eHAction

Joint Action supporting the eHealth Network

D6.3 Report on eSkills for Professionals

Information Note

WP 6 Enhancing Continuity of Care

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For Information

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Acronyms

Acronym	Description
CPD	Continuing Professional Development
eHAction	eHealth Action – 3rd Joint Action supporting the eHealth Network
eHDSI	eHealth Digital Service Infrastructure
eHMSEG	eHealth Member States Expert Group
eHN	eHealth Network
EU	European Union
HP	Health Professional
MOOC	Massive Open Online Course
MS	Member State
MS/C	Member States/Countries
MWP	Multi-annual Work Programme

Executive Summary

This document presents a second information note on Task 6.3 “eSkills for Professionals”.

Task 6.3 will produce an evidence-based report with a supportive roadmap to provide a clear understanding of how common standards or frameworks can be exploited as part of a structured methodology to develop the e-skills necessary to support eHealth in MS/C amongst designated professional groupings in healthcare.

The task is following four main ‘actions’. Work undertaken to date includes desk research, the selection of a competence framework and preparatory work for pilots to be conducted in five of the contributing MS/C: Ireland, Hungary, Portugal, Serbia and Cyprus. Activities to generate awareness of and support for the task have begun and will continue throughout the task’s duration.

The purpose of the current pilot phase is to validate the proposed methodology. Health professionals in five categories: doctors, nurses, midwives, dentists and pharmacists, will self-assess their e-skills competence against the eHealth Competence Model developed during the JAseHN joint action. An online tool has been developed for this purpose. An accompanying survey will obtain qualitative data from the same pilot participants. Based on survey results relevant educational options, national and international, will be sourced and communicated back to participants. Some pilot results are expected to be included in the draft version of the report due in November 2019.

Further qualitative data will be obtained from relevant experts and stakeholders later in the year before all information is fed into a final report due for submission in May 2020.

We ask that the eHealth Network endorses the approach contained in this document or raises any issues, so that timely adjustments can be made to the project plan.

1. Background

"In healthcare everyone has two jobs: to do your work and to improve it."

Professor Paul Batalden, Senior Fellow, Institute for Healthcare Improvement, 2007[1]

This document presents a second information note on Task 6.3 "eSkills for Professionals" for the eHN.

The aim of Task 6.3 is to provide a clear understanding of how common standards or frameworks can be exploited as part of a structured methodology to develop the eSkills necessary to support eHealth in MS/C amongst designated professional groupings in healthcare.

The output will be a final report with a supportive roadmap outlining an evidence-based approach to equipping health professionals with the e-skills they require.

1.1. Deliverable/Output

The report (D6.3 Report on eSkills for Professionals) will be produced in draft for the eHN meeting in November 2019 and as a final version for the eHN meeting in May 2020.

The wider audience for the report includes the eHMSEG, health ministries and agencies of MS/C, the European Commission and other eHealth Stakeholders such as academics, clinicians and professional bodies.

In particular, the report can support MS/eHMSEG by developing a process to ensure the availability of the eSkills necessary for the implementation of European eHealth strategies and cross-border healthcare services, identifying current challenges and appropriate actions to build the necessary professional development structures for health professionals.

1.2. Approach

There are four main elements or 'actions' in Task 6.3:

- **Action 1** entails desk research to scope and quantify the skills availability in eHealth and how to leverage JAseHN D7.1.3.
- **Action 2** will deliver an assessment methodology, procured, adapted or created, by which eHealth employees self-assess their skills and competence against their job role, as elaborated in JAseHN D7.1.3.
- **Action 3** will exploit the desk research and pilot/case study results and investigate sources of education and training to address the skills needs. This third action ends with the production of a roadmap or best practice methodology that can be repeated and replicated from MS to MS.

[1] https://www.hse.ie/eng/about/who/qid/improvement-knowledge-and-skillsguide/improvement-guide-completeoct11.pdf

- **Action 4** is ongoing throughout the lifetime of the task and aims to build awareness and support from stakeholders and policy makers.

1.3. Status

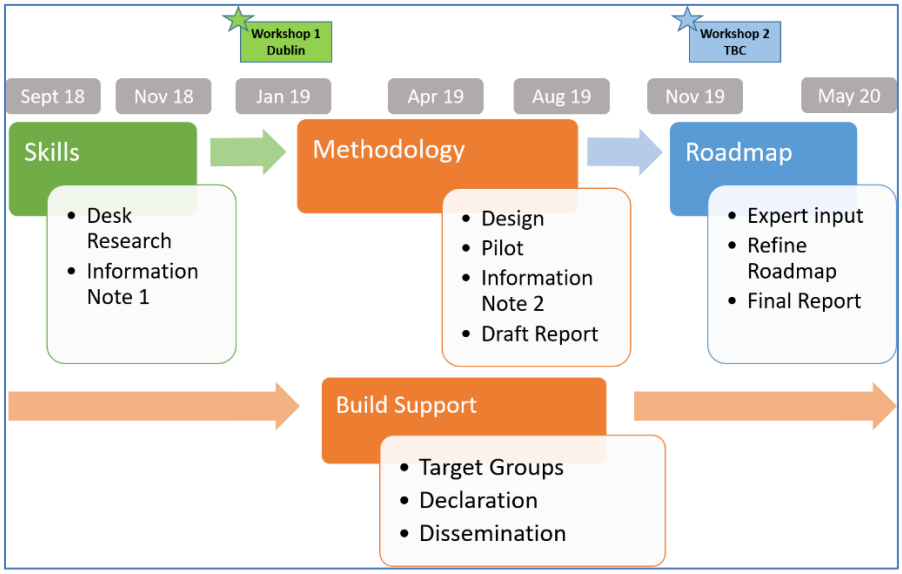

Figure 1: T6.3 Timeline

The task is proceeding to plan (fig. 1). Country-based desk research, review of grey literature such as OECD and WHO reports and existing frameworks such as HITCOMP has been undertaken. Further research on suitable educational offerings will be carried out, pending the results of the pilot phase.

The focus is currently on Action 2: piloting an assessment methodology with groups of targeted health professionals currently in employment. The following sections describe the methodology and the remaining steps in the project.

Work in Action 4 'Support' continues throughout the duration of the task, including activities such as engagement with international experts, dissemination and raising awareness of the task.

2. Methodology

"What gets measured gets done."

Attributed to Rheticus, renaissance mathematician and astronomer.

At its simplest, one might approach professional development planning by posing the following questions:

'The starting point' What's my current level of knowledge, skills and competence?

'The target'	What knowledge, skills and competence do I need for my current role/a desired role?
'The gap to overcome'	In what areas do I need to improve my competence?
'The route to success'	What steps can I take to gain the knowledge, skills and competence to reach my target. What learning pathways are available to me to achieve my and/or the organisation's objectives?

2.1 The Competence Framework

Assessing knowledge, skills and competence in a consistent and transparent manner will be achieved through the use of a structured framework.

The eHealth Competence model proposed in the JAseHN T7.1.3 Recommendations on a Common Framework for Mapping Health Professionals' eHealth Competencies report has been selected as the framework against which to assess the e-skills competence of the target group.

Dimension 1 COMPETENCY AREAS	Dimension 2 COMPETENCY	Dimension 3 PROFICIENCY LEVELS				
		1	2	3	4	5
A. PLAN	A.1. IS & Healthcare Strategy Alignment					
	A.2. Service Level Management					
	A.3. Healthcare ICT Strategy Development					
	A.4. Healthcare ICT Planning					
	A.5. Architecture Design					
	A.6. Application Design					
	A.7. Technology Trend Monitoring					
	A.8. Sustainable Development					
	A.9. Innovating					
B. BUILD	B.1. Application Development					
	B.2. Component Integration					
	B.3. Testing					
	B.4. Solution Deployment					
	B.5. Documentation Production					
	B.6. Systems Engineering					
C. RUN	C.1. User Support					
	C.2. Change Support					
	C.3. ICT Service Delivery					
	C.4. Problem Identification & Management					
D. ENABLE	D.1. Information Security & Privacy Strategy Development					
	D.2. ICT Quality Strategy Development					
	D.3. Education & Training Provision					
	D.4. Purchasing					
	D.5. Sales Proposal Development					
	D.6. Channel Management					
	D.7. Sales Management					
	D.8. Contract Management					
	D.9. Personnel Development					
	D.10. Information & Knowledge Management					
	D.11. Needs Identification					
	D.12. Digital Marketing & Communication					
	D.13. Data Analysis, Modeling & Reporting					
	D.14. Standards & Interoperability Requirements Adoption					
	D.15. Healthcare ICT Infrastructure					
E. MANAGE	E.1. Forecast Development					
	E.2. Healthcare ICT Project Management					
	E.3. Risk & Compliance Management					
	E.4. Communication & Relationship Management					
	E.5. Process Improvement					
	E.6. ICT Quality Management					
	E.7. Healthcare Business Change Management					
	E.8. Information Security & Privacy Management					
	E.9. IS Governance					
	E.10. Financial & Account Management					
	E.11. Healthcare Services & Operations Management					
	E.12. Healthcare ICT Legislation, Policy & Procedures					
F. USE	F.1. Communication & Integrated Healthcare ICT Solutions					
	F.2. Health Decision Support Solutions Usage					
	F.3. Patient Access & Engagement Assistance to ICT Usage					
	F.4. Electronic Records Management					
	F.5. Electronic Health Information Collection & Storage					
	F.6. Electronic Health Information Usage, Exchange & Sharing					

Figure 2: eHealth Competence Model

Health professionals will be able to self-assess against the full competence framework or against one of the seven health role profiles that are predefined within the model. The competence framework indicates the most important components needed for the innovative use of data. Therefore, the pilots may also contribute to validating the method by providing information if upskilling digital competences for being able to use health data in innovative ways, could increase efficiency of health systems, organisation or services.

2.2 The Online Tool

An online tool will be used by health professionals to assess themselves against the competence framework in an exercise that should take 10-20 minutes to complete (fig. 3).

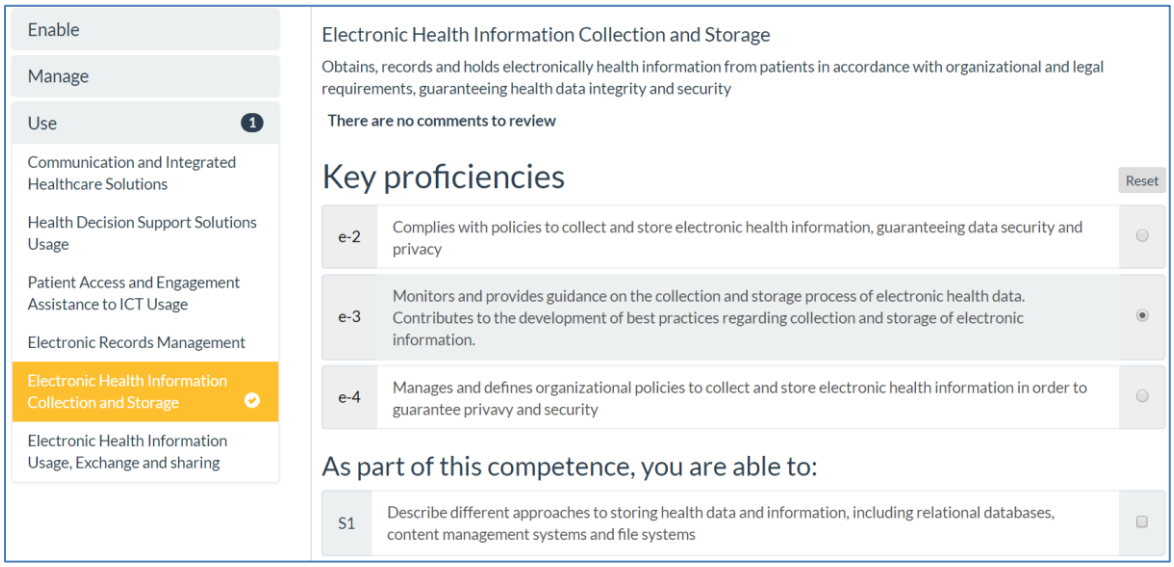

Figure 3: Selecting a competence in the online tool

Each health professional will see a summary report of their selections on completion of the exercise (fig. 4).

Figure 4: Participant profile summary report in the online tool

A gap analysis will be conducted based on selected, versus required, competences per role profile, per health worker category and overall.

Pilot participants will also be asked to provide feedback on the assessment process via a short online survey. Survey questions will address participants' opinions and attitudes towards digital healthcare, their e-skills development needs and willingness to incorporate change regarding digital transformation in health. Results will be analysed against the competence assessment statistics and opinions expressed will be considered in the design of the roadmap.

3. Pilots

Energies could be directed towards the design of a sophisticated methodology but without the involvement of the eventual beneficiaries the proposal risks having little relevance. Therefore the proposed methodology will be validated by conducting pilots in five MS/C: Ireland, Portugal, Hungary, Serbia and Cyprus.

The objectives of the pilot are:

- To assess the level of e-skills competence among targeted sectors of active health professionals. A secondary objective will be to validate the JAseHN eHealth Competence model and its associated health role profiles.
- To obtain opinions of practising health professionals and professionally active health workforce.
- To map groups of health workers or competence sets to appropriate educational offerings.
- To evaluate the process as a methodology for upskilling the digital competence of health workers.

Pilot participants will be drawn from five EU-recognised categories of health professionals[2]: doctors, nurses, midwives, dentists and pharmacists.

Each country conducting a pilot will be responsible for recruiting participants across the identified sectors. They will achieve this by engaging relevant stakeholders and influencers such as ministries of health and education, chambers, professional group representatives, universities, CPD education institutes, professional organisations and unions.

Information on education programmes to improve e-skills for digital health and other continuous professional development opportunities will be identified in each pilot country as well as international programmes and MOOCs. An education pathway per health worker profile or per competence set will be suggested and this information will be communicated back to pilot participants.

[2] https://ec.europa.eu/growth/single-market/services/free-movement-professionals/qualifications-recognition_en

4. Qualitative Expert Input

A series of qualitative semi-structured interviews with key stakeholders and subject matter experts will be conducted in each of the nine countries contributing to this task. The objectives of these engagements are:

- To acquire in-depth insight on the digital literacy, digital maturity and capability, preparedness and willingness for e-skills development from selected stakeholders.
- To get expert feedback on the proposed methodology.

Topics for exploration will include:

- Digitalisation and telemedicine – the current state of the country – simply the opinion of the expert here to help set the scene, rather than a substantial research exercise.
- The impact of digitalisation and the attitude of the health workforce towards digital health.
- The relationship between digitalisation and efficiency of health systems, organisation or services; including an assessment as to whether upskilling the digital competence of health workers could increase efficiency of health systems, organisation or services by digitalisation and enabling staff to identify needs and participate in co-creation and/or use data for new purposes in innovative ways.
- The digital preparedness and maturity of the workforce – expert opinion.
- The skills development needs, emerging competences and perceived skills gaps.
- Information on e-skills/e-health programmes for health workers and continuous professional development opportunities in the country.
- Relevance and effectiveness of the proposed methodology.

Results from the pilot, research and expert input will be combined to formulate the final report including a supportive roadmap.

5. Potential Risks

Risk management remains an ongoing activity throughout the lifetime of the task. Three substantial risks were described in the first information note and are updated here.

Loss of interest

Because the first deliverable draft report is not due until 18 months have elapsed there was concern about sustaining the interest and commitment of contributors to this task. At the first workshop held in January 2019 it was evident that the task group is interested and enthusiastic about the task at hand. The split of pilot activities in Q1 and Q2 of 2019 with expert interviews scheduled for Q3 and Q4 will maintain interest and ensure every contributor takes an active role, no matter how small the allocated person months.

At this critical point in the task, regular fortnightly teleconferences are scheduled to keep everyone focused and involved.

Scope creep

Due to the broad nature of the topic 'eSkills for Professionals', scope creep was deemed to be a highly likely risk. The group have mitigated this by selecting the JAseHN eHealth Competence Model as the competence framework and restricting the target groups for pilots to active health workers in five categories.

The submission of the first information note and this subsequent updated information note will set the eHN's expectations and provide opportunities to provide input on the project's overall direction. As we are in a particularly active phase of the task we ask that the eHN endorses the approach or raises any issues, so that timely adjustments can be made to the project plan.

Lack of participation from target audience

Lack of participation and ultimately buy-in from the target audience is a potential risk to a task of this nature. This is especially relevant when countries are recruiting pilot participants. The benefits for participation in the pilot will be communicated upfront:

- Participants in the pilot will be able to gauge their current skill level against a structured framework which they can keep for their own records.
- Participants can also discover what other skills might be relevant to their role as well as the skills required for other roles of interest.
- Participants will receive information on possible educational/CPD opportunities connected to their role/related to a competence set.
- All of the above can be carried out online, will be anonymous, quick and easy to achieve.

Ultimately, involvement in the pilot should be seen as a non-threatening way for health workers to take a snapshot of their current e-skill competence as it pertains to their role, that may in turn prompt further thought on skills development.

6. References

JAseHN T7.1.3 Recommendations on a Common Framework for Mapping Health Professionals' eHealth Competencies
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