OECD publishing

Please cite this paper as:

Moreira, L. (2018), "Health literacy for people-centred care: Where do OECD countries stand?", *OECD Health Working Papers*, No. 107, OECD Publishing, Paris.
http://dx.doi.org/10.1787/d8494d3a-en

OECD Health Working Papers No. 107

Health literacy for people-centred care

WHERE DO OECD COUNTRIES STAND?

Liliane Moreira

JEL Classification: I12, I18

Organisation for Economic Co-operation and Development

DELSA/HEA/WD/HWP(2018)4

Unclassified English text only

10 December 2018

DIRECTORATE FOR EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS
HEALTH COMMITTEE

Health Working Papers

OECD Health Working Paper No. 107

HEALTH LITERACY FOR PEOPLE-CENTRED CARE

Where do OECD countries stand?

Liliane Moreira*

JEL classification: I12, I18

Authorised for publication by Stefano Scarpetta, Director, Directorate for Employment, Labour and Social Affairs

(*) OECD, Directorate for Employment, Labour and Social Affairs, Health Division

All Health Working Papers are now available through the OECD Website at
http://www.oecd.org/els/health-systems/health-working-papers.htm

JT03441089

OECD Health Working papers

http://www.oecd.org/els/health-systems/health-working-papers.htm

OECD Working Papers should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the author(s).

Working Papers describe preliminary results or research in progress by the author(s) and are published to stimulate discussion on a broad range of issues on which the OECD works. Comments on Working Papers are welcomed, and may be sent to health.contact@oecd.org.

This series is designed to make available to a wider readership selected health studies prepared for use within the OECD. Authorship is usually collective, but principal writers are named. The papers are generally available only in their original language – English or French – with a summary in the other.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

The statistical data for Israel are supplied by and under the responsibility of the relevantIsraeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Note by Turkey:

The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union:

The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Acknowledgements

This paper was prepared as part of the OECD Health Division fast-track series. Health Committee delegates expressed interested in a comparative analysis on health literacy across OECD countries conducted in a short period. The analysis hereby presented illustrates its results.

Within the OECD Health Division, the author would like to thank Rabia Khan, Niek Klazinga, Michael van den Berg and Nick Tomlinson for valuable suggestions and comments provided to previous versions of this paper. Thanks go also to Mark Pearson, Francesca Colombo, Ana Llena-Nozal and Akiko Maeda for their feedback and comments, and to Kate Cornford and Eileen Rocard for editing and suggestions. This paper also greatly benefited from comments received from Adele Atkinson at the OECD Insurance, Private Pensions and Financial Markets Division.

The author is grateful to policy experts that responded to the 2017 OECD health literacy international survey, namely those in Australia, Austria, Canada, Chile, Costa Rica, Czech Republic, Estonia, Finland, France, Germany, Ireland, Israel, Japan, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and the United States. Their input was important to tailor the messages herein presented.

Abstract

In the 2017 OECD Health Ministerial Statement, ministers agreed on the importance of addressing health literacy barriers to help health systems become more people centred. This paper sheds light on where OECD countries stand on that front.

In the 21st century care, the old paradigm "*because the doctor said so*" no longer holds. Individuals are now seeking ways to understand their health options and take more control over their health decisions. But this is not an easy task. Professionals continue to use medical jargon, drug instructions are not always clear, and health information in clinical settings continue to be complex and challenging to navigate. Widespread access to digital technologies offset some of these barriers by democratising access to health information, providing new ways to improve health knowledge and support self care. Nonetheless, when health information is misused or misinterpreted, it can wrongly influence individuals' preferences and behaviour, jeopardise their health, or put unreasonable demands on health systems.

This paper finds that health literacy can help steer individuals' behaviour in the right direction. Health education and empowerment help people become partners in the co-production of health by enhancing communication and decisions in clinical settings, as well as increasing self care. This may contribute to better health outcomes.

Ignoring health literacy can come at a high cost. In 18 OECD countries, at least one third of the population shows poor health literacy levels. In 12 of those countries, that proportion rises beyond 50% of the population. Current data suggests European individuals find particularly difficult to evaluate health information from media or judge pros and cons of different treatment options. Vulnerable populations, such as the elderly and lower educated, may be at more risk of low health literacy. This can't be ignored: low health skills are associated with increased hospitalisation, greater use of emergency care and lower adoption of preventive measures. A study in the United States shows additional costs of low health literacy range between 3 to 5% of the total health care cost per year.

Countries recognise that addressing HL barriers goes beyond promoting literacy skills and health education in schools, or implementing community counselling and training courses. Health literacy is also facilitated in interaction with health systems, such as through clear and easy communication with professionals, but also accessible and evidence based information in websites, media campaigns, and patient portals.

While countries are moving in the right direction, more efforts are needed to regularly update knowledge and skills of individuals. First, countries could improve the role of health systems in promoting HL and place greater emphasis in multi-stakeholder action. Second, develop more robust research on what are effective interventions. Third, strengthen international development in sharing best practices and develop innovative solutions. Fourth, improve data infrastructure by enhancing HL measurement surveys.

Résumé

Dans la déclaration ministérielle de l'OCDE sur la santé de 2017, les ministres ont convenu de l'importance de supprimer les obstacles à la littératie en santé pour aider les systèmes de santé à se centrer davantage sur les personnes. Ce document met en lumière la position des pays de l'OCDE sur ce front.

Au XXIe siècle, le vieux paradigme «*parce que le médecin l'a dit*» ne tient plus. Les individus cherchent maintenant des moyens de comprendre leurs options de santé et de mieux contrôler leurs décisions en matière de santé. Mais ce n'est pas une tâche facile. Les professionnels continuent à utiliser le jargon médical, les instructions concernant les médicaments ne sont pas toujours claires et les informations sur la santé en milieu clinique restent complexes et difficiles à s'y retrouver. L'accès généralisé aux technologies numériques élimine certains de ces obstacles en démocratisant l'accès à l'information sur la santé, en offrant de nouveaux moyens d'améliorer les connaissances en matière de santé et de soutenir les soins auto-administrés. Néanmoins, lorsque les informations relatives à la santé sont mal utilisées ou interprétées, elles peuvent influer à tort sur les préférences et le comportement des individus, menacer leur santé ou imposer des exigences déraisonnables aux systèmes de santé.

Ce document constate que la littératie en santé peut aider à orienter le comportement des individus dans la bonne direction. L'éducation pour la santé et l'autonomisation aident les gens à devenir des partenaires dans la coproduction de la santé en améliorant la communication et les décisions en milieu clinique, ainsi qu'en augmentant les soins personnels. Cela peut contribuer à de meilleurs résultats pour la santé.

Ignorer les connaissances en matière de santé peut avoir un coût élevé. Dans 18 pays de l'OCDE, au moins un tiers de la population présente un faible niveau de connaissances en matière de santé. Dans 12 de ces pays, cette proportion dépasse 50% de la population. Les données actuelles suggèrent que les citoyens européens trouvent particulièrement difficile d'évaluer les informations sur la santé provenant des médias ou de juger de différentes options de traitement. Les populations vulnérables, telles que les personnes âgées et les moins instruits, risquent davantage de souffrir d'une faible littératie en santé. De faibles compétences en matière de santé sont associées à une hospitalisation accrue, à un recours plus élevé aux soins d'urgence et à une adoption plus faible des mesures préventives. Aux États-Unis, les coûts supplémentaires liés à une faible littératie en santé varient entre 3 et 5% du coût total des soins de santé par an.

Les pays reconnaissent qu'éliminer les obstacles liées à la littératie va au-delà de la promotion des compétences et de l'éducation à la santé dans les écoles, ou de la mise en œuvre de conseils et de formations communautaires. La littératie en santé est également facilitée en interaction avec les systèmes de santé, par exemple par une communication claire et facile avec les professionnels de santé, mais également par des informations accessibles et fondées sur des preuves transmises *via* des sites Web, des campagnes médiatiques et des portails de patients.

Alors que les pays vont dans la bonne direction, des efforts supplémentaires sont nécessaires pour mettre régulièrement à jour les connaissances et les compétences des individus. Premièrement, les pays pourraient améliorer le rôle des systèmes de santé dans la promotion de la littératie en santé et mettre davantage l'accent sur l'action multipartite.

Il serait également nécessaire de développer des recherches plus solides sur les interventions efficaces, et renforcer le développement international en partageant les bonnes pratiques et développer des solutions innovantes. Enfin, il est primordial d'améliorer les systèmes d'information à travers le développement d'enquêtes sur la mesure de la littératie en santé.

Table of contents

Tables

Figures

Boxes

Key findings

21st century individuals are seeking to take more control over their own health, but this is not an easy task

In the 21st century, the old paradigm "because the doctor said so" no longer holds. Possibly driven by higher income and wider access to information, among others, individuals are seeking to get a better understanding of their health options and take more control over their health decisions.

This is not an easy task. The depth of health service fragmentation, medical jargon used in clinical settings and limited consultation times, for example, make it hard for individuals to access, interpret and navigate health information. Digital technologies, such as websites and health apps, may offset some of these barriers by democratising access to health information, and providing new ways to improve health knowledge and support self-care behaviours. Data from the 2017 OECD digital outlook shows that seeking health information ranks second among a set of eight online activities and common digital technologies. The proportion of European individuals seeking health information online almost doubled in less than a decade, rising from 28% in 2008 to 51% in 2017.

However, health information – provided inside or outside health care settings – can be misinterpreted or misused. Care expectations and preferences will be shaped accordingly, and may lead to harmful health decisions and behaviour, or unreasonable demands on health systems. A recent example is the increase in anti-vaccination movements, which contributed to reductions in children vaccination rates and to measles outbreaks in several countries.

Health literacy can help steer individuals' behaviour in the right direction

Health literacy (HL) relates to an individual's knowledge, motivation and skills to access, understand, evaluate and apply health information.

When individuals are educated and empowered to act on health information, they can make informed decisions about the care that they, or others they care for, receive. It also helps people take greater responsibility over their own health. For example, a patient who feels empowered can more easily tell a doctor that medical instructions are not clear. She may also more easily engage in preventive measures, as she has the information and knowledge on, for instant, what a healthy lifestyle behaviour entails.

Health literacy is an important element of people-centred care as it supports individuals become partners in co-production of their own health and optimises the quality of interaction between individuals and health systems. The literature shows health literacy is positively associated with better patient experience, improved self-care practices, and - at times - better health outcomes.

At least one third of OECD populations may have low health literacy: ignoring this may come at a high cost

Evidence from 18 countries show at least one third of OECD populations may have poor HL levels. In Japan, Slovenia, Turkey, Portugal, Czech Republic, Switzerland, Italy,

Germany, Australia, Canada, Spain and Austria, more than 50% of their populations may have low HL. Data from Europe shows individuals find particularly difficult to evaluate the realiability of health information from media (47%) and judge advantages and disadvantages on different medical treatment options (41%). They also find challenging to evaluate when to seek a second opinion from another doctor (37%), to understand information on food packaging (35%) or to find information on how to manage mental health problems, such as stress and depression (32%). Data also suggests a social gradient in health literacy with vulnerable populations, such as the elderly and lower educated, at higher risk of low HL levels.

Health literacy can't be ignored. Low HL is associated with high risk of mortality in seniors, poor ability to take medication or to interpret labels and health messages, and poor health status among the elderly. A study in the United States has shown additional costs of limited health literacy range from 3 to 5% of the total health care cost per year.

These results however need to be interpreted with caution. Cross-country comparisons remain limited and there is not however yet a 'gold standard' to measure HL. Whereas in Australia, Canada and the United States, for instance, HL is computed using proxies from general skills surveys, European countries instead rely in (adapted forms of the) European Health Literacy Survey. HL surveys design and administration can be improved.

Health literacy goes beyond the individual: health systems have a role to play too in promoting a user-friendly environment

HL is both an input to and outcome from the interaction with health systems, and the contexts they are embedded in. That is, an individuals' ability to interpret health information will depend not only on their personal skills and societal conditions (e.g. access to education and training, or cultural aspects), but also on how easy health information is presented.

To address HL barriers:

The large majority of countries use media campaigns, websites and brochures to disseminate and educate individuals on health. However, evidence on their impact is mixed and depend on a number of features. For instance, studies suggest cost effective web-based programmes need to be structured and tailored to specific populations, and provide evidence based information, which is not always the case. In addition, individuals need to be digitally savvy and able to find information easily. When looking for health information online, a bit more than 80% of European individuals look first at internet engines, 50% check specific dedicated websites, blogs and forums, and only 40% use official health organisations websites. Several OECD countries are also expanding individuals' access to patient portals online as a way to increase knowledge and patient empowerment. However, to be effective, their design needs to be user friendly to encourage enrolment and use.

Half of the countries also invest in counselling and training courses in communities. When designed and targetted to individuals' needs, these can improve health knowledge, self-care practives and lifestyle behaviours. Many countries also promote access to health education and promote initiatives to activate literacy skills – e.g. delivering free books – among both adults and children. This is considered good practice towards building basic skills that enable health literacy.

A few countries (e.g. Ireland, France) use guidelines and tools to promote easy patient-professional communication. An effective way of promoting health literacy in the communication patient-professional is when providers have received HL training on the job: this improves patient satisfaction with information and care, supports individuals remembering the information received. An innovative and recent approach emerging in the Australia, Canada and the United States, are the so-called 'health literate health organisations', which promise to ease understanding of health information throughout an organisation. One study has shown that principles underlying HL organisations can be transferred to other sectors beyond health, such as in extracurricular work settings, thus offering a way to promote multi-sector action.

National strategies for HL exist in Austria, Australia, Germany, New Zealand, Portugal and United States, with even fewer countries regularly monitoring progress of these interventions. A few countries (Australia, Czech Republic, Germany and the United States) have also set up action plans that guide HL interventions, and platforms that mediate between policy and implementation of HL actions. These initiatives have yet to show results, but have the potential to coordinate and develop more targeted programmes for HL development.

Addressing health literacy barriers will entail a four-pronged approach

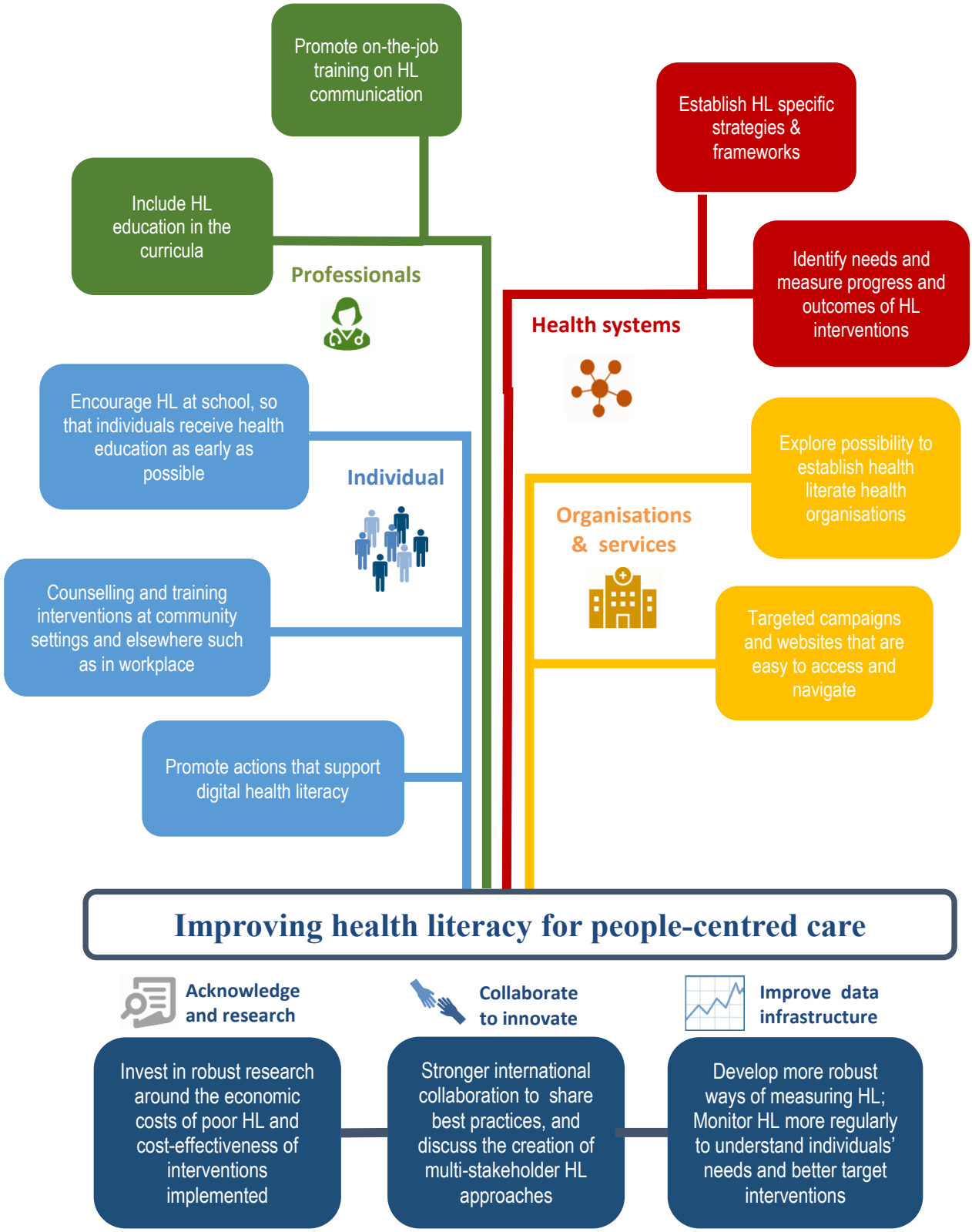
Health literacy is important in driving health systems towards people center care. Countries are moving in the right direction. However, given healthcare rapid changes and the speed with which technology is progressing, there is a need to support more regular update of knowledge and maintain health skills of individuals throughout life. No one action will be sufficient. Stronger and integrated efforts are required in four fronts:

(1) **Strenghten health systems role**. There is scope to improve multi-stakeholder HL approaches. More countries could consider establishing national strategies and frameworks specifically designed to address HL based on needs identified in surveys. Campaigns and websites need to be well structured and targeted. More emphasis could be placed on professionals in their role in adapting to individual's gaps in health knowledge. These would lessen the burden on individuals', though there is need to continue to promote health education in schools and support digital literacy skills.

(2) **Acknowledge the importance of HL through research**. Current policies are seldom monitored for their impact in HL or their cost-effectiveness. More robust research on what works or not could help shape current programmes.

(3) **Improve data infrastructure**. This field would benefit from more regular monitoring of HL levels and improving international comparison. There is scope to improve future HL surveys by including, for instance, indicators measuring HL of organisations and the influence of technological tools and digital information in the HL of individuals.

(4) **Strengthen international collaboration.** This could help share more widely good practices and promote more innovation in this field. For instance, given increasing integration of technology in health care, there will be a need to rethink which skills individuals and professionals will need in the future to ensure the right health information is accessed and well-interpreted.


Promote on-the-job training on HL communication
Include HL education in the curricula
Professionals
Encourage HL at school, so that individuals receive health education as early as possible
Individual
Counselling and training interventions at community settings and elsewhere such as in workplace
Promote actions that support digital health literacy
Establish HL specific strategies & frameworks
Identify needs and measure progress and outcomes of HL interventions
Health systems
Explore possibility to establish health literate health organisations
Organisations & services
Targeted campaigns and websites that are easy to access and navigate
Improving health literacy for people-centred care
Acknowledge and research
Invest in robust research around the economic costs of poor HL and cost-effectiveness of interventions implemented
Collaborate to innovate
Stronger international collaboration to share best practices, and discuss the creation of multi-stakeholder HL approaches
Improve data infrastructure
Develop more robust ways of measuring HL; Monitor HL more regularly to understand individuals' needs and better target interventions

1. Introduction

1. Political momentum around health literacy (HL) has grown quickly over the past years. In the 2017 OECD Health Ministerial meeting, Ministers agreed that in reorienting health systems to become more people-centred "efforts are needed to address barriers to health literacy of the population" (OECD Health Ministerial statement, 2017).

2. HL is an individual's knowledge, motivation and skills to access, understand, evaluate and apply health information. HL is influenced by people's personal and societal characteristics and opportunities, but also health system features (Box 1.1 and 1.2).

3. Health literacy is an important element of people-centred care. People seek more control over their own health decisions. Health literacy can help steer individual's behavious by educating and empowering individuals on health information.

4. This paper discusses the importance of HL, its drivers, current policy options and proposes a way forward to addressing barriers to its development. Data was collected using two methods: a literature review and an international policy survey. The literature review focused on systematic reviews, meta-analyses, individual empirical articles and grey literature on health literacy, the majority of which were published during the past ten years. In addition, 29 OECD countries and Costa Rica answered a questionnaire seeking further information on their experiences and current policy discussions around HL. Information from other OECD countries was included based on results from the literature.

5. The paper is structured in the following way: Section 2 elaborates on the rationale for investing in health literacy; Section 3 discusses HL drivers; Section 4 examines policy options implemented in countries to address HL; while Section 5 contains conclusions.

Box 1.1. Defining health literacy: an evolving discussion

Defining HL remains a matter for debate. For the purpose of this paper the following assumptions are taken:

A. Health literacy is an individual knowledge, motivation and skill

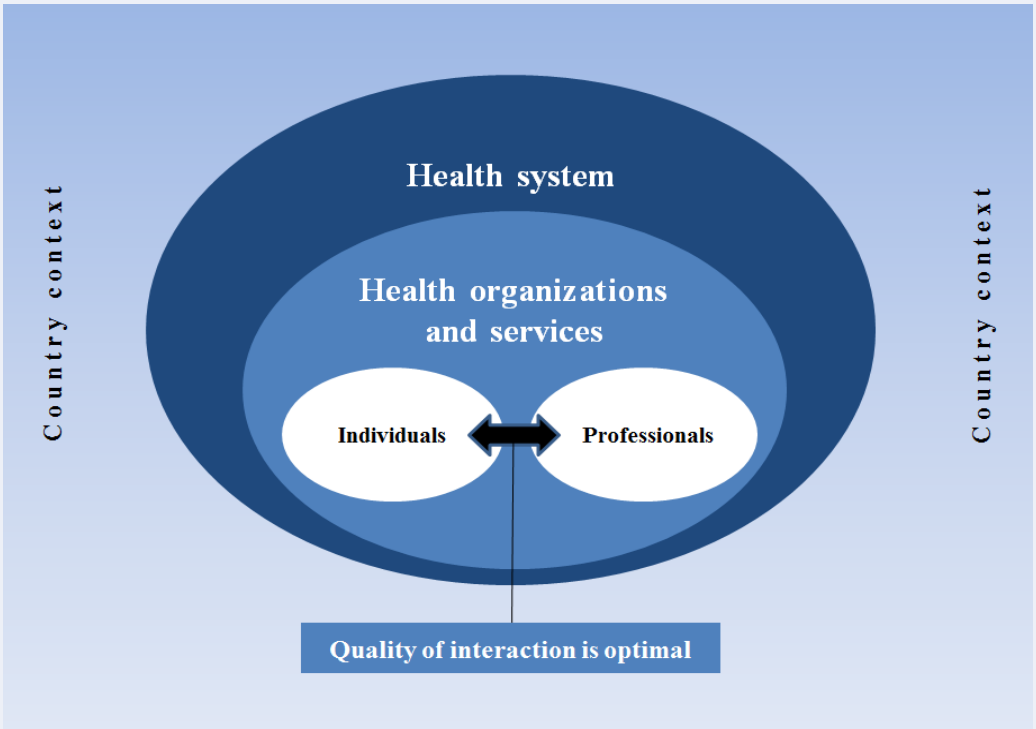
Health literacy is defined as an individual's knowledge, motivation and skills to access, understand, evaluate and apply health information. This definition is a shorter version of the model proposed by Sørensen et al. (2012), which integrates both medical and public health views of health literacy.

B. Health literacy is both an input and outcome from the interaction with health systems

Individuals' HL depends not only on personal characteristics but also on health system attributes. For instance, a patient's capacity to understand medical instructions will be enhanced by: (1) the person's ability to interpret and ask questions when in doubt, and (2) health professional's capacity to adjust their communication style to the patients' needs.

HL is thus characterised as a two-way relationship, with the possibility to optimise the quality of interaction between individuals and health systems.

Figure 1.1. Key stakeholders driving health literacy



Source: Author's own.

Box 1.2. Defining health literacy: an evolving discussion *(continued)*

The interpretation of HL as a two-way relationship is based on two facts:

- The mapping of OECD governments' definition for health literacy (Table 1.1). All definitions recognise individual knowledge and skills to be fundamental elements of health literacy. These are categorised into "can do" traits i.e. individuals knowledge and skills that allow understanding of health information, and "will do" features, i.e. which refer to individuals' willingness to act on health information (more on this in section 3 of this paper). Furthermore, in countries such as Australia, New Zealand, and United Kingdom, there is a clear explicit reference to the importance of health systems in influencing HL.
- Most recent interpretations found in the literature. The European Commission defines HL as the interaction between individuals' skills and abilities, influenced by the complexities and contexts within which people act. The Institute of Medicine describes HL as a product of the interaction between individuals' capacities and the HL demands and complexities of the health care system (Institute of Medicine, 2013).

Table 1.1. Mapping of OECD definitions for health literacy, 2018

	Individual knowledge and skills		Explicit reference to the role of health systems in enabling HL	
	"Can do"	"Will do"	Inc. definition Yes/No	If yes, how?
Australia	Skills; Capacity; Knowledge	Motivation	Yes	Infrastructure, policies, processes, materials, people and relationships
Austria	Skills; Knowledge	Motivation	Yes	Situational demands
Canada	Ability	-	No	-
Ireland	Skills; Knowledge	Motivation	No	-
Netherlands	Functional skills; Critical ability	Interactive and psychological skills	No	-
New Zealand	Capacity	-	Yes	Services are easy to access and navigate; effective health worker communication; clear and relevant health messages that empower everyone.
Poland	Skills; Competences	-	No	-
Portugal	Capacity	-	No	-
Spain	Ability	Motivation	No	-
Switzerland	Ability	-	No	-
United Kingdom	Sufficient skills Knowledge Understanding	Confidence	Yes	System and those working within it need to be aware of people's health literacy needs and to meet them
United States	Capacity	-	No	-

Source: 2017 OECD Health Literacy questionnaire

2. Why is health literacy important?

6. This section discusses why health literacy is important. Health literacy supports individuals become partners in the co-production of health. When individuals are educated and empowered on health information, they will be able to make informed decisions about the care that they, or others, receive. It also encourages individuals to take more responsibility for own health. HL is thus a key element in the move towards people-centred health systems. Evidence shows it can improve patient experience, support self-care practices and may contribute to improve certain health outcomes.

2.1. Help individuals become partners in co-production of health

21st century health care consumers are seeking to take more control over their own health

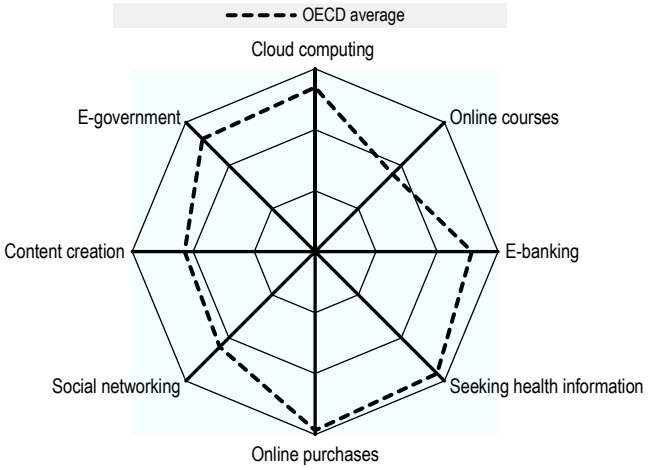
7. Health care consumers of the 21st century are looking to take more control of their health. While individuals have always had, to some extent, to look after their own - or others they care for - health, this is becoming more critical as life expectancies continue to increase and the burden of chronic diseases is expected to rise. This is however not an easy task. Limited consultation times, medical jargon, and the general complexity of health services, make it hard for patients to access, discern and interpret health information in clinical settings.

8. Health information outside of health care settings is expanding quickly, offering to offset some of these barriers. In the advent of technology development, apps and websites for instance, are disseminating health information rapidly. The range of products is wide with health apps monitoring physical activity or supporting self-management in the case of chronic diseases, and websites providing information on diagnosis, symptoms and potential treatment for specific diseases.

9. OECD data shows that *seeking health information* ranks second among a set of online activities and common digital technologies, just after *online purchases*, and above *e-banking*, *social networking*, and *online courses* (OECD, 2017) (Figure 2.1). Data from Europe shows the percentage of people seeking health information online is increasing rapidly. It almost doubled in less than a decade, rising from 28% in 2008 to 51% in 2017 (OECD, 2018) (Figure 2.2).

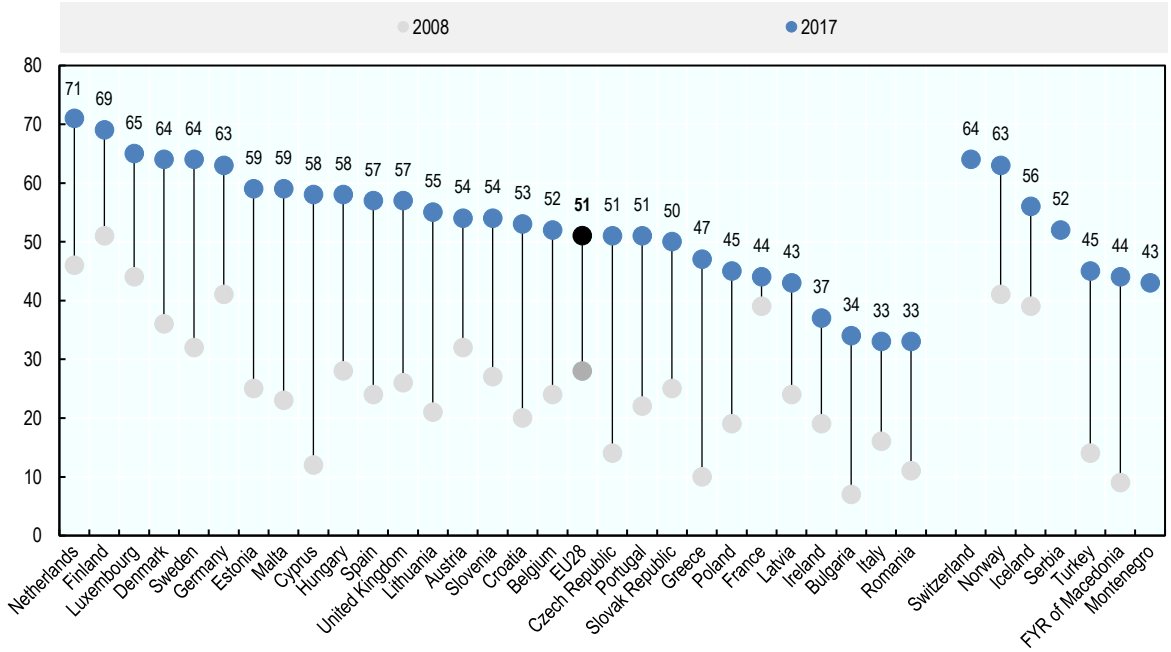
10. Most individuals that search health information online are looking for ways to improve their own health and treat specific illnesses or disease. A EU survey asked individuals to rank the objectives of such a search. Results show individuals mostly seek information (1) on health or ways to improve health (e.g. information on lifestyle choices such as diet, smoking and physical activity, or on health care professionals and centres), (2) on specific injuries or disease and how to treat them, (3) on specific medical treatment or procedures (e.g. information on pharmaceuticals and the risks of certain medical treatment or procedure), and (4) after visiting a doctor (e.g. information on a prescribed treatment, other possible treatments, and testimonials or experiences from other patients). Around 9 in 10 individuals were fairly to very satisfied with the information found. This proportion was higher in Sweden, Ireland and the United Kingdom, and lower in Latvia, Greece and Germany (European Commission, 2014)

Figure 2.1. Seeking health information ranks second in the utilization of digital technologies by Internet users



Source: Adjusted Figure 1.4, from OECD (2017b)

Figure 2.2. The percentage of people seeking health-related information online is increasing in all countries, 2008 and 2017



Source: Figure 8.4 from OECD/EU (2018), based on Eurostat database with data from the European ICT survey of individuals aged 17-74.

Note by Turkey:
The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".
Note by all the European Union Member States of the OECD and the European Union:
The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Misinterpretation of or misuse of health information can jeopardise individuals' health

11. When health information is wrong or misused it can compromise health outcomes. One can take for example the case of medication adherence. When medical instructions are not clear or individuals are excluded from health decisions, these may reject treatment decisions or lack the motivation to follow therapy. Estimations show poor medication adherence – which can be driven by numerous factors, including patients' health literacy – can contribute to nearly 200 000 premature deaths in Europe annually (Kahn and Socha-Dietrich, 2018).

12. Another important example of the latter comes from the insurgence of anti-vaccination movements. Vaccines have proven to be an important and effective preventative measure against infections and diseases. In the United States, for instance, the introduction of pneumococcal conjugate vaccine in routine children immunisation programmes has reduced incidence of penicillin non-susceptible invasive pneumococcal disease in children aged 2 or below by 81% (OECD, 2018b). However, weak research results, distortion in social media and other channels of communication have contributed to misguiding individuals. Many parents are now refusing to vaccinate their children on the grounds these may cause more harm than good (Hussain et al., 2018). Measles outbreaks have spread out in the past years. In the first half of 2018, over 41 000 measles cases were reported in Europe, a higher figure compared to yearly totals from the past decade. In France, Greece and Italy, more than 1 000 cases were registered in each country, and deaths confirmed (WHO, 2018). As a consequence, the European Commission has called for stronger efforts and cooperation to tackle vaccines, improve vaccination coverage and develop sustainable vaccination policies in the European Union (OECD/EU, 2018).

Health literacy can empower patients and help individuals take better care of their health

13. Empowered individuals are more comfortable engaging in dialogue with health professionals. In clinical settings, good patient-provider communication, adequate information, education and skills are important for patient safety (Slawormiski, Auraaen and Klazinga, 2017) and patient satisfaction. A study conducted in Japan shows patient HL to be positively associated with experience in primary health care settings, supporting patient-doctor interaction and understanding of the service provided (Aoki and Inoue, 2017).

14. People with higher levels of health literacy tend to be more engaged in self-care practices. HL can strengthen individuals' capacities to understand long-term disease, which require continued management and capacity to learn about treatment, risks and self-care (Poureslami, 2016). A study among patients affected by heart failure has shown HL to be independently associated with self-care behaviour (Matsuoka et al., 2016).

15. People with low HL experience difficulties in speaking in consultations, and may hide these difficulties due to stigma (Easton, Entwistle and Williams, 2013). A cross-sectional study among German primary care practices found patients with low HL are less involved in decision-making and communicate less with health providers (Altin and Stock, 2016). Instead, evidence shows poor HL is associated with higher risk of elderly mortality, poorer ability to take medications appropriately, lower ability to read labels and health messages and poor overall health status for seniors. However, for many other health outcomes, the results are uncertain (Berkman et al., 2011).

16. More robust research in this field is needed for several reasons. For instance, HL studies are still hindered by methodological shortcomings, such as sample sizes that do not allow for the formulation of robust conclusions. They also vary greatly in terms of the health-related outcomes studied and HL assessments used, hence reducing the ability to establish comparisons (Mantwill, Monestal-Umana and Schulz, 2015).

2.2. The cost of ignoring health literacy is high

At least a third of OECD population may have low health literacy

17. Measuring HL is important. Data helps policymakers identify individuals' difficulties and needs with respect to health information, and offer guidance on potential barriers for action. In OECD countries, HL has been measured in 18 OECD countries using general skills surveys (e.g. PIAAC) or HL-specific surveys (e.g. European Health Literacy survey) (Box 2.1 and 2.2).

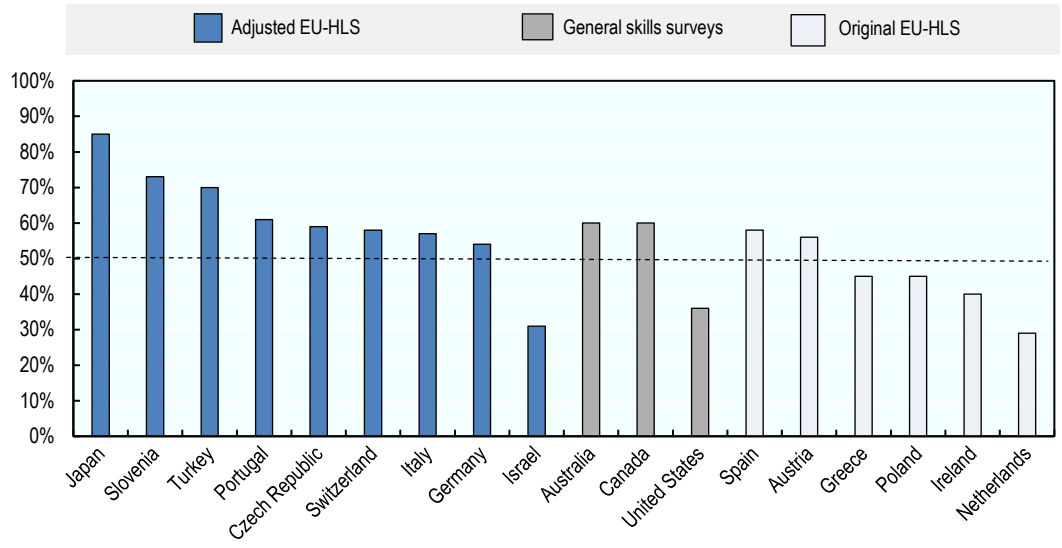
18. An important share of OECD populations shows low levels of HL. In 12 out of 18 countries for which data is available, more than half of individuals show poor levels of HL (Figure 2.3):

- The original European Health Literacy Survey (EU-HLS) shows between 29% (Netherlands) and 58% (Spain) of populations have low levels of health literacy.
- Adjusted forms of the original EU-HLS show that for the majority of countries (Japan, Slovenia, Turkey, Portugal, Czech Republic, Switzerland, Italy and Germany) poor HL may affect more than 50% of their populations. In Israel, the proportion is lower at 31%.
- The general adult skills surveys (Australia, Canada, United States) show between 36% and 60% of the adult population may have low HL levels (Table 2.1).

European individuals find particularly difficult to access and evaluate health information

19. Data collected in European countries shows that individuals find it particularly difficult to access and evaluate health information. With what concerns health care, the majority of individuals ranked *fairly to very difficult* to evaluate if information about illness in the media was reliable (47%), to judge advantages and disadvantages of different treatment options (41%) and to evaluate if there is a need to obtain a second opinion from a doctor (37%). Individuals also rated *fairly to very difficult* to access information on how to manage mental health problems, such as stress and depression (32%) and to evaluate which vaccinations are needed (31%) (Table 2.1).

Figure 2.3. Proportion of individuals with low HL levels, selected OECD countries



Note: 1) Due to the use of different surveys to measure HL, the data is not comparable across countries. 2) The meaning of poor health literacy differs according to the survey applied. For the purpose of this graph, poor health literacy represents all levels bellow the sufficient or basic level as defined in each survey.
Source: OECD (2017) Health literacy questionnaire; HLS-EU Consortium (2012); Nakayama et al. (2015); Schaeffer et al (2016); Palumbo et al (2016); Levin-Zamir et al. (2016).

Table 2.1. Questions related to health information, rated most difficult in Europe

	Competence	On a scale from very difficult to very easy, how easy would you say it is to…	**Very difficult (%)**	**Fairly difficult (%)**	Fairly easy (%)	Very easy (%)	Don't know (%)
Health care	Evaluating	…judge if the information about illness in the media is reliable?	**11**	**36**	34	13	6
	Evaluating	…judge the advantages and disadvantages of different treatment options?	**8**	**33**	36	16	4
	Evaluating	…judge when you may need to get a second opinion from another doctor?	**7**	**30**	40	19	5
Disease prevention	Evaluating	…judge if the information on health risks in the media is reliable?	**8**	**32**	39	16	5
	Applying	…decide how you can protect yourself from illness based on information in the media?	**7**	**29**	42	18	4
	Accessing	…find information on how to manage mental health problems such as stress or depression?	**7**	**25**	40	23	6
	Evaluating	…judging which vaccinations you may need?	**6**	**25**	40	25	4
Health promotion	Accessing	…find out about political changes that may affect health?	**18**	**31**	30	14	8
	Accessing	…find information on how your neighbourhood could be more health-friendly?	**11**	**27**	37	19	6
	Applying	…take part in activities that improve health and well-being in your community?	**10**	**26**	39	18	7
	Understanding	…understand information on food packaging?	**11**	**25**	40	22	2

Source: HLS-EU Consortirum (2012)

Box 2.1. Health literacy measurement in OECD countries

General skills surveys. Traditionally, countries have used population adult literacy or general skills surveys to estimate HL levels. Examples include:

- Adult Literacy and Life Skills survey (Australia): HL was computed as a by-product of prose and document literacy, numeracy and problem solving, for which some questions referred to health. Each domain was measured on a scale ranging from 0 to 500 points and grouped into 5 skill levels.
- National Assessment of Adult Literacy (United States): included specific items to objectively measure HL in three domains: clinical, prevention and navigation of health system.
- International Adult Literacy and Skills survey (Canada): this survey is the predecessor of the OECD Programme for the International Assessment of Adult Competencies (PIAAC). The PIAAC survey measures adults' proficiency in key information-processing skills – literacy, numeracy and problem solving in technology-rich environments – and gathers information and data on how adults use their skills at home, at work and in the wider community.

HL-specific surveys. The 2012 European Health Literacy Survey (EU-HLS) allowed, for the first time, the international comparison of HL levels. Respondents answered 47 questions on *accessing, understanding, evaluating and applying* health information according to three health domains: health care, disease prevention and health promotion. Respondents answered questions following a scale that ranged between very difficult to very easy. Answers were aggregated into four levels of HL: *insufficient, problematic, sufficient and excellent. Insufficient* and *problematic* levels are considered *limited* HL. Since 2012, the EU-HLS has become a benchmark for HL measurement across various OECD countries.

General skills vs HL-specific surveys. While the utilization of general literacy surveys helps develop an estimate for HL levels, it tends to be incomplete in the coverage of HL concepts and may provide little guidance for developing and implementing effective interventions (WHO, 2013). The emergence of a HL-specific surveys has been beneficial to provide detailed evidence on existing HL gaps and reflect more recent expanded concepts of HL (OECD, 2013).

Tools measuring HL at population level in OECD countries

		Examples of countries	Surveys
General Skills Surveys	International	Canada	International Adult Literacy Survey (IALS 2003)
	National	Australia, United States	Adult Literacy and Life Skills (ALLS 2006), National Assessment of Adult Literacy (2006)
Health literacy Surveys	International	Austria, Greece, Ireland, Netherlands, Poland, Spain	Original European Health Literacy Survey (EU-HLS 2012)*
	National	Czech Republic, Germany, Israel, Italy, Japan, Netherlands, Portugal, Slovenia, Switzerland, Turkey	All countries have adapted the original EU-HLS to their country context

Box 2.2. Health literacy measurement in OECD countries *(continued)*

Overview of OECD countries experience with measuring HL at population level

● Yes ○ No/Not available

	Countries that have measured HL at population-level	Countries that intend to measure HL at population-level *Again or first time** [Expected Year]		Countries for which there is no information on intent to measure HL
Australia	●	●	[2019]	○
Austria	●	●	[2019]	○
Canada	●	○		○
Chile	○	○		●
Costa Rica	○	○		●
Czech Republic	●	○		○
Estonia	○	●		○
Finland	○	○		●
France	○	○		●
Germany	●	●	[2019]	○
Greece	●	○		○
Ireland	●	○		○
Israel	●	○		○
Italy	●	○		○
Japan	●	○		○
Latvia	○	●	[2018/19]	○
Luxembourg	○	●	[2019]	○
Mexico	○	○		●
Netherlands	●	○		○
New Zealand	○	●	[2019]	○
Norway	○	○		●
Poland	●	○		○
Portugal	●	○		○
Slovak Republic	○	○		●
Slovenia	●	○		○
Spain	●	○		○
Sweden	○	○		●
Switzerland	●	●	[2019]	○
Turkey	●	○		○
United Kingdom	○	○		●
United States	●	○		○
	18 out of 31 countries	8 out of 31 of countries		9 out of 31 countries

Note: * Does not include results from the *European Action Network,* where many European countries are discussing the possibility to engage in a new HL survey. *Source*: 2017 OECD Health literacy questionnaire.

20. Data also shows there is a social gradient in health literacy with most vulnerable populations – such as lower educated and elderly – more at risk of lower HL (this is discussed in greater depth in section 3 of this paper). With projections showing the share of over 80 years old in OECD countries will more than double by 2050 and account for around 9.5% of the total population (OECD, 2017c), targeting this group for HL interventions becomes particularly relevant.

21. There is not yet a 'gold standard' for measuring HL. This is attributable to several factors. While the HLS-EU became a ground-breaking tool to measure HL internationally, the field testing for this survey was limited to three countries and data only refers to 8 EU member states so far (Quaglio, 2016). There also remains a lack of consensus on what aspects of HL to measure (Poureslami et al., 2016). Hence, comparisons across OECD countries continue to be limited and not yet very robust. The next generation of HL tools will possibly address these shortcomings. In addition, design and administration of these surveys could improve to include the impact of technological tools and digital information on individual's HL, and measure aspects that go beyond individual capacities, such as health literacy of health organisations. At the European level, the Action Network on Measuring Population and Organisational HL, supported by German-speaking countries, are making progress to address some of these challenges by expanding and improving the EU-HLS. Several European countries are planning to join this initiative and new data may be available in 2021.

Poor HL may contribute to high system costs

22. People with lower health literacy may experience difficulties in understanding which health setting to use when they become ill, or which preventive measures to engage in. A study conducted in Belgium found low HL individuals make more use of specialised health services, which tend to be also more expensive (Vandenbosch et al., 2016). A systematic review found low HL to be moderately associated with increased hospitalization and use of emergency care (Berkman et al., 2011).

23. While estimations of the cost induced by poor HL are preliminary and not yet generalised across OECD, they offer some insight to the potential magnitude of the challenge. At the system level, for instance, a study in the United States shows additional costs of low health literacy range between 3 to 5% of the total health care cost per year (Eichler, 2009). At the patient level, the amount of additional health care expenditures incurred by limited HL groups (vs reference groups with adequate HL) may vary between USD 143 to USD 7 798 per person, annually (Australian Commission on Safety and Quality in Health Care, 2014).

2.3. Support individuals make better choices

24. Health systems are complex to navigate and health information difficult to access and interpret. There is a classical information asymmetry, as one of the parties – health providers – possess more knowledge than the other, i.e. care consumers. Even when information is available, individuals may not always act in their best interest. Lack of understanding of health information and service can result in disempowered individuals that are distrustful of health systems and professionals. Given that poorer HL levels tend to be associated with most vulnerable populations, neglecting HL may contribute to exacerbating already existing inequalities. Supporting HL development thus has the potential to guide and nudge individuals into evidence-based choices.

3. What are barriers to health literacy?

25. This section briefly discusses health literacy drivers. It finds that enhancing HL goes beyond improving individuals' skills and knowledge. Health systems, and the culture and society in which individuals are embedded in, have a role to play too.

3.1. Skills, knowledge and motivation of individuals to act on health information

26. The health literacy of an individual will depend on the following:

- "Can do" features, which represent skills, capacities and abilities that will enable an individual to understand and interpret health information;
- "Will do" features, which refer to emotional traits that influence an individual willingness to act on health information.

27. "Can do" features include individual's characteristics, such as age, education and language. Evidence suggests a social gradient in health literacy (Box 3.1). Population groups with lower socio-economic status, education, and of old age, tend to have higher proportions of individuals with low HL (Sørensen et al., 2012)

28. Levels of education may influence the capacity to understand and adhere to prevention measures, critically analyse media material or support their capacity to understand and manage chronic diseases. Access to education is hence an important determinant of HL.

29. Age plays an important role too. Seniors tend to experience a decline in cognitive ability and physical impairments, and may sense shame and embarrassment in communicating their difficulties (Chesser et al., 2016). Studies have demonstrated an independent association between low levels of individual literacy and increased mortality among elderly people (Australian Commission on Safety and Quality in Health Care, 2014). This fact is worrying given the high rates of chronic diseases that affect this population group, requiring good health knowledge to understand, act and treat certain long-term conditions. Updating skills throughout the life span, particularly in view of technological developments, may play a role in ensuring health knowledge of populations.

30. Social resources such as level of integration in a country play also an important role. In Austria for instance, socio-economically better-off and better-integrated migrants have higher levels of HL than corresponding Austrian groups. Research in the United States using the 2003 National Assessment of Adult Literacy has found that speaking the national language, for instance, is associated with higher HL. Measures that remove linguistic and cultural barriers – such as by providing information in different languages – can ensure sustainable access to public services and easy navigation of systems.

Box 3.1. Social gradient in Health Literacy

In Portugal, in 2016, a cross-sectional analytical study based on a sample of 1 004 individuals aged 16 or older, found that around 61% of the population has a limited HL. Most vulnerable groups are found to be the elderly, the lower educated, the unemployed and the retired groups (Pedro, Amaral and Escoval, 2016).

In Germany, the adjusted form of HLS-EU survey was applied to 2 000 individuals aged 15 or above. The results show that around 54.3% of German adults have inadequate and problematic levels of HL with great social inequalities across the population: this proportion is higher among migrants (71%), people with a low level of education (62%) or low social status (78%), those suffering from chronic diseases (73%), and the elderly (66%) (Schaeffer et al., 2016).

In Czech Republic, the HL survey was carried out in the context of preparing the strategic plan Program Health 2020. For a sample of 1 037 respondents aged 16 and older, it was found that around 59.4% of respondents had limited HL. The results also showed that HL is negatively correlated with age and positively with education, similarly to evidence in other countries (OECD 2017 Health Literacy questionnaire).

31. "Will do" features are an individual's motivation and confidence to apply health information. Motivation is relevant in shaping health decisions and behaviour. A study conducted among Danish individuals with type 2 diabetes demonstrated that basic levels of HL and autonomous motivation are important drivers for following dietary recommendations (Juul, Rowlands, and Maindal, 2018). Another study showed primary and secondary prevention of cancer to be significantly related to intrinsic motivation factors, HL, and perceived health competencies (Jung, Jo and Oh, 2016).

32. Individuals' motivation to act on health information is subject to several interconnected factors. These include an individual's perception of capacity and resources to produce a certain behaviour, their own assessment on cost of certain behaviour *versus* potential benefits, and their own set of values (Hardcastle et al., 2015).

3.2. Health systems enabling environment

3.2.1. Health professionals skills

33. Health professionals play an important role in promoting or hampering HL. Overall two reasons can explain this:

- one, health professionals may not be aware that patients experience difficulties understanding health information during consultations;
- two, health professionals may not know they have an important role to play in promoting health literacy.

  In the Netherlands, 40 to 50% of health care providers do not consider individuals limited understanding of health information when communicating or providing information or advice. Reasons for this include not recognising limited health skills, not being aware of a problem, lack of understanding of available methods or a feel there is limited time for interaction, for instance, during consultation times (Nivel, 2018).

34. Health professionals can contribute to a patient HL by applying better communication skills. This will help them share complex information in an easy to understand way, provide advice and therapeutic instructions that are clear, and establish caring relationships with patients. Professional communication that promotes HL is one that avoids medical jargon, is slow and repeats points (Rowlands et al., 2015). With patients becoming increasingly more demanding and with complex health complications, professionals need soft skills to ensure adequate assessment and monitoring of a patient's capacity to understand health information (OECD, 2018c). When professionals are ineffective in their communication, this is detrimental to patients of both low and high HL. Estimates suggest patients recall or understand only half of what physicians tell them during an outpatient encounter (Schillinger et al, 2003). This hampers patient satisfaction and adherence to medical recommendations, thus compromising patient safety and health outcomes (Wynia and Osborn, 2010).

35. Health professionals need to be sensitised to their important role in enabling health literacy. A study of Indigenous peoples in New Zealand, Canada and Australia revealed that these population groups – together with other minorities and socio-economically disadvantaged groups – have greater health literacy needs, and health professionals fail to understand how they could better support these patients (Lambert et al., 2014). To improve health literacy, professionals need to recognise different language needs, social and cultural backgrounds and cognitive abilities and adjust communication accordingly (Trezona, Dodson and Osborne, 2017).

3.2.2. Health organisations and services features

36. There is mounting interest in the relevance of, and active contributions from, health organisations and services in enabling health literacy (Poureslami et al., 2016; Rudd, 2015; Levin-Zamir and Peterburg, 2001). When health information provided in health organisations and services are not easy to interpret, the more effort it will require of individuals to access, understand and evaluate health information. Many people find it challenging to fill out a medical form or understand the instructions from their doctor. If health information is provided in a simple manner, this can have a positive impact on their health and those around them.

37. A feasibility study conducted in 10 hospitals in Spain to assess barriers to HL development used navigation and specific readability tools and a patient survey to evaluate written and oral communication in these hospitals. The assessment identified a number of HL barriers including difficult fonts, incomplete sign posting, lack of maps, and substantial use of medical jargon in hospital forms (Groene and Rudd, 2011).

38. Organisations and services can enable health literacy in several ways. Health clinics and hospitals can use design features that make navigation more intuitive for patients and their carers. Hospital signage could use plain language that makes it accessible to people with different levels of literacy. New technological tools can simplify access to health services, through easy-to-navigate online platforms. Interpreters could be made available for those patients with language difficulties. Printed materials and forms, and other written information (e.g. websites) may use simple language, arrange information in a logical way, and be easy to complete.

3.2.3. Health system strategies and policies

39. Health systems are growing more and more complex. As a result, they often place increased demands on individuals who need to access health services.

40. Strategies and policies play an important role in either enabling or hampering health literacy development. For instance, restrictive consultation times may put a strain on an individuals' time spent with a doctor, and the individual interacting and learning from a health professional.

41. Health literacy will depend on the interaction of a number of stakeholders. As such, setting up national strategies can promote system-level change. The establishment of HL-specific strategies to promote smoother and stronger cooperation between stakeholders, can allow the development of well-tailored roadmaps with concrete and defined objectives (Grifoni and Messi, 2012).

4. Which policy tools to enhance health literacy?

42. This section describes some of the policy tools OECD countries implement to enhance health literacy. The below overview is mostly based on the answers received to the 2017 OECD health literacy questionnaire, for which 29 countries provided answers.

43. Countries implement a wide array of policies that support HL development. The analysis shows large variation across countries on where they stand in developing HL, with Australia, Austria, Germany, New Zealand and United States, among a few more, as the most advanced countries in promoting HL. In most countries, however, interventions continue to be scattered and uncoordinated, and most initiatives that support HL have not been explicitely designed for that purpose.

44. To address HL barriers, countries implement the following policies:

(i) **The large majority of countries** have invest in wide dissemination of health information through media campaigns, websites and brochures. However, evidence on their impact is mixed and depend on a number of features. For instance, studies suggest web-based programmes need to be structured and tailored to specific populations, and provide evidence based information in order to be cost effective. In addition, individuals need to be digitally savvy and able to find information easily.

(ii) **Several countries** also promote individuals knowledge and empowerment through initiatives that improve access to education and literacy skills of both children and adults, such as through delivering free books. This is considered best practice in promoting health literacy. Further, when designed and targetted to individuals' needs, counselling and training sessions can also improve health knowledge, self-care practives and improve lifestyle behaviours.

(iii) **A few countries** have in place guidelines and tools to promote clear and easy patient-professional communication. However, on the job training for professionals on HL communication may deliver more effective results: evidence shows it improves the quality of interaction between individual and provider, and it increases patient satisfaction with information and care. An innovative and recent approach emerging in the United States, Canada, and Australia are the so-called 'health literate health organisations', which promise to ease understanding of health information throughout an organisation. But more time is needed to see how this translates into higher HL of individuals.

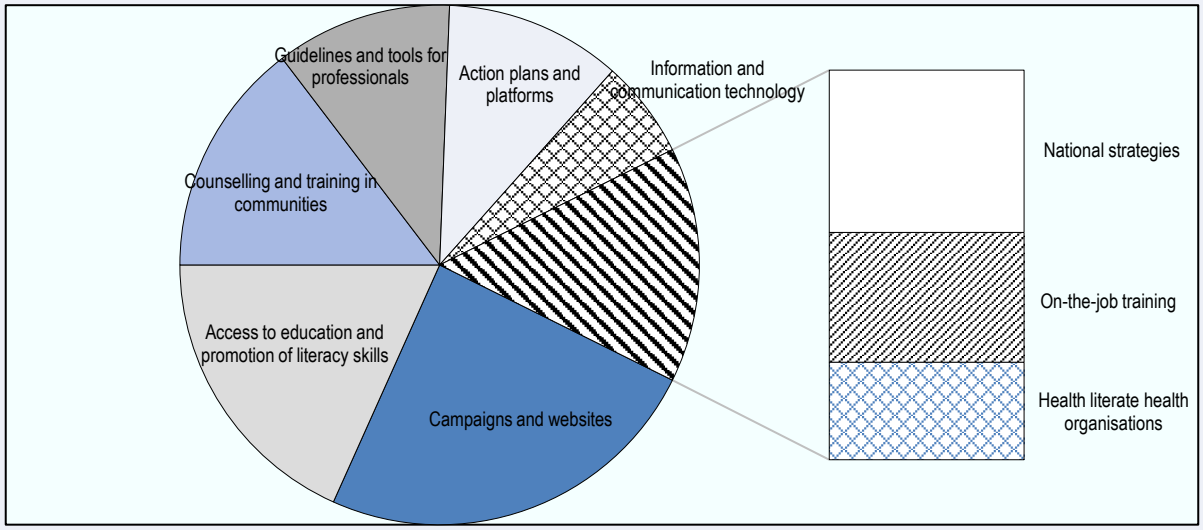
(iv) **Only six countries** (Austria, Australia, Germany, New Zealand, Portugal, United States) have in place HL specific national strategies and even less countries regularly monitor their implementation and progress. These top-down initiatives hols the potential to help coordinate and develop more targeted programmes for HL development.

45. In many ways, countries are moving in the right direction. However, stronger efforts will be required to strengthen health systems role in HL promotion, set up multi stakeholder actions and improve research on which interventions are more effective in promoting HL.

Box 4.1. Mapping HL policy tools across OECD

OECD countries implement a wide range of policies to support access, understanding, evaluation and application of health information. The majority of interventions implemented in OECD aim to (i) disseminate health information via websites and large media campaigns, (ii) promote access to education and incentivise literacy skills of children and adults, and (iii) develop counselling and training sessions at the community level (Figure 4.1).

Figure 4.1. Top 3 interventions: media campaigns and websites, access to education and promoting literacy skills, and counselling and training sessions in communities



Policies aim at either developing individuals knowledge and empowerment to act on health information (Figure 4.2 – Panel A), or to promote an enabling environment (Figure 4.2 – Panel B, C, and D). More specifically, there are those policies that

(1) Increase access to education and promote literacy skills of adults and children, provide counselling and training sessions in community settings and use information and communication technology to empower individuals on health information (Figure 4.2 – Panel A), and those that

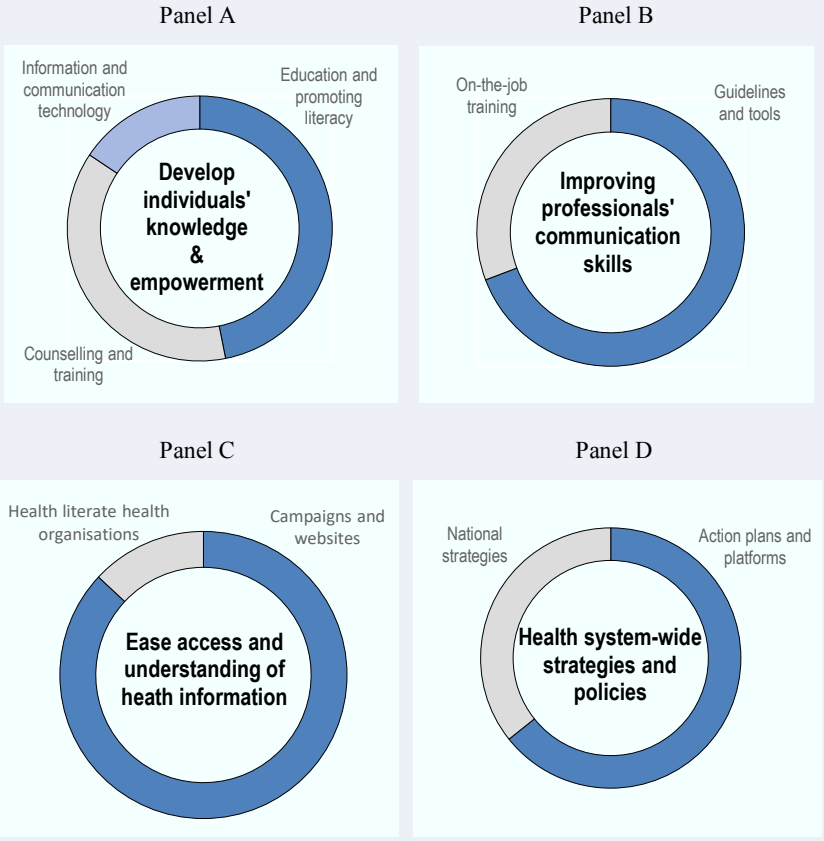
(2) Promote an enabling environment, i..e reduce an individual's burden to understand health information. These include activities to

(2.1) Improve professionals' communication skills. Mostly guidelines and tools that guide professionals' communication skills to be clear and tailored towards patients. These also include on-the-job training of providers to sensitise providers to individuals' needs (Figure 4.2 – Panel B)

(2.2) Ease access and understanding of health information. The large majority of countries have in place different websites and several use media campaigns to disseminate information widerly and educate on disease prevention and health promotion aspects (Figure 4.2 – Panel C).

(2.3) Promote health-system wide frameworks, such as through HL standalone national strategies some of which are regularly monitored to evaluate progress towards HL targets, and action plans and platforms for implementation of actions (Figure 4.2 – Panel D).

Figure 4.2. Types of HL interventions in OECD countries



All OECD countries have in place programmes that enhance health literacy, even if they may not have been designed for that specific purpose. However, there are differences in how many resources are being allocared to support health knowledge and skills. The most advanced countries include Anglo Saxon countries (eg Australia, United States, New Zealand) and a few European countries (e.g. Austria, Czech Republic, Germany, Switzerland, Portugal), which have have measured HL levels and designed programmes that addressed some of the needs or challenges identified in that data.

Source: OECD 2017 Health Literacy questionnaire

4.1. Support individual's knowledge and empowerment

Access to education and promotion of literacy

46. Health literacy is instrinsically connected to the literacy skills of a person. The lack of capacity to read and interpret information is linked to the ability to understand all types of information, including health. The association between low literacy and health related

outcomes is demonstrated in several studies (Berkman at al., 2011; DeWalt, 2004). Low literacy skills make individuals less responsive to health education, less likely to use disease prevention services or successfully manage chronic conditions (Berkman et al, 2011).

47. Countries promote literacy and reading habits of both children and adults (Box 4.2). Research in Canada has demonstrated that daily reading of books, newspapers, magazines, websites, has the single strongest effect on health literacy rates, regardless of education level (Canadian Council on Learning, 2008). In the United Kindgom, Switzerland and the Netherlands, a few initiatives aime to enhance literacy or increase the reading habits of both children and adults. In Finland and Slovenia, however, children received health education courses in school. Evidence suggests effective strategies should target younger populations to ensure good habits and skills form an early age (Wilsher et al., 2017).

Counselling and training sessions in the community

48. HL intensive training interventions in community settings may contribute to reduce the harshness of disease and reduce the number of hospital visits. For instance, the Stanford Nutrition programme consisting of group sessions that provide education on low fat nutrition, showed that adults that participated in the intervention, reduced in 2.3% their calorie intake from total fat and 0.9% in saturated fat, compared with general intervention participants (Public Health England, 2015). This group of interventions typically includes community-based training as well as networking and peer support.

49. OECD countries make use of a wide range of HL interventions that develop HL capacities of families or community members. Topics covered range from lifestyle counselling for families (e.g. Smart Family in Finland), or building networks of community partners to educate and empower individuals. For instance, the *The From Coverage to Care Resources* in the United States is an online effort to help educate consumers about their new coverage. C2C builds on existing networks of community partners to educate and empower newly covered individuals. While data is collected on the number of trainings conducted, evaluations on their impact or effectiveness are however not available.

50. Self-management courses have proven to be a successful way of promoting health knowledge and improving behaviours, supporting better health outcomes and decreasing health care services utilization (Ahn et al, 2013; Ory et al. 2013). The Evivo international programme “Devenir acteur de sa santé” (i.e. To become an actor of its own health), is based on the Chronic Disease Self-Management Programme. It consists on a standardised course programme that teaches basic skills to manage the challenges related to disease and health. This programme has been successful in supporting individuals’ autonomy in managing their own health and, as a consequence, has been replicated in Switzerland, France, Ireland, Finland and others.

Box 4.2. Initiatives to promote basic literacy skills

Health literacy is instrinsically connected to the literacy skills of a person. Literacy skills refer to someone's "ability to identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts" (OECD PIAAC, 2018). Literacy is hence a key competence in enabling an individual to come to terms with health-related information (Nielsen-Bohlman et al, 2004). Below are examples of countries initiatives to promote capacity and interest in literacy, for both children and adults.

Bookstart (United Kingdom)

Using local public service professionals, Bookstart provides free books to children before they start school to engage them with daily reading practices. Longitudinal research has found Bookstart children outperformed their non-Bookstart peers in both literacy and numeracy upon entering school by between 1 and 5%. The expectation is that, overtime, Bookstart will demonstrate considerable savings as a result of educational and health gains, economic success, reduced criminal activity and reduced demand for social services (Roberts, 2015).

La Fédération Suisse Lire et Écrire (Switzerland)

The Swiss Read and Write Federation and its members inform the general public about the phenomenon of illiteracy and raise awareness of this problem of society. Classes are held for adults who do not have the reading and writing skills to cope with the demands of everyday and professional life.

Inclusiveness through language skills ("Tel mee met Taal" in the Netherlands)

Approximately 1.3 million residents in the Netherlands between the ages of 16 and 65 have low literacy skills, with the largest group being formed by native Dutch people with general secondary education. "Tel mee met Taal" is a national program running since 2015 aiming to address this problem.

Source: OECD (2017) Health Literacy Questionnaire

51. Counselling services too can improve HL, by educating and empowering patients to pursue better choices for their health. Counselling for individuals at risk is one of the most effective interventions in promoting health and disease prevention (Cecchini et al., 2010). A study analysed a HL approach to midwife counselling for women with gestational diabetes. Mothers in the intervention group participated in 6 HL sessions together with counselling on routine pregnancy care, while the control group received only general counselling and a training package. This trial showed significant differences in mean scores of lifestyle behaviours and health literacy after the intervention between intervention and control groups (Gharachourlo et al., 2018).

52. In a systematic review of OECD interventions in primary health care to improve HL for chronic disease risk factors, it was found counselling to be an effective way to improve HL and encourage smokers for quit smoking (Taggart et al, 2012). In Luxembourg, the national smoking cessation programme consists of regular consultations with a medical doctor during 8 months, in which individuals receive counselling on the benefits of quit smoking. Those consultations are fully reimbursed and costs with medication, such as nicotine substitutes, are shared 50/50 with the patient with a ceiling of

EUR 100. Follow up is conducted by the medical doctor who reports progress to the manager of the programme. From 2012 to 2016, average rates of abstinence after 8 months were at around 78%. Another promising initiative is la Maison du Diabète. It provides counselling services for chronic disease patients. It starts with personalized advice by a nurse or dietician specialised in diabetic patient education, explaning how the treatment works and providing general advice on diet, search for alternatives and recommendations for the adaptation of dietary habits to the glycemic profile, as well as promoting regular physical activity. Evaluations are however not available.

Information and communication technology to empower individuals

53. More and more countries now allow patients to view and interact with their own electronic health records. It may include information on their health status or outcomes, or report on experiences or incidents related to their care. In some instances, it is possible to communicate with health professionals (Oderkirk, 2017). In the United States, the Indian Health Service for American Indians and Alaska Natives has an electronic health record that documents patients' level of education and comprehension, barriers to learning and enables setting personal behavioural health goals to support wellness. In Austria, the Electronic Health file (ELGA) is being revamped to provide an enlarged portal to citizens that will enable easy and safe access to related health data on a permanent basis.

54. While personalised patient records hold potential for patient empowerment in health, one challenge remains: ensuring patients use these tools. Behavioural studies show that preferences and decisions are sensitive to how information is presented. In United States, an experiment aimed to identify a low-cost and scalable solution to encourage patients to enrol and use their online patient portal and support their health literacy. The Office of National Coordinator for Health Information Technology, the White House Social and Behavioral Science Team and a local health system revised the online patient portal instructions section of the printed After Visit Summary (AVS). The revised AVS page was clearer on the benefits of using the portal, highlighted clear steps to enrol and encouraged immediate action. The revised AVS was implemented in all primary care clinics within a local health care system and led to an estimated 10 percentage point increase in probability of signing up and using it.

55. HL is also determined by individuals' and patients' self-confidence and motivation to act on health information. One area in which this becomes particularly relevant is in promoting good mental health and preventing mental illness. One in two people experience a mental illness in their lifetime, with as many as 80% of those with a common mental disorder not seeking or receiving treatment (OECD, 2012).

56. Seeking support for mental health requires interventions that help individuals share personal information and knowledge, and overcome stigma (Debate, Gatto and Raffal, 2018; Beatie et al, 2016; Thomas et al., 2014). A systematic review on web-based interventions targeting mental health literacy showed that interventions that are efficacious, cost-effective and transferrable across countries need to have "active" ingredients that will motivate individuals to learn and adapt. In other words, programs need to be structured and provide guidance, be tailored to specific populations, deliver evidence-based content, and sustain a pedagogical approach promoting interaction and experiment in learning (Brijnath et al., 2016). Examples of successful interventions in this realm include the MoodGym and the Blue Pages in Australia (Box 4.3) and the MindEd programme, in the United Kingdom (Box 4.4).

Box 4.3. Mental health literacy: cost-effective web-based measures that motivate and engage individuals, Australia

Web-based interventions that include active components motivating individuals to be interactive and keep learning have proven to be cost-effective and effective in improving mental health literacy.

In Australia, MoodGym and Blue Pages websites were developed to alleviate depressive symptoms and increase understanding of depression through information available online.

(v) MoodGym (https://moodgym.com.au/) provides self-help training in cognitive behaviour therapy to help prevent and manage symptoms of depression and anxiety.

(vi) Blue Pages (https://bluepages.anu.edu.au/) provides information on depression treatments based on the latest scientific evidence and also offers screening tests for depression and anxiety and links to other resources.

These programmes were evaluated to see if literacy in depression could be as effective as cognitive behavioural therapy in reducing depressive symptoms. Results from randomised control trials found both websites and their content reduced symptoms of depression. MoodyGym significantly reduced dysfunctional thinking when compared to the control group and increased literacy in cognitive behavioural therapy. Blue Pages improved knowledge of medical, psychological and life style factors regarding depression.

Sources: Brijnath et al (2016), http://cdc.thehcn.net/promisepractice/index/view?pid=3835

Box 4.4. Mental health in children: e-mediated therapies and computer based applications, United Kingdom

A systematic review on e-learning and computer-based applications – e.g. computerised cognitive behavioural therapy – showed these type of initiatives may support therapy, particularly in the case of depression among young people. The study also showed that e-therapies can encourage a patient's autonomy in their treatment, but need to be integrated with other mental health services. One example of such type of initiatives is the MindEd (https://www.minded.org.uk), a free of charge website, providing education resources for adults on children and young people's mental health.

Source: Adapted from Box in Public Health England (2015), National Collaborating Center for Mental Health (2014)

4.2. Improving professionals' skills

Guidelines and tools to frame communication with health system users

57. Health professionals engage in HL communication by assessing what patients already know, speaking clearly (e.g. oral communication is slow, plain language is used and there is an attempt to match the patient's vocabulary) and asking patients to repeat what was said or instructed (Sudore and Schillinger, 2009). Most important techniques in HL communication include avoiding medical jargon, using 'teach back' and 'show me'

technique, eliciting questions from patients through a patient-centred approach, using a universal precautions approach (i.e. all patients are at the risk of not understanding health information) in oral and written communication, and making use of professional medical interpreter (Coleman, Hudson and Pederson, 2017) (Box 4.5) Asking patients to "teach back" what they hear can significantly improve patient knowledge and memory retention and thus contribute with better outcomes in counselling sessions (Mathew, 2018).

58. Several OECD countries make use of guidelines to set standards on how health professionals can better communicate with patients. In Ireland, the Health Service Executive has published national guidelines "Communicating Clearly for Health Professionals" which is part of the HSE's improvement programme to support staff to communicate clearly and be aware of health literacy issues during their daily work with patients and service users. It provides writing and speaking advice when dealing with patients and other care users. In France, "*Communiquer pour tous - guide pour une information accessible* » is a guide of best practices on how to provide information in an accessible form to all, particularly those with low levels of HL. In Austria, improving the quality of communication in healthcare is a national policy towards establishing a patient-centered culture of communication in the Austrian health care system.

59. In addition, countries also put in place toolkits with hand-on resources to promote easier plain language communication. In the United States, the Agency for Healthcare Research and Quality has developed a HL universal precautions toolkit with evidence-based guidance on how to improve spoken communication. In Canada, the "Easy Does It! Plain Language and Clear Verbal Communication", is a training manual developed for health providers carrying advice and stories on how to communicate with patients to improve the quality of care. Data on how these interventions support both professionals and patients is nonetheless limited.

On-the-job training to sensitise professionals to individual's health literacy skills

60. Research shows important gaps still persist in educating health professionals on issues around HL (Saunders, Palesy and Lewis, 2018). Providers often lack HL knowledge and the competences to understand patients and caregivers needs (Coleman, Hudson and Maine, 2013).

61. A proven effective strategy towards HL improvement is training professionals to became aware of patients health knowledge needs. It improves patient satisfaction with information and care, increases physicians' counselling about lifestyle behaviours and strengthens connection between physicians and their patients (Haskard et al., 2008). Randomized control trials have shown that when providers are informed of patient HL levels and they are more likely to use HL strategies. Patients are also more likely to adhere to colorectal cancer screenings when professionals received training to communicate with low HL patients (D'Eath et al., 2012).

62. A few OECD countries have adopted training of trainer (TOT) approaches to improve professionals' HL communication. For instance, in New Zealand, two pharmacists received training on how to understand and adapt to HL needs of clients, and this knowledge was then passed on to other staff members. The evaluation showed improvements in the length of interaction and feedback loops between pharmacists and clients, and the omission of technical terms during conversation (Box 4.6). In the United States, the SHARE approach defines essential steps of shared decision-making. A one-day TOT developed by the Agency for HealthCare Research and Quality promises to help

Box 4.5. Top ways in which health professionals can promote HL communication

A survey conducted among 25 health literacy experts, ranked the following techniques as top 10 ways in which health professionals can practice HL communication.

	Health literacy practice*
1	Consistently avoids using medical "jargon in oral and written communication with patients, and defines unavoidable jargon in lay terms
2**	Routinely uses a "*teach back*" or "*show me*" technique to check for understanding and correct misunderstandings in a variety of health care settings, including during the informed consent process
3	Consistently elicits questions from patients through a patient-centered approach (e.g., "what questions do you have?", rather than "do you have any questions?")
4***	Consistently uses a "*universal precautions*" approach to oral and written communication with patients
5	Routinely recommends the use of professional medical interpreter services for patients whose preferred language is other than the official language in the country
6	Consistently negotiates a mutual agenda with patients at the outset of encounters
7	Routinely emphasizes one to three "need-to-know" or "need-to-do" concepts during a given patient encounter
8	Consistently elicits the full list of patient concerns at the outset of encounters
9	Routinely ensures that patients understand at minimum: (1) what their main problem is, (2) what is recommended that they do about it, and (3) why this is important
10	Routinely uses short action-oriented statements, which focus on answering the patient's question, "what do I need to do" in oral and written communication with patients

Note: *Top 10 practices, from Table 2 on 'Health literacy practices ranked by mean rating. ** 'Teach back' is an easy to use technique in which professionals ask a patient to explain or demonstrate in their own way what has just been discussed with them. 'Show me' allows patients to show if they understood instructions (e.g. on how to use an inhaler). *** The universal precautions approach assumes that all patients are at risk of not understanding health information.

Source: Coleman, Hudson and Pederson (2017)

health care professionals work with patients to better gauge their needs. From 2015 to 2016, more than 20 TOT workshops have trained over 800 professionals on key competencies for shared decision-making. Evaluations showed improved patient interactions, better guidance to a patient in determining a treatment decision, as well as greater incorporation of patient expectation and preferences. In France, the "Put yourself in the patients' shoes", is a regional project developed in Normandy aiming to improve communication between professionals and users. Hundreds of professionals have participated in training sessions over a period of 1 year. Professionals are challenged to spend time and trial using a wheelchair, for instance, to sensitize professionals to patients' needs and what it entails to be dependent on a care team. Evaluations are ongoing.

63. HL communication does not necessarily need to occur face to face to bring results. A cross-sectional study on email, telephone and text message communication between patients and primary care physicians showed these technologies improve the relationship with the patient, save time and improve follow-up (Dash et al, 2016). New pilots and experiments are also ongoing. For instance, in the United States, patient-provider diabetes communication is being developed with the use of secure messaging, which helps clinicians meet diabetes patients' communication needs matched to their HL level.

Box 4.6. HL medication project in New Zealand – measurement and evaluation

Using a TOT approach, two pharmacists were chosen as champions to receive HL training and subsequently pass on that knowledge to their teams. The training package consisted of (i) one day education session about health literacy for the lead pharmacists (the trainer), (ii) a package of resources including a booklet and brochure outlining 3-steps to health literacy (*Step 1*: find out what people know; *Step 2*: build HL skills and knowledge; *Step 3*: check you were clear and if not go back to step 2), (iii) follow-up telephone support to lead pharmacists and (iv) memo card about the three steps.

This 3-month project showed improvements for the majority of indicators analysed, such as increased length of interaction with client, reduction of technical terms used, as well as feedback loops between pharmacist and client.

	Pharmacy 1		Pharmacy 2	
	Pre-HL training	**Post-HL training**	Pre-HL training	**Post-HL training**
Length of interaction (sec)	79	**115**	101	**115**
Number of technical terms used	72% no technical terms	**100% no technical terms**	95%% no technical terms	**96% no technical terms**
Names of medicines	70% common names only 0% technical names only 8% both 23% no name	**83% common names only** **0% technical names only** **0% both** **17% no name**	61% common names only 0% technical names only 7% both 33% no name	**81% common names only** **0% technical names only** **0% both** **19% no name**
The consumer was asked what they know	8%	**76%**	13%	**41%**
The consumer asked questions	31%	**33%**	19%	**31%**
Teach-back was used	9%	**24%**	6%	**43%**

Source: 2017 OECD questionnaire on health literacy

4.3. Ease access and understanding of health information

Health literate health organisations

64. Changes in infrastructure may help align health care demands with people's health skills needs. The set-up of health literate health organisations (HLHO) is an innovative top-down approach to HL development, which is slowly gaining traction in a few OECD countries. Navigating health care organisations such as hospital signage is a complex matter for various population groups. HLHO can enable easy navigation, understanding and use of information and services by people interested in taking care of their health. Brach et al. (2012) propose 10 key principles for the design of such organisations, which comprise a series of steps leading to organisational change (Box 4.7).

Box 4.7. Ten principles defining a health literate health organisation (HLHO)

1. Has leadership that makes HL integral to its mission, structure and operations
2. Integrates HL into planning, evaluation measures, patient safety, and quality improvement
3. Prepares the workforce to be health literate and monitors progress
4. Includes populations served in the design, implementation, and evaluation of health information and services
5. Meets the needs of populations with a range of HL skills while avoiding stigmatization
6. Uses HL strategies in interpersonal communications and confirms understanding at all points of contact
7. Provides easy access to health information and services and navigation assistance
8. Designs and distributes print, audio-visual, and social media content that is easy to understand and act on
9. Address HL in high-risk situations, including care transitions and communications about medicines
10. Communicates clearly what health plans cover and what individuals will have to pay for services

Source: Brach et al. (2012)

65. In Australia, starting from 2019, all public and private hospitals and day procedures will need to be assessed against the National Safety and Quality Health Service Standards which includes explicit areas of intervention for health literacy. These actions ask that health service organisations facilitate access to services through signage and directions that are clear and fit for purpose, use communication mechanisms that are tailored to the diversity of consumers and local communities, that consumers – e.g. patients, carers or families – are included in health information development and that health service organisations support clinicians in their communication with patients, carers and other care consumers. The Public Health Agency in Canada supported the creation of a toolkit providing practical and user-friendly information and tools for improving HL in health organisations. Evidence on the mechanism through which these tools contribute to effective change and higher health literacy in organisations is nonetheless slim. A systematic review of strategies used in a few OECD countries to develop HLHO found that while the tools provide relevant feedback on HL performance of organisations, none actually resulted in changes in practice (Lloyd et al., 2018).

66. This concept is nonetheless promising. While results on the effectiveness of HL guides for organisational changes remain limited, experience with implementing these is positive (Farmacova, Bonneville and Bouchard, 2018). Also, principles underlying HL organisations can be transferred to other sectors beyond health, such as in extracurricular work settings, which may contribute to promoting HL through multi-sector action (Wieczorek, Ganahl and Dietscher, 2017).

Campaigns, websites and brochures

67. The most common group of policies applied in OECD countries to educate individuals on health information are campaigns, websites and brochures.

68. The vast majority of countries have set official government-led websites providing either general public health information, or information targeting certain population groups or diseases. A few countries also use SMS to provide tailored information. Information provided through SMS also hold great potential for disclosing information that is tailored to low health literate individuals (Kim and Xie, 2017). Several countries however continue to make use of the more traditional ways of sharing information, such as media campaigns. Several are tailored to particular health behaviours such as misuse of antibiotics or nutrition (Box 4.8).

69. Web-based interventions provide vast amounts of information, which can be easily updated. They may also support user satisfaction as it gives freedom as to when to access information (Austvoll-Dahlgreen et al., 2013). Nonetheless, to be effective, web-based initiatives need individuals that are able to find information easily, are digitally savvy and information provided offers guidance on evidence-based choices:

- Health information needs to be easily found when conducting a search online. One study in 18 Latin American and Caribbean countries – including Mexico, Chile, Colombia, Costa Rica, Mexico and Peru – found the probability of finding information of national health authorities among the top 10 results on Google was less than 7%. Additionally, for more than half of the countries, information was not a top result in Google. These findings suggest that national health authorities may need to take measures to try to better position their content (Novillo-Ortiz, Hernández-Pérez and Saigí-Ruvió, 2017). A European survey among over 26 000 respondents shows individuals look for health related information using different sources. Internet search engines and specific websites, blogs and forums come prior to official health organisations websites (Box 4.8).
- Individuals need to be equipped with the right skills to navigate and interpret health information online. Online information search is growing among elderly populations with higher risk of chronic disease, social isolation or poor health outcomes, and these may not be the most digitally savvy. The younger and educated tend to have higher eHealth literacy, that is, are better equipped with the skills to understand health information provided online (Tennant at al., 2015; Norman and Harvey, 2006).

70. Several countries also have developed guidelines and distribute written information. Countries have developed infographics and posters (e.g. Australia) or comics (e.g. France, i.e. SanteBD) that provide easily readable health related information to different stakeholders, including disabled individuals. To enact healthier choices, a few countries also have in place front-of-pack food labelling (e.g. a scheme in Mexico which clearly and quickly communicates energy content; the Health Start Rating System in Australia and New Zealand and the Nutri-Score system in France, which rates the healthiness of packaged goods to enable easy comparisons; and a scheme in Chile which applies warning signs to products with high levels of certain nutrients). While known to be a cost-effective way to support healthier choices and provide incentives to food manufacturers to reformulate products to improve nutritional quality, there is limited evidence of the effectiveness of different schemes in supporting people with low levels of health literacy.

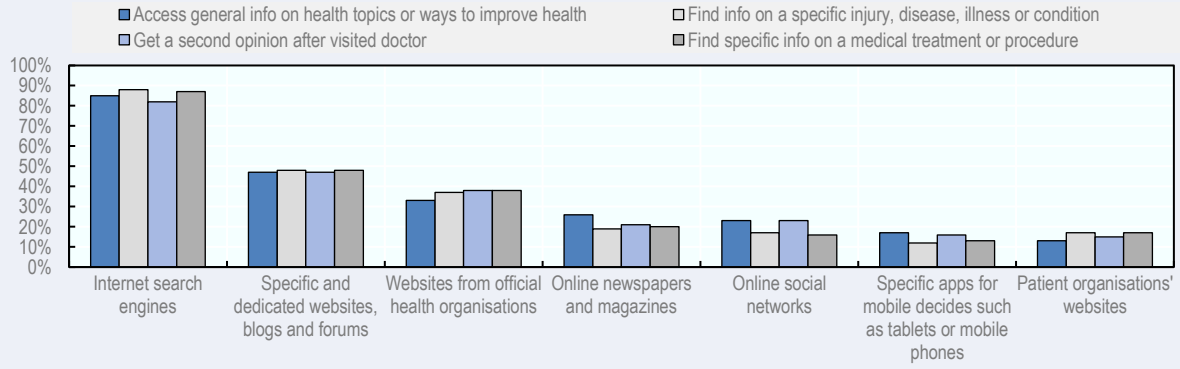
Box 4.8. A few examples of websites, SMS use and media campaigns for wide dissemination of health information

The large majoriy of OECD countries promote health knowledge through wide dissemination of health information through websites and media campaigns. To less extent but emerging, are also initiative with targeted messages via SMS.

	Examples
Websites	(i) General health information: gesundheit.gv (Austria), or Sante.fr (France). (ii) Specific health-related themes: mangerbouger.fr (nutrition and physical activity in France), or estilosdevidasaludable.msssi.gob.es (healthy lifestyles in Spain) (iii) Specific population groups: santetresfacile.fr (mentally impaired in France), aelter-werden-in-balance.de/atp (elderly in Germany), womenshealth.gov (women in the United States)
SMS	(i) In Mexico, the Mobile Health Project is part of the National Strategy for the Prevention and Control of Overweight, Obesity and Diabetes, and is based on personalized communication with patients through SMS text messages. (ii) In Portugal, the use of SMS and email is used by the Ministry of Health to share creative messages on themes that vary according to predefined areas of interest, or information on health and diagnostics registered online in the Citizen's portal.
Media	(i) In Turkey, the campaign for the right use of antibiotics was launched to contribute to better drug-use behaviour though public service adds which were prepared as media tools, posters and brochures distributed and hung in health institutions, infographics shared in social media. (ii) In Costa Rica, the Healthy Dish Campaign aims at strengthening school meal programmes.

While these initiatives aim at sharing evidence based information to the public, they may not always reach their target audience. When it comes to websites, over 80% of individuals in Europe would firstly seek information on Internet search engines. Around 50% would target specific websites and forums or blogs, before looking for information under official health organisation (Figure 4.3).

Figure 4.3. Key sources used by European individuals seeking health information online



Sources: OECD 2017 Health Literacy Survey, European Commission (2014)

71. In the United States, the Clear Communication Index helps professionals design health materials for public audiences. This tool offers science-based criteria to assess clarity of information, and guides the development and assessment of public communication materials. It was recently applied by a United States government agency when producing information about the Zika virus. Evaluations on this tool show that index-designed materials are more likely to state correct messages and be rated easier to understand by participants.

4.4. Health system-wide frameworks

National strategies

72. For the purpose of this analysis, HL-specific national-level strategies and policies are considered policy documents issued by the national government including goals, strategies or directions that aim to set a vision to improve health literacy as interpreted in the country in question. These can be split into three categories: one, *standalone* HL national strategies and policies; two, HL goals part of wider public health strategies; three, national policies where certain components of HL are included. These are not mutually exclusive and one country may implement various approaches (Table 4.1).

Table 4.1. Examples of national strategies that enhance health literacy, OECD

	Country	# countries
Standalone HL strategies	Austria, Australia, Germany, New Zealand, Portugal, United States	6
HL part of a wider national strategy	Czech Republic, Estonia, Ireland, Finland, United States	5
Specific components of HL part of a wider national strategy	Chile, Costa Rica, France, Japan, Israel, Latvia, Mexico, Netherlands, Poland, Slovak Republic, Switzerland, Sweden, Spain, Poland, Luxembourg, Norway	16

Source: 2017 OECD Health literacy questionnaire

73. The emergence of standalone HL strategies indicates this field is becoming a policy priority in a few OECD countries (Austria, Australia, Germany, New Zealand, Portugal, United States). Common drivers for the design of HL standalone strategies include evidence on high rates of poor levels of HL (e.g. Austria and Germany) or recognition of need for coordination in this field (e.g. Australia and New Zealand). Evidence has shown that poor HL tends to be associated with lower health and quality of life, and therefore HL can be understood as an determinant of health.

74. Standalone HL strategies have as common aim to promote people's responsibility for their own health, support patient safety and support better health outcomes. In Austria, HL became a policy priority and part of one of ten national health targets after data from EU-HLS showed more than half of the population had low HL. In Australia, the 2014 National Statement on HL was endorsed by all Australian health ministers. Its key goals include raising awareness on the importance of HL for safe and high-quality care, support coordinated and collaborative approach across sectors to systematically address HL, and describe possible actions that can be taken by organisations and individuals working in the health sector to address HL.

75. Standalone strategies can support HL development. Not only because they frame different stakeholders' roles, but also for promoting cross-sector action. The increase of health skills and knowledge needs policies that reach out all societal levels: system,

organisational, community and individuals (Rowlands et al., 2018). The New Zealand framework is a relevant example on how to achieve this, as it delineates clear HL-related roles and expectations for main actors in the health system (Box 4.9).

76. In the majority of OECD countries, public health strategies contribute to HL development even if it is not their main goal. For instance, in Spain, the Strategy on Health Promotion and Prevention in Spain clearly identifies as priorities the design of a professional training plan on healthy lifestyle and education methodology, which includes brief counselling, intensive individual and group education, community education and the training on healthy lifestyles offered in a web platform.

Action plans and platforms

77. Effective HL strategies need clear roadmaps for implementation, resources to follow through, and targets to monitor progress. Countries use different strategies to ensure structured HL approaches, such as through the way of national strategies, action plans or HL alliances and platformes.

78. Standalone HL strategies are sometimes supported by (i) action plans and (ii) HL alliances and platforms that help implement programmes. These may be the result of government action, academia or non-governmental organisations:

- HL action plans are still at early inception across OECD countries (e.g. Australia, Czech Republic, Germany, United States). They delineate principles and goals for action. Common principles include ensuring people have the right to health information and that services are delivered in the right way such as through improving communication and consistency of messages. These actions aim for health care system change, ensure informed decision-making, and shared responsibility across all stakeholder.
- HL platforms or alliances exist in only a few OECD countries (Austria, Czech Republic, Germany, Switzerland, Netherlands and the United States), with the aim of supporting the implementation and coordinating some of the actions leading to HL improvement. They can be government-only (e.g. in Germany or the United States) or act as partnerships between public agencies and private entities (e.g. in the Netherlands). Results on the impact of these platforms while limited are positive. An evaluation of the Austrian HL Platform showed this instrument to be an important mediator linking policy and practice. It has enabled HL interventions to be implemented in a systematic way, to improve the quality of communication in healthcare, organisation and system responsiveness to HL and HL measurement.

Box 4.9. Health literacy framework in New Zealand – a simplified version

	Leadership and management	Knowledge and skills	Health system change
Health system	The health system responds to its role in reducing health literacy demands placed on people when they access health care.	The health system has a sophisticated approach to health literacy and builds knowledge that identifies hurdles to accessing health care at every point of contact. These problems are then prioritised for meaningful action.	The health system empowers and supports individuals and whānau to make informed decisions on health and wellbeing.
Health organisation	Health organisations consider health literacy in all of aspects of their work. This is visible in the way that organisations communicate, provide information, present their facilities, and interact with people.	Health organisations encourage individuals and whānau to provide input into how the organisations do things, at every point of the patient journey.	Health organisations provide access to health services where good health literacy practice is taken seriously and used consistently
Health workforce	Every member of the health workforce raises awareness of health literacy and promotes good health literacy practice, with a keen eye on new ideas for ways to better communicate with patients.	Health workforce members are knowledgeable about how they can build health literacy in their practice and among individuals and whānau.	Individuals and whānau are supported to obtain, process and understand health information from everyone they have contact with in the health system, and are empowered to make informed decisions.
Individuals and whanau	Individuals and whānau are partners in actively managing their own health and wellbeing; and they take opportunities to provide feedback on health services they use and contribute to quality improvement programmes.	Individuals and whānau can obtain, process and understand health materials.	Individuals and whānau are able to make informed decisions, and can access and navigate appropriate, quality and timely health services.

Monitoring progress

79. Measuring progress of HL interventions is an important undertake. Results help gauge the effectiveness of strategies, they inform future resource allocation, and help decide which programmes should be replicated (Grifoni and Messi, 2012). In the United States and in Austria the progress of HL interventions is measured with indicators and targets (e.g. United States and Austria).

80. Since 2011, in the United States, annual data is collected on the delivery of health literate care (Box 4.10).The proportion of US adults who reported receiving health literate care increased from 2011 to 2014, although this remains below the HL recommendations of delivering health literate care to everyone. In 2014, 70% of the population reported their providers always gave easy to understand instructions, but only 29% were asked to teach-back the instructions and 17% were offered help with forms. Older, less educated, and racial and ethnic minority group members were more likely to report receiving health literate care than more advantaged groups. Individuals who perceived their health and mental health as fair and poor were less likely to report receiving health literate care

Box 4.10. Monitoring and progress of HL strategies, United States and Austria

United States HL strategy measurement and progress, selected indicators, 2018

Health 2020	Baseline 2011	2012	2013	2014	**Target 2020**
Goal: Improve the HL of the population					
Target 1: Percentage of persons whose health care provider gives easy-to-understand instructions	64.1%	65.8%	66.9%	68.8%	**70.5%**
Target 2: Percentage of persons whose health care provider asks how instructions will be followed	24.4%	25.4%	27.8%	29.2%	**26.9%**
Target 3: Percentage of persons whose health care provider offers help in filling out forms	14.8%	15.6%	15.9%	16.8%	**16.3%**

Note: Selected indicators from the Health Communication and Health Information Technology.
Source: Healthy People 2020 target monitoring

Austria HL strategy monitoring, indicators and measures, 2018

	Indicators	**Examples of Measures**
Target 1: Making the health system more health competent, including all parties involved and those affected	Indicators from the HLS-EU on supply and comprehensibility of information and communications in health care	- Nationwide standardized telephone and web-based initial contact and consulting service - Development of a public health portal - Empowerment promotion by establishing an electronic health record - Health-competent hospitals, pharmacies and other health facilities - HL included in the Austrian Patient Safety Strategy - Develop communication skills of professionals
Target 2: Strengthen personal HL, taking into account vulnerable groups	Indicators from the HLS-EU on accessibility of information on health promotion and prevention (with focus on HL of teenagers and migrants)	- Extension of programme "eating right from the beginning" targeting baby-sitting placements and kindergartens - Health coaching in social security institutions - Extension of counseling and training courses for carers
Target 3: Anchoring HL in the service and manufacturing sector	Indicators from the HLS-EU on supply and understanding on health and nutrition (including food packaging)	- Develop guideline on marketing of food and drinks with high sugar, salt and fat content - Develop a mix of communication strategies (incl. social marketing, and nudging interventions) and develop products that are HL-shaped for vulnerable audiences

Source: Translated from Gesundheitsziel 3, Gesundheitskompetenz der Bevölkerung stärken, Bericht der Arbeitsgruppe

81. In Austria, the national government has structured its HL approach into three areas of intervention: (i) improving the organisational health literacy of the healthcare system, i.e. health literacy becomes a quality dimension of healthcare organisations and of the health system, (ii) improve personal health literacy with a focus on information, education and training, and (iii) improve HL in the consumer and service sector with specific attention to the quality of information that supports decision on product purchasing or service utilization. For each sub-goal, a number of interventions has been defined and will be subject to a monitoring process focusing on progress of interventions (not yet on outcomes) (Box 4.10). Another area of future action focus digital health literacy which is slowly gaining relevance.

82. This analysis shows great deal of variation across countries on the development of HL strategies and policies. While the majority of countries have in place policies that support certain components of HL development, only six have established standalone HL strategies including a more holistic, well-coordinated approach to eliminating barriers in this field. Countries also show variations in resource allocation for the implementation of strategies or in the degree of monitoring of HL development. These findings are consistent with a more in-depth review of the WHO organisation on the progress of implementing national policies and strategies for health literacy (Trezona, Rowlands and Nutbeam, 2018), who add that the lack of more specificity and consolidated strategies for health literacy may deter long-term impact when other policy priorities arise.

5. Conclusions

83. Health literacy has the potential to ensure individuals are educated and empowered to access, understand, evaluate and apply health information to their individual needs. Neglecting the opportunity to increase population's health literacy, may come at a high cost, jeopardising an individual's health, as well as contributing to higher health care costs.

84. Across OECD countries, different policies have been implemented that help enhance individuals' health literacy:

- The large majority of countries use media campaigns, websites and brochures to disseminate and educate individuals on health information. Several OECD countries are also expanding individuals' access to online patient records as a way to increase knowledge and patient empowerment.
- Half of countries invest in community counselling and training courses and promote initiatives to activate literacy skills as well as access to health education – e.g. delivering free books – among both adults and children, which is considered good practice towards basic skills to enable health literacy.
- A few countries (e.g. Ireland, France) have guidelines and tools to promote clear and easy communication between patient professional. However, on-the-job training for professionals in HL communication may deliver more effective results. Health literate organisations are an innovative approach in the United States, Canada, and Australia. The principles of these organisations may be transferable to other sectors beyond health, resulting in multi-sector action.
- National strategies for HL exist in Austria, Australia, Germany, New Zealand, Portugal and United States, with even fewer countries regularly monitoring progress of these interventions. A few countries (Australia, Czech Republic, Germany and the United States) have also set up action plans that guide HL interventions. These initiatives have yet to show results, but have the potential to help coordinate and develop more targeted programmes for HL development.

85. Health literacy is a powerful tool to support efforts towards people centred care. Countries are moving in the right direction. However, greater efforts are needed at different levels to regularly update knowledge and skills of individuals. First, countries could improve the role of health systems in promoting HL and place greater emphasis in multi-stakeholder action. Second, develop more robust research on what are effective interventions. Third, strengthen international development in sharing best practices and develop innovative solutions. Fourth, improve data infrastructure by enhancing HL measurement surveys.

References

Ahn S. et al. (2013), "The impact of chronic disease self-management programs: healthcare savings through a community-based intervention", BMC Public Health, 13:1141, doi: 10.1186/1471-2458-13-1141.

Altin, S. and S. Stock (2015), "Health Literacy Healthcare Organizations and their Role in Future Health Care", *Journal of Nursing Care*, 4:238. doi: 10.4172/2167-1168-1000238

Aoki T. and M. Inoue (2017), Association between health literacy and patient experience of primary care attributes: a cross-sectional study in Japan, PLoS ONE 12(9): e0184565. https://doi.org/10.1371/journal.pone.0184565

Australian Commission on Safety and Quality in Health Care (2014), "Health Literacy: Taking action to improve safety and quality", Sydney: ACSQHC.

Austvoll-Dahlgreen A et al. (2013), Development of a complex intervention to improve health literacy skills, Health information and libraries journal, 30(4):278-93, doi: 10.1111/hir.12037

Berkman N., S. Sheridan, K. Donahue, D. Halpern, A. Viera, K. Crotty, A. Holland, M. Brasure, K. Lohr, E. Harden, E. Tant, I. Wallace, and M. Viswanathan (2011), *Health Literacy Interventions and Outcomes: An Updated Systematic Review*, Evidence Report/Technology Assessment No. 199, Agency for Healthcare Research and Quality Publication Number 11 – E006. Rockville, MD, A

Beatie, B. E., Stewart, D. W., Walker, J. R. (2016). A moderator analysis of the relationship between mental health help-seeking attitudes and behaviours among young adults. Canadian Journal of Counselling and Psychotherapy, 50(3), 290–314

Brach, C., B. Dreyer, P. Schyvre, L. Hernandez, C. Baur, A. Lemerise and R. Parker (2012), "Attributes of a Health Literate Organization", Discussion Paper, Institute of Medicine

Brijnath B., Protheroe J., Ram Mahtani K., and J. Antoniades (2016), "Do Web-based Mental Health Literacy Interventions Improve the Mental Health Literacy of Adult Consumers? Results from a systematic Review", J Med Internet Res. 2016 Jun; 18(6): e165., doi: 10.2196/jmir.5463

Canadian Council of Learning (2008), "Health Literacy in Canada – a healthy understanding", Ottawa, available at www.ccl-cca.ca.

Cecchini M., Franco S., Lauer J, Lee Y., Guardarjo-Barron "Tackling of unhealthy diets, physical inactiviy and obesity: Health effects and cost-effectiveness"

Chesser, A., N. Woods, K. Smothers and N. Rogers (2016), "Health Literacy and Older Adults", *Gerentol Geriatr Med*, doi: 10.1177/2333721416630492

Coleman, Hudson and Maine (2013), "Health Literacy Practices and Educational Competencies for Health Professionals: A Consensus Study", Journal of health communication, 18 Suppl 1:82-102, doi: 10.1080/10810730.2013.829538.

Dash J., D. Haller, J. Sommer and N. Perron (2016), "Use of email, cell phone and text message between patients and primary-care physicians: cross sectional study in French-speaking part of Switzerland", BMC Health Services Research, 16(1), doi: 10.1186/s12913-016-1776-9

Debate R., A. Gatto and G. Rafal (2018), "The effects of stigma on determinants of mental health help-seeking behaviors among male college students: an application of the information-motivation-behavioral skills model", American Journal of Men's health, doi: https://doi.org/10.1177/1557988318773656

DeWalt D., N. Berkman, S. Sheridan, K. Lohr and M. Pignone (2004), "Literacy and Health Outcomes", Journal of General Internal Medicine, 19: 1228-1239

Easton P., V. Entwistle and B. Williams (2013), "How the stigma of low literacy can impair patient-professional spoken interactions and affect health: insights from a qualitative investigation", BMC Health Services Research, 13:319, https://doi.org/10.1186/1472-6963-13-319

D'Eath M, MM Barry and J. Sixsmith (2012) *A rapid evidence review of interventions for improving health literacy – insights into health communication*, Stockholm, ECDC

Eichler, K., S. Wieser and U. Brügger (2009), "The Costs of limited health literacy: a systematic review", *International Journal of Public Health*, 54:313-324, DOI 10.1007/s00038-009-0058-2

European Commission (2014), "European Citizen's Digital health Literacy", available at http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_404_en.pdf

Farmacova E., L. Bonneville and L. Bouchard (2018), "Organizational Health Literacy: Review of Theories, Frameworks, Guides and Implementation Issues", The Journal of Health Care Organization, Provision and Financing, doi: https://doi.org/10.1177/0046958018757848

Gharachourlo M., Z. Mahmoodi, M. Kamrani, M. Tehranizadeh and K. Kabir (2018), "The effect of health literacy approach to counselling on the lifestyle of women with gestational diabetes: a clinical trial", F1000research, 7:282, doi10.12688/f1000research.13838.1

Groene R. and R. Rudd (2013), "Results of a feasibility study to assess the health literacy environment: navigation, written, and oral communication in 10 hospitals in Catalonia, Spain", Journal of Communication in Healthcare, Vol(4)- issue 4, https://doi.org/10.1179/1753807611Y.0000000005

Grifoni, A. and F. Messi (2012), "Current Status of National Strategies for Financial Education: A Comparative Analysis and Relevant Practices", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 16, OECD Publishing, Paris.

Haskard K., M. White, M. Goldstein, S. Williams, M. DiMatteo, R. Rosenthal (2008), "Physician and Patient Communication Training in Primary Care: Effects on Participation and Satisfaction", Health Psychology, Vol 27, No 5, 513-522.

Hardcastle S., J. Hancox, A. Hattar, C. Maxwell-Smith, C. Thogersen-Ntoumani and M. Hagger (2015), "Motivating the unmotivated: how can health behavior be changed in those unwilling to change", Frontiers in Psychology, 6:835, 10.3389/fpsyg.2015.00835

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

Hussain, A., S. Ali, M. Ahmed and S. Hussain (2018), "The Anti-vaccination Movement: A Regression in Modern Medicine", Cureus, v.10(7). 10.7759/cureus.2919

Jung S, H. Jo and H. Oh (2016), "Internal Motivation, Perceived Health Competency, and Health Literacy in Primary and Secondary Cancer Prevention", Asian Pacific Journal on Cancer Prevention, 17 (12), pp. 5127-5132, 10.22034/APJCP.2016.17.12.5127

Juul L., G. Rowlands and H. Maindal (2018), "Relationships between health literacy, motivation and diet and physical activity in people with type 2 diabetes participating in peer-led support groups", Official Journal of Primary Care Diabetes Europe, vol. 12, Issue 4, pages 331-337. https://doi.org/10.1016/j.pcd.2018.02.005

Khan, R. and K. Socha-Dietrich (2018), "Investing in medication adherence improves health outcomes and health system efficiency: adherence to medicines for diabetes, hypertension, and hyperlipidaemia", OECD Health Working Papers, No. 105, OECD Publishing, Paris. http://dx.doi.org/10.1787/8178962c-en

Kim H. and B. Xie (2017), "Health literacy in the eHealth era: A systematic review of the literature", Patient education and counseling, 100(6):1073-1082, doi: 10.1016/j.pec.2017.01.015

Lambert M., J. Luke, B. Downey, S. Crengle, M. Kelaher, S. Reid and J. Smylie (2014), "Health literacy: health professionals' understandings and perceptions of barriers that Indigenous patients encounter", BMC Health Service Research, 14(614), 10.1186/s12913-014-0614-1

Levin-Zamir D., and Y. Peterburg (2001), "HL in health systems: perspectives on patient self-management in Israel", *Health Promotion International*, Mar;16(1):87-94.

Levin-Zamir D., OB. Baron-Epel, V. Cohen and A. Elhayany (2016), "The Association of Health Literacy with health behaviour, Socioeconomic indicators, and Self-assessed health from a National Adult Survey in Israel", *Journal of Health Communication*, 21(sup2):61-68. Epub 2016 Sep 26.

Lloyd JE, Song HJ, Dennis SM, Dunbar N, Harris E, Harris MF (2018) A paucity of strategies for developing health literate organisations: A systematic review. PLoS ONE 13(4): e0195018. https://doi.org/10.1371/journal.pone.0195018

Mantwill, S., S. Monestal-Umana and P. Schulz (2015), "The Relationship between Health Literacy and Health Disparities: A systematic review", Research article, *Institute of Communication and Health*, University of Lugano, Switzerland.

Mathew M., L. Mohan, M. Paul, M. Maideen, L. Jose and M. Ommanakuttan (2018), "Evaluating effectiveness of patient counselling, teach back versus standard method", International Journal of Basic & Clinical Pharmacology, Vol.7, n.1, doi: http://dx.doi.org/10.18203/2319-2003.ijbcp20175680

Matsuoka S., M. Tsuchihashi-Makaya, T. Kayane, M. Yamada, R. Wakabayashi, NP Kato and M. Yazawa (2016), "Health literacy is independently associated with self-care behaviour in patients with heart failure", Patient Education Counseling, June 99(66), pp.1026-32. 10.1016/j.pec.2016.01.003

National Collaborating Centre for Mental health (2014), "E-therapies systematic review for children and young people with mental health problems", available at https://www.e-lfh.org.uk/wp-content/uploads/2017/07/e-Therapies-Systematic-Review-submission-to-RCPCH31.01.2014.pdf

Nakayama K., Osaka W., Togari T., Ishikawa H., Yonekura Y., Sekido A. and M. Matsumoto (2015), "Comprehensive health literacy in Japan is lower than in Europe: a validated Japanese-language assessment of health literacy", *BMC Public Health*, DOI 10.1186/s12889-015-1835-x

Nivel (2018), Beter omgaan met beperkte gezondheidsvaardigheden in de curatieve org, Kennis, methoden en tools, available at: https://www.zonmw.nl/fileadmin/zonmw/documenten/Kwaliteit_van_zorg/Rapport_CHR-076_Beter_omgaan_met_beperkte_gezondheidsvaardigheden_in_de_curatieve_zorg.pdf

Novillo-Ortiz, D., T. Hernández-Pérez and F. Saigí-Ruvió (2017), "Availability of information in Public Health on the Internet: Na analysis of national health authorities in the Spanish-speaking Latin American and Caribbean Countries", International Journal of Medical Informatics, 100:46-55. doi: 10.1016/j.ijmedinf.2017.01.013

Norman and Harvey (2006), "eHealth Literacy: Essential Skills for Consumer Health in a Networked World", Journal of medical internet research, vol 8, no 2.

Oderkirk, J. (2017), "Readiness of electronic health record systems to contribute to national health information and research", OECD Health Working Papers, No. 99, OECD Publishing, Paris,https://doi.org/10.1787/9e296bf3-en.

OECD/EU (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*, OECD publishing Paris. https://doi.org/10.1787/health_glance_eur-2018-en

OECD (2018b), *Stemming the Superbug Tide: Just A Few Dollars More*, OECD Publishing, Paris. http://doi.org/10.1787/9789264307599-en

OECD (2018c), "Feasibility Study on Health Workforce Skills Assessment – supporting health workers achieve person-centred care", available at http://www.oecd.org/health/health-systems/Feasibility-Study-On-Health-Workforce-Skills-Assessment-Feb2018.pdf

OECD (2017), Health Ministerial Statement, available at: http://www.oecd.org/health/ministerial/ministerial-statement-2017.pdf

OECD (2017b), Digital Economy Outlook 2017, OECD Publishing, Paris. h*ttp://dx.doi.org/10.1787/9789264276284-en*

OECD (2017c), *Health at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/health_glance-2017-en.

OECD (2013), "Skilled for Life? Key Findings from the Survey of Adult Skills", OECD Publishing, Paris.

OECD (2012), *Sick on the Job?: Myths and Realities about Mental Health and Work*, OECD Publishing, Paris.

Ory M., S. Ahn, L. Jiang, K. Lorig, P. Ritter, D. Laurent, N. Whitelaw and M. Smith (2013), "National Study of Chronic Disease Self-Management", Journal of Aging and Health, doi: https://doi.org/10.1177/0898264313502531

Palumbo R., C. Annarumma, P. Adinolfi, M. Musella and G. Piscopo (2016), "The Italian Health Literacy Project: insights from the assessment of Health literacy skills in Italy", *Health Policy*, 120:1087-1094.

Pedro, A., O. Amaral, and A. Escoval (2016), Health literacy, from data to action: translation, validation and application of the European Health Literacy Survey in Portugal, Revista Portuguesa de Saúde Pública, vol. 34, n.3, pp. 259-275. http://dx.doi.org/10.1016/j.rpsp.2016.07.002.

Poureslami I., Nimmon l., I. Rootman and M. Fitzgerald (2016), "Health literacy and chronic disease management: drawing from expert knowledge to set an agenda", *Health Promotion International*, 1-12, doi: 10.1093/heapro/daw003

Public Health England (2015), Local action on health inequalities – improving health literacy to reduce health inequalities, Public Health England.

Quaglio G., K. Sørensenm P. R Rübig, L. Bertinato, H. Brand, T. Karapiperis, I. Dinca, T. Peetso, K. Kadenbach, and C. Dario, (2016), Accelerating the health literacy agenda in Europe, Health Promotion International, 1-7, 10.1093/heapro/daw028

Rowlands G., J. Protheroe, J. Winkley, M. Richardson, PT Seed and R. Rudd (2015), "A mismatch between population health literacy and the complexity of health information: an observational study", British Journal of General Practice, 65(635):e379-86, 10.3399/bjgp15X685285.

Rowlands G. 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*?, Health Evidence Network Synthesis Report No. 57, Copenhagen. WHO Regional Office for Europe.

Rudd R. (2015), "The evolving concept of health literacy: new directions for health literacy studies", Journal of Communication in Healthcare, Vol. 8, No.1

Schillinger D., J. Piette, K. Grumbach, F. Wang, C. Wilson, C. Daher, K. Leong-Grotz, C. Castro and AB Bindman (2003), "Closing the loop: physician communication with diabetic patients who have low literacy", Archives of Internal Medicine, 163(1):83-90

Schaeffer D., D. Vogt, E. Berens and K. Hurrelmann (2016), "Gesundheitskompetenz der Bevölkerung in Deutschland – Ergebnisbericht", Universität Bielefeld.

Sudore R. and D. Schillinger (2009), "Interventions to Improve Care for Patients with Limited Health Literacy", Journal of clinical outcomes management, 16(1):20-29

Tennant B. et al. (2015), "eHealth Literacy and Web 2.0 Health Information Seeking Behaviors Among Baby Boomers and Older Adults", Journal of Medical Internet Research, vol. 17, No. 3, 10.2196/jmir.3992

Thomas, S. J., Caputi, P., Wilson, C. J. (2014). Specific attitudes which predict psychology students' intentions to seek help for psychological distress. Journal of Clinical Psychology, 70(3), 273–282. doi:10.1002/jclp.22022

Trezona A., G. Rowlands and D. Nutbeam (2018), "Progress in implementing national policies and strategies for health literacy – what have we learned so far?", International Journal of Environmental Research and Public Health, 15(7), 1554, doi: 10.3390/ijerph15071554]

Trezona A., S. Dodson and RH Osborne (2017), "Development of the organisational health literacy responsiveness framework in collaboration with health and social services professionals", BMC Health Service Research, 17(1):513, 10.1186/s12913-017-2465-z

Saunders, C, Palesy D., and J. Lewis (2018), Systematic Review and Conceptual Framework for Health Literacy Training in Health Professions Education.

Slawomirski, L., A. Auraaen and N. Klazinga (2017), "The economics of patient safety : Strengthening a value-based approach to reducing patient harm at national level", OECD Health Working Papers, No. 96, OECD Publishing, Paris. http://dx.doi.org/10.1787/5a9858cd-en

Sørensen et al (2012), "Health literacy and public health: a systematic review and integration of definitions and models", BMC Public Health, 12:80

Taggart J., A. Williams, S. Dennis, A. Newall, T. Shortus, N. Zwar, E. Denney-Wilson and M. Harris (2012), "A systematic review of interventions in primary care to improve health literacy for chronic disease behavioural risk factors", BMC Family Practice, 13:49

Vandenbosch J, S. Van den Broucke, S. Vancorenland, H. Avalosse, R. Verniest and M. Callens (2016), Health literacy and the use of healthcare services in Belgium, Journal of Epidemiological Community Health, 70(10):1032-8. doi: 10.1136/jech-2015-206910

WHO (2013), *Health Literacy – the solid facts*, World Health Organization Europe.

WHO (2018), Measles cases hit record high in the European Region, accessed on September 2018: http://www.euro.who.int/en/media-centre/sections/press-releases/2018/measles-cases-hit-record-high-in-the-european-region

Wieczorek C., K. Ganahl and C. Dietscher (2017), "Improving Organizational Health Literacy in Extracurricular Youth Work Settings", Health Literacy Research and Practice, 1(4):e223-e238, https://doi.org/10.3928/24748307-20171101-01

Wilsher, H, J. Brainard, Y. Loke and C. Salter (2017), Patient and public involvement in health literacy interventions: a mapping review

Wynia M. and C. Osborn (2010), Health literacy and communication quality in health care organizations, Journal of Health Communication, 15 (Suppl 2): 102-115

OECD Health Working Papers

A full list of the papers in this series can be found on the OECD website: http://www.oecd.org/els/health-systems/health-working-papers.htm

No. 106 - THE ECONOMICS OF PATIENT SAFETY IN PRIMARY AND AMBULATORY CARE - FLYING BLIND (2018) Ane Auraaen, Luke Slawomirski, Niek Klazinga

No. 105 INVESTING IN MEDICATION ADHERENCE IMPROVES HEALTH OUTCOMES AND HEALTH SYSTEM EFFICIENCY (2018) Rabia Khan, Karolina Socha-Dietrich

No. 104 WHICH POLICIES INCREASE VALUE FOR MONEY IN HEALTH CARE? (2018) Luca Lorenzoni, Fabrice Murtin, Laura-Sofia Springare, Ane Auraaen and Frederic Daniel

No. 103 INCLUSIVE GROWTH AND HEALTH (2017) Chris James, Marion Devaux and Franco Sassi

No. 102 MEASURING PATIENT EXPERIENCES (PREMS): PROGRESS MADE BY THE OECD AND ITS MEMBER COUNTRIES BETWEEN 2006 AND 2016 (2017) Niek Klazinga, Rie Fujisawa

No. 101 HOW MUCH DO OECD COUNTRIES SPEND ON PREVENTION? (2017) Michael Gmeinder, David Morgan, Michael Mueller

No. 100 DIET, PHYSICAL ACTIVITY AND SEDENTARY BEHAVIOURS (2017) Sahara Graf and Michele Cecchini

No. 99 READINESS OF ELECTRONIC HEALTH RECORD SYSTEMS TO CONTRIBUTE TO NATIONAL HEALTH INFORMATION AND RESEARCH (2017) Jillian Oderkirk

No. 98 NURSES IN ADVANCED ROLES IN PRIMARY CARE: POLICY LEVERS FOR IMPLEMENTATION (2017) Claudia B. Maier, Linda H. Aiken and Reinhard Busse

No. 97 UNDERSTANDING EFFECTIVE APPROACHES TO PROMOTING MENTAL HEALTH AND PREVENTING MENTAL ILLNESS (2017) David McDaid, Emily Hewlett, A-La Park

No. 96 THE ECONOMICS OF PATIENT SAFETY: STRENGTHENING A VALUE-BASED APPROACH TO REDUCING PATIENT HARM AT NATIONAL LEVEL (2017) Luke Slawomirski, Ane Auraaen and Niek Klazinga

No. 95 FUTURE TRENDS IN HEALTH CARE EXPENDITURE: A MODELLING FRAMEWORK FOR CROSS-COUNTRY FORECASTS (2017) Alberto Marino, Chris James, David Morgan and Luca Lorenzoni

No. 94 UNDERSTANDING VARIATIONS IN HOSPITAL LENGTH OF STAY AND COST: RESULTS OF A PILOT PROJECT (2017) Luca Lorenzoni and Alberto Marino

No. 93 MEASURING SOCIAL PROTECTION FOR LONG-TERM CARE (2017) Tim Muir

Recent related OECD publications

OECD HEALTH STATISTICS (2018)
(database available from: http://www.oecd.org/health/health-data.htm)

STEMMING THE SUPERBUG TIDE - JUST A FEW DOLLARS MORE (2018)

HEALTH AT A GLANCE: EUROPE 2018 – STATE OF HEALTH IN THE EU CYCLE (2018)

PHARMACEUTICAL INNOVATION AND ACCESS TO MEDICINES (2018)

HEALTH AT A GLANCE: ASIA/PACIFIC (2018)

DELIVERING QUALITY HEALTH SERVICES – A GLOBAL IMPERATIVE FOR UNIVERSAL HEALTH COVERAGE (2018)

CARE NEEDED: IMPROVING THE LIVES OF PEOPLE WITH DEMENTIA (2018)

NATIONAL HEALTH ACCOUNTS OF KAZAKHSTAN (2018)

OECD REVIEWS OF HEALTH SYSTEMS: KAZAKHSTAN (2018)

LITHUANIA HEALTH SYSTEMS REVIEW (2018)

PREVENTING AGEING UNEQUALLY (2017)

COUNTRY HEALTH PROFILES (2017)

HEALTH AT A GLANCE (2017)

OBESITY UPDATE (2017)
(electronic format only: http://www.oecd.org/health/obesity-update.htm -)

HEALTHY PEOPLE, HEALTH PLANET (2017)

OECD REVIEW OF HEALTH SYSTEMS: PERU (2017)

OECD REVIEW OF HEALTH SYSTEMS: COSTA RICA (2017)

PRIMARY CARE REVIEW OF DENMARK (2017)

NEW HEALTH TECHNOLOGIES - MANAGING ACCESS, VALUE AND SUSTAINABILITY (2017)

TACKLING WASTEFUL SPENDING ON HEALTH (2017)

OECD REVIEWS OF HEALTH SYSTEMS: LATVIA (2016)

HEALTH AT A GLANCE: EUROPE (2016)

HEALTH AT A GLANCE: ASIA/PACIFIC (2016)

BETTER WAYS TO PAY FOR HEALTH CARE (2016)

HEALTH WORKFORCE POLICIES IN OECD COUNTRIES: RIGHT JOBS, RIGHT SKILLS, RIGHT PLACES (2016)

OECD REVIEWS OF HEALTH CARE QUALITY: UNITED KINGDOM (2016)

For a full list, consult the OECD health web page at http://www.oecd.org/health/