



Funded by the
Erasmus+ Programme
of the European Union

Project Health Information Systems training and certification implementation for higher education – HIS4HE

O1-PART1 Research Guidelines

Prepared by: LIKTA (Latvian Information and Communication Technology Association)

Contributor: Andra Jākobsone, Māra Jākobsone, Zane Pīzele

Last revised: 05.02.2017

Table of contents

1. Introduction	3
2. Research goals and activities.....	4
3. Stakeholder's description	5
4. Collection of existing curricula and programs in the field of health education	6
5. Collection of the data about most used and typical health information systems	7
6. Focus groups interviews	8
7. Annexes.....	9

1. Introduction

According to the Digital Agenda for Europe one of the action areas is the sustainable healthcare and ICT-based support for dignified and independent living. Health Information Systems training and certification implementation for higher education (HIS4HE) project addresses the education and labour market needs of medicine students in higher education schools, users of patient data systems, such as doctors, nurses and healthcare support staff, etc. The project is founded within the Erasmus+ program of the European Commission.

The project aims to use the knowledge standard applicable in Europe (the ECDL Health, specifically), which defines the HIS curriculum content as well as sets the required level of knowledge and helps ensure module studies/training quality. At the same, implemented standard would help to recognize the existing qualifications of HIS professionals in Latvia and Lithuania internationally. The ECDL HIS certification modules and tools in Lithuania and Latvia will be implemented and run by ITI and LIKTA respectively.

The research guidelines set out in below are focused on ensuring:

- stakeholder's description template;
- form to collect the existing curricula and programs in the field of health education;
- form to collect the data about most used and typical health information systems;
- focus groups interviews methodology.

The guidelines will help to coordinate and unify the research efforts of all partners.

2. Research goals and activities

The Project research on HIS usage in health organizations and VET training needs will be carried out in order to use for HIS learning module and certification tools development and localization. Research on health sector needs in HIS training in partner countries will be considered successful if the research manages to be conducted on a representative pattern. Indicators of achievement in this regard will be represented by the percentage of different groups represented in the research, as well as the responsiveness of different stakeholders and their participation in the research. Target groups or main stakeholders will be involved via focus group interviews.

The analysis will be carried out by implementing following activities and steps:

- **Stakeholder's description** – to describe in a standardized way the stakeholders that will be involved in Focus group interviews.
- **Collection of existing curricula and programs in the field of health education** – the output will be used for HIS learning module and certification tools development and localization.
- **Collection of the data about most used and typical health information systems** – the outputs of this phase of the research will provide context for the most used and typical health information systems (HIS).
- **Focus groups interviews** – to gather the opinions from organizations and experts who are stakeholders in the health sector.

The research will be leaded and coordinated by LIKTA; Lithuanian partner Kaunas University of Technology will be involved in following tasks:

- commenting and reviewing the research methodology;
- providing an analysis of existing curricula and programs in the field of health education, as well as most used and typical health information systems;
- identifying the main stakeholders and inviting them to respond to Focus groups interviews.

3. Stakeholder's description

The aim is to describe in a standardized way the stakeholders that will be involved in Focus group interviews. In focus groups interviews is intended to include representatives from hospital administration, IT department of hospital, HIS software providers' expert, health studies provider, health industry employer (doctors and nurses), Ministry of Health, mass media and others.

Project partners will fill the template according to the knowledge from desk research in Lithuania and Latvia. The template includes information about:

- stakeholder name, position and what she/he represents;
- description of organization;
- what HIS stakeholder is using (title and aim of HIS);
- stakeholder interest in the project;
- stakeholders possible contribution;
- person in contact (e-mail, phone).

The template for Stakeholder's description in ENG is available at Annexe 1.

4. Collection of existing curricula and programs in the field of health education

The objective of this phase of research is to identify existing curricula and programs in the field of health education including IT-based systems in patient care. The output will be used for HIS learning module and certification tools development and localization.

The aim is to collect at least 6 existing curricula and programs in the field of health education in each country: Lithuania and Latvia.

Using the template partners will gather data relating to:

- General partner organization information, including name, country and reporter email address.
- Information about organization where exists curricula and programs the field of health education including IT-based systems in patient care:
 - type of institution;
 - levels of health education;
 - learning programme;
 - target group;
 - amount of students;
 - preliminary knowledge or admission requirements;
 - course language;
 - tuition fee;
 - qualification;
 - source of information.

The template for Collection of existing curricula and programs in the field of health education in ENG is available at Annexe 2.

5. Collection of the data about most used and typical health information systems

The outputs of this phase of the research will provide context for the most used and typical health information systems (HIS). The output will be used for HIS learning module and certification tools development and localization.

The aim is to review and analyse at least 10 most used and typical health information systems in each country: Lithuania and Latvia.

Using the template partners will gather data relating to:

- General partner organization information, including name, country and reporter email address.
- Information about existing policies and overview of the national e-health strategy:
 - analysis of existing goals of national e-health policies;
 - national systems defined by e-health strategy.
- Information about fundamental rights, protection of personal data.
- Information about the existing HIS (most used and typical):
 - title of the HIS;
 - aim of the HIS;
 - market share of the HIS;
 - user groups;
 - skills and competences required for work with IS;
 - the e-services covered by the system;
 - main advantages and disadvantages;
 - source of information.

The template for Collection of the data about most used and typical health information systems in ENG is available at Annexe 3.

6. Focus groups interviews

A structured focus group interviews (face-to-face and/or email/ phone) will be conducted to gather some more qualitative, in-depth responses from national stakeholders. In focus groups interviews is intended to include representatives from hospital administration, IT department of hospital, HIS software providers and/or developer, health/medicine studies provider, health industry employee (doctors and nurses), Ministry or public agencies of Health, mass media and others.

The aim is to involve at least 10 organizations and experts who are stakeholders in the health sector in each country: Lithuania and Latvia.

To identify the relevant participants for the Focus group discussions, a template “Stakeholders description“ is developed, presented in Annex 1. The template includes short description of stakeholder’s competence and role in the organization and health sector as well as possible contribution to the HIS4HE project research and further activities.

This Focus group interviews methodology in ENG is available at Annexe 4 and Focus groups interviews template form at Annexe 5.

7. Annexes

Stakeholder's description template

Annex 1

Stakeholder name	Click here to enter text.
Position	Click here to enter text.
Represent	<input type="checkbox"/> Hospital administration <input type="checkbox"/> IT department of hospital <input type="checkbox"/> HIS software provider and/or developer <input type="checkbox"/> Health/medicine studies provider <input type="checkbox"/> Health industry employee (doctors and nurses) <input type="checkbox"/> Ministry or public agencies of Health <input type="checkbox"/> Mass media <input type="checkbox"/> Other:_____
Organization	Click here to enter text.
Description of organization (up to 200 characters)	Click here to enter text.
Organizations web page	Click here to enter text.
Stakeholders possible contribution to project	<ul style="list-style-type: none"> • Contribution to identify major HIS security threats and vulnerabilities that organizations face • Contribution to identify beneficiary needs in HIS training • Contribution to HIS learning module and certification tools development and localization
Person in contact	Click here to enter text.
Contact information (e-mail, phone number)	Click here to enter text.

Data collection template for existing curricula and training programs in the field of health education

Annex 2

Partner organization:		
Country:		
Reporter (+ email address)		
Organization name:		
Home page:		
Type of institution:	<input type="checkbox"/> Higher educational institution <input type="checkbox"/> Vocational educational institution <input type="checkbox"/> Center of Professional Education, Further Education and Examination <input type="checkbox"/> Educational center for adults (municipal institution) <input type="checkbox"/> Private educational institution <input type="checkbox"/> Informal educational institution <input type="checkbox"/> NGO <input type="checkbox"/> Other:	
Levels of health education:	<input type="checkbox"/> Master <input type="checkbox"/> Bachelor <input type="checkbox"/> VET <input type="checkbox"/> Other:	
Learning programme (including IT-based systems in patient care):	1)	Max 100 characters
	2)	Max 100 characters
Target group:	<input type="checkbox"/> Doctors <input type="checkbox"/> Nurses <input type="checkbox"/> Helthcare support staff <input type="checkbox"/> Other:	
Amount of students:		
Preliminary knowledge or admission requirements:	ICT	
	Other	
	<input type="checkbox"/> None	
Course languages:		
Course duration (hours/monts/years):		
Tuition fee (EUR):	<input type="checkbox"/> Free	
Qualification (degrees, diplomas, certificates):		
<input type="checkbox"/> Academic qualification		
<input type="checkbox"/> Vocational qualification		
<input type="checkbox"/> Informal qualification		
Source of information:		
Detailed description and justification:	Max 200 characters	
Comments, any other information:		

Data collection template about most used and typical health information systems

Annex 3

Partner organization:		
Country:		
Reporter (+ email address)		
Existing policies and overview of the national e-health strategy:	Analysis of existing goals of national e-health policies	Max 1000 characters
	National systems defined by e-health strategy	Max 1000 characters
Data protection:	Fundamental rights, protection of personal data	Max 800 characters
Description of the existing health information systems (most used and typical):		
Title of the HIS:		
Aim of the HIS:		
Market share of the HIS:		
User groups:	<input type="checkbox"/> Doctors <input type="checkbox"/> Nurses <input type="checkbox"/> Helthcare support staff <input type="checkbox"/> Other:	
Skills and competences required for work with IS:	ICT	
	Other	
	<input type="checkbox"/> None	
Source of information:		
The e-services covered by the system:	Max 500 characters	
The main advantages and disatvantages (add your opinion or references from the media):	Max 500 characters	
Comments, any other information:		

Focus groups interviews methodology

Annex 4

Focus groups interviews are the 3rd stage of HIS4HE project's research activities:

1. Collection of existing curricula and programs in the field of health education.
2. Collection of the data about most used and typical health information systems.
3. **Focus groups interviews to gather the opinions from organizations and experts who are stakeholders in the health sector.**

Focus group interviews should be completed by **15.03.2017**

Focus groups interview objectives (to be provided to respondent):

The aim of this interview is to gather the opinions from organizations and experts who are stakeholders in the health sector. In focus groups interviews is intended to include representatives from hospital administration, IT department of hospital, HIS software providers and/or developer, health/medicine studies provider, health industry employee (doctors and nurses), Ministry or public agencies of Health, mass media and others.

This interview will be scheduled in 2 phases:

The Phase 1 includes individual interviews with target experts (min 5 experts per country). This interview can be administered as either a face-to-face interview or a combined e-mail/ phone interview. The inputs will help to design HIS learning module and certification tools.

The Phase 2 will be scheduled as a focus group discussion workshop when experts (5 – 10 experts per country) discuss about HIS education needs and the Syllabus and training module developed by Project. Focus group experts are expected to provide their comments and recommendations. After receiving the comments from experts the HIS learning module and certification tools will be finalized and localized into partner country

Focus groups interviews template form

Annex 5

Focus group interview

The aim of this interview is to gather the opinions from organizations and experts who are stakeholders in the health sector. The interview should take approximately 20 minutes.

General information

1.	Name of the expert	Click here to enter text.
2.	Position	Click here to enter text.
3.	Represent	<input type="checkbox"/> Hospital administration <input type="checkbox"/> IT department of hospital <input type="checkbox"/> HIS software provider and/or developer <input type="checkbox"/> HIS software training provider <input type="checkbox"/> Health/medicine studies provider <input type="checkbox"/> Health industry employee (doctors and nurses) <input type="checkbox"/> Ministry or public agencies of Health <input type="checkbox"/> Mass media <input type="checkbox"/> Other: _____
4.	Organisation	Click here to enter text.
5.	Contacts (e-mail, phone number)	Click here to enter text.

IT based systems in patient care, major HIS security threats and vulnerabilities faced by organizations in the region

6.	Please name the top known IT based systems in health care? Click here to enter text.
7.	What are the main user groups of these systems? (doctors, nurses, healthcare support staff and/or others) Click here to enter text.

8.	<p>What HIS or health care related e-services are you using? Please name the HIS or e-service.</p> <p>Click here to enter text.</p>
9.	<p>What skills are important to use HIS or e-services mentioned above? Are these skills specific to different users' groups?</p> <p>Click here to enter text.</p>
10.	<p>Can we assume that specialists in health sector have relevant skills for using HIS?</p> <p><input type="checkbox"/> No <input type="checkbox"/> Rather not <input type="checkbox"/> Hard to say <input type="checkbox"/> Rather yes <input type="checkbox"/> Yes</p>
11.	<p>How important is it to take timely action for providing the ICT training of specialists in the health sector? (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>
12.	<p>What would you see as the major HIS security threats and vulnerabilities for organizations in your country?</p> <p>Click here to enter text.</p>
13.	<p>Do you believe the HIS security issues are clear enough for users of HIS?</p> <p><input type="checkbox"/> No <input type="checkbox"/> Rather not <input type="checkbox"/> Hard to say <input type="checkbox"/> Rather yes <input type="checkbox"/> Yes</p>

Please evaluate relevance and importance to design HIS learning module and certification tools the following knowledge areas

14.	<p>HIS Types</p> <p>Identify or know about some of the functions or tools of HIS such as: booking appointments and scheduling, transmission of outputs / results, updating of patient records, giving prescriptions, home healthcare via the Internet (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p> <p>Understand different kinds of HIS such as: office /department based, local facility based, regionally based, nationally, or internationally based (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>
-----	---

	<p>Understand the implication reliability, security, authorization to view data from your own authorized source rather than an external source (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p> <p>Understand different types of HIS such as: legacy / computer-based / distributed records (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>
--	--

15.	<p>Confidentiality</p> <p>Understand that there are certain confidentiality risks associated with HIS such as patient specific printed materials, e-mail risks (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p> <p>Appreciate some of the national requirements in terms of patient control of data: opt-in, opt out (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>
-----	--

16.	<p>Access Control</p> <p>Understand why it is important to choose an appropriate password and other mechanisms of authentication and the importance of changing it regularly (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>
-----	---

17.	<p>Navigation</p> <p>Make the follow-up appointments / treatment schedules for the patient (1 – not important, 5 – very important)</p> <p><input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5</p>
-----	---

18.	What do you see as main expectations of employers for qualification at satisfactory level in health sector? Click here to enter text.
-----	--

19.	Is it easy for employers to find HIS specialists? Click here to enter text.
-----	--

20.	Finally, can we directly attribute quotes to you in our research output, or do you wish to remain anonymous?
	Can attribute quotes: <input type="checkbox"/>
	Wish to remain anonymous: <input type="checkbox"/>

Thanks a lot for your time!