe.