

European Co-operation to Empower Citizens Playing a More Active Role in Their Health Self-Management

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Improving the Digital Health Literacy in Europe



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IC-Health - Improving the digital health literacy of European citizens

IC-Health is a project to develop a series of Massive Open Online Courses (MOOCs) to help improve the digital health literacy of European citizens. MOOCs will be developed in eight languages (English, French, Italian, Danish, German, Swedish, Dutch and Spanish). Countries involved in the pilot are Spain, Italy, Belgium, United Kingdom, Netherlands, Sweden, Germany and Denmark.



Background

- The eHealth Action Plan 2012-2020 identified the **lack of awareness of eHealth opportunities** and challenges for users as one of the barriers to wider uptake of eHealth solutions and proposed to **support activities aiming at increasing citizens' digital health literacy**

IC-Health Project objectives

- IC-Health will provide **support for the improvement of digital health literacy in Europe.**
 - In particular, the project will design **35 open access online courses (MOOCs)**, in **eight** different national languages
 - The MOOCs target the following population cohorts:
 - children
 - adolescents,
 - pregnant and lactating women,
 - elderly
 - diabetes type 1 and type 2.
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IC-Health Project objectives in a nutshell



Achieving
IT Literacy



Achieving
Health Literacy

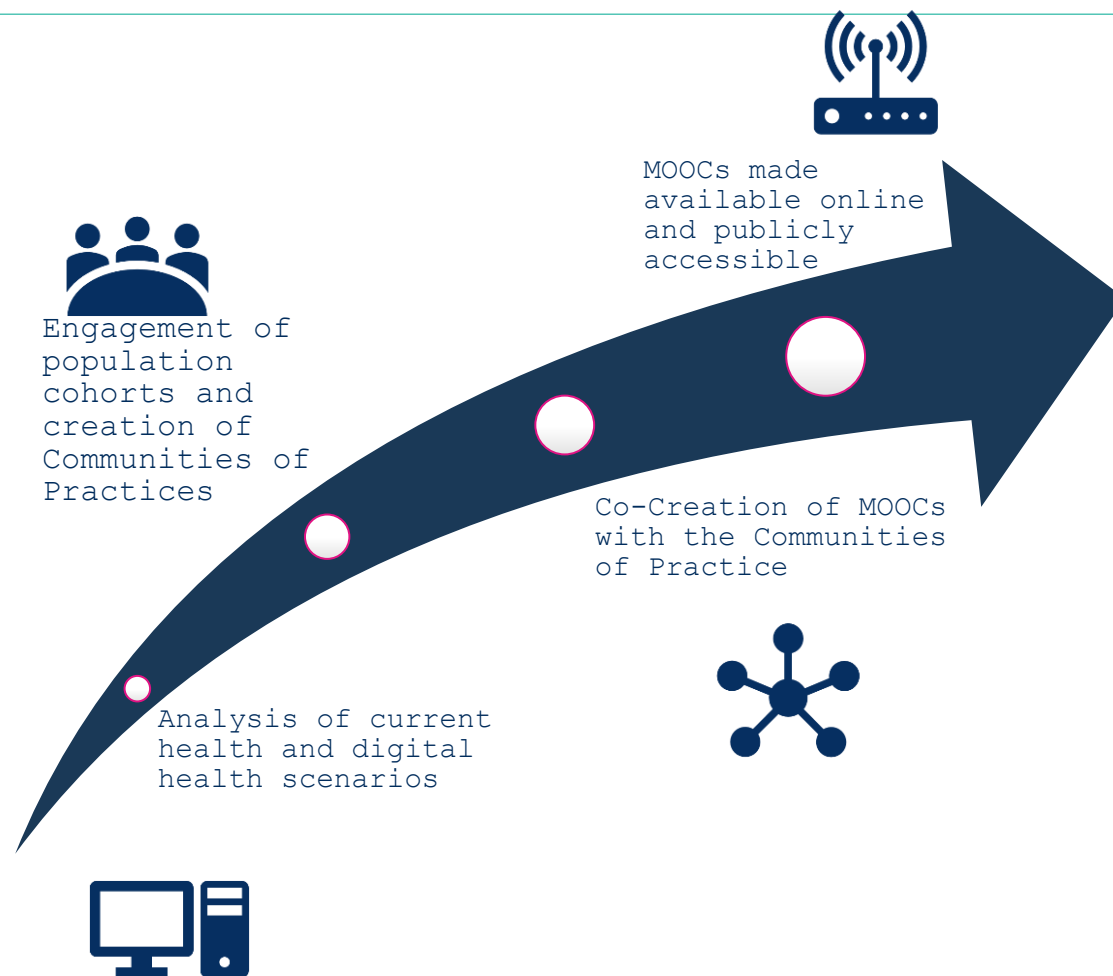


Appraising
Online Health
Information



Applying online
health information for
health management
in everyday life

The IC-Health approach



Definition of Health Literacy

- “Health literacy is linked to literacy and entails the **motivation**, **knowledge** and **competencies** to **access, understand, appraise** and **apply** health information in order to make judgements and take decisions in everyday life **concerning healthcare, disease prevention** and **health promotion** to maintain or improve quality of life throughout the course of life”

Sorensen K, Van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, Brand H. Health literacy and public health: a systematic review and integration of definitions and models. BMC Public Health. 2012;13:80.

Health Literacy in Germany

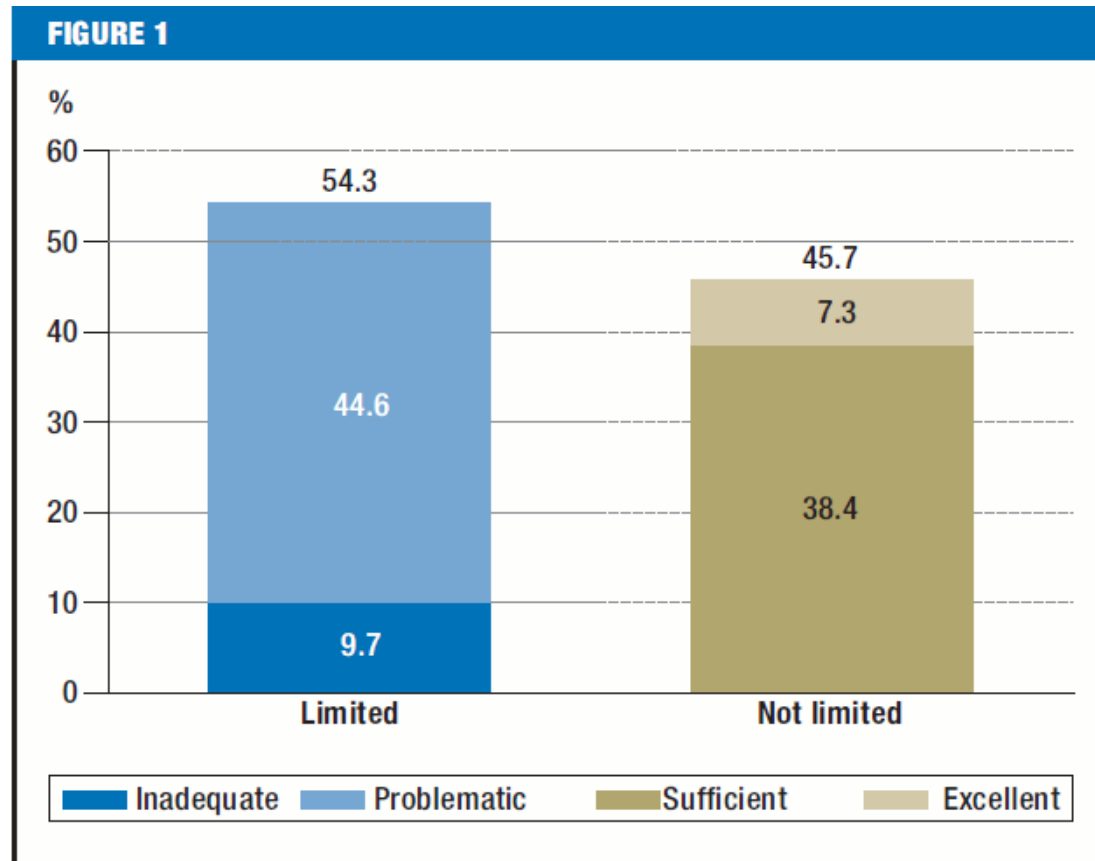
- Research on **health literacy** in **Germany** is in its **infancy**. Studies have been initiated, but **no representative information** on health literacy in the German population **is yet available**. The **German Health Literacy Survey (HLS-GER)** is the first to provide such data.
- The results show that **54,3%** of a random sample of the German population **have limited health literacy**, i.e., experience difficulties in dealing with health-related information and finding their way around the health service system.

Schaeffer, D; Berens, E; Vogt, D

Health Literacy in the German Population: Results of a Representative Survey

Dtsch Arztebl Int 2017; 114(4): 53-60; DOI: 10.3238/arztebl.2017.0053

Health Literacy in the German Population



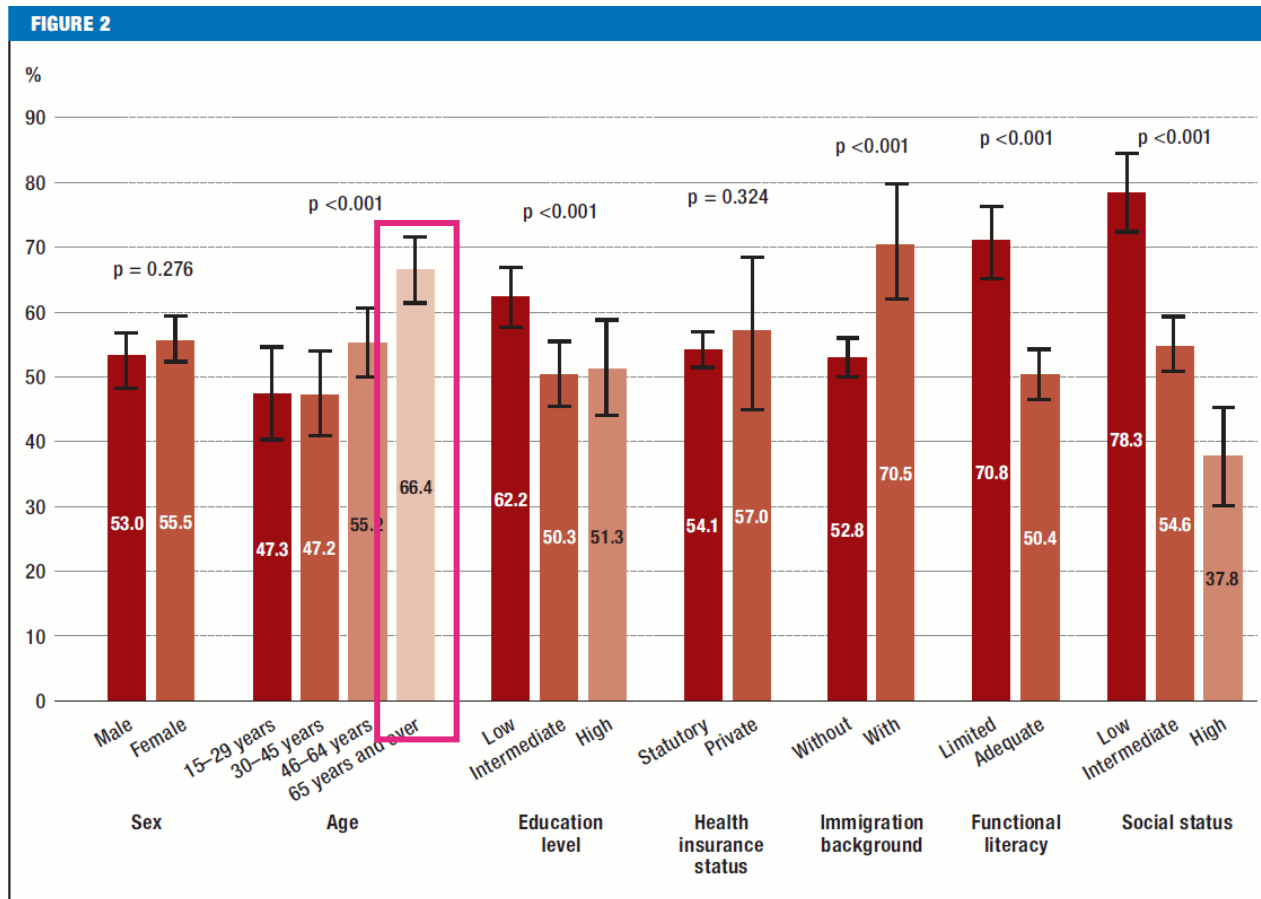
Health literacy levels in %

Schaeffer, D; Berens, E; Vogt, D

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Prevalence of limited health literacy

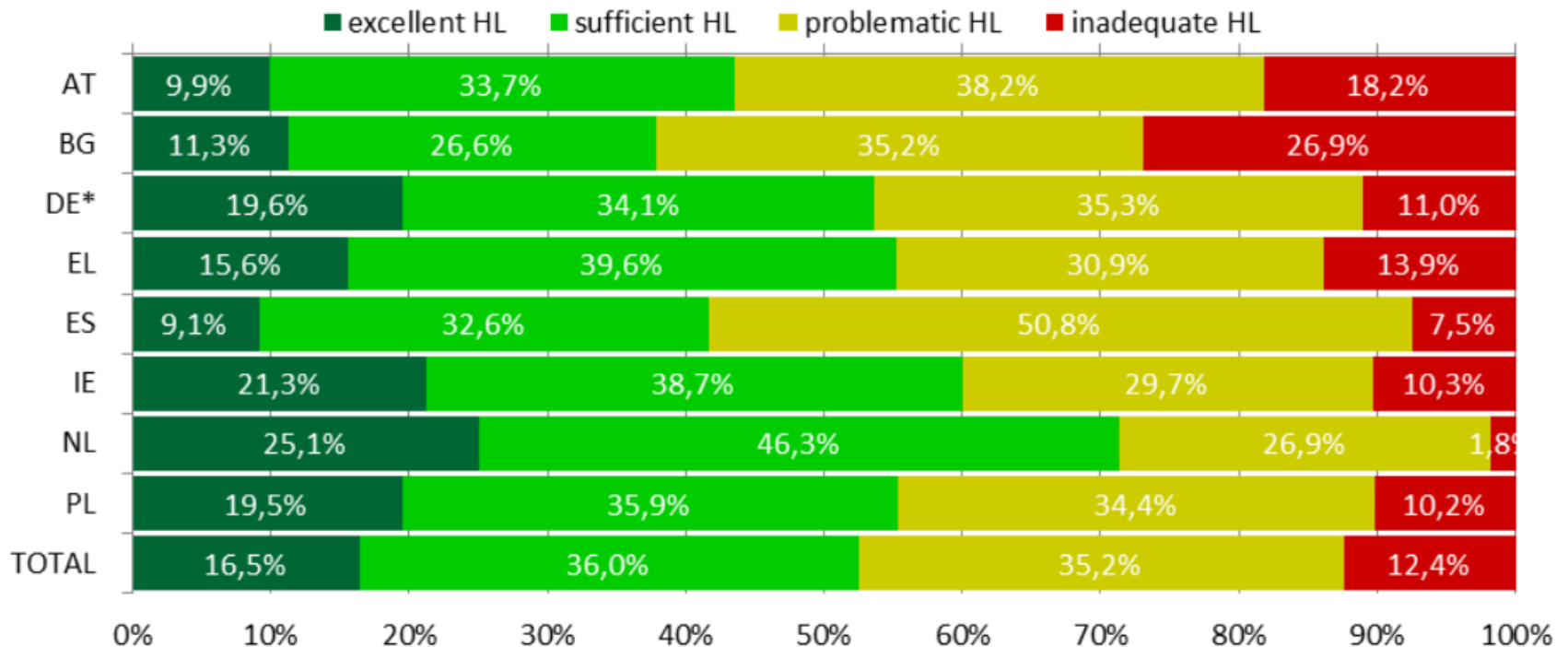


Prevalence of limited health literacy

The bars show 95% confidence intervals; p-values from chi-square tests

Schaeffer, D et.al.; Health Literacy in the German Population: Results of a Representative Survey, Dtsch Arztebl Int 2017; 114(4): 53-60; DOI: 10.3238/arztebl.2017.0053

Health Literacy – Report of HLS-EU



- HLS-EU CONSORTIUM (2012): COMPARATIVE REPORT OF HEALTH LITERACY IN EIGHT EU MEMBER STATES. THE EUROPEAN HEALTH LITERACY SURVEY HLS-EU, ONLINE PUBLICATION: [HTTP://WWW.HEALTH-LITERACY.EU](http://www.health-literacy.eu)

Definition of Digital Health Literacy

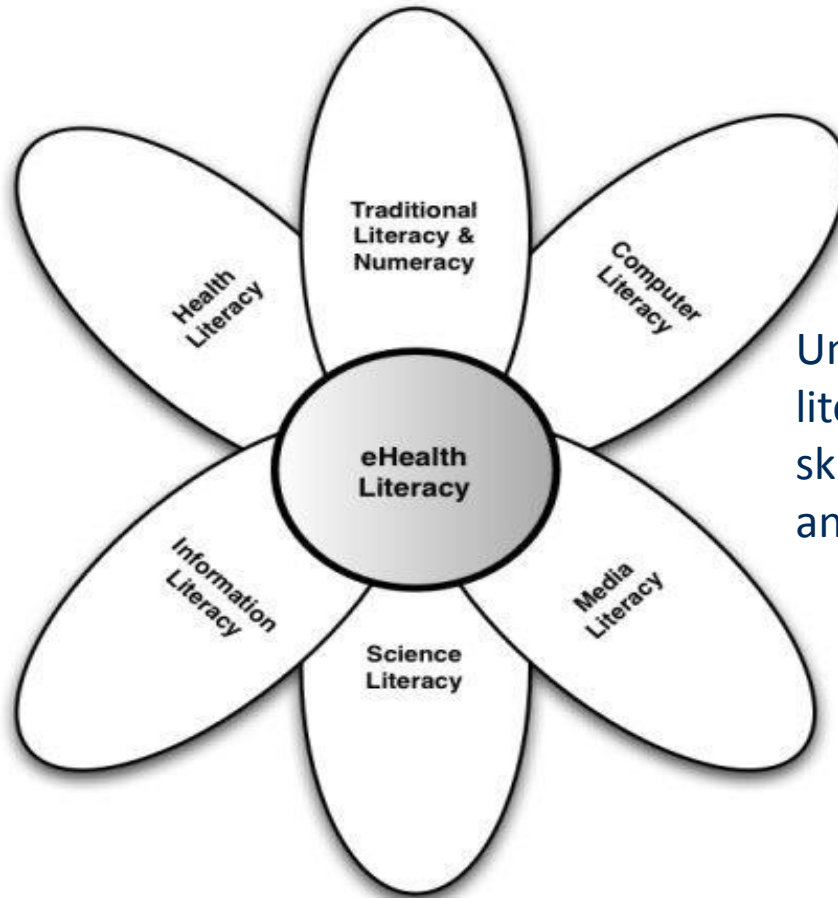
*“Specifically, **eHealth literacy** is defined as the ability to **seek, find, understand, and appraise** health information from electronic sources and **apply the knowledge** gained to addressing or solving a health problem.” (Normann and Skinner)*

Norman CD, Skinner HA, eHealth Literacy: Essential Skills for Consumer Health in a Networked World, J Med Internet Res 2006;8(2):e9, DOI: [10.2196/jmir.8.2.e9](https://doi.org/10.2196/jmir.8.2.e9)

*“**Digital health literacy**” refers to the ability to **seek, find, understand and appraise** health-related information from electronic resources and to **apply the knowledge** gained to making appropriate health decisions in order to address or solve a health problem.”*

Flash Eurobarometer report No. 404 “**European citizens’ digital health literacy**”.

eHealth Literacy lily model

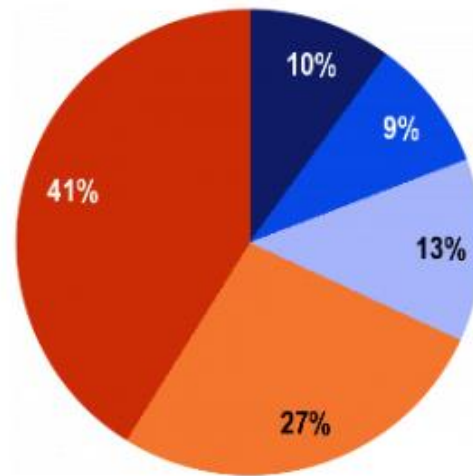


Unlike other distinct forms of literacy, eHealth literacy combines facets of different literacy skills and applies them to eHealth promotion and care.

Norman CD, Skinner HA, eHealth Literacy: Essential Skills for Consumer Health in a Networked World, J Med Internet Res 2006;8(2):e9, DOI: [10.2196/jmir.8.2.e9](https://doi.org/10.2196/jmir.8.2.e9)

Internet use for health related information

Q2TT. Within the last 12 months, have you used the Internet to search for health-related information? This could include information on an injury, a disease, illness, nutrition, improving health, etc.



- Yes, once a week or more often
- Yes, several times a month
- Yes, approximately once a month
- Less than once a month
- No, never
- Don't know

Source: FLASH EUROBAROMETER 404
European Citizens' digital health literacy



IC-Health – First results from the survey

Inclusion criteria for the survey

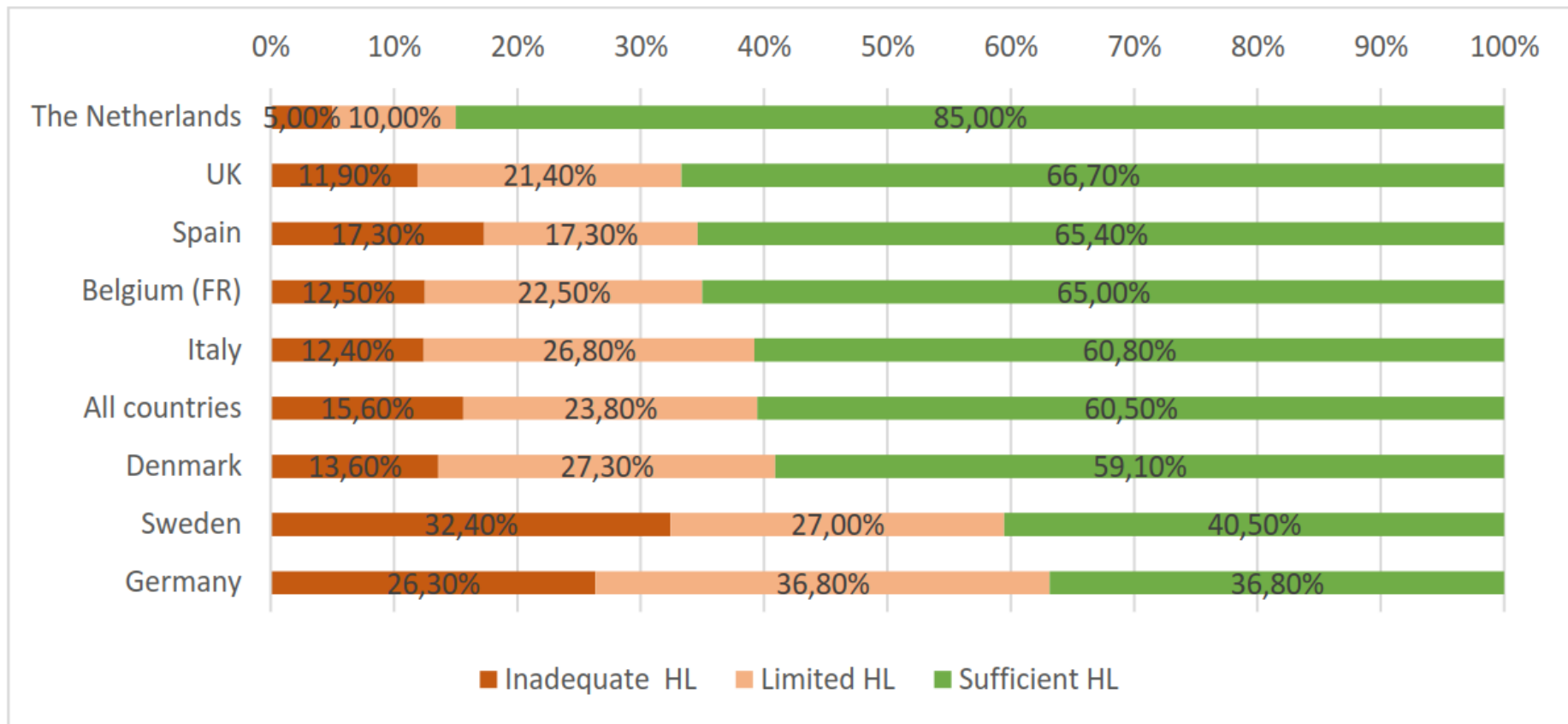
INCLUSION CRITERIA	CHILDREN	ADOLESCENTS	PLW	ELDERLY	DIABETES PATIENTS
Age	10-13	14-18	No age limit	Over 60	No age limit
Gender	All	All	N/A	All	All
Level of education	Any	Any	Any	Any	Any
Family status	Any	Any	Any	Any	Any
Employment status	Any	Any	Any	Any	Any
Language (L1)	Proficiency in the language questionnaires are administered is requested to all respondents				
Quota	N/A	N/A	Both Pregnant Women & Lactating Women	Both 60-74-year-old and > 74 year-old	Both patients with Type 1 diabetes & Type 2 diabetes

Health Literacy for elderly

		<i>Health Literacy Category</i>					
	Total	Inadequate HL		Limited HL		Sufficient HL	
	N	N	%	N	%	N	%
All countries	390	61	15.6	93	23.8	236	60.5
Denmark	44	6	13.6	12	27.3	26	59.1
The Netherlands	40	2	5	4	10	34	85
UK	42	5	11.9	9	21.4	28	66.7
Belgium (FR)	40	5	12.5	9	22.5	26	65
Germany	38	10	26.3	14	36.8	14	36.8
Italy	97	12	12.4	26	26.8	59	60.8
Spain	52	9	17.3	9	17.3	34	65.4
Sweden	37	12	32.4	10	27	15	40.5

Approx. 63% of elderly have a limited health literacy in the German **exploratory** survey

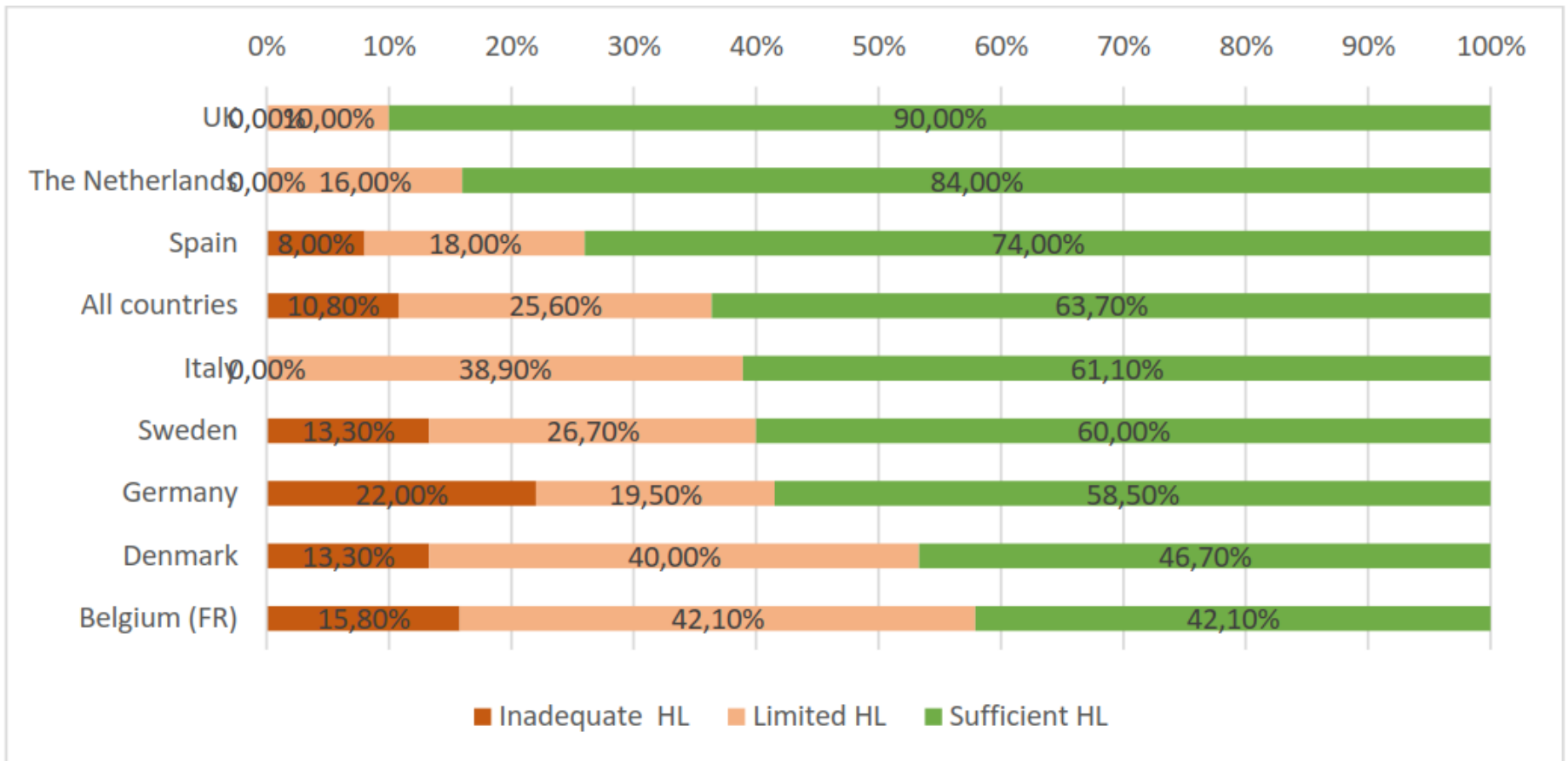
Health Literacy for elderly



Health literacy for diabetic patients

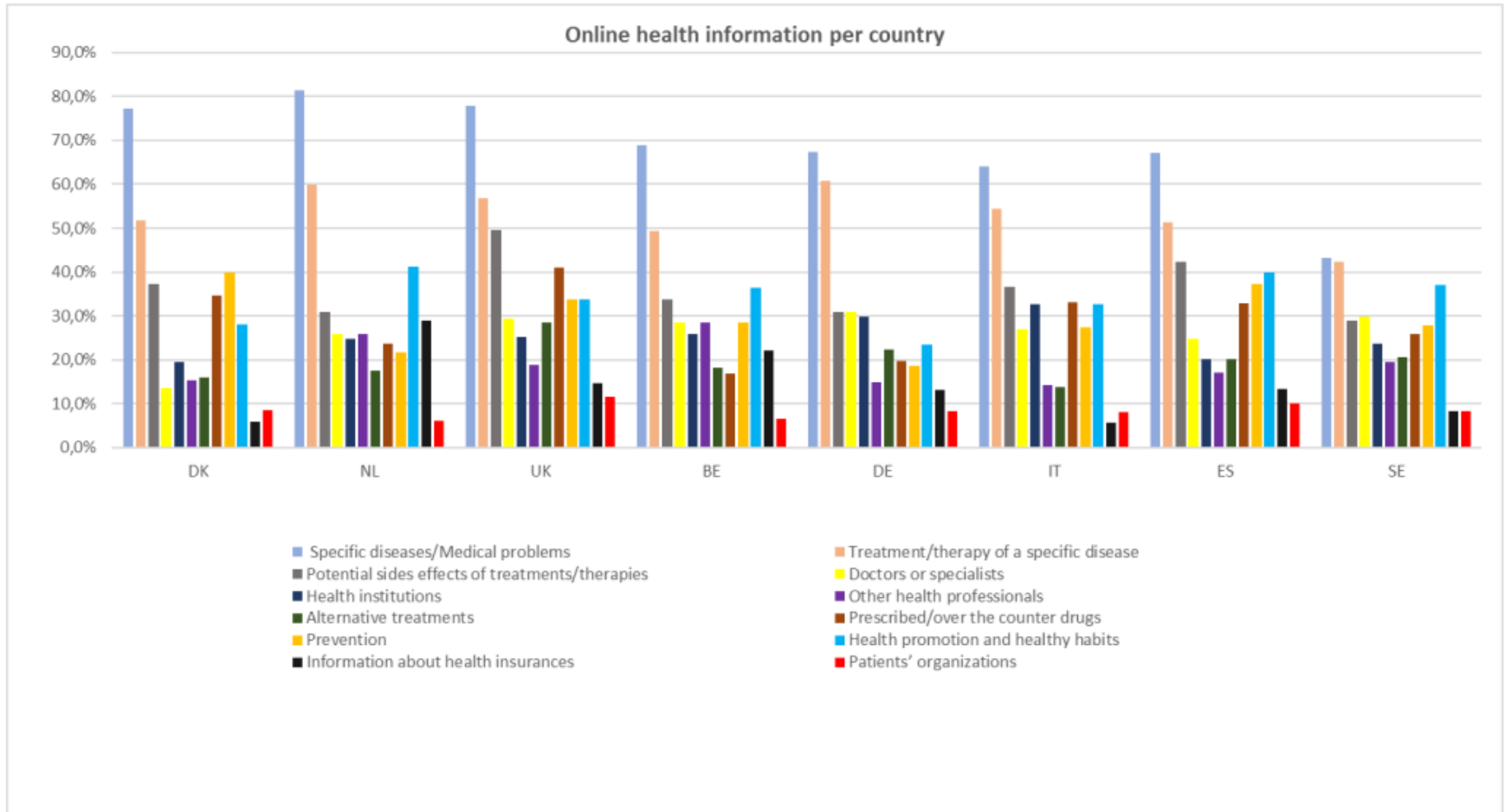
		<i>Health Literacy Category</i>					
	Total	Inadequate HL		Limited HL		Sufficient HL	
	N	N	%	N	%	N	%
All countries	223	24	10.8	57	25.6	142	63.7
Denmark	30	4	13.3	12	40	14	46.7
The Netherlands	25	0	0	4	16	21	84
UK	10	0	0	1	10	9	90
Belgium (FR)	19	3	15.8	8	42.1	8	42.1
Germany	41	9	22	8	19.5	24	58.5
Italy	18	0	0	7	38.9	11	61.1
Spain	50	4	8	9	18	37	74
Sweden	30	4	13.3	8	26.7	18	60

Health Literacy for diabetic patients



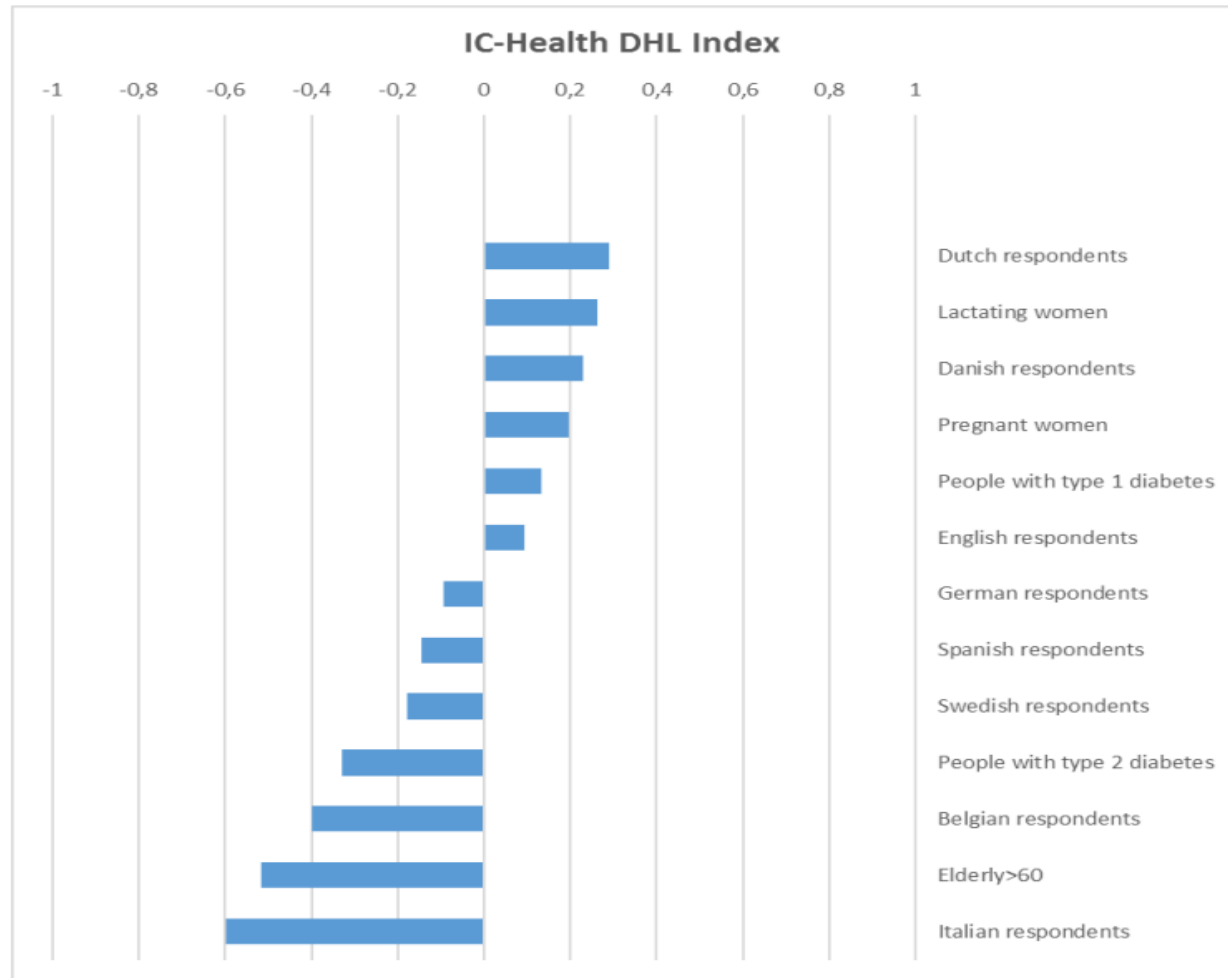


What kind of information have you looked for?



IC-Health DHL Index

-1 = poor DHL skills
+1 = good DHL skills



Conclusions

- Citizens' **digital health literacy** is an essential element for **successful eHealth deployment**.
- Citizens often do **not have the necessary skills** to **find, understand and appraise online health information** and **apply** their knowledge to make health decisions.
- **Digitally health literate** citizens are **empowered** to play a more **active role** in their health self management

Conclusions cont.

- Electronic health tools provide **little value** if the intended users **lack the skills** to effectively engage them.
- **Digital Health Literacy** is a core competence for the successful use of digital health products
- The improvement of **health literacy** and **digital health literacy** is a societal challenge

Furthermore:

- **Digital skills of healthcare professionals** are important to efficiently use the **opportunities** of the **digital transformation**

Partnership

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.



Thank you for your attention!



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