Welcome Message

Ramón Sanmartín Sola
Policy and Project Officer at the European Commission
DG Connect – eHealth, Well-being and Ageing
Project Officer for IC-Health
Introduction about the IC-Health Project

Michelle Perello
Consulta Europa, Spain

Lilisbeth Perestelo Pérez
Servicio Conario de la Salud, Spain
Why IC-Health?

- European citizens often do not have the necessary skills to find, understand and appraise online health information and apply their knowledge to make health decisions.

- According to the eHealth Action Plan 2012-2020 (COM (2012) 736 final), one of the main barriers to deployment of eHealth is:

  lack of awareness of, and confidence in eHealth solutions among patients, citizens and healthcare professionals.

- Digitally health literate citizens can play a more active role in their health self-management, resulting in improved prevention, adherence to a healthier lifestyle and better health outcomes.
Digital Health Literacy

- Digital health literacy refers to the ability to
  - Seek
  - Find
  - Understand and
  - Appraise health-related information from electronic resources and
  - Apply the knowledge gained to making appropriate health decisions in order to address or solve a health problem

IC-Health intends to improve digital health literacy of the population cohorts that will be involved in its activities and to reduce health inequalities in the EU.

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
Project objectives

• IC-Health aims at testing a new model of digital health literacy intervention development and application based on co-creation of Massive Open Online Courses to enhance EU citizens’ skills on how to search, understand and appraise online health information.

• IC-Health specific objectives are to:
  ✓ Establish Communities of Practice on digital health literacy
  ✓ Shape, facilitate and coordinate and organize the co-creation of overall 35 MOOCs – each one addressing one specific population cohort and being available in eight EU languages
  ✓ Test the MOOCs and assess their impact on their health literacy, digital health literacy and on their health management
  ✓ Advance the understanding of digital health literacy and of how it can be used to improve health outcomes and increase awareness among EU citizens of the opportunities of eHealth tools
The IC-Health consortium consists of **14 partners** from seven different countries around Europe (Belgium, Denmark, Estonia, Italy, Spain, United Kingdom, Sweden).

Specifically, the consortium counts 7 universities and research centres, 1 public authority, 2 SMEs, 1 hospital, 1 NGO and 2 European networks.
Target groups

- The project targeted the following population cohorts:
  - children (aged from 10 to 13 years)
  - adolescents (aged from 14 to 18 years)
  - pregnant and lactating women (PLW)
  - elderly (aged over 60)
  - citizens affected or susceptible to be affected by diabetes (type 1 and 2)

- These population cohorts have specific needs when it comes to digital health literacy as they are regularly receiving complex and sometimes conflicting information from different sources.

- The project assesses the impact of an improved digital health literacy on groups with very diverse features in terms of social, cultural background, level of digital literacy and health literacy.
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474.

Target countries
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Analysis of population cohorts and scenarios of DHL

- Create a **knowledge base on digital health literacy** in Europe addressing enabling/hindering factors, drivers/barriers, trends and uses;
  - ✓ D1.1 Report on Key factors, drivers, barriers and trends on digital health literacy

- **Draw a profile of the target groups** in each country of intervention in terms of 1) normative/felt/expressed needs 2) their level of digital literacy 3) health literacy and 4) digital health literacy;

- **Identify topics to be proposed in each target group** for the co-creation exercise;
  - ✓ D1.2 Survey on digital health literacy
  - ✓ D1.3 Report on profile target groups

- Develop an **engagement strategy** to approach target groups, engage them in the co-creation of MOOC and in their use afterwards;
  - ✓ D1.4 Methodology for target groups’ engagement

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
Co-creation methodology and tools

- Design a methodology **to guide and implement the co-creation of the MOOCs** with the target groups, experts and other relevant stakeholders;
  - ✓ D2.1 Methodology for co-creation of MOOCs

- Train coordinators of the Communities of Practices on co-creation;
  - ✓ MOOC on co-creation: [https://ic-health-mooc-on-co-creation.appspot.com](https://ic-health-mooc-on-co-creation.appspot.com)
  - ✓ D2.3 Report on training to national coordinators

- **Recruit representatives of each target group** in each country and establish Communities of Practice;

- Build the **online community platform**.
  - • CoP community platform: [http://ichealthplatform.eu/](http://ichealthplatform.eu/)

- Under this task **36 Communities of Practice** were established and the co-creation processes launched to results in the creation of 36 MOOCs.

---

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
Co-creation and use of the MOOCs

- The **MOOCs** were *co-created* through face-to-face activities and online interaction;
- The MOOCs were then **tested and fine-tuned** by representatives of the target groups;
  - MOOCs on digital health literacy: https://ichealth-moocs.eu
  - D3.2 Reports on co-creation

- **Monitor and assess impact** of the co-creation and of the MOOCs.
  - D3.3 Report on evaluation and impact assessment
Exploitation of results

- **Identify a viable business model** supporting the exploitation of MOOCs;
  ✓ D4.1 Report on business models

- **Guide the exploitation of the MOOCs** at a wider scale and beyond the duration of the project;
  ✓ D4.2 Methodology for stakeholders engagement

- **Ensure the sustainability of the MOOCs developed within the IC-Health.**
  ✓ D4.3 Sustainability strategy
Dissemination and communication (1)

➢ Project website
Public deliverables available!
https://ichealth.eu/

➢ Project social media
Twitter: @ICHealthEU - #ICHealthEU
FB: ICHealthEU
LinkedIn: ICHealthEU

➢ Project newsletter
Last release on 5th October 2018

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Dissemination and communication (2)

Promotional videos
https://ichealth.eu/product/ic-health-promotional-videos/

IC-Health three promotional videos support the dissemination and communication effort of the project. The videos present the benefits of digital health literacy, give a short insight into the MOOCs, and showcase some short testimonials from each target group involved in the project.

- Video 01: IC-Health Project
- Video 02: IC-Health co-creation activities
- Video 03: IC-Health MOOCs

SUBTITLES AVAILABLE IN EIGHT DIFFERENT LANGUAGES!

We recently translated the promotional videos, you can watch them here with subtitles in: Italian, Dutch, Germany, Danish, Swedish, French and Spanish.

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
Dissemination and communication

➢ Event participation
- eHealth Week 2017
- National Conference on Health Economy
- 8th Annual Forum of the EU Strategy for the Baltic Sea
- 9th International Shared Decision-Making conference
- eHealth Innovation days
- 43rd AC of the International Society for Pediatric and Adolescent Diabetes
- eHealth Forum 2017
- 10th European Public Health Conference
- 4th European Health Literacy Conference (next year)
- UHPE World Conference on Health Promotion (next year)
Thank you for your attention!
Health Literacy and Digital Health Literacy today: challenges, gaps, and barriers

Stephan van den Broucke
Université Catholique de Louvain, Belgium

Pietro Del Giudice
Università degli Studi di Udine, Italy

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Health Literacy: A brief overview of the concept

Stephan Van den Broucke

IC-Health Final Conference
“Improving Digital Health Literacy in Europe”
Brussels, 18 October 2018

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Making informed health decisions

• not so much a matter of *finding* information about health
• rather a question of *finding out*
  ▪ where to look for information
  ▪ whether the information sources that are accessed give adequate and useful information
  ▪ whether the health information sources are reliable
Health Literacy: Not a new concept ...

- The concept of « literacy »
  - To be literate = being “knowledgeable or educated in a particular field or fields”
  - Increased attention since the mid 20th century
    - The ability to identify, understand, interpret, create, communicate, compute and use printed and written materials associated with varying contexts (UNESCO)
    - Enlarged to a range of competences considered important to function in the 21st century
- Applied to the health sector since the 1970s
An expanding concept ...

- Expanding scope and meaning
- Expanding scientific research
- Growing political interest
Expanding scope and meaning of health literacy

• From medical to public health literacy
  ▪ Initial emphasis on individual competencies in the context of health care («medical health literacy»)
  ▪ Since the last decade enlarged to a broad set of competences that are also relevant for disease prevention and health promotion («public health literacy»)

• From purely functional to interactive and critical health literacy
  ▪ **Functional** HL: the ability to handle words and numbers in a medical context
  ▪ **Interactive** and **critical** HL: information seeking, decision making, problem solving, critical thinking, communication, social, personal, and cognitive skills that are necessary to function in the health system
A multidimensional concept

« A person’s knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course »


This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
A Conceptual model of Health Literacy


This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Expanding research on health literacy

• First research articles on health literacy published in the late 1970s
• More than 7500 publications on health literacy listed in Pubmed today
  ▪ 70% published in the last five years
  ▪ > 1000 new publications each year
  ▪ More than 3573 have “health literacy” as a major MeSH term (introduced in 2010)
• + 8000 publications in Scopus
• 135 0600 records on Google Scholar
  9000 in 2017 alone
Growing recognition of the importance of Health Literacy

- **UN**
  
  Considers HL important for the achievement of targets related to the Sustainable Development Goals

- **WHO**
  
  - Improving health literacy is one of the priorities in the strategy document for the European Region « Health 2020 »
  
  - HL was one of the three priorities of the 9GCHP (Shanghai, 2016)

- **EU**

  HL is an item for attention in the EU Health Programme « Health for Growth » (2014-2020)

- **National level**

  Several countries around the globe recognize the importance of health literacy and put policies in place to address low HL

  Rowlands et al. (2018) What is the evidence on existing policies and linked activities and their effectiveness for improving health literacy at national, regional and organizational levels in the WHO European Region? Copenhagen: WHO Europe,
The Importance of Health Literacy

- A determinant of the quality of health care
- A determinant of health outcomes and health care costs
- An outcome of health education (as a strategy of health promotion)


- A possible mediator of the relationship between SES / education and health outcomes
Measuring Health Literacy

• A large range of measures available, with important differences in terms of objectives and target groups
  ▪ 133 instruments listed in the Health Literacy Tool Shed
  ▪ HL Screening in a clinical context: Rapid Estimate of Adult Literacy in Medicine (REALM), Test of Functional Health Literacy (TOFHLA), Newest Vital Sign (NVS)
  ▪ Population survey: National Assessment of Adult Literacy survey (NAAL), Health Literacy Questionnaire (HLQ)

• European Health Literacy Survey (HLS-EU)
  ▪ Concept validated tool of 47 self-report items
  ▪ 12 sub-scales addressing difficulties in accessing, understanding, appraising and applying information to make decisions in health care, disease prevention, and health promotion
  ▪ Used to collect data on 8000 respondents in 8 EU countries
  ▪ Used on a total of 10,024 respondents in 6 Asian countries (Indonesia, Kazakhstan, Malaysia, Myanmar, Taiwan, Vietnam)
  ▪ Short forms of 16 and 6 items increasingly used (Belgium, France, Portugal, Italy, Sweden, ...)

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
Addressing low health literacy

- Measure personal HL competences
- Measure the fit of HL competences to demands
- Measure situational HL demands and support

Skills and abilities

Health literacy

Demands and complexity

- Improve individual and population HL through education and training
- Compensate for low HL by improving communication and facilitating understanding
- Improve organizational HL by reducing situational demands and offering institutional support

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
New developments in health literacy

• A shift from measuring health literacy to addressing low health literacy (education + workforce development)
• A shift from individual health literacy to health literate organizations and systems
• A shift from isolated small scale efforts to partnerships
• A shift from local, small scale efforts to global policies
• A growing attention for the relationship with other literacies
  ▪ digital literacy
  ▪ media literacy
Digital health literacy

• Refers to the “meaning-making” of health information mediated by new technologies web resources, smartphone, Wiki, MOOCS, ...

• Increasing reliance on ITC for health information offers both opportunities and challenges
  ▪ opportunities: easy access to information in real time
  ▪ challenge: patients with lower health literacy are less likely to use digital health tools than those with high health literacy

• Addressing digital health literacy involves:
  ▪ Building digital skills and knowledge about health information and resources
  ▪ Designing health IT tools that are navigable for less health literate patients

  *ease-of-use versus usefulness*: more health-literate users are able to navigate digital health tools yet appreciate simplicity
“Literacy isn't just about reading, writing, and comprehension. It's about culture, professionalism, and social outlook”
Digital Health Literacy today: challenges, gaps and barriers

Pietro Del Giudice

IC-Health Final Conference
“Improving Digital Health Literacy in Europe”
Brussels, 18 October 2018
Digital Health Literacy (aka eHealth Literacy)

- First defined by Norman and Skinner in 2006 as:

  “the ability to seek, find, understand and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem”
Digital Health Literacy (aka eHealth Literacy)

...“the ability to

1- seek, find,
2- understand,
3- appraise health information from electronic sources and
4- apply the knowledge gained to addressing or solving a health problem”
6 “core literacies”:

- Traditional literacy
- Information literacy
- Media literacy
- Science literacy
- Computer literacy
- Health literacy

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Paige et al conducted a systematic review of existing definitions (10), rating scales (6), models (4), and peer-reviewed application of models (16).

New proposed definition:

...“The ability to locate, understand, exchange, and evaluate health information from online environments in the presence of dynamic contextual factors and to apply the knowledge gained across ecological levels for the purposes of maintaining or improving health.”
Transactional Model of eHealth Literacy (TMeHL) Paige et al, 2018

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Transactional Model of eHealth Literacy (TMeHL) Paige et al, 2018

There is no “end goal” of eHealth literacy!

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No. 727474
Analysis of current scenario of digital health literacy for target population cohorts

First phase of the project:

1. Review the literature on digital health literacy in Europe addressing drivers/barriers, trends and uses

2. Draw a profile of the target groups for each country in terms of their level of digital literacy, health literacy and digital health literacy

3. Develop an engagement strategy to approach target groups, engage them in the co-creation of the MOOCs

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Literature review - Challenges

• DHL definitions and models are still not well established
  ▪ problematic rating scales
  ▪ difficulties in evaluating interventions
  ▪ difficulties in identifying good indicators

• New technologies are shaping the eHealth environment
  ▪ different technologies can provide different health “benefit”
  ▪ difficulties in keeping pace with innovations

• “Health” changes over the life course
  ▪ difficulties in identifying different user’s needs
  ▪ difficulties to address unrecognized needs
eHealth Literacy - rating scales

- Limited availability of validated rating scales
- Subjective, self-assessed DHL measures, not assessing objective skills
- Very short scales, or too long

→ eHealth literacy scale - eHEALS
   (8 items, validated in different languages, easy to administer)
Gaps and barriers to DHL

- **Personal determinants**
  - income and education
  - ethnicity
  - gender
  - age
  - marital status
  - health status

- **Relational determinants**
  - social influences and norms
  - linguistic access to the information

- **Technological determinants**
  - motivation to use eHealth technology
  - access to technological device
  - frequency of using eHealth
  - preference to use technological solutions
Surveying IC-Health cohorts

- A survey on DL/HL/DHL was carried out in 8 countries and across the IC-Health target cohorts:
  - 1,704 questionnaires collected, with 780 respondents <18 year-old (children & adolescents) and 924 adult (PLW, elderly, patients with diabetes)
  - 8 Focus Groups with representatives of all target cohorts, carried out in Italy and Spain.

- 4-parts questionnaire
  - Part 1: Computer and Internet use (11 items)
  - Part 2: Health Literacy (16 items)
  - Part 3: Health and the Internet (21)
  - Part 4: About you (8 items)
Adults’ cohorts key findings

• Limitation of the survey:
  ▪ Sample not representative (size, internal variability).

• DL: high frequency of internet use across all cohorts (lower among elderly). However, few are familiar with MOOC. A correlation between DL skills and age was observed.

• HL: PLW is the adult cohort with the best HL scores. Northern countries on average score better than Southern countries, though Germany has relatively poor levels of HL, while Spanish patients with diabetes score high.

• DHL: most adult use internet to get health information, and PLW are the most frequent users. Information on diseases/drugs are the most looked for. Online health information commonly complements information provided by doctors. Elderly have the lowest DHL skills, PLW the highest. At country level, Dutch and Danish cohorts perform very good, Italian and Belgian cohorts poorly.
Minors’ cohorts key findings

- Limitations of the survey:
  - HL scale not validate / appropriate.
  - Sample not representative (size, internal variability).

- DL: most minors use internet, mostly from smartphones. Children in Southern countries have more (time) limits in use than northern peers. Barely none is familiar with MOOC. DL skills are higher in adolescents than in children. Danish minors are the most skilled, Italian and German the worst.

- HL: Few minors have sufficient HL (adolescents score better than children).

- DHL: though not as much as adults, also minors (especially adolescents) use internet for health information. Wellness, body functions and specific diseases are the most researched topics. Girls look for online health information more than boys. Motivations include need for more information, checking on peers’ experience and others.
Drawing profiles for target cohorts for each Country

Aspects included:

- Main normative needs
- Felt and expressed needs
- Level of Digital Literacy
- Level of Health Literacy
- Level of Digital Health Literacy

D1.3 – Report on profile of target groups
May 2017
Strategies for MOOCs development - summary

- Ubiquitous learning
  - let the user’s find their own pace
  - make access easier from different sources (desktop, mobile)
- Tailoring MOOCs to user’s needs
  - know your users!
  - adapt content to user’s capabilities
  - adapt content to user’s health-related interests
- Keep the user engaged
  - apply edutainment and gamification strategies
  - provide the content using different media
  - provide feedback to the user
  - if necessary, provide guidance on how to navigate the MOOCs

eHealth literacy interventions should ALWAYS be targeted at improving patient-provider communication
The IC-Health approach

1. achieving IT literacy
2. achieving health literacy
3. appraising online health information
4. applying online health information for health management in everyday life

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
The IC-Health approach

1. achieving IT literacy → how to SEARCH for, and find, relevant health information
2. achieving health literacy → how to UNDERSTAND and translate the information
3. appraising online health information → how to APPRAISE and verify the information
4. applying online health information for health management in everyday life → how to USE and apply the information to improve one’s health

18 October 2018
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Evaluation

Which results in time?

Information seeking frequency

patient-provider communication

proactive health behaviours

health-related quality of life

Digital Health Literacy

Time
Thank you for your attention!
The IC-Health Co-Creation Process

Michelle Perello
Consulta Europa, Spain

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
IC-Health co-creation activities

Project final conference

18th October 2018

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
IC-Health co-creation: the theory
The origins of co-creation

STARTED IN THE BUSINESS SECTOR

• User-centred design: co-creation is a form of collaborative creativity that was initiated by firms first to enable innovation with, rather than simply for their customers

• Participatory design has been going on in the Northern countries (in particular Norway, Sweden and Denmark), where the Collective Resource Approach was established to increase the value of industrial production by engaging workers in the development of new systems for the workplace

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
The evolution of co-creation

FROM BUSINESS TO PUBLIC-PRIVATE COOPERATION: LIVING LABS

• Living Labs: a real-life test and experimentation environment where users and producers co-create innovation in a trusted open eco-system that enables innovation.

• First Living Labs in early 2000s (MIT Lab, Philips HomeLab)

Common elements in Living Labs (Source: www.openlivinglabs.eu)
Co-creation in the public sector

- **New public management** attempts to restructure organisation forms and processes, with heightened emphasis on user-orientation as a source for continuous improvement and adaptation to new challenges.

- **Networked forms of governance or citizen-centred governance** (Newman, 2001) is based on emerging patterns of governance and service delivery (Hartley, 2005). The public is considered co-producers of service and innovation and can help the government in solving problems faster and accurately by harnessing a collaborative network of citizen experts (Albury, 2005; Arganoff, 2007). The benefits from making this change include improved quality of service, reduced investment of public resources, and increased ability to mobilise rare public resources.
Open innovation in the public and private sector

Both public and private sector aims at incorporating external knowledge sources in the innovation process

PRIVATE SECTOR
- Developing a physical artefact (Bommert, 2010)
- Achieve competitive advantage and add value in terms of higher revenues

PUBLIC SECTOR
- Improve service performance or design new services
- Add value in terms of public benefit

IC-HEALTH HAS A BLENDED PURPOSE: Develop a digital artefact (MOOC) to generate public benefit (more digitally health literate citizens)

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Advantages of co-creation approaches

- Transparent decision-making process

- Quality and durability of results:

  the process is longer, but long-lasting, because if individuals participate in the definition of the actions and the changes, they will be more willing to implement those later on.
Stakeholder participation in policy making

• Stakeholders are individuals or groups who affect or are affected by a policy

• Stakeholder participation is a process where individuals, groups and organizations are invited to choose to take an active role in making decisions that affect them (Wandersman, 1981; Wilcox, 2003; Rowe et al, 2004)

• Benefits of stakeholders participation in policy decision-making:
  ✓ Greater quality and durability of decisions
  ✓ More easily reached social consensus
  ✓ Enhanced interactions between researchers, policy makers and civil society
  ✓ Mutual understanding among those actors needed to identify issues and problems and develop evidence-based solutions to those
Communities of Practices

- CoP are groups of people who share a concern or a passion for something they do and deepen their knowledge and expertise in this area by interaction and on a on-going basis (Wenger, 1998; Wenger et al., 2002)

- Usually are a spontaneous, natural phenomenon characterised by 3 features:
  - Domain: shared domain of interest and a commitment to the domain
  - Community: engagement to joint activities and discussion
  - Practice: members of CoP are practitioners

- Different from stakeholders workshops (continuity) or social network (learning aim)
Stakeholder participation in IC-Health CoPs

- Stakeholders participating in IC-Health: citizens (representatives of the 5 project population cohorts), researchers, policy making, companies, NGOs

- The aims are to:
  - Inform stakeholders on the benefits of online health related information if associated with high digital health literacy level
  - Consult stakeholders on how to increase digital health literacy in Europe
  - Engage and make them collaborate to address the problem and propose solutions
  - Build citizens capacity to search, assess and apply digital health information
Key elements for successful stakeholder engagement (2)

• Ensuring engagement depends firstly on the selection of members of CoPs.

• Members of CoPs should be experienced citizens preferably with the course subject matter, along with enough digital literacy to contribute to the course content.

• Additionally they are proactive, open, creative, reflective and sociable, and what they look for is living up their self-fulfillment needs.

• Individual motivation is the strongest element supporting engagement.
Key elements for successful stakeholder engagement (2)

• Build relationships of trust and confidence: frequent interactions reinforce trust and confidence

• Customised activities

• Non-linear process

• Tailored communication and knowledge transfer techniques

• Avoid language barriers

• Online tools

• Process flexibility
IC-Health co-creation: the practice
Partners involved

8 countries were targeted: Belgium, Denmark, Germany, Italy, Netherlands, Spain, Sweden and United Kingdom. The partners involved in this process were:

- BE: EHMA, UCL
- DK: SCANBALT
- DE: SCANBALT
- IT: CCM, MEYER, UNIUD (+CNR)
- NL: SCANBALT
- ES: ULL, GOBCAN
- SE: FUNKA
- UK: ULSTER
## No of CoP members involved

Population cohorts involved:

- Children (10-13 years old)
- Adolescents (14-18 years old)
- Pregnant and lactating women (PLW)
- Seniors (60+ years old)
- Type 1 and 2 diabetes

<table>
<thead>
<tr>
<th>Target group / country</th>
<th>Spain</th>
<th>Italy</th>
<th>Belgium</th>
<th>UK</th>
<th>Sweden</th>
<th>Denmark / Germany / Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>56</td>
<td>96</td>
<td>17</td>
<td>-</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>Adolescents</td>
<td>31</td>
<td>44</td>
<td>17</td>
<td>-</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>PLW</td>
<td>51</td>
<td>16</td>
<td>5</td>
<td>-</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Elderly</td>
<td>43</td>
<td>18</td>
<td>12</td>
<td>37</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>Patients with diabetes type 1</td>
<td>23</td>
<td>39</td>
<td>9</td>
<td>-</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Patients with diabetes type 2</td>
<td>20</td>
<td>-</td>
<td>13</td>
<td>-</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>224</strong></td>
<td><strong>213</strong></td>
<td><strong>73</strong></td>
<td><strong>37</strong></td>
<td><strong>101</strong></td>
<td><strong>88</strong></td>
</tr>
<tr>
<td><strong>OVERALL TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>736</strong></td>
</tr>
</tbody>
</table>
National coordinators

• For each CoP a coordinator should be identified. Functions of the coordinator:
  a. Logistics organization of CoPs (meetings, invitation, report)
  b. Collection of agreements and informed consent forms
  c. Knowledge brokering (a facilitator can also be recruited to support the coordinator and deal only with knowledge brokerage)

• 25 national coordinators were appointed at project level to coordinate the overall co-creation activities
CoP coordinators’ skills

• Personal attributes: inquisitive, enthusiastic, flexible, inspirational, imaginative, highly credible and keenly interested in learning. They should be skilled analysts, able to see the “big picture” and be able to readily identify links between ideas and pieces of information.

• Critical appraisal skills: able to appraise evidence to evaluate its quality, importance and applicability to a particular context. In addition to traditional critical appraisal skills, they should have knowledge of the sector, the broader environment, its key players and controversies – and use this to gauge the applicability and adaptability of new evidence to users contexts.

• Communication skills: strong oral and written communication skills. They should use active listening skills to gain insight into the interests, issues and innovations of their network members.

• Mediation skills: able to assemble teams and foster collaboration amongst individuals and groups who would not normally work together. They reconcile misunderstandings, facilitate the identification of shared goals, and negotiate mutually beneficial roles for all group members.
Key elements for success of national coordinators’ work

• Understand individual motivation of each member of CoP
• Understand “personalities” of CoP members
• During the meetings build trust, mutual understanding of shared goals (improving individual and collective digital health literacy) and concrete results (development of the MOOC) of the CoP and of concrete activities/steps that will follow
• Trigger the discussion and bring it back to the shared goals and expected concrete results
• Wrap-up at the end of each session to ensure all understand and agree on decisions taken
• Summarize in a report results of the session, opinions, difficulties, critical moments, what has worked and what not, all type of potentially useful information
CoP recruitment and establishment

- Identification of individuals complying with cohort’s features and with a high degree of internal motivations: CoP establishment in October 2017

- Gender-balance where relevant
- Identification of a higher number of potential members (in order to compensate natural rate of withdrawals) – 30% more
- Signature of a commitment declaration and the informed consent forms
IC-Health approach

• Prior to co-creation activities: analysis of population cohorts and of their needs, along with the development of an engagement strategy building on social marketing principles and the launch of an EU survey on digital health literacy

• Face-to-face co-creation activities were combined with online co-creation through a Web-based community platform: http://ichealthplatform.eu/

• Experts’ involvement (both / either offline and/or online) was considered a key issue to support co-creation processes for MOOC development
Co-creation activities’ timeline

• At least 2 offline activities should be organized:
  ➢ the first one aimed at defining shared goals, building mutual trust and understanding, defining the topic of the MOOC
  ➢ the second/third one aimed at either defining main messages/lessons of the MOOC, or format and tools, or testing and refining the MOOC

• Online platform serve to ensure continuity between offline activities and to help fine-tuning the developed MOOCs
Tips for other projects dealing with co-creation

- Recruitment and selection of CoP members (intrinsic motivation + written commitment)
- Selection of the “right” facilitator
- Tailored communication activities
- Continuous interaction and communication
- Good degree of flexibility
- Balance between top-down and bottom-up approach
- Carefully assess the Pros & Cons of co-creation online participation according to stakeholder typology, needs and interests
Co-creation with CoPs
## Recruitment criteria

### Children
- Age: 10-13 years old.
- Gender balance was pursued as much as possible.
- Whenever possible, small quota of either 1st or 2nd generation migrants was included.

### Adolescents
- Age: 14-18 years old.
- Gender balance was pursued as much as possible.
- Whenever possible, small quota of either 1st or 2nd generation migrants was included.

### Specific criteria for adults’ cohorts

#### PLW
- Invitations were extended to partners/fathers too.

#### Elderly
- Age: over 60 years old.

### Common criteria for adults’ cohorts
- Participants from diverse backgrounds and social classes were privileged, as well as more vulnerable people. A wide sampling, in terms of cultural background, age, level of education etc was sought as much as possible.
- Participants were required to have a sufficient level of digital literacy to be able to contribute to the discussion and the creation of the MOOCs.
- Fluency in national language.
- If possible, particular attention was paid to the involvement of disabled users in order to combine digital health literacy topic with accessibility issues.
Overall recruitment methods

- online community: announcements were published in partners’ newsletters, institutional websites, and social media accounts
- direct contacts through emails and phone calls
- communication materials translated in national languages
Recruitment methods for children and adolescents

- Collaborating with schools was definitely the easiest route to recruit children and adolescents for all partners.

- Main difficulty: long administrative procedures (e.g. holidays, exams periods, etc).

- In addition to this, partners exploited other channels, such as i) contact with local-based associations and NGOs organizing activities targeting children and adolescents (e.g. after-school clubs, scout groups, oratories); ii) word of mouth through personal contacts with families with children.
Recruitment methods for PLW

• Contact of national/regional/local offices for birth and childhood.
• Contact of midwives’ centres and associations, hospitals, maternity care units that organise parental courses and/or parent groups and mothers’ associations.
• Face-to-face contact with pregnant women clients visiting a gynaecologist’s study and with mothers attending paediatrician’s studies could also be considered as useful methods for CoP recruitment.
• Direct contact with health professionals working in the ‘mother-and-child’ sector.
• Relation-building with PLW answering the IC-Health questionnaire and/or participating in the Focus Groups organized in the frame of the initial survey was also a useful method to recruit CoP members.
Recruitment methods for elderly

• elderly centres and elderly’s associations
• healthcare centres
• universities of Third Age
• gyms or other facilities organising courses/activities for seniors.
• pre-existing contacts with seniors, for instance the ones that participated in the survey and/or in the Focus Groups, was also proven to be an effective way to recruit CoP members.
Recruitment methods for diabetes people

- health care providers – in particular, specialist diabetes care practices, as well as other medical clinics and hospitals, specialised networks and institutions working with diabetic patients.
- leaflets and flyers personalized and tailored to diabetic patients were handed out in various locations, such general and specialist practitioners, health educators in contact with diabetic patients, medical centres.
- individual contact and invitation of professionals and experts who work on projects related to health information, health literacy, eHealth, etc were exploited to reach additional patients with diabetes.
- civil society organisations for persons with diabetes.
- Announcements on diabetes-related or health-related websites, health insurance funds, or other specialized health websites/organizations at local/regional and/or national level.
Face-to-face co-creation sessions

No of events organized: 95+

**Main successes:**
- CoP members were enthusiastic and active throughout the workshops.
- They enjoyed working in group and came up with very good suggestions on to what to include in the MOOCs.
- They felt part of the project itself.
- The professionals present at the meetings in most cases were very interested in the project and willing to share their opinions and experience to improve MOOC materials.

**Main difficulties:**
- Attention of children and adolescents for the whole duration of the sessions
- Availability of the participants (in particular PLW)
- Time management (e.g. questionnaire administration)
- Navigation of the MOOCs for seniors during the testing session
- For CoP members that did not use Internet to look for health-related Information, it was difficult to ask for their opinion when they had never done it before.
- Some participants were very skeptical of the project’s overall aim and of the utility of Internet in general.
Face-to-face co-creation in project countries

Partners’ experiences:

Promotional video
Online co-creation overview*

➢ 2 administrators (CE and EHMA)
➢ 35 moderators appointed on the platform
➢ 707 registered users
➢ 26 active forums, plus EU room
➢ 224 topics published on the platform
➢ 787 replies

* Data extracted on 10 October 2018
Online co-creation: types of enrolled users*

<table>
<thead>
<tr>
<th>How did you find you about this platform?*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I have participated in face-to-face co-creation activities organised in my country</td>
<td>223</td>
</tr>
<tr>
<td>Project newsletter</td>
<td>6</td>
</tr>
<tr>
<td>Project social media (Facebook, Twitter, LinkedIn)</td>
<td>9</td>
</tr>
<tr>
<td>Project website</td>
<td>10</td>
</tr>
<tr>
<td>Another website</td>
<td>2</td>
</tr>
<tr>
<td>Relative/Friend/Colleague</td>
<td>41</td>
</tr>
<tr>
<td>Other</td>
<td>34</td>
</tr>
</tbody>
</table>

- Numbers gathered in June 2018. Final data will be extracted during the last week of October to update relevant deliverables
Online co-creation activities

Main successes:
• Online co-creation worked well with diabetes, PLW and seniors cohorts
• Online co-creation served for users to learn to interact online (for some groups mainly)
• It allowed to maintain constant contact with users

Main difficulties:
• Enrolment for seniors
• Not a very useful tool for children, who rather prefer games&videos and face-to-face activities
• Difficulty to maintain high and constant the motivation and involvement of CoP cohorts in the online discussions

* Data extracted on 10 October 2018
Experts’ involvement

• Type of profile:
✓ Educators, high school teachers, university professors
✓ Medical doctors, mid-wives, nurses
✓ Social workers
✓ Chairs of patients organisations and civil society organisations
✓ Public officers in charge of public health issues

• Mostly offline participation. Some of those also took part in the online platform.
• Key input from experts:
✓ Revise content and structure of the units of the MOOCs
✓ Suggestions on how to make the courses as clear and accessible as possible even for people with lower educational levels, different cultural background and lower digital skills
✓ Help disseminate the MOOCs

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Deliverables on co-creation activities
D2.1 – Methodology for co-creation

- Defines the methodological and operational framework under which the co-creation process was carried out

- Provides theoretical explanation on the concepts of co-creation and co-design, participatory approaches and stakeholder engagement, Knowledge Brokerage, and Communities of Practice

- Proposes tools and techniques for co-creation offline activities

- Sets the steps and calendar for national coordinators for the implementation of co-creation activities

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
D2.2 – MOOC on co-creation

• A MOOC on co-creation has been developed by Consulta Europa with the support of the other project partners after the training of the national coordinators

• It is an online learning course providing useful information on co-creation and co-design in the health context. The course is the result of:
  ✓ the investigation of the co-creation tools and techniques to be exploited in the project co-creation process;
  ✓ the organisation of one co-creation seminar attended by the IC-Health partners that will establish the Communities of Practice in the 8 project countries.

• Available at: https://edu.google.com/openonline/course-builder/index.html

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
D2.3 – Report on the seminar for national coordinators

• Reports the main activities of the co-creation seminar for national coordinators.

• The IC-Health co-creation seminar was organized by WP2 leader Consulta Europa and hosted by Comitato Collaborazione Medica in Turin, Italy on 27th, 28th and 29th June 2017.

• All the partners involved in co-creation activities under WP2 and WP3 attended the seminar.
D2.4 – IC-Health Community Platform

• Platform available at: www.ichealthplatform.eu

• It will be kept alive for 2 years more until the end of the project, like the project website
D3.2 - Reports on co-creation

• Submitted in April 2018, under assessment by the EC

• Reports on:

✓ National coordinators
✓ Recruitment strategies
✓ CoPs’ numbers and profile
✓ Online platform
✓ Offline activities
✓ Experts involved in co-creation
✓ Data management issues
✓ Annexes: templates for informed consent, MOOC template, reports on offline activities

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
D3.3 – Evaluation and impact assessment report

• Submission due in October 2018

• Analysis of co-creation process questionnaires (paper-based questionnaires administrated before and at the end of the co-creation process):
  i. Socio-demographic data (gender, age, education level)
  ii. Information on use of the Internet and type of health related information searched on the Internet
  iii. Analysis of the impact of co-creation process in improving CoP members’ DHL skills (comparison btw pre-assessment and post-assessment)
  iv. Qualitative data on experience during co-creation activities (open and closed questions)

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Thank you for your attention!
Panel Discussion:

“From theory to practice: co-creating Digital Health Literacy education courses”

Stephan van den Broucke - Moderator
Université Catholique de Louvain, Belgium

Ana Toledo Chávarri
Servicio Canario de la Salud, Spain

Thomas Karopka
ScanBalt, Germany

Raquel Martín González
Universidad de La Laguna, Spain

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

18 October 2018
Do not miss a chance to test the MOOCs developed during the IC-Health Project and to network!
The IC-Health MOOCs

Beatrice Avagnina
Consulta Europa, Spain

Linda Helene Sillat
University of Tallinn, Estonia

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
IC-Health MOOCs

Project final conference

18th October 2018

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
IC-Health overall approach for MOOC development
Definition of MOOCs for IC-Health

MOOC requires the learners to be active in obtaining, editing and producing information in variety of formats, but also obtaining information in various ways and situations (Downes, 2009).

Stanford Artificial Intelligence model (xMOOC), which:
- uses conventional instruction-based context of formal learning and is categorized as a cognitive-behaviourist pedagogical approach (Rodriguez, 2012).
- helps learners acquire basic skills and cover new concepts, and that supports the aims of the IC-Health project.
Main features of xMOOCs

Include:
• Different learning formats – media materials: video, infographics and pictures. Also reading materials, interactive pictures, embedded learning materials;

• Assessment procedures and computer-marked assignments with computerized feedback;

• Learners’ support within the MOOC;

• Learning analytics;

• In some cases certificate of attendance.
MOOC development criteria

• Learning skills and practices of the different cohorts;
• Digital competences of the target groups;
• Supporting the development of self-directed learners;
• Fostering active engagement;
• Cultivating new competences.
IC-Health MOOCs: targets and countries

• Moodle environment: https://ichealth-moocs.eu

• 35 xMOOCs were developed:

➢ in 8 languages - English, Spanish, Italian, French, German, Swedish, Dutch and Danish;
➢ for 5 different population cohorts - Children, adolescents, diabetes people, seniors, PLW.
Structure of IC-Health MOOCs

• Compulsory units: Search, Understand, Appraise, Apply (+ additional Unit at the beginning of the MOOC)

• Learning materials: texts, videos, images and infographics, links to documents, quizzes, and shared documents.

• Assessment questions included while progressing through the courses, after each unit, and a post-assessment at the end of the MOOC has also been included.
DHL skills tackled by IC-Health MOOCs

• SEARCH: the capacity of the learner to find health related information using the Internet.

• UNDERSTAND: the capacity of the learner to comprehend and figure out health related information found online and derive meaning.

• APPLY: the capacity of the learner to apply the information they found online in their daily life and to use it to make informed and appropriate decisions about their health.

• APPRAISE: the capacity of the learner to be able to critically review and assess the relevance and trustworthiness of health-related information on different online sources.
## IC-Health developed MOOCs (1)

<table>
<thead>
<tr>
<th>Country</th>
<th>Cohort</th>
<th>Title of the MOOC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BE</strong></td>
<td>Diabetes</td>
<td>Où et comment trouver des informations de santé fiables sur Internet : Guide pour les personnes diabétiques (Niveau 1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Où et comment trouver des informations de santé fiables sur Internet : Guide pour les personnes diabétiques (Niveau 2)</td>
</tr>
<tr>
<td></td>
<td>Seniors</td>
<td>Comment trouver des informations santé en ligne : Guide pour nos aînés</td>
</tr>
<tr>
<td></td>
<td>PLW</td>
<td>Comment trouver des informations santé en ligne : Guide pour femmes enceintes ou allaitantes</td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Comment trouver des informations santé en ligne : Guide pour les ados</td>
</tr>
<tr>
<td></td>
<td>Children</td>
<td>Comment trouver des informations santé en ligne : Guide pour les moins de 14 ans</td>
</tr>
<tr>
<td><strong>IT</strong></td>
<td>Seniors</td>
<td>Alfabetizzazione sanitaria digitale – Strategie Internet per la salute, dedicato agli over 60</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>APP-lichiamoci (Adolescenti)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>La bussola del mare di zucchero (Bambini)</td>
</tr>
<tr>
<td></td>
<td>Children</td>
<td>Cyberbullismo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“A come Alimentazione”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“F come Forma Fisica”</td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>#ONhealth: accendi la salute sulla tua sessualità!</td>
</tr>
<tr>
<td></td>
<td></td>
<td>#ONHealth: accendi la salute sulla tua forma fisica!</td>
</tr>
<tr>
<td></td>
<td>PLW</td>
<td>Mamme digitali e salute: una guida per usare internet in modo intelligente</td>
</tr>
<tr>
<td><strong>SE</strong></td>
<td>PLW</td>
<td>Onlinekurs om e-hälsa för blivande och nyblivna föräldrar</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>Onlinekurs om e-hälsa för diabetiker (typ 2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Onlinekurs om e-hälsa för diabetiker (typ 1) – tema motion</td>
</tr>
<tr>
<td></td>
<td>Children</td>
<td>Onlinekurs om e-hälsa för barn</td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Onlinekurs i E-hälsa för ungdomar – tema psykisk ohälsa</td>
</tr>
</tbody>
</table>
# IC-Health developed MOOCs (2)

<table>
<thead>
<tr>
<th>Country</th>
<th>Cohort</th>
<th>Title of the MOOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES</td>
<td>Children</td>
<td>EnREDados en Salud. Uso seguro de los contenidos de la red sobre Salud (10 a 13 años)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Más allá de Internet: cómo buscar, analizar y aplicar la información sobre Salud (10 a 13 años)</td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>#meinformo: El uso de Internet para los temas de Salud que te interesan (14 a 18 años)</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>Uso de Internet para la salud en personas con diabetes tipo 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uso de Internet para la salud en personas con diabetes tipo 1</td>
</tr>
<tr>
<td></td>
<td>PLW</td>
<td>Uso de Internet para la salud en mujeres embarazadas y lactantes. Nivel 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uso de Internet para la salud en mujeres embarazadas y lactantes. Nivel 1</td>
</tr>
<tr>
<td></td>
<td>Seniors</td>
<td>Uso de Internet para la salud en personas mayores de 60 años</td>
</tr>
<tr>
<td>UK</td>
<td>Seniors</td>
<td>Digital Health Literacy – Back pain management in the over 60 age group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Digital Health Literacy – Mental health and wellbeing in the over 60 age group</td>
</tr>
<tr>
<td>DE</td>
<td>Seniors</td>
<td>Online Kurs zur Verbesserung der Digitalen Gesundheitskompetenz von Senioren</td>
</tr>
<tr>
<td>NL</td>
<td>Seniors</td>
<td>Online cursus voor het verbeteren van de digitale gezondheidsvaardigheden van 60-plussers</td>
</tr>
<tr>
<td>DK</td>
<td>Diabetes</td>
<td>Sundhed for mennesker med diabetes – online kursus om e-sundhed</td>
</tr>
<tr>
<td></td>
<td>PLW</td>
<td>Sundhed for gravide og nybagte mødre – online kursus om e-sundhed</td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td>Psykisk sundhed hos teenagere – online kursus om e-sundhed</td>
</tr>
</tbody>
</table>
IC-Health timeline for MOOC development

• Co-creation activities to develop overall content and structure of the MOOCs
  October 2017 – January 2018

• Partners’ compilation of the MOOC template
  October – January 2018

• Set up of first version of MOOCs on Moodle
  January – February 2018

• Testing of the MOOCs with CoP members
  March – April 2018

• Testing of the MOOCs with additional users
  May – July 2018

• MOOC fine-tuning
  July – September 2018

• Analysis of data gathered from MOOCs and co-creation activities
  September – October 2018
MOOCs dissemination

- Dissemination of MOOCs – EHMA and all partners– through websites, newsletters, social media, etc
- MOOCs hosted on other platforms

MOOCs

35 MOOCs have been co-created and are available in eight EU languages (English, Spanish, Italian, French, Swedish, German, Dutch and Danish). Click on the icons below to access the MOOCs or visit https://ichealth-moocs.eu!
Moodle Platform
& co-created MOOCs
MOOC examples

• UK – Seniors cohort:
  https://ichealth-moocs.eu/course/view.php?id=7
  https://ichealth-moocs.eu/course/view.php?id=6

• ES – Children cohort:
  https://ichealth-moocs.eu/course/view.php?id=31
Thank you for your attention!
What’s next? Realising the benefits of the IC-Health experience

Dewar Finlay
Ulster University, UK

Michele Calabró
EHMA, Belgium
What’s Next – How to take advantage of the IC-Health experience

IC-Health WP 4

Professor Dewar Finlay, Ulster University
October 2018
Rationale

- Sound sustainability strategy is necessary to guide the exploitation of the MOOCs at a wider scale and beyond the duration of the project.
- Aims at ensuring the sustainability of the MOOCs developed within the IC-Health.
- Based on the analysis of key stakeholders, on the individuation of a viable business model and on an overall exploitation plan.
IC-Health WP 4-Activities

• Tasks
  ▪ 4.1 Business models
  ▪ 4.2 Strategy for engagement of stakeholders for exploitation purposes
  ▪ 4.3 Sustainability strategy
Identification of Existing Business Models

• Summary of existing models
  ▪ Digital Skills Pathways for Youth across Europe project
  ▪ SMARTCULCURE
  ▪ READi (Regional Digital Agendas for Healthcare)
  ▪ DigiLitEY
  ▪ Mobile for literacy
  ▪ iMooX
  ▪ Eduhub
  ▪ HOME (Higher education Online: MOOCs the European way)
  ▪ Miscellaneous
  ▪ Creativelive
  ▪ Miscellaneous
  ▪ OpenupEd

---

<table>
<thead>
<tr>
<th>Business model 1:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Please describe the project (ca. 200 words) for which the business models you have identified was developed.</td>
</tr>
<tr>
<td>2. Please describe (ca. 300 words) the identified business model.</td>
</tr>
<tr>
<td>3. Please describe (ca. 200 words) the key stakeholders for which the business model was developed.</td>
</tr>
<tr>
<td>3.1 Please describe the incentives of the key stakeholders for the adoption of the online (DL/DHL) education. How did the business model address these incentives?</td>
</tr>
<tr>
<td>Indicate, on a scale from 1 to 3 (1 not suitable, 3 suitable) how suitable you think this business model would be for the IC-Health project (MOOCs on digital Health literacy).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business model 2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Please describe the project (ca. 200 words) for which the business models you have identified was developed.</td>
</tr>
<tr>
<td>2. Please describe (ca. 300 words) the identified business model.</td>
</tr>
<tr>
<td>3. Please describe (ca. 200 words) the key stakeholders for which the business model was developed.</td>
</tr>
<tr>
<td>3.1 Please describe the incentives of the key stakeholders for the adoption of the online (DL/DHL) education. How did the business model address these incentives?</td>
</tr>
<tr>
<td>Indicate, on a scale from 1 to 3 (1 not suitable, 3 suitable) how suitable you think this business model would be for the IC-Health project (MOOCs on digital Health literacy).</td>
</tr>
</tbody>
</table>
Identification of Existing Business Models

- **4 distinct types of model identified:**
  - **1. Loss-leader Cost Model** – In this model the organisation asks the customer who will often be a public health authority to make an upfront payment for the production of the MOOC.
  - **2. Social Prescribing Model** - In this model healthcare professionals can prescribe the MOOC to those who need to access the service and at this point revenue flows to the MOOC creator when a user enters in a passcode on the MOOC website.
  - **3. Advertising Business Model** – In this model revenue is generated by the sales of advertisements at the start or / end of the MOOCs. The service will be free for the user and also free for the organisation who utilises the service.
  - **4. User Pays Business Model** – In this case the user pays for the service. This can be done in a number of ways, in one case the user pays to access to access each MOOC this is typically involves a one off fee granting access to the user who gets a login for the site and can access the content at any time. Another popular model is the ‘freemium’ model where most of the

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474

October 2018
Business model canvas – Social Prescribing

Key Partners
- Groups of end users e.g. patient advocacy groups
- Clinical Commissioning Groups
- CoP
- Individual healthcare professionals who meet patients with poor digital health literacy

Key Activities
- Course creation
- Course management
- User management
- Processing of prescriptions
- MOOC Development team
- Online content delivery platform

Value Proposition
- Increasing digital health literacy by the delivery of MOOCs
- Reducing the cost of health care delivery by increasing digital literacy
- Enhancement of the patient journey by the delivery of digital health literacy

Customer Relationship
- Direct selling to healthcare organisations
- Self service online platform

Customer Segments
- Public Healthcare Organisations
- Charities
- Other government departments

Channels
- One to one sales to key customers
- Website
- Social media
- Print media

Cost Structure
- Content Creation
- MOOC/Site Maintenance
- Business Development
- Staff Costs

Revenue Streams
- Prescriptions being redeemed

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
SWOT analysis

Strengths
- Free for users
- Creators are incentive to keep content current
- May be easier to convince healthcare organisations to adopt due to lack of upfront cost

Weaknesses
- Need to convince individual health care professionals to prescribe
- Users may not log into system and therefore no revenue will be generated

Opportunities
- Potential for steady growing revenue stream

Threats
- Need more upfront investment as revenues will grow over time
- Customers may run out of budget and not be able to offer to users

6 April 2017

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Identified key stakeholders

- Healthcare Professionals
- Public Healthcare Manager
- Private Sector Business Development Manager
- Patients / End Users

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
MOOC hosting platforms

- European Multiple MOOC Aggregator
- Coursera
- ALISON
- Futurelearn
- Iversity
- Udemy
- edX
- Canvas Network
Final sustainability strategy

• Based on consideration of:
  ▪ the actions needed to manage and maintain the MOOCs after their creation (MOOCs contents update, staff involved, organizations taking care of these aspects).
  ▪ the strategies to up-scale the MOOCs, by involving a wider pool of users through the network of stakeholders identified and by implementing the selected business model.
  ▪ the evaluation and impact assessment at EU level after the end of the project against expected results outlined in the Strategy.
Project management and evaluation post completion

• Project management board > ‘project legacy management team’.
• Measureable activities:
  ▪ A record of social media interactions relating to the project (e.g. project mentions, retweets/posts etc)
  ▪ A record of any publications outputs generated by the consortium members as a result of project work.
  ▪ A record of academic citations relating to the project outputs (e.g. papers, articles citing work published from IC-health project
  ▪ An up to date list (maintained for 2 years) of identified project-funding calls that are relevant to continuation of IC-health activities.
  ▪ A register of consortium members’ involvement in future projects relating to digital health literacy
  ▪ A register of papers/invention disclosure that are submitted and have any relevance to the project activity
  ▪ A register of any reused components from the projects.
Business Plan Example

- Full example business plan developed as a possible route to sustainability of the project.
- Involves the creation of a limited company that will take on the and champion the IC-Health concepts.
- Does not prohibit other alternative approaches to commercialization if these are deemed at a later stage to be more suitable to the long term sustainability of project outcomes.
Realising the benefits of IC-Health

To support the strategic exploitation activities, the IC-Health Consortium identified the key components of a targeted stakeholder engagement strategy.

IC-Health experience – key elements

Recognising and targeting key stakeholder groups
Realising the benefits of IC-Health

To support the strategic exploitation activities, the IC-Health Consortium identified the key components of a targeted stakeholder engagement strategy.

IC-Health experience – key elements

- IC-Health MOOCs Sustainability
- Co-Creation Process and Methodology
- Follow up activities
- Transfer of best practice and replication of project results
Realising the benefits of IC-Health

Recognising and targeting **key stakeholder groups**

- Public Authorities (Health, Education)
- Private Sector
- Citizens and Patients
- Healthcare Professionals

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727474
Realising the benefits of IC-Health

Recognising and targeting key stakeholder groups

- Funding;
- Use of project result (transferability of experience);
- ‘Prescribe’ DHL/HL Educational tools;
- Advocate for adoption of DHL/HL Educational tools.
Realising the benefits of IC-Health

Horizontal and targeted engagement and strategy

IC-Health Experience ‘narrative’

Tailored messages development

Test and use of messages and narrative

Creating links and partnerships

Business Model/Project Proposal
IC-Health after IC-Health

To support exploitation of results, MOOCs and IC-Health methodology dissemination after the project end, the project will maintain its online contact points and platforms.

- Website
- MOOCs
- Platform
- Social Media
- Newsletters

www.ichealth.eu
@ICHealthEU
Panel Discussion:

“Empowered society and the future of healthcare in Europe. What role for Digital Health Literacy and Health Literacy?”

Usman Khan – Moderator
EHMA, Belgium

David Ritchie
European Cancer Leagues, Belgium

Kostas Aligiannis
European Patients’ Forum, Belgium

Jan Vertriest
MSD Belgium, Belgium
THANK YOU FOR JOINING US!

Keep supporting the IC-Health Project

info@ichealth.eu
www.ichealth.eu

ICHealthEU
ICHealthEU
@ICHealthEU - #ICHealth