

### IUHPE Position statement on health literacy

# A practical vision for a health literate world

### 2<sup>nd</sup> Edition



Position Statement of the International Union for Health Promotion and Education

September 2023

The Position Statement is dedicated in loving memory to Andrew Pleasant and Jürgen Pelikan, two health literacy champions, who challenged the public health community worldwide, while promoting health action locally. May their memory be a blessing.

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This 2<sup>nd</sup> edition of the "*IUHPE Position statement on health literacy*: "*A practical vision for a health literate world*" is based on the original work of the IUHPE Global Working Group on Health Literacy (GWG-HL) ratified by the Executive Board of the IUHPE in May 2018, written by active authors of the IUHPE Global Working Group on Health Literacy (alphabetically ordered):

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Special thanks to Don Nutbeam for his review of the current version.



Please cite information contained in the document as follows: International Union for Health Promotion and Education (2023). IUHPE Position statement on health literacy: a practical vision for a health literate world. 2nd edition. IUHPE Global Working Group on Health Literacy. Paris: IUHPE.

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### INTRODUCTION

Since the 1990s, there has been a steep and steady rise in studies published, and national and international policies adopted, on health literacy. This surge in interest has focused on the definition of health literacy and its various measures, the relationship between health literacy, health promotion and a wide range of health and social outcomes, the fundamental place of health literacy in public health and increasingly, investment in policy and programs to improve health literacy in populations and to build health literacy responsive systems.

The Position Statement is a mechanism by which we describe what we trust to be the current state of the art in this dynamic topic, and how it can be promoted through adoption by key stakeholders.

The recognition of health literacy as a central aspect of health promotion, education and public health means that, as new challenges arise and the evidence around health literacy grows, the concept needs to be re-examined, with a particular focus on how it can evolve to meet these new challenges. The recent challenge of the global Covid-19 pandemic has undoubtedly prompted the re-examination of health literacy but does not stand alone as the only urgent crisis causing reflection for health literacy. For example, over the past five years, health literacy has gained increased importance in response to several new and unprecedented issues impacting on individual and population health. These include digitalization, climate change, environmental health, NCDs, infectious disease, pandemics, commercial determinants of health, disinformation and infodemics.

Furthermore, the area of health literacy practice, research and policy has grown in terms of the number of researchers, practitioners, and organizations around the world. There is an increased diversity of participation and diversity of insights about the meaning, nature, use, and contributions and outcomes of health literacy.

This update of the Position Statement reflects new thinking that has arisen as a result of such challenges, considerations, and developments.

### **BACKGROUND**

# Health literacy has been formally defined and conceptualized in multiple ways

In the 2021 revision of the Health Promotion Glossary, which was originally developed to support the first World Health Organization (WHO) Conference on Health Promotion in Ottawa, Canada (World Health Organization, 1986), health literacy is defined as "the personal knowledge and competencies which accumulate through daily activities, social interactions and across generations. Personal knowledge and competencies are mediated by the organizational structures and availability of resources which enable people to access, understand, appraise, and use information and services in ways which promote and maintain good health and wellbeing for themselves and those around them" (Nutbeam & Muscat, 2021). In this sense, health literacy is the combination of personal and community competencies, knowledge and situational resources needed to make informed decisions. As such, health literacy includes the capacity to communicate, assert and act upon these decisions. Health literacy responsiveness describes the way in which services, organizations and systems make health information and resources available and accessible to people according to health literacy strengths and limitations (Brach et al., 2012).

The breadth of the variations of the definition of health literacy has been documented and systematically updated in the scientific literature (Liu C, 2020) (Peerson & Saunders, 2009) (Sørensen et al., 2012). The application of the concept varies markedly from country to country, between public health and clinical care, between government and civic society groups, and is applied on the individual, the community, the institutional/organizational, the national and global levels. More specific sub-dimensions of health literacy have evolved and have been developed and validated, with relation to specific health conditions, age groups, and in new contexts such as mental health literacy (Jorm, 2019), media health literacy (Levin-Zamir et al., 2011) and nutrition literacy (Gibbs et al., 2018). In recent years, in the light of the COVID-19 pandemic, corona-specific health literacy and vaccine literacy have also emerged as distinct dimensions of health literacy. (Biasio et al., 2023). In an era characterized by rapid technological change, there

is also particular emphasis placed on digital health literacy and eHealth literacy, defined as the ability to seek, find, understand, and appraise health information from electronic and digital sources and apply the knowledge gained to addressing or solving a health problem (Norman & Skinner, 2006) (van der Vaart, 2017). For eHealth literacy and digital health literacy, the same characteristics should apply as presented in the above definition of health literacy included in the revised Health Promotion Glossary (Nutbeam & Muscat, 2021). Likewise, health literacy has developed and branched out into additional strategic perspectives such as organizational health literacy (Brach et al., 2012).

### Health literacy has been characterized in a number of ways

The concept of health literacy originally developed in two distinctive contexts and specific perspectives – in clinical care where low health literacy is viewed as a risk factor for poor health and low adherence to health care providers' advice; and in public/community health where health literacy can be viewed as a personal and population asset (Nutbeam, 2008) offering greater autonomy and control over health decision-making to increase individual empowerment and action on the social determinants of health (Pleasant & Kuruvilla, 2008)

The skills identified within the various concepts of health literacy have been characterized in different ways, among them a typology including functional, interactive and critical health literacy (Nutbeam, 2000).

Functional health literacy describes basic-level skills that are sufficient for individuals to obtain relevant health information (for example, on health risks and on how to use the health system), and to be able to apply that knowledge to a range of well-defined actions. Individuals with these basic health literacy skills are generally able to respond well to education and communication that is directed to clearly defined goals within a specific context. This might include for example understanding correct dosage use of medications; participation in prevention activities such as screening and immunisation programs; and engaging in behavioural change (such as quitting smoking, changing diet or increasing physical activity).

Measures of functional health literacy have been tested, refined and validated over the past 25 years to provide short screening tools for clinicians to use in everyday practice with a broad range of populations (Davis et al., 1993) (Parker et al., 1995.); (Weiss et al., 2005) particularly for screening tools in clinical practice. (Manning & Dickens, 2006).

Interactive health literacy describes more advanced literacy skills that incrementally build on those described above to enable people to actively extract health information and derive meaning from different forms of communication; to apply new information to changing circumstances; and to engage in interactions with others to extend the information available and make decisions.

Individuals with these higher-level skills are better able to discriminate between different sources of information; to respond to health communication and education that is more interactive and accessible through structured communication channels (for example, school health education, mobile apps, and interactive websites); and to adapt their responses to health information to reflect this deeper understanding.

Critical health literacy describes the most advanced literacy skills that incrementally build on those described above to enable people to critically analyse information from a wide range of sources, and on a greater range of health determinants. This will include information appraisal both on personal health risks and on the social, economic and environmental determinants of health (Kickbusch, 2009). Individuals with these most advanced skills can obtain and use information to exert greater control over life events and situations that have an impact on health. This not only includes the type of adaptive change described above but also using information for negotiation, collective organising and action. This type of health literacy can be more obviously linked to population benefit alongside benefits to the individual.

This classification of health literacy helps to distinguish between the different skills that progressively enable greater autonomy in decision-making about health (Nutbeam & Lloyd, 2021), and extends from personal behaviours to social actions that address the underlying determinants of health. As with general literacy,

differences between individuals may be based on exposure to different forms of information (content and media), and the self-confidence to respond to health communications, associated with self-efficacy (Edwards et al., 2015).

As a concept, health literacy has attracted the attention of health professionals, public health practitioners, educators, researchers, the media, and policy makers. For researchers interested in health and disease causality, health literacy offers a convenient and logical summary definition of health status/risk that can be used to understand and explain variation in health and disease outcomes. For those interested in the evaluation of information, education, and communication (IEC) interventions, health literacy has long been proposed as a useful outcome measure (Nutbeam, 2000) (Paasche-Orlow & Wolf, 2007).

# Health literacy is increasingly acknowledged as a determinant of health

New measurement tools for health literacy have been developed and tested over the past decade, and applied to population studies (Osborne et al., 2013); (Sorensen et al., 2015) (The HLS<sub>19</sub> Consortium of the WHO Action Network M-POHL, 2021). More complex tools have emerged and been tested and applied widely in national and international health literacy surveys (Rudd, 2007) (Chinn & McCarthy, 2013) (Jordan et al., 2013). The results of these surveys and studies show that the instruments can discriminate between relative differences in health literacy, and importantly, can be used to assess change in individuals and populations following health promotion interventions. Health literacy measurement tools have also been developed with more specific foci, including specialised instruments for specific populations health content, media and different countries. Currently, work is underway in several countries to develop and adapt existing measures to local contexts. The scientific basis for measuring health literacy on the individual, community, clinical and population levels has grown enormously, so much so that an online database of health literacy measures was developed by Boston University, entitled The Health Literacy Tool Shed database (Harnett, 2017).

A consistent finding of these studies shows there is a clear social gradient for health literacy, and limited health literacy has been shown to be associated with:

- Worse health outcomes
- Decreased use of preventive health services; increased use of medical services
- Less ability to manage long term conditions
- Disproportionate impact on socio-economically disadvantaged population groups, older people, migrants, ethnic minority groups and people with disabilities thus contributing to inequalities in health.

Health literacy may act as a mediator against the causes and effects of social determinants of health (Nutbeam & Lloyd, 2021). People with more developed health literacy will thus have skills and capabilities that enable them to engage in a range of health enhancing actions including changing personal behaviours, the capability of influencing others towards healthy decisions such as smoking cessation or participating in preventative screening programs as well as social and political actions for health. The results are not only improved health outcomes but also a wider range of options and opportunities for promoting health.

### The critical role of health literacy to mitigate the effects of the COVID-19 pandemic

Since approximately December 2019, the coronavirus SARS-COV-2 and the coronavirus disease (COVID-19), the risk of pandemics have captured the attention of health systems. COVID-19 was the first communicable pandemic of the 21st century and the first to appear in the digital age. Information on COVID-19, such as behavioural recommendations to protect against an infection or from spreading it, became readily available through digital/mobile communication channels, e.g. the Internet, social media and apps (Paakkari and Okan, 2020). Early on, the role of health literacy in managing the pandemic was acknowledged (Paakkari and Okan, 2020) (Van den Broucke, 2020).

Recent attention given to misleading information on relevant health issues such as COVID-19, acknowledges the importance of critical health literacy for coping with biased and misleading information and health resources (Su et al., 2022). Alongside the COVID-19 pandemic, the global population faced an information epidemic, sometimes referred to as an infodemic. An infodemic often occurs during health emergencies as seen in the past and can be characterized by an overabundance of information – false and accurate in nature – travelling mostly through digital communication channels (Vrdelja et al., 2021). Accurate information is a critical means to fight the pandemic. False information has toxic and damaging effects on local, national, and global infectious disease strategies, causes harm to the success of public health containment strategies and undermines preventive measures (Hansson et al., 2021). Health literacy empowers people to deal with COVID-19 information and is - alongside other literacies, such as information literacy, digital literacy, and media literacy – a valuable tool to address and fight the infodemic of false information.

Health literacy helped people to better understand the severity of the pandemic and its effect on them, their families and the whole of society. It also helped people to act in a socially responsible manner. Health literacy not only equips people with the skills necessary to deal with information on COVID-19 and other public health crises and situation, but also as to follow public health recommendations and guidance (Okan et al 2020). This includes applying appropriate precautions and protective behaviours such as handwashing, physical distancing, wearing masks,

avoiding public gatherings, and being vaccinated. Health literacy in individuals, communities, organizations and systems contributed substantially to mitigating the harmful effects of the COVID-19 infodemic. It required a huge effort to counteract misinformation that was greatly amplified by social media, and an equally immense effort to ensure that accurate, trustworthy information was accessible to highly diverse populations with distinctive media consumption and media preferences. To note, we learned from the COVID-19 pandemic that populations need support in developing sophisticated skills in how to identify accurate trustworthy information, and as health promoters/communicators we had to learn quickly how to counteract misinformation and develop communication methods and channels that worked for different population groups. Therefore, health literacy must form part of the public health emergency response toolbox of government and health authorities on the one hand, and health professionals, educators and the media on the other hand (Levin-Zamir et al., 2021).

#### **KEY SUMMARY POINTS**

- Health literacy is an observable, measurable outcome of health education/promotion interventions.
- Higher levels of health literacy and more health literate responsive environments can support a wide range of health actions to improve health, prevent and better manage ill-health, including changed personal behaviours, social actions for health, and influencing others towards healthy decisions.
- Health literacy is an important resource for coping with emerging health issues both at the individual and the population level, that enables communities to respond to health challenges in ways that promote health and reduce the risk of, and impact of, illness.
- Health literacy can also be used as a framework for those delivering health information and health services to ensure that these can be understood and used by those who need them.

Limited health literacy is therefore a threat to the outcome of health care, to improving population health and to achieving health equity.

ACTION AREAS: POLICY, INTERVENTION, MEASUREMENT AND RESEARCH, BUILDING CAPACITY

Four priorities for the advancement of health literacy with their respective action areas have been identified.

### 1. Health literacy and health promotion policy

Health literacy is relevant to all areas of health promotion action defined in the WHO Ottawa Charter on Health Promotion (1986): building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorienting the health system. For public health policy, for organizations, and for health promotion professionals in particular, health literacy assessment enables a more complete understanding of needs of individuals, families and communities. Awareness of, and attention given to health literacy, contribute to health promotion planning and advocacy, to designing programs and policies to improve individual and community health, and to promoting health equity.

Health literacy was included in WHO's health promotion glossary in 1998 and then in the most updated version (WHO, 2021) and has been a key concept since. The WHO, throughout the past decade, has continued to emphasize health literacy within health promotion policy initiatives and strategies. Health literacy was one of the main themes of the 7<sup>th</sup> WHO Global Conference on Health Promotion held in Nairobi in 2009. The WHO publication entitled Health Literacy – The WHO Solid Facts was published in 2013 primarily for the use by policy makers (Kickbusch et al., 2013). Health literacy was underscored as one of the three action areas in the Shanghai Charter on Health Promotion ratified at the 9th WHO Global Conference on Health Promotion in Shanghai 2016 (World Health Organization, 2016). Health literacy has also been integrated into other policy directives beginning with Sustainable Development Goals (SDGs) (World Health Organization, 2017), The Declaration of Astana on Primary Care (World Health Organization, 2019), Non-Communicable Diseases (NCDs) and others (World Health Organization, 2022a).

In addition, there are two Action Networks supported by the WHO – one on Non-Communicable Diseases (World Health Organization, 2022b) and one on Measuring Population and Organizational Health Literacy (M-POHL) (The HLS<sub>19</sub>

Consortium of the WHO Action Network M-POHL, 2021). Health literacy has also been integrated into the Behavioural and Cultural Insights (BCI) initiative of the WHO. (https://www.who.int/europe/teams/behavioural-and-cultural-insights).

WHO regions have been active as well. The Southeast Asian Region applied the use of a health literacy toolkit, developed in partnership with the Deakin University in Melbourne, launched in 2015. The first WHO Collaborating Center on Health Literacy was launched in 2017 in Deakin University, Melbourne, Australia. During its term of activity, the Center's outcome was the facilitation, data gathering, and case studies (NHLDPs) that led to the report WHO Health Literacy Development for the Prevention and Control of NCDs (WHO, 2021). In the European Region, the resolution "Towards the implementation of health literacy initiatives through the life course" (World Health Organization -European Region, 2019) and the associated Heath Literacy Road Map (Auld et al., 2020) represent the latest cornerstone for pursing health literacy development in research, practice and policy across European Member States. The roadmap focuses on five action areas: (i) increasing capacity building on health literacy, (ii) advocating and facilitating cross-sectoral integration of health literacy, (iii) advancing development and implementation of health literacy initiatives, (iv) improving digital health literacy and (v) strengthening the measurement, monitoring, and evaluation of health literacy. The importance of acknowledging health literacy in schools also has received significant attention. (WHO, 2021)

National policies on health literacy have been developed and released, notably in Canada, Scotland, Wales, Ireland, the USA, Australia, Germany, Portugal, Norway and Austria. A comprehensive review of European health literacy policies can be found in the WHO HEN report (Rowlands et al., 2019) and the final report of HEALIT4U (European Commission, Consumers, Health, Agriculture and Food Executive Agency, 2014). A global overview was provided in 2013 (Institute of Medicine, 2013) and updated through the publication entitled Health Literacy as a Political Choice in 2016 (Sorensen, 2016).

#### ACTION AREA: Promoting a systems approach to health literacy

A systems approach to health literacy promotes health literacy at all levels: global, international, national, organizational and local in a scientifically rigorous, unified

and comparable approach across contexts. This approach strives to enhance health literacy among individuals/families as well as through settings in the community and beyond and seeks to lower health literacy barriers. Major gains in health and equity can be made by ensuring health resources are systematically and provided in multiple formats, maximizing health learning opportunities across society. Health education and promotion programs should not only ensure appropriately tailored information is provided, but also that formats and modes (written, oral, mass media, social media, etc.) reach beyond the general population to empower all populations especially ethnic minorities and marginalized groups – including Indigenous groups, women and displaced peoples. To support such changes, health literacy considerations should be included at all levels, i.e., in policy and programs across systems and settings such as: schools and education settings, workplace, social services, healthcare and other settings/systems.

ACTION AREA: Ensuring the inclusion of health literacy in global, national and regional policies, and strategies for health promotion and social determinants of health

Research shows a strong connection between health literacy and social determinants of health (Nutbeam & Lloyd, 2021), thus aiding in identifying populations at risk for low health literacy. As a health asset, health literacy can be developed and is responsive to health promotion interventions. The role of health literacy in reducing health disparities, and the prevention and treatment of communicable and non-communicable diseases, should be considered in all health promotion planning. As such, greater awareness among policy and decision makers of the importance of health literacy is necessary. The World Health Organization has a key role in supporting member states to recognize the importance of, and adopt, health literacy policies. For example, at the 69th session of the WHO Regional Committee for Europe, a resolution was adopted 'to develop public health policy options to facilitate cross-sectoral integration of health literacy interventions, including for accelerating progress in reducing health inequities.' Ideally, the world will develop not only these policy statements but continue the move to make them enforceable rather than solely recommendations, for example, re-launching and adopting the WHO roadmap (WHO, 2019).

## ACTION AREA: Recognizing that health literacy is content and context specific across the life span

Acknowledging health literacy as an asset for children, adolescents, adults, and the elderly goes hand in hand with the development of health literacy appropriate environments and settings, and the development of specific evidence-based competencies relevant for each age group. This approach recognizes the diversity of cultural, social, and economic backgrounds that directly or indirectly affect personal health literacy, health-related behaviors, and ultimately, health outcomes. Consequently, policies and actions related to health literacy must be responsive to different contexts to ensure that their content is appropriate for the people they address. It is necessary to ensure that services and organizations actively seek to monitor and understand the health literacy needs of the people they serve and respond equitably. Examples of this approach are health literacy responsive or health literate settings, such as hospitals and health services, workplaces, schools, communities and more. All settings should strive to develop health literate attributes in their use of information and communication, including navigable environments. In 2016, the WHO European Region published a policy brief highlighting the co-benefits for the education sector when implementing targeted health literacy action in children and young people in schools, specifically pointing to improved academic performance, positive influence on education, improved physical and emotional health, general long-term benefits across the life course, and economic benefits for children when they reach adulthood (WHO, 2021).

### 2. Health literacy is modifiable and responds to appropriate evidencebased interventions

While health literacy is increasingly seen as a determinant of health (Rowlands et al., 2017), it is also viewed as an important outcome of health promotion interventions. A comprehensive review, reports on the outcomes of 38 intervention studies (Sheridan SL et al., 2011). They provide broadly consistent evidence that comprehension of health information and advice among individuals with low health literacy can be improved by modifying communication, and that intensive mixed-strategy interventions (for example

combining mass media campaigns with behavioural skills coaching) produces improved health outcomes including reduced reported disease severity, unplanned emergency department visits and hospitalizations. The authors concluded that there have been "significant advances in the field of health literacy research" since an earlier 2005 review (Pignone M et al., 2005).

### 2.1 Patient education in clinical practice

Effective use of health literacy in clinical practice will facilitate improved prevention and better management of both communicable and chronic noncommunicable diseases (Coulter A & Ellins J, 2007). The restricted time available in most clinical consultations often limits communication to basic factual information on health risks and how to use medications and health care services and resources. Patient education of this type will often be directed toward well-defined outcomes - such as achieving participation in screening programs and/or adherence regarding use of prescribed medicines. Addressing health literacy in the clinic can also contribute to the development of a wider range of knowledge and skills necessary for successful self-management of NCDs such as diabetes and heart disease, and related clinical risks such as hypertension, elevated cholesterol, or obesity. The effects of poor health literacy can be mitigated by improving both the quality of health communications and greater sensitivity among health professionals and policy makers to the potential impact of low literacy on individuals and in populations. Such responses can be observed in a range of adaptations to traditional patient and population health education methods in print, broadcast and electronic communication, as well as improved interpersonal communication between the public and health care providers and between health care providers themselves.

There are a growing number of examples of approaches to patient education intended to improve health literacy and related clinical outcomes. The great majority of these studies are using the health literacy concept to better understand the likely response of patients to clinical advice and instruction, the impact on adherence, and longer-term success in disease management. The

Joint Commission International (JCI) responsible for accrediting health care organizations, has included health literacy in its gold standards (Joint Commission for Healthcare, 2017).

Despite evident progress, the health literacy barriers in clinical settings often mean that the educational methods used do not sufficiently enable interactive communication, nor support a high level of autonomy in decision-making. Hence a more empowering approach should be adopted that builds patient and public self-management skills, to enable patients to know when and how to self-manage, particularly for NCDs, such as diabetes, where self-management is the cornerstone of disease control. Such approaches bring the potential to not only empower patients, but also to reduce the demands on health services (NHS England, 2020).

### 2.2 Health literacy and health promotion interventions

Higher levels of health literacy in a population support a wide range of health actions to improve health, prevent and better manage ill-health, including greater capacity to change personal behaviours, take social actions for health, and influence others towards healthy decisions. To achieve this, interventions that are context and content tailored – linked to critical life stages (e.g., adolescence, parenthood, aging and retirement) and events (e.g., diagnosis of chronic disease or the emergence of pandemics like COVID-19) – are likely to be more successful in producing sustainable change. There is growing evidence that health literacy may be improved through, for example, structured, theory-informed programs, or through similarly designed social online learning programs.

Interventions to improve health literacy need to be viewed in the wider context of a comprehensive and integrated set of actions to promote health, prevent and manage ill-health in populations. Health institutions and settings play a key role in facilitating reliable and trustworthy health information. The increasing number of users on social media and mobile health apps, the frequency of use, and the interaction they generate have raised the need for

increasing attention given to health literacy in health promotion interventions across all digital contexts.

As acknowledged, health literacy at the individual level does not depend solely on personal skills, but also on context and the demands and availability of resources available in the complexity of situations in which health decisions and actions occur. Therefore, health literacy responsive settings, organizations and systems play a central role, as they do in comprehensive health promotion models (Trezona et al., 2017).

### ACTION AREA: Emphasizing that health literacy intervention should be a people and community-based process for empowerment

Accepting health literacy as an asset for people throughout the lifespan – childhood, adolescence, adulthood and among elderly – emphasizes the importance of responding to health literacy needs as a people – and community – centered process for citizen empowerment. Promoting and supporting individuals and communities to build health literacy skills is critical, not only for making informed health-related choices but also to proactively engage in health, education, employment, and through political and social action processes, and assuring healthy built and natural environments to generate positive changes in societies. Interventions for improving health literacy need to be viewed in the wider context of a comprehensive and integrated set of actions to promote health. Civil society can explore and develop the potential for health education not only to enable individual change but also to strengthen collective action for health (Levin-Zamir et al., 2017), (WHO, 2015).

### 3. The growing evidence base of health literacy research

Historically, measuring health literacy has undergone three different phases or "traditions" (Pelikan & Ganahl, 2017), from emphasizing literacy (functional) to healthcare-specific health literacy, and on to a more comprehensive measure looking at self-reported health literacy in relation to the complexity of contexts (Sorensen et al., 2015). However, this development should not stop with the third generation of tools. A fourth generation of tools is much needed in order to improve existing tools and respond to new knowledge that emerges from health literacy research.

Even with the tremendous expansion of research, different measurement tools will be required for different ages and stages in life - even if the structure of the concept remains constant. For example, assessing the health literacy of students in school will require different propositions compared to assessing the health literacy of older people with chronic disease. More sensitive measures will be required to distinguish between functional, interactive and critical health literacy, including social skills such as those involved in negotiation and advocacy. Gaps in measures identified by the architects of the Health Literacy Tool Shed include: aligning health literacy measurement with theory and conceptual models, developing methods of objective measurement that approximate the accuracy of self-report measures, conducting comparative assessment of self-reported and objective measures. Importantly, health literacy measurement tools should be used more frequently before, during, and after health literacy promoting interventions in order to measure change over time and allow gaining insights into the development of health literacy and how certain determinants, such as skill development, education, and socioeconomic status interact with and influence health literacy. Finally, measuring health literacy on a country level is important for driving policy nationally and internationally, such as in the case of the European study – Measuring Population and Organizational Health Literacy (The HLS19 Consortium of the WHO Action Network M-POHL, 2021) or the Global study on COVID-19 Health Literacy in different populations (COVID-HL Network, n.d.).

### ACTION AREA: Funding, producing and promoting research to contribute to the growing evidence base

Resources are necessary for measuring and assessing health literacy and applying knowledge within the context of health promotion, educational, and policy systems. The IUHPE Global Working Group on Health Literacy calls for the inclusion and prioritizing of health literacy in research protocols. Systems for monitoring change and improvement in health literacy along the social gradient should be established, monitored, and sustained, particularly where investment has been made in action and intervention. We need further research on the role of organizations, the settings approach for promoting health, and to build and apply more and better evidence-based health literacy tools and programs. Additionally, the need for promoting health literacy in a digital world, as a vehicle for health promotion offers many research questions. More action needs to be taken to support sustainable evidence-based health literacy programs, addressing the root causes of ill health, applying a salutogenic approach, addressing individuals, collectives, and policy and decision makers.

Evaluation of policies and interventions is key to learning what works and why. A WHO Evidence Synthesis Review identified evidence on the methods, frameworks, measurement instruments, domains and indicators used to evaluate health literacy policies, programmes and interventions at all levels. Limited evidence was found on evaluation of national policies and programmes, but local programmes and interventions have been measured using quantitative, qualitative and mixed methods approaches. The development of frameworks and indicators covering a range of domains to enable consistent and comparable population monitoring and evaluations to determine the impact and effectiveness of national policies and programmes would facilitate the dissemination and implementation of effective health literacy initiatives (Rowlands et al., 2019).

Health literacy can, and is, improved by access to digital platforms, by providing access to resources from healthcare practitioners, organizations or members of the public. The health literacy practices enacted in these social areas often include social skills as well as learning with, and from, others in social networks. However, people need confidence and digital capabilities to

access the information from these platforms, and to critically appraise their reliability and relevance to use them to their full potential and influence individual and community health literacy. We acknowledge that there needs to be governmental responsibility through education and policy to ensure these digital capabilities are provided to all across the lifespan, ensuring that gaps in the social gradient which influence health literacy are not widened. The increase of applied AI for health will make it far easier for us to communicate effectively in simple, clear terms, to target messages and media with greater effect, to translate materials into multiple language and to create interactive communications that are personalised and responsive to individual needs and preferences etc. However, we need to be aware of the risks of fake, unsubstantiated information, created and amplified by evolving algorithms based on machine learning. As such, the public, including patients, will need significantly enhanced digital health literacy skills.

# 4. Building capacity in the workforce - sharing knowledge, applying an inter-sectorial approach

In recent years, a growing number of opportunities and frameworks for professional capacity building initiatives on health literacy have taken place, in diverse formats including global, national and regional conferences, university schools of public health courses, summer schools and institutes. As well, a growing number of non-profit, non-governmental organizations are offering health literacy training.

For policymakers, the concept of health literacy is sufficiently diverse to be used to support a full spectrum of policy positions. Improving health literacy can be presented to citizens and the public at large as supporting a policy commitment to greater patient and public engagement in health decision-making – nicely summarized by the "no decision about me without me" mantra of the National Health System in the United Kingdom. It can also be represented as offering a structure for nationally coordinated health education campaigns such as China's long standing Patriotic Health Campaign, now informed and monitored by a national health literacy survey. In both these

examples the concept of health literacy has been interpreted and adapted in ways that are locally relevant to clinical and public health policy and practice. During the global COVID-19 pandemic, numerous initiatives across nations were necessary to mitigate the coronavirus, based on clear communication and cultural appropriateness (Levin-Zamir, 2020).

For clinicians, work over many years, mainly in the USA, has established low health literacy as an identifiable and manageable risk in clinical care. In particular, the importance of health literacy has been recognized in the management of long-term and complex conditions – including and especially NCDs – that depend upon successful patient engagement and management (Coleman et al., 2016). Identification and successful management of the risk of low health literacy, and delivery of tailored patient education has been demonstrated to be feasible and effective in a wide variety of circumstances.

For health promotion and public health practitioners in the government and non-government sectors, health literacy should be prioritized in continuing professional development (Herriot et al., 2022), and embraced as a personal and organizational asset that can be developed through interventions to support greater personal autonomy and community control over a range of determinants of health. This fits comfortably with a more holistic understanding of the social determinants of health, and greater sophistication in the methods and content necessary in a comprehensive, integrated health promotion program (Rootman et al., 2008).

For education professionals and school workers, health literacy should be included in their training, education, and professional development. School teachers – both pre-service and in-service teachers – require health literacy training in order for them to build capacity to successfully promote the health literacy of the students at school (SHE, 2020) (WHO, 2021). As such, health literacy should be included within the curriculum of universities and all institutions training teachers. School principals are as important as teachers as they are critical agents within the school when it comes to school development, organization change and whether health promotion is part of the school curriculum or strategy (SHE, 2020; WHO, 2021). Capacity building for other

stakeholders should also be promoted. This includes school nurses, school boards and lay partners such as parent advisory committees.

In all above areas, workforce development strategies should include the development of health literacy competences and should be included in training/education of all health and educational professionals. Likewise, more knowledge and experience should be shared within interdisciplinary and intersectoral contexts, developing networks and communities of practice among professions and sectors nationally and internationally. Health literacy should be included in higher education and vocational training in all relevant fields of study.

# ACTION AREA: Identifying and engaging stakeholders for collaborative health literacy action, research and policy

Building synergies and enhancing partnerships among organizations to raise the profile of health literacy on the collective agenda is vital. Cross-sectoral initiatives should be institutionalized across academia, government, civil society as well as the public and private sectors to improve health literacy. As is best practice for health promotion, on local and community levels, culturally accepted leadership should be engaged to co-create or adapt interventions and policy to health literacy needs (Trezona et al., 2018). Local businesses and cooperatives are equally significant in promoting health and useful health information, such as local groceries, community centers, and institutions of faith.

### **CONCLUSION**

In conclusion, the role of health literacy is a cross-cutting issue, and its importance as a health determinant is well established, as is its potential to guide clinical practice, public health interventions and public policy for the advancement of global health. That understanding is growing everyday given the continued growth of the number of health literacy researchers, educators, and practitioners around the world. IUHPE hereby calls upon the global public health community to support the development and dissemination of excellence in health literacy research, policy, and practice.

IUHPE calls for global champions and leaders to show their commitment to global, regional and national governance grounded in partnership and coproduction of health.

#### REFERENCES

- Auld, M. E., Allen, M. P., Mickalide, A. D., & Logan, R. A. (2020). *Health Literacy* and *Health Education in Schools: Collaboration for Action*. https://www.cdc.gov/healthyschools/
- Biasio, L. R., Zanobini, P., Lorini, C., Monaci, P., Fanfani, A., Gallinoro, V., Cerini, G., Albora, G., Del Riccio, M., Pecorelli, S., & Bonaccorsi, G. (2023). COVID-19 vaccine literacy: A scoping review. In *Human Vaccines and Immunotherapeutics*. Taylor and Francis Ltd. https://doi.org/10.1080/21645515.2023.2176083
- Brach, C., Keller, D., Hernandez, L. M., Baur, C., Parker, R., Dreyer, B., Schyve, P., Lemerise, A. J., & Schillinger, D. (2012). *Ten Attributes of Health Literate Health Care Organizations*. *NAM Perspectives*. Discussion Paper, National Academy of Medicine, Washington DC . <a href="https://doi.org/10.31478/201206a">https://doi.org/10.31478/201206a</a>
- Brach, C. & Harris, L. M. (2021). Healthy People 2030 Health Literacy Definition Tells Organizations: Make Information and Services Easy to Find, Understand, and Use. Journal of general internal medicine 36 (4), 1084–1085. doi:10.1007/s11606-020-06384-y
- Chinn, D., & McCarthy, C. (2013). All Aspects of Health Literacy Scale (AAHLS): Developing a tool to measure functional, communicative and critical health literacy in primary healthcare settings. *Patient Education and Counseling*, 90(2), 247–253. https://doi.org/10.1016/j.pec.2012.10.019
- Coleman, C. A., Nguyen, N. T., Garvin, R., Sou, C., & Carney, P. A. (2016). Health literacy teaching in U.S. family medicine residency programs: A national survey. *Journal of Health Communication*, *21*, 51–57. https://doi.org/10.1080/10810730.2015.1131774
- Coulter, A., & Ellins, J. (2007). Effectiveness of strategies for informing, educating, and involving patients. *British Medical Journal*, 335(24) https://doi.org/10.1136/bmj.39246.581169.80
- Global Health Literacy Research Network (formerly COVID-HL Network) https://covid-hl.eu/ Accessed Sept. 20, 2023.

- Davis, T. C., Long, S. W., Jackson, R. H., Mayeaux, E. J., George, R. B., Murphy,
  P. W., & Crouch, M. A. (1993). Rapid estimate of adult literacy in medicine:
  a shortened screening instrument. Family Medicine, 25(6), 391–395.
- Dumenci, L., Matsuyama, R., Riddle, D. L., Cartwright, L. A., Perera, R. A., Chung, H., & Siminoff, L. A. (2014). Measurement of cancer health literacy and identification of patients with limited cancer health literacy. *Journal of Health Communication*, *19*, 205–224. https://doi.org/10.1080/10810730.2014.943377
- Edwards, M., Wood, F., Davies, M., & Edwards, A. (2015). "Distributed health literacy": Longitudinal qualitative analysis of the roles of health literacy mediators and social networks of people living with a long-term health condition. *Health Expectations*, 18(5), 1180–1193. <a href="https://doi.org/10.1111/hex.12093">https://doi.org/10.1111/hex.12093</a>
- European Commission, Consumers, Health, Agriculture and Food Executive Agency, Uiters, E., Rademakers, J., Heide, I. et al. (2014) *Study on sound evidence for a better understanding of health literacy in the European Union : final report*. Publications Office.

#### https://data.europa.eu/doi/10.2818/150402

- Gibbs, H. D., Ellerbeck, E. F., Gajewski, B., Zhang, C., & Sullivan, D. K. (2018). The Nutrition Literacy Assessment Instrument is a Valid and Reliable Measure of Nutrition Literacy in Adults with Chronic Disease. *Journal of Nutrition Education and Behavior*, 50(3), 247-257.e1. https://doi.org/10.1016/j.jneb.2017.10.008
- Hansson, S., Orru, K., Torpan, S., Bäck, A., Kazemekaityte, A., Meyer, S. F., Ludvigsen, J., Savadori, L., Galvagni, A., & Pigrée, A. (2021). COVID-19 information disorder: six types of harmful information during the pandemic in Europe. *Journal of Risk Research*, 24(3–4), 380–393. https://doi.org/10.1080/13669877.2020.1871058
- Harnett, S. (2017). Health literacy tool shed: a source for validated health literacy instruments. *Journal of Consumer Health on the Internet*, *21*(1), 78-86.

- Herriot, M., Schirmer, K., & Velardo, S. (2022). *An evidence-informed review to support the development of the South Australian Health Promotion Workforce Strategy.* Australian Health Promotion Association and Wellbeing SA, Government of South Australia.
- IOM (Institute of Medicine). 2013. Health literacy: Improving health, health systems, and health policy around the world: Workshop summary.

  Washington, DC: The National Academies Press.
- Ishikawa, H., & Yano, E. (2011). The relationship of patient participation and diabetes outcomes for patients with high vs. low health literacy. *Patient Education and Counseling*, 84(3), 393–397. https://doi.org/10.1016/J.PEC.2011.01.029
- Joint Commission for Healthcare. (2017). *Joint Commission for Healthcare Accreditation.*
- Jordan, J. E., Buchbinder, R., Briggs, A. M., Elsworth, G. R., Busija, L., Batterham, R., & Osborne, R. H. (2013). The Health Literacy Management Scale (HeLMS): A measure of an individual's capacity to seek, understand and use health information within the healthcare setting. *Patient Education and Counseling*, 91(2), 228–235. https://doi.org/10.1016/j.pec.2013.01.013
- Jorm, A. F. (2019). The concept of mental health literacy (pp. 53-66). Policy Press. In O. Okan, U. Bauer, D. Levin-Zamir, P. Pinheiro, & K. Sorensen (Eds.), *International Handbook of Health Literacy* (pp. 53-66). Policy Press.
- Kickbusch, I. (2009). Health Literacy: Engaging in a political debate. In International Journal of Public Health 54(3), 131–132. https://doi.org/10.1007/s00038-009-7073-1
- Kickbusch, I., Pelikan, J.M., Apfel, F., Tsouros, A.D. (2013). *Health Literacy. The Solid Facts*. Geneva, Switzerland: World Health Organization, Regional Office for Europe. Copenhagen.
- Levin-Zamir, D., Lemish, D., & Gofin, R. (2011). Media Health Literacy (MHL): development and measurement of the concept among adolescents. *Health education research*, 26(2), 323-335.

- Levin-Zamir, D. (2020). Communication, Health Literacy and a Systems
  Approach for Mitigating the COVID-19 Pandemic: The Case for Massive
  Vaccine Roll-out in Israel. *Journal of Health Communication*, 25(10), 816–818. https://doi.org/10.1080/10810730.2021.1884773
- Levin-Zamir, D., Leung, A. Y. M., Dodson, S., & Rowlands, G. (2017). Health literacy in selected populations: Individuals, families, and communities from the international and cultural perspective. *Information Services & Use*, 37(2), 131–151.
- Levin-Zamir, D., Sorensen, K., Su, T. T., Sentell, T., Rowlands, G., Messer, M., & Okan, O. (2021). Health promotion preparedness for health crises a 'must' or 'nice to have'? Case studies and global lessons learned from the COVID-19 pandemic. *Global Health Promotion*, 28(2), 27–37.
- Liu C, Wang D, Liu C, Jiang J, Wang X, Chen H, Ju X, Zhang X. (2020). What is the meaning of health literacy? A systematic review and qualitative synthesis, *Family Medicine and Community Health*. 8(2):e000351
- Manning, D. L., & Dickens, C. (2006). Health literacy: more choice, but do cancer patients have the skills to decide? *European Journal of Cancer Care*, 15(5), 448–452.
- NHS England. (2020). Supported self-management Summary Guide. <a href="https://www.england.nhs.uk/publication/supported-self-management-summary-quide/">https://www.england.nhs.uk/publication/supported-self-management-summary-quide/</a>. Accessed Sept. 20, 2023.
- Norman, C. D., & Skinner, H. A. (2006). eHealth literacy: Essential skills for consumer health in a networked world. *Journal of Medical Internet Research*, 8(2).
- Nutbeam, D. (2000). Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International*, *15*(3), 259–267.
- Nutbeam, D. (2008). The evolving concept of health literacy. *Social Science* & *Medicine*, *67*(12), 2072–2078. https://doi.org/DOI: 10.1016/j.socscimed.2008.09.050

- Nutbeam, D., & Lloyd, J. E. (2021). Understanding and Responding to Health Literacy as a Social Determinant of Health. *Annu. Rev. Public Health*, 42, 3–4. https://doi.org/10.1146/annurev-publhealth
- Nutbeam, D., & Muscat, D. M. (2021). Health Promotion Glossary 2021. *Health Promotion International*, *36*(6), 1578–1598. https://doi.org/10.1093/heapro/daaa157
- Okan, O., Bollweg, T.M., Eva-Maria Berens, Bauer, U., Hurrelmann, K., Schaeffer, D. (2020). Coronavirus-related health literacy in Germany: A cross-sectional study in adults during the COVID-19 infodemic. Int J Environ Res Public Health. 17(15), 5503. https://doi.org/10.3390/ijerph17155503
- Osborne, R. H., Batterham, R. W., Elsworth, G. R., Hawkins, M., & Buchbinder, R. (2013). The grounded psychometric development and initial validation of the Health Literacy Questionnaire (HLQ). *BMC Public Health*, *13*(1). <a href="https://doi.org/10.1186/1471-2458-13-658">https://doi.org/10.1186/1471-2458-13-658</a>
- Paakkari, L., & Okan, O. (2020). COVID-19: health literacy is an underestimated problem. The Lancet Public Health. 5:e249-e250. https://doi.org/10.1016/S2468-2667(20)30086-4.
- Paasche-Orlow, M. K., & Wolf, M. S. (2007). The causal pathways linking health literacy to health outcomes. *American Journal of Health Behavior*, 31(Supplement 1), S19–S26.
- Parker, R. M., Baker, D. W., Williams, M. V., & Nurss, J. R. (1995). The test of functional health literacy in adults: a new instrument for measuring patients' literacy skills. *Journal of general internal medicine*, *10*, 537-541.
- Peerson, A., & Saunders, M. (2009). Health literacy revisited: What do we mean and why does it matter? In *Health Promotion International* 24(3), 285–296. https://doi.org/10.1093/heapro/dap014
- Pelikan, J. M., & Ganahl, K. (2017). Measuring health literacy in general populations: Primary findings from the HLS-EU Consortium's health literacy assessment effort. *Stud Health Technol Inform*, *240*, 34–59.

- Pignone, M., Sheridan, S., Berkman, N., Lohr, KN., DeWalt, DA., Sheridan, S., Berkman, N., & Lohr, KN. (2005). Interventions to improve health outcomes for patients with low literacy.. *J Gen Intern Med.*, 20(2), 185.
- Pleasant, A., & Kuruvilla, S. (2008). A tale of two health literacies: public health and clinical approaches to health literacy. *Health Promotion International*, 23(2), 152–159.
- Rootman, I., Gordon-El-Bihbety, D., Canadian Public Health Association. Expert Panel on Health Literacy., & Gibson Library Connections. (2008). *A vision for a health literate Canada: report of the Expert Panel on Health Literacy*. Canadian Public Health Association.
- Rowlands, G., Shaw, A., Jaswal, S., Smith, S., & Harpham, T. (2017). Health literacy and the social determinants of health: A qualitative model from adult learners. *Health Promotion International*, *32*(1), 130–138. https://doi.org/10.1093/heapro/dav093
- Rowlands, G., Trezona, A., Russell, S., Lopatina, M., Pelikan, J., Paasche-Orlow, M., Drapkina, O., Kontsevaya, A., & Sørensen, K. (2019). WHO Health Evidence Network synthesis report 65 What is the evidence on the methods, frameworks and indicators used to evaluate health literacy policies, programmes and interventions at the regional, national and organizational levels?
- Rudd, R. E. (2007). Health literacy skills of U.S. adults. *American Journal of Health Behavior*, 31(SUPPL. 1). <a href="https://doi.org/10.5993/ajhb.31.s1.3">https://doi.org/10.5993/ajhb.31.s1.3</a>
- SHE. (2020). Health literacy in schools: State of the art. Schools for Health in Europe Network Foundation. Funded by the European Commission.

  Haderslev, Denmark.

  <a href="https://www.schoolsforhealth.org/sites/default/files/editor/fact-sheets/factsheet-2020-english.pdf">https://www.schoolsforhealth.org/sites/default/files/editor/fact-sheets/factsheet-2020-english.pdf</a>.
- Sheridan, SL., Halpern, DJ., Viera, AJ., Berkman, ND., Donahue, KE., & Crotty, K. (2011). Interventions for individuals with low health literacy: a systematic review.. *J Health Commun*. 30(16)(sup3, 30-54.

- Sorensen, K. (2016). *Health literacy is a political choice. A health literacy guide for politicians*. https://www.researchgate.net/publication/311455482
- Sorensen, K., Pelikan, J. M., Rothlin, F., Ganahl, K., Slonska, Z., Doyle, G., Fullam, J., Kondilis, B., Agrafiotis, D., Uiters, E., Falcon, M., Mensing, M., Tchamov, K., Broucke, S. V, Brand, H., & Consortium, H.-E. (2015). Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU). *European Journal of Public Health*. https://doi.org/ckv043 [pii]
- Sørensen, K., Van den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., & Brand, H. (2012). Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*, *12*(1), 80.
- Su, Y., Borah, P., & Xiao, X. (2022). Understanding the "infodemic": social media news use, homogeneous online discussion, self-perceived media literacy and misperceptions about COVID-19. *Online Information Review*, *46*(7), 1353–1372. https://doi.org/10.1108/OIR-06-2021-0305
- Suka, M., Odajima, T., Kasai, M., Igarashi, A., Ishikawa, H., Kusama, M., Nakayama, T., Sumitani, M., & Sugimori, H. (2013). The 14-item health literacy scale for Japanese adults (HLS-14). *Environmental Health and Preventive Medicine*, *18*(5), 407–415. https://doi.org/10.1007/s12199-013-0340-z
- The HLS19 Consortium of the WHO Action Network M-POHL. (2021).

  International Report on the Methodology, Results, and Recommendations of the European Health Literacy Population Survey 2019-2021 (HLS19) of M-POHL.
- Trezona, A., Dodson, S., & Osborne, R. H. (2017). Development of the organisational health literacy responsiveness (Org-HLR) framework in collaboration with health and social services professionals. *BMC health services research*, 17(1), 1-12.
- Van den Broucke, S. (2020). Why health promotion matters to the COVID-19 pandemic, and vice versa. *Health promotion international*, *35*(2), 181-186.

- van der Vaart, R., Drossaert, CH., Taal, E., ten Klooster, PM., Hilderink-Koertshuis, RT., Klaase, JM., & van de Laar, MA. (2012). Validation of the Dutch functional, communicative and critical health literacy scales. *Patient Educ Couns*, 89(1), 82–88.
- van der Vaart, R., & Drossaert, C. (2017). Development of the digital health literacy instrument: measuring a broad spectrum of health 1.0 and health 2.0 skills. *Journal of medical Internet research*, 19(1), e27.
- Vrdelja, M., Vrbovšek, S., Klopčič, V., Dadaczynski, K., & Okan, O. (2021).
  Facing the growing COVID-19 infodemic: digital health literacy and information-seeking behaviour of university students in Slovenia. *International journal of environmental research and public health*, 18(16), 8507.
- Weiss, B. D., Mays, M. Z., Martz, W., Castro, K. M., DeWalt, D. A., Pignone, M. P., Mockbee, J., & Hale, F. A. (2005). Quick assessment of literacy in primary care: The newest vital sign. *Annals of Family Medicine*, 3(6), 514–522. https://doi.org/10.1370/afm.405
- World Health Organization. (1986). *Ottawa charter for health promotion*, 1986 (No. WHO/EURO: 1986-4044-43803-61677). World Health Organization. Regional Office for Europe.
- World Health Organization. Regional Office for South-East Asia. ((2015 Health . literacy toolkit for low- and middle-income countries : A series of information sheets to empower communities and strengthen health .systems. WHO Regional Office for South-East Asia <a href="https://apps.who.int/iris/handle/10665/205244">https://apps.who.int/iris/handle/10665/205244</a>
- World Health Organization. (2017). Shanghai declaration on promoting health in the 2030 Agenda for Sustainable Development (No. WHO/NMH/PND/17.8). World Health Organization.
- World Health Organization. (2017). *Promoting health in the SDGs*. http://apps.who.int/bookorders.

- World Health Organization. (2019). *Declaration of Astana: Global Conference on Primary Health Care: Astana, Kazakhstan, 25 and 26 October 2018* (No. WHO/HIS/SDS/2018.61). World Health Organization.
- World Health Organization -European Region. (2019). WHO European roadmap for implementation of health literacy initiatives through the life course: 69th session of the WHO Regional Committee for Europe 16-19 September 2019, EUR/RC69/14 + EUR/RC69/Conf.Doc./12; World Health Organization: Copenhagen
- World Health Organization. (2021). Health literacy in the context of health, well-being and learning outcomes the case of children and adolescents in schools: concept paper. Copenhagen: WHO Regional Office for Europe; https://apps.who.int/iris/handle/10665/344901.
- World Health Organization. (2021). Health promotion glossary of terms 2021.
- World Health Organization. (2022). *Health literacy development for the prevention and control of noncommunicable diseases*: volume 4: case studies from WHO national health literacy demonstration projects.



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