Health Literacy

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What is Health Literacy?

Health literacy is a concept that recognizes that people have different capacities to find, understand, and use health information, with different experiences that shape their willingness and confidence to do these tasks, and different ways in which they prefer to receive and engage with information. It is a humbling concept for health service providers and health educators because it carries within itself the recognition that there are many people whose needs we have failed to meet because we have not fully understood those needs.

The drive to incorporate health literacy into public health practice is intrinsically linked with the concept of equity (Paasche-Orlow and Wolf, 2010). A health literacy approach can meet the needs of people who are not responding to current approaches to improve their access to health services, to change their health behaviors, and/or to increase their participation in actions and advocacy to improve health in their communities. Health literacy is less of a concern for people with whom current health-care approaches are already effective.

The concept of health literacy has evolved considerably since it was first coined in 1974, as have the means to measure it. Consequently, there has also been an expansion in the number and breadth of health literacy interventions. Modern definitions include multiple dimensions of health literacy, consider multiple settings, and recognize that there are social as well as individual components to health literacy. While there are many definitions, those that are more recent overlap substantially.

A review by Sorensen et al. (2012) produced a definition that covers most of the elements included in earlier definitions: health literacy relates to “people’s competencies to access, understand, appraise and apply information to make health decisions in everyday life throughout the life course”. An earlier definition by Kickbusch in 2001 does, however, include an additional element, which is the concept of settings. “Health literacy is the ability to make sound health decisions in the context of everyday life – at home, in the community, at the workplace, the healthcare system, the market place and the political arena.” Consideration of settings is of particular importance in determining how health literacy can contribute to the Sustainable Development Goals (see Table 4) and other major policy objectives.

Evolution of the Concept

The term ‘health literacy’ was first coined by SK Simonds in 1974. As has been noted by several authors, the timing of the emergence of health literacy coincided with the emergence of a term related to general education and literacy: ‘functional literacy.’ Functional literacy referred to people having sufficient reading and writing skills to be able to undertake the tasks of citizenship and to participate in society (Freebody and Luke, 1990; Resnick and Resnick, 1977). However, this is not the only antecedent of the concept of health literacy.

Simonds was one of a group of academics in the field of health education who, in the 1950s and 1960s, were working to develop the concept of ‘educational diagnosis’ for health education. The following quote typifies their thinking:

If we group patients for learning according to their disease or illness, then we must also take into account the differences in individuals and provide a variety of learning experiences. To teach all patients the same thing in the same way as if their needs and experiences and perceptions are identical and to call this good education is comparable to giving all cardiac [sic] the same drug, diet, and activity schedule and calling it good medical care (Research Committee of the Society of the Public Health Educators, 1968).

Kasey and MacMahan, 1965

With reference to this acknowledged responsibility, Simonds argued that the job of health educators is to convey relevant information and to understand the problems of the patient (as a learner) on as systematic a basis as possible (Simonds, 1963). This remains the role of much of the health literacy research and development work to this day.

In some ways, the evolution of the concept of health literacy can be thought of as a back-to-the-future journey. The concept traveled far from its original intention of understanding the diversity of needs (to attempting systematic measurement of numeracy and literacy) but has recently returned to its origins. There are also areas in which the concept has outgrown its origins. In particular, health literacy is recognized as important not only for health education and individual use of health knowledge, but also for people’s ability to access and use health services and to participate in debates and advocacy about issues that affect the health of their families and communities.

These diverse functions of health literacy correspond to three forms of health literacy proposed in one of the most widely used classification systems (Nutbeam, 2000).

- **Functional health literacy** involves having the reading, writing, and information processing abilities to effectively participate in one’s own care, and it relates strongly to one’s personal use of health information.
- **Interactive health literacy** relates to how a person obtains and applies health information through interaction with others, including health professionals, and is a major factor in how effectively people access and use health services.
- **Critical health literacy** is the skills that support critical reflection about information or advice received, including recognition of the influence of wider social determinants of health. These include the ability to obtain, understand, and critically appraise different sources of information, and the ability to engage in shared decision-making. Critical health...
literacy is strongly related to people’s ability to participate in debates and advocacy about issues that affect the health of their families and communities.

At times, the broadening of the concept of health literacy has been contentious. There are those who have argued that by losing its specific focus on reading and writing, it becomes too difficult to distinguish from related concepts such as health education (Tones, 2002). There are, however, arguments against health literacy being defined in a more limited way. The first is that focusing only on reading and writing implies that people who are illiterate have a health literacy of zero even if they are able to obtain and use health information well. The second is that such a definition introduces an element of arbitrariness in that, even among people who read and write well, there are those who respond better to information presented through discussion, pictures, or demonstration. Finally, such a constraint on the term is inconsistent with other literacies such as computer literacy and financial literacy, which invariably include the ability to do a certain set of core tasks, not just to read related terminology.

At the conceptual level, an inclusive view of health literacy has prevailed. Until recently, however, this has not been reflected in the measurement of health literacy. Before 2012, the most widely used tools measured primarily reading, comprehension, and numeracy tasks. This, in turn, limited the development and evaluation of interventions that responded to a broader view of health literacy.

In the 1990s and early 2000s, a way of thinking about health literacy emerged that sought to study the prevalence and effects of ‘low health literacy.’ This approach was troubled by wide and sometimes arbitrary variations to determine thresholds for ‘low health literacy’ (Barber et al., 2009; Wolf et al., 2010), and was tied to attempts to target interventions to people with low health literacy. There was strong pushback against this approach, particularly by researchers in the United States led by Rudd and others, who argued that all people can have difficulties with aspects of health literacy, depending on the circumstances in which they find themselves (Batterham et al., 2016; Brown et al., 2004; DeWalt et al., 2010). These researchers developed the universal precautions approach to health literacy, for particular use in health services. They argued that it is not always possible or necessary to know the details of a person’s health literacy and that health services can still make themselves friendly and usable to all people regardless of their level of health literacy. Proposed interventions include simplifying signage, forms and printed materials; using diverse forms of presentation of education materials; providing navigation assistance to users of health services; and training health-care personnel in a range of skills, including how to create a trusting atmosphere with patients, how to present information such that it relates to the actual tasks a patient needs to do, and how to check that a patient understands information and instructions provided.

In recent years, conceptual development has informed the way in which health literacy is applied in health promotion, health service delivery, and policy development. One important aspect is an increasing appreciation for the way in which health literacy, and its importance within people’s lives, varies across the life course and across people’s health and illness journeys (Edwards et al., 2012). This view argues that health literacy is relative to the demands a person faces. For example, a level of health literacy that was perfectly adequate for a person to care for themselves and their families the day before they were diagnosed with cancer may be completely inadequate the day after diagnosis.

Another important conceptual development relates to recognition of the social context of health literacy. There are two key aspects to these developments. The first is an increasing recognition of the importance of health literacy in different settings such as homes, communities, health services, workplaces, and schools (WHO Regional Office for Europe, 2013). The second is an increasing recognition that the discussions that people have in their families and social groups have a substantial impact on when and where they seek health information, how they interpret it, what they choose to believe, and how they go about applying it. This includes the recognition that many decisions about health are made by people other than the individual. In this way of thinking, health literacy is as much a characteristic of groups as it is of individuals, particularly in societies that are more communally than individually oriented.

This could mean, for example, that the average health literacy of all the women in a village may be a more important determinant of a child’s health outcomes than the individual health literacy of the child’s mother (Edwards et al., 2013; Parashar, 2005; Sentell et al., 2014). These developments have led to calls for definitions of health literacy and the development of measurement tools and intervention strategies that are more explicitly socially oriented and targeted at public health (Freedman et al., 2009; Guzys et al., 2015).

**Different Purposes and Emphases of Health Literacy in Different Contexts**

The reasons underlying debates about the concept of health literacy often relate simply to points of view and the purposes for which people seek to engage with the concept in the first place (Berkman et al., 2010). While there are many ways of classifying these different points of view, two distinctions are particularly important:

1. **Research versus an applied orientation**
2. **Health services versus broader community settings.**

**Research versus Applied Orientation**

In general, researchers tend to want precise definitions that distinguish one concept from others. Their work often requires measurement of concepts so that, in practice, the concept is often defined by the measurement tools available.

By contrast, in applied settings – be it within health services or communities, or in the development of major health-advertising campaigns – the primary objective is the concept’s ability to help service providers fully understand the needs of their target group.

**Health Services versus Broader Community Settings**

Much of the conceptual development of health literacy has occurred among the health promotion community, whereas a great deal of intervention development has occurred within
health services. This has led to a focus on health literacy interventions that are health service orientated. For example, the Universal Precautions approach is particularly valuable for assisting health services to be responsive to their whole patient group (Brown et al., 2004; DeWalt et al., 2010). It is less relevant, however, to guide health promotion and community development workers to engage with local communities to build health awareness and assets. In this latter situation, it is critical that workers have an understanding of the health literacy diversity and health literacy strengths and weaknesses in the community. Similarly, in situations where a health service has a responsibility to a whole community and not just its patient group, the Universal Precautions approach is not sufficient to engage people who are not using the service at all. This is important because there are substantial differences between countries in the extent to which a health service is responsible for the care of the whole community versus being responsible only for the patients who use the service.

How is Health Literacy Different to Other Concepts?

There is often confusion about the scope of the concept of health literacy and the way in which it is differentiated from a range of related concepts, such as patient education, patient empowerment, health beliefs, and many others. As noted previously, health literacy is often functionally defined in terms of the ability to do a set of health-related activities, including the following:
- Access, understand, and use health information;
- Engage with others, including health service providers, to care for one’s health or the health of those for whom you feel responsible;
- Participate in community debates about issues and decisions that impact on health.

Health literacy is, therefore, not a single cognitive characteristic of individuals but a set of interacting cognitive, affective, experiential, and social processes that either help or hinder a person to engage with health information. From this perspective, health literacy is inclusive of many other concepts. For example, it clearly has a large cognitive component related to health knowledge, beliefs, and knowledge-acquisition skills. However, it is not a solely cognitive ability because issues such as the ability to trust health professionals, prior experience in successfully navigating health services, and comfort in discussing one’s health issues with family and friends also have an impact.

Back to the Future: Returning to a Needs Diagnostic Approach

In the past few years, there has been increased recognition that health literacy has multiple components and that people can have varying health literacy strengths and weaknesses. In addition, a few multidimensional measurement tools have been developed that allow these strengths and weaknesses to be assessed. This has opened the way for a return to a needs diagnostic approach to health literacy. Rather than just trying to assess the prevalence of low health literacy, these tools and approaches enable the identification of specific needs in individuals and groups.

To paraphrase the earlier quote from Simonds, “health literacy is now about working to understand and respond to the problems of the patient (as a learner, as an active agent engaging health providers and as a participant in health decision-making processes in the community) on as systematic a basis as possible” (modified from Simonds, 1963) additions in italics).

Measurement of Health Literacy

As discussed above, the way in which health literacy is measured can determine how it is applied in practice. There are a multitude of health literacy measures. At the time of writing the website called The Health Literacy Toolshed (see section Relevant Websites) contained 112 measurement tools. Most of these relate to one or two aspects of health literacy and many assess knowledge related to a particular disease or other health issue. Five of the listed tools cover multiple domains of health literacy although one of these uses questions that are specific to one country (China). These multidimensional tools are newly popular. Prior to 2012, however, health literacy measurement was dominated by two families of tools: tools based on the Rapid Estimate of Adult Literacy in Medicine (REALM), and tools based on the Test of Functional Health Literacy for Adults (TOFHLA). While these measures had proven useful in many projects, by 2004 the limitations of the available measures were already widely recognized. In a systematic review, the Committee on Health Literacy of the Institute of Medicine (IoM) of the National Academies in the United States concluded that:

> [Finding 2–4] While health literacy measures in current use have spurred research initiatives and yield valuable insights, they are indicators of reading skills (word recognition or reading comprehension and numeracy), rather than measures of the full range of skills needed for health literacy (cultural and conceptual knowledge, listening, speaking, numeracy, writing and reading).

Committee on Health Literacy, 2004 (see Altin et al., 2014 for a more recent review of available tools).

A further limitation of the earlier tools is that they appeared to lack sensitivity to change. In both the 2004 review and in an updated review in 2011, the IoM reviewers found little evidence of interventions that improved health literacy in general: most of the successful interventions included in the reviews sought to improve health outcomes specifically for people with low health literacy. The lack of evidence for improvements in health literacy, however, may have been due to the use of tools which did not measure all aspects of health literacy. Subsequently, tools that measured interactive and critical health literacy were published but it was not until 2012 that the first truly multidimensional tools emerged. These are discussed in below (see Tables 1 and 2).

Purposes of Health Literacy Measurement

Health literacy measurement is not only used for research purposes. There is increasing interest in measuring health literacy for care planning and service planning purposes at the level of individual patients, specific target groups, whole communities, and national populations. Table 1 presents...
a range of purposes for which health literacy measurement has been applied or proposed at different levels.

### Uses of Health Literacy Measurement in Different Populations and Settings

#### Children, Adolescents, Families, Schools

Given that health literacy primarily relates to ability or opportunity to understand, find, and use health information and health services, infants' and children's health literacy is primarily related to the parental and school environments.

Overall, several association studies indicate that children with low literacy have worse health behaviors; parents with low literacy have less health knowledge and have more behaviors that are disadvantageous for their children's health, compared with parents with higher literacy; and children whose parents have low literacy often have worse health outcomes (DeWalt and Hink, 2009; Keim-Malpass et al., 2015).

For adolescents and young people, peer groups are strong determinants of an individual's health literacy, as is the educational background of their parents (Zhang et al., 2016). There is the potential for school health education programs to assist

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**Table 1** Purposes for health literacy measurement and analysis at different levels

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<tr>
<th>Levels at which health literacy can be measured</th>
<th>Potential purposes for measuring health literacy</th>
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<tbody>
<tr>
<td><strong>Health service settings</strong></td>
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</tbody>
</table>
| 1. Individual patients | • To solve problem for complex patients  
• To train staff in responding to differing health literacy needs |
| 2. Patient groups | • To identify common factors that contribute to poor access and health outcomes  
• To plan for services to respond to health literacy needs  
• To inform advocacy activities |
| 3. Individual health services | • To diagnose health literacy strengths and limitations of target populations and how these strengths and limitations contribute to known inequalities of access, participation in health and health outcomes  
• To develop specific strategies for responding to common health literacy limitations |
| **Community and population settings** | |
| 4. Local areas (both health and community services/authorities) | • To plan marketing and education strategies across services  
• To assess the ability of community members to participate in community-based health planning activities (critical health literacy) and develop suitable approaches to enable their participation |
| 5. National surveys (to compare regions and groups) | • To identify relationships between health literacy and access, equity and outcomes, in order to develop appropriate health service and public health policies and strategies  
• Plan health education campaigns, or campaigns to support the introduction of new services, screening initiatives (e.g., bowel or skin cancer) or vaccination programs.  
• Assess regional ‘patient difficulty’ for planning and funding purposes (assuming that it takes more intensive resources to improve health outcomes for people with low health literacy than it does for people with higher health literacy) |
| 6. Countries (international comparisons) | • Advocacy for governments in countries where there is systemic low health literacy  
• Identify countries that are role models for how to improve health literacy levels of populations |


**Table 2** Three multidimensional questionnaires or tests of health literacy

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<tr>
<th>Name</th>
<th>Domains reported</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>Chinese Resident Health literacy scale (Shen et al., 2015)</td>
<td>1. Knowledge and attitudes, 2. Behavior and lifestyle, and 3. Health-related skills</td>
<td>Guides understanding of community health-related knowledge. Health literacy of populations</td>
</tr>
<tr>
<td>European health literacy survey (EU-HLS) (Sorensen et al., 2013)</td>
<td>1. Access, 2. Understanding, 3. Appraisal, and 4. Application of health information</td>
<td>Provides information on individual, group, and population health literacy needs and outcomes.</td>
</tr>
</tbody>
</table>
| Health literacy questionnaire (Osborne et al., 2013) | 1. Feeling understood and supported by health care providers,  
2. Having sufficient information to manage my health,  
3. Actively managing my health,  
4. Social support for health,  
5. Appraisal of health information,  
6. Ability to actively engage with health care providers,  
7. Navigating the health care system,  
8. Ability to find good health information,  
9. Understand health information enough to know what to do | |

See the Health Literacy Toolshed for a full list of published health literacy tests and scales [www.healthliteracy.bu.edu](http://www.healthliteracy.bu.edu).
children to recognize and choose healthy options and influence the home environment. In large population-based health literacy studies of sixth grade students (11–12 years old) in Taiwan, Shih et al., 2016 argue "that in order to enable children to participate in their own health management in the long term, as well as being able to avoid the temptations of junk foods such as sugar beverage in their daily environments, we need to improve children’s health literacy.”

There is also the possibility of children being the agents of change within families by bringing new knowledge about health to the family, including through incongruence between habits at home and those promoted at school being discussed by the family. However, policy and programs driving school health education have the potential to generate unintended effects. The uptake and success of such programs are more likely to occur in well-resourced schools or where comfortable nuclear families enable discussions about health, therefore school health programs have the potential to increase social inequalities in health if not well implemented. In adolescents and young adults, while their individual health literacy, and the health literacy of their parents is important, for many, the health literacy of the most influential individuals in their peer group may be even more important (Sanders et al., 2009).

**General Population**

Most studies of health literacy in populations have focused on classifying the proportion of individuals who may have inadequate functional health literacy. To date, the cut-offs or benchmarks have not been directly linked to clinical or social impacts. For example, the Adult Literacy and Life Skills Survey (ALLS) (Australian Bureau of Statistics, 2009) provides a statistical snapshot of the performance and abilities of the adult population in relation to a reading-based test of literacy, numeracy, and problem solving. Despite providing limited guidance on the nature of the health literacy problem and how to solve it (other than improve overall education), the ALLS and other tests have generated estimates of inadequate health literacy to be as high as 60% and as low as 7% within the same population, depending on the test used (Barber et al., 2009). The upper estimates are often cited and draw attention to an alarming problem of reading materials, improving organizational health literacy, and improving health-care professional communication skills.

More recently, the newer multidimensional health literacy questionnaires have been applied in population surveys (see Table 2). The Chinese Resident Health Literacy Scale comprises 64 items that test an individual’s knowledge about information, lifestyle, and health behaviors (Shen et al., 2015). The tool comprises questions with one (or more) correct responses and provides planners with specific information about the health-related knowledge on issues of concern. The test is tied to local health issues or educational needs. The European Health Literacy Survey (EU-HLS) comprises 47 questions that cover access, understanding, appraisal, and application of health information in different contexts (community through to hospital) (Sorensen et al., 2013). Responses to the scales are classified as insufficient, problematic, sufficient, and excellent based on response scales linked to each question. When associations between the EU-HLS and demographic factors are explored, the EU-HLS total and scale scores have been found to be lower in less-educated people, younger people, and migrants compared with the general population. The 44-item Health Literacy Questionnaire (HLQ) generates information about health literacy needs and strengths across nine domains (see Table 2) with no classification of high or low health literacy nor a total score. In a similar way to the EU-HLS, it has shown health literacy differences across social gradients (Beauchamp et al., 2015), but it has also shown further differences across disease groups after controlling for education (Friis et al., 2016). The HLQ is also widely used to inform the development of public health interventions (Batterham et al., 2014, 2016).

**Health-Care Settings**

Despite the ever-increasing availability of health information, individuals, communities, and organizations cannot be fully prepared for all health-care situations. An individual’s health literacy will play a big role in the way they proceed through care and disease pathways. An individual’s (or a family’s) health literacy will affect in the following ways:

- the recognition of overt or latent symptoms and signs;
- decisions of when, how, and even whether or not to seek care; and
- the ability to understand information provided during an encounter with a health service, to identify what is relevant, to seek clarification, and to identify concrete actions.

These effects will also be modified by the health literacy responsiveness of the health services.

Many studies have found that health-related literacy and numeracy are correlated with use of acute services. These have been summarized in a systematic review by Berkman et al. (2011). Table 3 provides some exemplar acute care settings or conditions where health literacy may play a strong role in generating suboptimal health outcomes or where an inadequate response by health services may adversely affect individuals.

While these gaps in health care may pertain to patient-related factors, such as not understanding the value of care or not being able to follow medicine regimens, they may also be the result of how health-care options are presented. If health advice is not presented in a way that gives people a fair chance of understanding the value of treatment, or the clinical environment generates mistrust or fear, poor outcomes and health

<table>
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<th>Table 3</th>
<th>Associations between health-related literacy and numeracy and health care outcomes</th>
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<tr>
<td><strong>Inadequate health literacy skills or a service that does not sufficiently respond to users’ needs may result in the following:</strong></td>
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<tr>
<td>- Late presentation</td>
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<td>- Presentation at EDs for primary care preventable conditions</td>
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<tr>
<td>- Excess unplanned hospital admissions and readmissions</td>
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<tr>
<td>- Prevent community members acting safely with emergent diseases, e.g., treatment of Ebola-infected or deceased family members</td>
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<tr>
<td>- Reduced medication adherence and increased adverse medication events</td>
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<tr>
<td>- Poor disease outcomes</td>
<td></td>
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<tr>
<td>- Poor quality communication with health care professionals</td>
<td></td>
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<tr>
<td>- Excess mortality</td>
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inequalities are likely to occur. The way in which health services make their information, environments, resources, and supports available and accessible to the people they serve can be termed health literacy responsiveness (Dodson et al., 2015).

Community Settings
While much of the conceptual development around health literacy has emphasized health literacy in community settings, the amount of research conducted in communities is small. In part this may be because measurement tools have emphasized following medical instructions and understanding materials provided by health professionals and materials such as medication labels. The most active area for measuring community health literacy has been for mental health literacy where the relationship between community awareness and stigmatization, willingness to engage with mental health services, participation in monitoring and engagement with e-mental health services have all been studied (Gulliver et al., 2012; Jorm, 2012).

Another area where health literacy has been assessed in community settings is for maternal and child health. These studies have considered both the health literacy of mothers and the health literacy of the network of women in a community or family (Parashar, 2005). These types of studies led Edwards et al. (2013) to propose the concept of ‘distributed health literacy’ which suggests that the health literacy that influences health outcomes may not be just an individual cognitive phenomenon but may reside in social networks that discuss, develop norms, and make decisions related to health through their interactions. They catalog a number of examples of situations where some sort of communal health literacy has a substantial impact on health actions and outcomes. More recent of authors have continued to investigate this phenomenon and to propose methods for assessing, engaging with, and improving community health literacy (Batterham et al., 2016; Sentell et al., 2014).

Health Literacy Interventions
Health literacy interventions include a broad range of activities, many of which are not called health literacy interventions at all. Patient education activities; the development of Web portals by governments to provide access to trustworthy information; the use of health volunteers in rural villages as health brokers between health services and villagers; and the use of SMS messaging in conjunction with call centers to provide education to traditional midwives can all be considered health literacy interventions.

In general, health literacy interventions fall into two categories: interventions aimed at improving health literacy, and interventions aimed at improving service delivery and outcomes for people with low health literacy or with specific health literacy limitations. The number of interventions in the second group is larger than in the first and, in the large systematic reviews of health literacy interventions, most of the interventions that showed benefits were also in the second category (Berkman et al., 2011; Dewalt et al., 2004). This may, however, have been due to limitations in the ability of the health literacy measurement tools used at the time to measure change. Table 4 shows examples of interventions with each of these aims, including interventions that are likely to be called health literacy interventions and those that are not.

Broadly speaking, health literacy interventions are used in support of four categories of outcomes for the target groups. These are shown in Figure 1.

Developing and implementing health literacy interventions does not necessarily mean creating new ideas and techniques. Within an organization or a community there are often skilled people who have developed strategies to assist people with a variety of health literacy strengths and weaknesses to improve in one or more of the four areas shown in Figure 1. Health literacy interventions are often about assisting local agencies to turn the best practice of these skilled practitioners into normal practice. In such cases, the intervention can be seen as a quality improvement process in which staff in the health service or community agency are assisted to (1) understand the diversity of health literacy needs in their community, (2) develop a repertoire of strategies to respond to those needs, and (3) receive authorization, support, and resourcing from their organization to implement these strategies.

<table>
<thead>
<tr>
<th>Interventions aiming to improve people’s health literacy</th>
<th>Interventions to accommodate different peoples’ health literacy needs</th>
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</table>
| Interventions called health literacy interventions | • Training patients in how to talk to doctors  
| | • Carer skills training |
| | • Audits of health service premises  
| | • Audits of printed materials  
| | • Specific communications strategies (e.g., photos of medicines)  
| | • Reminders and prompts (e.g., SMS)  
| | • Communication skills training for health professionals  
| | • Teach-back methods  
| | • Prepacked medication packs organized by daily administration times  
| | • Cultural competence training |
| Other interventions in which health literacy has a major role | • Patient education  
| | • Public education campaigns  
| | • Chronic disease self-management support  
| Community-based interventions that aim to both improve health literacy and assist those with low health literacy | • Village health volunteers  
| | • Village disease leaders (e.g., diabetes)  
| | • Family health leaders |
In these situations health literacy interventions involve an interaction of change processes at multiple levels including the following:

- patients or community members,
- health-care staff or community workers and leaders,
- health care or community organizations.

The starting point for thinking about an intervention is understanding what needs to change for patients or community members with specific health literacy weaknesses, not just how they need to change but what needs to change in the experiences they have while looking after their health issues, or while interacting with health service personnel. This leads directly to the question, What do staff in the health service or community agency need to do differently to provide the people in the target group with the necessary experiences? Sometimes this will involve specific new interventions but sometimes it will just involve a change in the staff member’s interaction with the consumer, based on training that the staff member has received. Table 5 provides examples of interventions that involve new services provided to consumers, and interventions that are targeted primarily at staff to enable them to work in new ways to provide more beneficial experiences to the people they are serving. Enabling the staff of an organization to provide new services and to work in new ways requires organizational authorization, support, training, and resourcing, which means that interventions typically also have an organizational component.

### Table 5 Examples of interventions at the consumer and staff levels to provide consumers with experiences that respond to their health literacy needs

<table>
<thead>
<tr>
<th>Changed consumer experience</th>
<th>The intervention</th>
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<tbody>
<tr>
<td>Consumer offered the opportunity to participate in a peer support group where they receive support and ideas for translating general advice for specific health actions into their life as well as motivational support</td>
<td>A peer support group (consumer-level intervention)</td>
</tr>
<tr>
<td>Consumer is invited by staff members to explain exactly how they will act on advice they receive. This provides the staff member with an opportunity to assist the consumer to translate advice into specific practical actions</td>
<td>Training staff in Teach-back methods (staff-level intervention focused on specific techniques)</td>
</tr>
<tr>
<td>Consumer experiences a change in attitude from staff with specific invitations to ask questions, time taken to explain and discuss printed materials. Consumer no longer feels like a failure if she/he fails to understand everything immediately</td>
<td>Staff trained to understand and appreciate health literacy diversity and adopt a constructive rather than a judgmental orientation (staff- and organizational-level intervention has focus on developing deeper understanding, constructive attitudes, and a positive culture)</td>
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### Health Literacy Policy and Programs to Impact on Health, Inequalities and Poverty through the Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) (see Table 6), which came into effect January 2016, set out 17 goals with 169 targets (United Nations, 2015). They were designed to be relevant to all people in all countries to ensure that “no one is left behind.” They also focus on improving equity to meet the needs of women, children, and the poorest, most disadvantaged people.

This agenda requires that all three dimensions of sustainable development – economic, social, and environmental – are addressed in an integrated manner. Almost all the goals are directly related to health or will have an indirect impact on health. Health literacy can be considered a foundation block for health and equity-related SDGs. In the coming years, governments will need to develop comprehensive policy and programs to improve health literacy to assist with their responses to the SDGs. Action is not only required across ministries of health but policy development and coordination will need to be undertaken across other sectors including education, urban and rural development, security, immigration, environment, and others.

Consequently, programs will need to develop capacities in individuals and communities, as well as strengthening health systems such that they are more responsive to...
Finally, health literacy is linked to empowerment. Clearly, inequality is linked to reduced material access to services, however, pervasive customs and social attitudes can further entrench inequality. Stigma can be experienced by people with, or families experiencing, TB, HIV, and other diseases due to beliefs that blame the person or family for the disease. This can lead to reduced participation in treatment and reduced ability to implement strategies to better manage the need to work long hours without resorting to practices that are deleterious to their health, for example, using various drugs as well as high sugar foods and drinks, in an attempt to manage their energy levels.

Health literacy is required at the individual and community level to ensure health and well-being for all. To end the epidemics of AIDS, tuberculosis, malaria, and other communicable diseases, we need culturally appropriate health messages and services to be delivered, understood, and taken up. To achieve universal health coverage, and to provide access, understanding and uptake of safe and effective medicines and vaccines for all, the unique health literacy profile of each community needs to be considered and responded to. People and communities with high health literacy are more likely to be able to recognize and choose healthy lifestyle behaviors.

People with limited education and/or who are poor tend to get more exposure to and are more often affected by potentially health-harming advertising than their more educated and wealthier counterparts. Many minority groups also tend to get less exposure to health-promoting information to counter unhealthy behavior options such as tobacco use and high sugar foods. Health-promoting messaging, when restricted to written information, tends to have weak penetration in low socioeconomic groups, but higher in more educated sectors and this may increase inequalities. Health literacy needs to be considered when designing health messaging, taking care to provide information not only in plain language, but also in other formats accessible to people with low literacy such as oral and visual formats, delivered through a range of media, including through local trusted peers.

As countries work toward achieving Universal Healthcare (UHC) for their people, health-care organizations need to consider the health literacy of all the people in the communities they serve. As the range and reach of health services increases, people in communities need to develop new knowledge and skills to access, use, and cooperate with these services appropriately. Conversely, organizations need to ensure they know and respond to the health literacy needs of vulnerable and disadvantaged groups.

Without strong health literacy, people’s ability to work and get back to work when ill or injured can be hampered. The loss of health leads to loss of income, increased burden of medical expenses, or being forced to forego care. This leads to entrenched poverty and inequality in communities.

Finally, health literacy is linked to empowerment. Clearly, inequality is linked to reduced material access to services, however, pervasive customs and social attitudes can further entrench inequality. Stigma can be experienced by people with, or families experiencing, TB, HIV, and other diseases due to beliefs that blame the person or family for the disease. This can lead to reduced participation in treatment and reduced ability to implement strategies that address the potentially modifiable causes of disease. Health literacy, and the empowerment of individuals, families, and wider communities, including community and religious leaders, is required to combat health inequalities.

The capacity for health literacy to be applied in ways that facilitate equity of access and improve health outcomes is now greater than it has ever been. The concept is well developed and for the most part there is an agreement about its definition and scope. Measurement tools are now available to assess most aspects of health literacy. The impacts of low health literacy on many health-related outcomes are well understood. Standards of practice for developing written education materials, managing consultations with patients, and creating health services that are easy to navigate have been developed and there are many resources available to assist health information providers and health services to apply these. In community settings, the role of social groups in determining health literacy is becoming more widely understood.
Techniques that enable health service providers and community development workers to understand and respond to the health literacy strengths and weaknesses of their constituency continue to be developed and refined.

At the same time, the insights that health literacy can offer to engage hard-to-reach populations, are now particularly evident in light of the many ambitious targets that have been set for health and health care globally. These targets address a wide range of issues including tuberculosis treatment, participation in antenatal care, diabetes control, reduction of road accidents, and universal access to health care. In each of these areas, the gains made by standard approaches are tending to plateau while wide gaps between current performance and agreed targets remain. Marginal improvements will not lead to the attainment of the desired targets, therefore new approaches that effectively engage those who are not responding to the current standard methods are required. This, in turn, requires public health professionals, policy makers, and many others to have a better understanding of how people think about health and health services, the forces that shape this and how these can be influenced in order to affect how people receive and process health messages, what they choose to believe, how they judge its applicability to them, and the success with which they can translate it into action. The concept of community health literacy, tools for assessing health literacy at the group or community level, and strategies to engage in the community conversations and relational dynamics that shape health beliefs will be important in bridging the gap between the current situations and targets.

While there are many opportunities, there are also trends that tend to work against health literacy responsiveness. Health literacy responsiveness implies the ability to be sensitive and accommodate different cultures, diversity in cognitive styles, approaches to information processing and learning preferences. Many trends in service delivery encourage increased standardization and reduction of options. The recent trend to encourage self-service health care places heavy cognitive demands on users and may disadvantage those who have a highly interactive learning style or who have low literacy. The critical application of a health literacy lens to these sorts of developments is essential if we are to avoid them producing newly disengaged groups in the community. The relatively new concept of eHealth Literacy will be increasingly important in a world where engaging with health information and health services increasingly requires engagement with technology.

While there are many opportunities and needs for health literacy interventions, there is an ongoing need for research and advocacy to highlight the importance of understanding health literacy diversity and of service delivery strategies that are sufficiently flexible and responsive to meet people where they are.

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**Relevant Websites**


http://www.healthliteracy.bu.edu – Health Literacy Toolshed (last accessed 05.07.16).