

Health Literacy: What does it mean? Why is it important?

Dr Gerardine Doyle

UCD College of Business

HEALTH POLITICAL SOCIAL SCIENTIFIC TECHNOLOGICAL

SUMMARY

Health literacy is a complex concept. It encompasses people's knowledge, motivation and competence to access, understand, appraise and apply health information to make judgments and take decisions in relation to healthcare, disease prevention and health promotion. The aim of improving the health literacy of a population is to maintain and improve quality of life throughout the life course.

The European Health Literacy Survey aimed to produce first-time population data on health literacy. The study found that 46% of Europeans have limited levels of health literacy. This has significant implications for patient health outcomes, citizen health behaviours, equity of access to health services, health service utilisation and public health expenditure.

This research has impacted upon and will continue to impact upon multiple stakeholders including: policy-makers, the academic community, health service providers, patient organisations, citizens, health care professionals including pharmacists and educators.

This research provides evidence for recognising health literacy as a social determinant for health and as a driver for change in terms of population health and quality of life.

DESCRIPTION

The European Health Literacy Survey was the first ever pan-European study of health literacy.

The study aimed to produce first time population data on health literacy in eight European countries – Austria, Bulgaria, Germany, Greece, Ireland, The Netherlands, Poland and Spain. The HLS-EU project was carried out from 2009-2012 and was co-financed by the European Commission's Executive Agency for Health and Consumers (EAHC) (Grant Agreement Number: 2007113-HLS-EU).

The objectives of the HLS-EU study were five-fold:

- 1. Develop a model instrument for measuring health literacy in Europe.
- Generate first-time data on health literacy in European countries, providing indicators for national and EU monitoring.



This research was co-financed by the Department of Health. Pictured above is (I-r): CEO of MSD Ireland, Dr Neil Boyle; Minister for Health, Mary Harney; Dr Gerardine Doyle; and National Adult Literacy Coordinator at the National Adult Literacy Agency, John Stewart.

- **3.** Perform comparative analysis of health literacy across European countries.
- 4. Create National Advisory Bodies in countries participating in the survey and to document different valorization strategies following national structures and priorities.
- 5. Establish a European Health Literacy Network.



The key findings of the study included:

- While levels of health literacy differ considerably among the member states, on average nearly one out of two citizens have a low level of health literacy. This result is a challenge not only for health professionals, but also for health systems.
- 2. The health status of a country's population often positively correlates with the health literacy levels of that population. This means that a country with a low social health status will also possess a low level of health literacy. There is a remarkable social gradient not only for health status, but also for health literacy. This is true for all eight countries included in this study.
- 3. People with very poor health status who use health services more than six times per year are also very likely to possess a low level of health literacy. This result presents specific challenges for healthcare services and professionals working in the health sector.

The HLS-EU findings provide evidence for recognising health literacy as a social determinant for health and as a driver for change in terms of population health and quality of life. Importantly improving the health literacy of populations can be an effective strategy to promote cost-effective use of health services, contribute to population health and sustainability of health systems.

DETAILS OF THE IMPACT

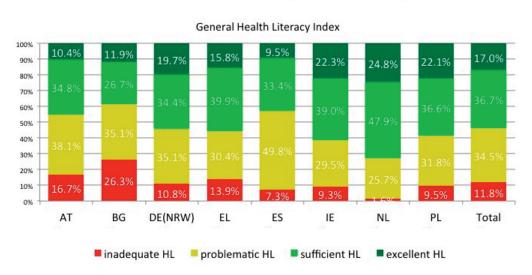
Academic and Scientific Impact

The academic and scientific impact is reflected in the publication of the key findings in international journals, government and policy reports. Three highly cited papers have been published in leading public health journals; European Journal of Public Health and BioMedCentral Public Health. One of these papers, Sorsensen et al., (2012) is in the top 1% of the academic field of Social Sciences, based on a highly cited threshold for the field and publication year. (Data from Thomson Reuters, Essential Science Indicators^{5M}).

In addition, knowledge transfer has been achieved through reports to the European Commission, EU parliamentary debates, keynote speeches, articles within health professional journals, working papers and master classes across European universities. Round table discussions with key health sector stakeholders, chaired by a health literacy expert from the Harvard School of Public Health were hosted in Ireland.

Furthermore the establishment of a European network of researchers and health professionals (www.healthliteracyeurope.net), and the hosting of an annual Health Literacy Conference (from 2013 to 2016) have advanced knowledge transfer. By creating this Health Literacy Europe network, a platform for knowledge exchange has been created to further advance health literacy expertise in Europe to support ongoing refinement of the measurement instrument and expansion of countries included in the data pool for future monitoring.

Health Literacy in Europe



Since the conclusion of the study additional countries within and beyond Europe have used the HLS-EU-Q instrument to generate their own first time data on health literacy and include Belgium, Italy, Portugal, Taiwan and some Scandinavian countries including Finland, Norway and Sweden.

Further analysis of the country specific data has explored the relationship between health behaviours and physical activity and alcohol consumption among adults aged 50+.

Drawing upon the findings of the HLS-EU study a successful application was made within the EU Seventh Framework Programme 2012 to study health literacy within the context of the chronic disease of type 2 diabetes, entitled DIABETES LITERACY 2013-2015 (Grant Agreement Number: 306186). This study examined the cost-effectiveness of diabetes selfmanagement education programmes for patients with type 2 diabetes.

Policy Impact

The findings for Ireland provided evidence for a submission to the Department of Health under the public consultation Healthy Ireland - A Framework for Improved Health and Wellbeing 2013-2025, resulting in the inclusion of two action points (3.1 and 3.8), which document the Department of Health's commitment to prioritise health literacy in developing future health and education policy.

National Health Literacy Advisory panels were established in each of the eight countries within the study. The objective of these National Advisory Panels was to draw upon the results of the HLS-EU survey for the purpose of formulating a strategy for improving Health Literacy (HL) in the respective country or region. The National Advisory Panels consist of relevant stakeholders from various groups and sectors. In Ireland, for example, this panel comprises the National Adult Literacy Agency, Department of Health, Health Service Executive, Health Information and Quality Authority, patient organisations (such as the Irish Cancer Society, Irish Heart Foundation, Irish Hospice Foundation) University Children's Hospital and University College Cork (Pharmacy Department).

Health Impact

The above mentioned policy, academic and scientific impacts have the potential to improve the public health of our population, contribute to the prevention of illness, enhance health outcomes including quality of life and longer life expectancy. More efficient use of health services is an expected outcome of enhanced health literacy leading to better use of scarce resources and sustainability of health systems.

Further empirical evidence needs to be gathered to demonstrate the impact of specific health literacy interventions for particular patient groups and populations.

Social Impact and Impact for Citizens

Ireland's leadership in health literacy through the establishment of the MSD Crystal Clear Health Literacy Awards has been a role model for other European countries. Dr Gerardine Doyle was chair person of the judging panel 2008-2012. The awards were designed to recognise and reward excellence in health literacy in the health care sector with awards for the best health literacy initiative in the settings of general practice, acute hospital, community and social settings, health promotion and communication through journalism. Belgium has implemented a similar award modeled on Ireland's experience.

Award winning initiatives included improvements to address the issues of accessible literacy friendly health care settings, and effective communication between health care professionals and patients. Results have included changes to hospital signage to help citizens navigate within the hospital environment, the implementation of health promotion information materials using plain English and the use of smart phones to communicate with and encourage vulnerable patient groups to attend hospital appointments and health education sessions.

Knowledge transfer to society has been achieved through national radio and television interviews alongside interviews published in the national press in Ireland and across the eight European countries.

Technological Impact

Connected Health describes a technology - enabled model of health care delivery where key stakeholders are connected to ensure improved continuity of care and an efficient flow of information. There is enormous potential to draw upon connected health solutions for patients with chronic illness in order to educate them and their caregivers to improve selfmanagement of such illnesses alongside enhanced patient monitoring by health care professionals. This has the potential to lead to improved health outcomes, prevention of severe complications, improved quality of life and a longer life expectancy.

The HLS-EU-Q16 instrument was used to study the health literacy of caregivers of dementia patients with the UCD Applied Research for Connected Health initial research programme where a connected health solution was deployed. During this study the health literacy of the caregivers was measured both pre and post deployment of the Connected Health intervention. The study found a positive correlation between increased log-ins to the Information section of the portal with an improved dementia specific literacy score. This demonstrates that improved levels of disease knowledge can be realised through the deployment of a Connected Health model.



RESEARCH REFERENCES

Kristine Sorensen; Jurgen M. Pelikan; Florian Rothlin; Kristin Ganahl; Zofia Slonska; **Gerardine Doyle**; James Fullam; Barbara Kondilis; Demosthenes Agrafiotis; Ellen Uiters; Maria Falcon; Monika Mensing; Kancho Tchamov; Stephan van den Broucke; Helmut Brand, (2015) Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU) The European Journal of Public Health; doi: 10.1093/eurpub/ckv043. [Impact Factor: 2.591 (5 Year Impact Factor: 2.805)]

S. Van den Broucke, G. Van der Zanden, P. Chang, **G. Doyle**, D. Levin, J. Pelikan, D. Schillinger, P.Schwarz, K.Sorensen, L. Yardley, H. Riemenschneider (2014), *Enhancing the Effectiveness of Diabetes Self-Management Education: The Diabetes Literacy Project, Hormone Metabolic Research*, DOI 10.1055/s-0034-1389952. (Impact Factor: 2.121)

Sorensen, K., Van Den Broucke, S., Pelikan, J., Fullam J., **Doyle, G.**, Slonska Z., Kondilis B., Stoffels V., Osborne R. H., Brand, H. (2013) Measuring health literacy in populations: Illuminating the design and development process of the European Health Literacy Survey Questionnaire (HLS-EU-Q). *BioMed Central Public Health*, 13:948 DOI: 10.1186 /1471-2458-13-948, pp 22.

http://www.biomedcentral.com/1471-2458/13/948. (Impact Factor: 2.321)

Vromans L., **Doyle G.**, Fetak-Opel S. et al (2013), Shaping medicinal product information: a before and after study exploring physicians' perspectives on the summary of product characteristics, *BMJ Open* 2013; 3:e003033 DOI: 10.1136/bmjopen-2013-003033, pp 9. [Impact Factor: 2.271.]

Sorensen, K., Van Den Broucke, S., Fullam J., **Doyle, G.**, Pelikan, J., Slonska Z., Brand, H. (2012) Health Literacy and Public health: A systematic review and integration of definitions and models. *BioMed Central Public Health*, 12:80 DOI: 10.1186 /1471-2458-12-80, pp 25. Altmetric Score = 57. (Impact Factor: 2.321)

Fullam, J., **Doyle, G.**, Sorensen, K., Van den Broucke, S. Kondilis, B. K. (2011) The development and validation of the European Health Literacy Survey (HLS-EU), *Irish Journal of Medical Science*, 180, ISSN 0021-1265, (Springer London Ltd), pp225-226.

Fullam, J., **Doyle**, **G.**, Sørensen, K., Stoffels, V., Van Den Broucke, S., Kondilis, B.K., and the HLS.EU Consortium. (2011) *Validation of the European Health Literacy Survey (HLS-EU)*. Locations: Ireland, The Netherlands, Greece. Dates- June 2010 - October 2010. 4th European Public Health Conference, Copenhagen, 10-12 November 2011. Published Abstract: European Journal of Public Health 21 (Supplement 1) DOI: 10.1093/eurpub/ckr119, p133.

Research Awards

- 1. European Health Award, European Health Forum Gastein 2012, http://www.ehfg.oeg.award.html
- The Crebolder Award on Societal Impact from the School of Public Health and Primary Care, Maastricht University.
- 3. Societal Impact Award 'Huis voor de Zorg (House of Care)', The Netherlands.

Websites

www.healthliteracy.eu
www.healthliteracyeurope.net
www.diabetesliteracy.eu
www.irohla.eu

Grant Information

Co-financed by the European Commission's Executive Agency for Health and Consumers (EAHC) (Grant Agreement Number: 2007113-HLS-EU) and the Department of Health.



Pictured (I-r): Dr A Parvanova, MEP Bulgaria, N. Zylinska-Puta, Ministry of Health, Poland, Rapporteur Opening Ceremony, Dr Gerardine Doyle, Principal Investigator for Ireland, UCD, Kristine Sorensen, HLS-EU Project Co-ordinator, Maastricht University, Prof. G Leiner, President, International Forum Gastein

This research has impacted upon and will continue to impact upon multiple stakeholders including: the academic and scientific community, policy-makers, health service providers, patient organisations, citizens, health care professionals including pharmacists and educators.