A subcommittee of the HISINM group met on the 13th April 2015 to discuss the action for member revisions of the competency report for TIGER VLE inclusion. Documentation previously circulated from the TIGER committee was reviewed (TIGER 2014) and it was agreed that a significant amount of work has already been completed on this topic. It was also reported that at a European level ACENDIO is currently devising Nursing Informatics Competencies which can be integrated into this specific project going forward. Additionally, the European Federation of Nurses Association (EFN) is creating practice based guidelines for eHealth in a project entitled ENS4Care.

The group noted that from an Irish perspective the integration of informatics competencies in nursing and midwifery was still very much at an early stage of development. However, HISINM was pleased to report that integration of nursing informatics competencies is now referenced in the draft undergraduate requirements and standards report published February 2015 now in final submission phase of delivery by the National Nursing Board of Ireland.

Individual participants of the subcommittee agreed that the focus from the Irish perspective could be conceptualised at three levels:

- **Competency Level 1:** Undergraduate and novice practitioners
- **Competency Level 2:** Intermediate level
- **Competency Level 3:** Advanced expert practitioner

Existing policy on Nursing and Midwifery Informatics Competencies will be delivered as part of a co-ordinated national strategy and specifically in line with eHealth Ireland and National Service Plan agendas. Academic institutions will have a core role to play in levels 1-3 competency acquisition. Each level is briefly expanded upon in relation to national nursing and midwifery informatics competencies in Ireland. Undergraduate and post graduate nurses come from a varied education and clinical practice background. The nursing curricula must reflect the variation in order to ensure competencies match the anticipated requirements.
Level One

Level One is defined by the Nursing and Midwifery Board of Ireland as integration into Knowledge and Cognitive Competencies and relates to Knowledge and understanding of the health, life and behavioural sciences and their applied principles which underpins a competent knowledge base for contemporary nursing and healthcare practice.

Specific competencies and aptitudes will encompass:

- Use of relevant concepts and terminology to support the delivery of nursing practice within Electronic Health Record (EHR) and its variants including Patient Held Record (PHR).
- Relevant information and communication technology to support the delivery of evidence informed care of the person including how to access and evaluate web based information and use of reference management systems.
- Principles of e-Health, telemedicine, assistive technology within nursing.
- Principles of using Information and Communication Technologies (ICT) in accordance with professional and regulatory standards.
- Principles of using ICT applications, in vitro diagnostic medical devices and other mobile or smart devices for delivery of nursing practice and the management of associated health information.
- Concepts and terminology of ICT in the delivery of nursing care.
- Ethical and legal aspects of social media usage by health care professionals in protecting the confidentiality of persons using the health services.

Examples of learning outcomes following four year programme of study includes: an ability to understand, apply, and use health information technology and nursing informatics in nursing practice.

Level Two

Level Two competencies are related to the practice of nursing and midwifery and the integration of informatics in that role. Currently Health Informatics Training System (HITS) is a training and certification solution for healthcare workers in Ireland (ICS 2015). The Irish Computer Society (ICS) in partnership with the Health Informatics Society of Ireland developed HITS.

It provides basic Concepts of Health Informatics, covering topics ranging from data processing and electronic record keeping to decision-support systems and security:

UNIT 1: IT Basics in Healthcare
Module 1: Computer Hardware and Software in Healthcare
Module 2: Networks and Health Informatics
Currently, local adhoc guidelines and policies drive nursing informatics at practice level. Newly qualified nurses, midwives and practicing nurses utilise the availability of technology at a local level. A level of competency is required in all aspects of communication, ICT skills, utilisation of clinical decision support systems and implementation of evidence based practice. Local training is provided to operate local health information systems (HIS) and monitoring competencies are developed and implemented according to local policies. It is anticipated that future working group deliverables with ACENDIO and EFN initiatives such as the ENS4Care programme and the TIGER Initiative will inform guidance in partnership with the National Nursing and Midwifery Board of Ireland for ongoing development of national guidelines relating to these competencies.

Whilst a number of the TIGER Competencies are applicable to the Irish context, the subcommittee consider some of the competencies listed to be too broad and outside of the scope of requirements for practicing nurses engaged in health care delivery. On initial review of the Canadian Association of School of Nursing Entry to Practice Guidelines, CASN (2014), we consider that this resource “fits” well with the Irish Nursing Informatics Competencies agenda as defined by HISINM. A link to the entry to practice CASN guidelines is available at: http://www.casn.ca/2014/12/nursing-informatics-entry-practice-competencies-registered-nurses-2/.

Level Three

Level Three competencies refer to the advanced informatics skills, focusing on the integration of data, information, knowledge and wisdom, to support patients/clients, nurses and other healthcare professionals in their decision making in all roles and settings (Gugerty & Sensmeier 2010). As previously stated, developing informatics competencies solely for Ireland would not be in the countries best interests as a number of European and International groups are defining competencies at this level. This agreed collective view on what the competencies should be would better serve the needs of Ireland’s healthcare sector where there is movement of nurses across country borders.

At a high level the competencies would include expertise in the following areas (Nagle 2014):

- Change leadership
- Change management
- ICT Life Cycle management
- Data standards, terminologies and system interoperability
Ireland has long recognised the need for nurses and midwives with advanced informatics skills. To that end, a number of third level institutions offer graduate and post graduate courses in informatics education. This is to ensure that students are equipped with the knowledge required to practice efficiently in the healthcare environment, and actively participate in health care transformation. The colleges offering informatics courses are spread out across the country. They include Trinity College Dublin and University College Limerick which runs a Masters in Health Informatics. Other colleges offer modules on ehealth and informatics, including the Doctorate of Nursing Programme in University College, Cork, and an MSc in Chronic Disease Management, DCU commencing in September 2015.

Conclusion

The HISINM group agreed that significant work at European level has been completed on this topic by both ACENDIO and EFN. As a group HISINM considers both of these groups in addition to TIGER can provide Nursing Informatics Competencies which are an excellent fit with national requirements across the three levels identified in this short briefing document. From an Irish perspective, the integration of informatics competencies in nursing and midwifery is at an early stage of development. A significant milestone is the inclusion and future integration of nursing informatics competencies into the nursing and midwifery undergraduate programme. Within Ireland, HITS developed by the Irish Computer Society, in partnership with HISINM, provides a dedicated healthcare competencies programme. It is acknowledged that the range and scope of competencies across healthcare practitioners can differ greatly as demonstrated in AHIEC (2011), Australia. The HISINM subcommittee provided the Irish perspective conceptualised at three levels ranging in broad competencies, but not undertaking the level of detail as referenced in other programmes such as Coach (2012), Canada. HISINM welcomes the opportunity to participate and engage in this excellent initiative.

This response was prepared by HISINM Sub Committee and submitted by Dr. Pamela Hussey 24/04/2015.
References


Written by:
Pamela Hussey, PhD, MEd, MSc, Lecturer in Nursing/Health Informatics, Dublin City University
Email for Dr. Pamela Hussey: pamela.hussey@dcu.ie

Health Informatics Society of Ireland – Nurses & Midwives (HISINM) Sub-Committee

For more information and to see additional international case studies, please visit www.himss.org/tiger.