

Improving Health Literacy



March 2017
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ISBN (Print) 978-0-473-39159-1
ISBN (PDF) 978-0-473-39161-4

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Introduction and key recommendations

This policy briefing seeks to promote a shared understanding of what health literacy means, why it is important, and what can be done to improve it. It is intended primarily for doctors, but is of relevance to all healthcare professionals, healthcare managers, and to policy and decision makers across multiple sectors.

This policy briefing is intended to be read alongside other resources and guides for doctors who want to learn how to improve health literacy. The Health Quality and Safety Commission (HQSC) has published such a resource and we strongly encourage its use.¹

“Health literacy is the currency of success for improving emergency preparedness, eliminating health disparities, and preventing disease”

— US Surgeon General Dr Richard Carmona,
2004



¹ Health Quality & Safety Commission. Three steps to better health literacy – a guide for health professionals. December 2014, Wellington. Available from <http://www.hqsc.govt.nz/assets/Consumer-Engagement/Resources/health-literacy-booklet-3-steps-Dec-2014.pdf>

Key recommendations

1 Doctors and healthcare professionals should take a 'universal precautions' approach to health literacy. This means assuming that anyone could have poor health literacy, finding out what is actually known, then helping build knowledge and skills as needed.

2 Doctors should familiarise themselves with, and use, the resource *Three steps to better health literacy – a guide for health professionals*.

3 Universities, training institutes, regulators and colleges should ensure that health literacy education and training are included in undergraduate and postgraduate curricula, as well as in continuing professional development.

4 Managers of healthcare organisations should consider undertaking organisational health literacy reviews.

5 Managers of healthcare organisations and services should develop and implement health literacy policies and processes that incorporate the six dimensions of health-literate organisations.

6 Educators should incorporate the development of health literacy skills into the school curriculum.

7 Policy makers across the health and education sectors should embed health literacy principles into health and education policy.

8 The government should support cross-sectoral approaches and collaborative initiatives towards improving health literacy.

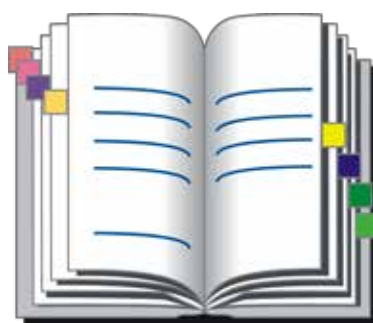
9 The government should support further research and evaluation of the effectiveness of interventions to improve health literacy.

10 Improving health literacy should underpin all national health and wellbeing strategies.

What is health literacy?

Health literacy has been defined in many different ways since it was first introduced as a term in the 1970s. A recent systematic review of definitions and conceptual models of health literacy found 17 definitions and 12 conceptual models.² The authors of the review proposed the following as an ‘all inclusive’, comprehensive definition, capturing all 17 definitions identified in the literature.

Health literacy is linked to literacy and entails people’s knowledge, motivation and competence to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course.



In New Zealand, health literacy has been defined as *‘the capacity to obtain, process and understand basic health information and services in order to make informed and appropriate health decisions’*.³ There are three aspects to this definition. Firstly, a person or family must get the information they need. Secondly, they need to understand the information and decide if it is accurate and sufficient. Thirdly, they need to act on the information.

While the above definition focuses on the capacity of individuals, there has been a shift towards a stronger focus on how healthcare providers and health systems can support people to access and understand health services.

Health literacy is sometimes described as *the interaction between the skills and knowledge of individuals and the demands of the health system*.⁴ This description recognises that an individual’s health literacy is not a fixed skillset but is instead determined by the health literacy demands experienced. These demands arise from the health conditions experienced, the complexity of the health services and system, and the communication skills of the health workforce. This has led some people to differentiate between the concept of individual health literacy and the health literacy environment.⁵

The health literacy environment represents the expectations, preferences and skills of those providing health information and services. Some of these environmental factors are in the form of physical aspects of a hospital or practice, such as signs and postings.⁶ Access to and navigation of health services involves the use of a range of print (and, increasingly, electronic) materials such as applications, referrals, information booklets and consent forms. Communication by healthcare providers also shapes the health literacy environment.

² Sørensen K, et al. Health literacy and public health: a systematic review and integration of definitions and models. BMC Public Health. 2012 Jan 25;12:80.

³ Ministry of Health. 2010. Kōrero Mārama: Health Literacy and Māori. Wellington: Ministry of Health, February 2010.

⁴ Institute of Medicine. Health Literacy: A Prescription to End Confusion. The National Academies, 2004.

⁵ Australian Commission on Safety and Quality in Health Care. Consumers, the health system and health literacy: Taking action to improve safety and quality. Sydney, 2013.

⁶ Rudd RE & Anderson JE. The health literacy environment of hospitals and health centers. Harvard School of Public Health. Boston, 2006.

The determinants of health literacy are multiple and include personal factors such as age, education and language, and system factors such as fragmentation of care and signage. Health literacy can vary over time. When patients or their families are sick or anxious, their ability to absorb, recall and use health information can decline, compromising their ability to manage their health.

Health literacy is one of a range of different 'literacies' referred to in health. While there is a correlation between poor general literacy and poor health literacy, people with high general literacy can still experience poor health literacy. The way that limited general literacy affects health cannot always be clearly separated from the way that limited health literacy affects health.



A man waiting in the reception of a small primary care clinic said that he was coming to see the doctor about his diabetes—this was his third visit in three weeks. The man then said his doctor kept telling him to see the 'practice nurse'. He complained that he didn't want to see a student nurse who was going to practise on him—he wanted to see a real nurse.

It transpired that the man played rugby league and practised regularly. He had a good understanding of the word 'practice' but had never heard it used in the context of a primary care practice.

When it was explained, he asked why the doctor didn't just say that he had to see the nurse that worked at the clinic and knew a lot about diabetes.

This is an example of how services and roles in health are often named in a way that makes sense to the people who work in the system rather than to the users of the system.⁷

⁷ Reid S. Improving clinical interactions: 10 lessons from a pulp and paper mill. NZMJ Digest. Issue 61. July 2016, p 18-29

How is health literacy measured?

Definitions of health literacy include a number of concepts that are difficult to measure (eg, motivation, decision-making ability). There are different approaches and aims for measuring health literacy, and different tools have been developed to achieve these aims. For example, population-based surveys have been used to measure health literacy across a population, while screening tools have been used to identify people with poor health literacy in a clinical setting.

Measurement tools tend to focus on specific aspects of individual health literacy, particularly reading ability, vocabulary and numeracy. The most commonly used tools are the Test of Functional Health Literacy in Adults, Rapid Estimate of Health Literacy in Medicine, and the Newest Vital Sign.⁸

These tests may be useful in a research setting but are not considered useful in healthcare settings for the following reasons: they do not give a true picture of a person's health literacy level; the tests can make people feel embarrassed and uncomfortable; the tests can take a lot of time to administer. As such, a 'universal precautions' approach to health literacy is recommended (see 'How can health literacy be improved?' p.12).

Less attention has been paid to measuring the health literacy environment, or how easy it is for people to navigate, understand and use health services. However, tools have been developed that can be used to assess organisational health literacy.⁹ Organisations that want to improve their health literacy should seek out the Ministry of Health resource and use it as a quality improvement tool.



⁸ Australian Commission on Safety and Quality in Health Care. Consumers, the health system and health literacy: Taking action to improve safety and quality. Sydney, 2013.

⁹ Ministry of Health. Health Literacy Review: A Guide. Wellington: Ministry of Health, May 2015. Available from <http://www.health.govt.nz/system/files/documents/publications/health-literacy-review-a-guide-may15-v2.pdf>

Why is health literacy important?



Health literacy is important. Consistent evidence shows an association between individual health literacy, health behaviours and health outcomes. Health literacy has a strong and continuous correlation with self-assessed health. Overall, it has been estimated that people with low levels of literacy are between 1.5 and three times more likely to experience an adverse outcome.¹¹

Lower levels of health literacy have been found to be associated with:¹²

- increased rates of hospitalisation and greater use of emergency care
- lower use of mammography and lower uptake of the influenza vaccine
- poorer ability to take medications appropriately and poorer ability to interpret labels
- poorer knowledge of their own condition
- poorer overall health status among older people
- higher risk of death among older people.

The causal mechanisms by which individual health literacy is associated with health outcomes are complex.¹³ The association between level of health literacy and outcome generally remains when adjustment is made for confounding factors such as age, sex, income and ethnicity.

Low health literacy is a particular issue for disadvantaged and vulnerable groups because it can exacerbate underlying health access and equity issues.

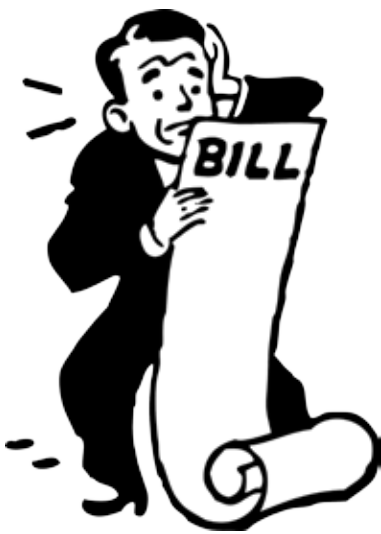
“Only now do I know why some refer to this as a ‘silent epidemic’—the lack of understanding by most professionals and policy makers of its extent and effect, and the individual shame associated with it that keeps it even more silent and hidden”¹⁰

¹⁰ Witte P. Health Literacy: Can we live without it? *Adult Basic Education and Literacy Journal*; 2010;4(1)3-12

¹¹ Dewalt DA, et al. Literacy and health outcomes: a systematic review of the literature. *J Gen Intern Med*. 2004 Dec;19(12):1228-39.

¹² Berkman ND, et al. *Health Literacy Interventions and Outcomes: An Updated Systematic Review. Evidence Report/Technology Assessment No. 199.* Agency for Healthcare Research and Quality, 2011; Bush R, et al. *Advancing health literacy through primary health care systems.* Canberra. Australian Primary Health Care Research Institute, 2010.

¹³ Paasche-Orlow MK, Wolf MS. The causal pathways linking health literacy to health outcomes. *Am J Health Behav*. 2007 Sep-Oct;31 Suppl 1:S19-26.



Limited health literacy is associated with high health system costs. While there is no New Zealand-specific data, the additional costs associated with lower health literacy correlated with approximately 3-5% of the total health care budget in Canada.¹⁴ At the level of the individual, people with lower health literacy had an increased expenditure of between \$143 and \$7798 per person, per year, compared with people with adequate health literacy.¹⁵

Addressing health literacy is associated with improved health behaviours and outcomes. For example, teaching clinicians to communicate more effectively increased people's participation in colon cancer screening.¹⁶ When patients with depression and low literacy were referred to literacy programmes, their depressive symptoms improved significantly compared with patients who only received treatment for depression.¹⁷ When patients received self-management education using effective communication techniques, control of their diabetes and heart failure were improved.¹⁸

Investing in health literacy also has significant co-benefits in terms of educational attainment.¹⁹

¹⁴ Eichler K, Wieser S, Brügger U. The costs of limited health literacy: a systematic review. *Int J Public Health*. 2009;54(5):313-24.

¹⁵ Ibid

¹⁶ Ferreira MR, Dolan NC, Fitzgibbon ML, et al. Health care provider-directed intervention to increase colorectal cancer screening among veterans: results of a randomized controlled trial. *J Clin Oncol*. 2005 Mar 1;23(7):1548-54.

¹⁷ Pignone M, DeWalt DA, Sheridan S, et al. Interventions to improve health outcomes for patients with low literacy. A systematic review. *J Gen Intern Med*. 2005 Feb;20(2):185-92.

¹⁸ Rothman RL, DeWalt DA, Malone R, et al. Influence of patient literacy on the effectiveness of a primary care based diabetes disease management program. *JAMA*. Oct 13 2004;292(14):1711-1716; Murray MD, Young J, Hoke S, et al. Pharmacist intervention to improve medication adherence in heart failure: a randomized trial. *Ann Intern Med*. May 15 2007;146(10):714-725.

¹⁹ McDaid D. Investing in health literacy: What do we know about the co-benefits to the education sector of actions targeted at children and young people? Policy Brief 19. WHO Regional Office for Europe, 2016.

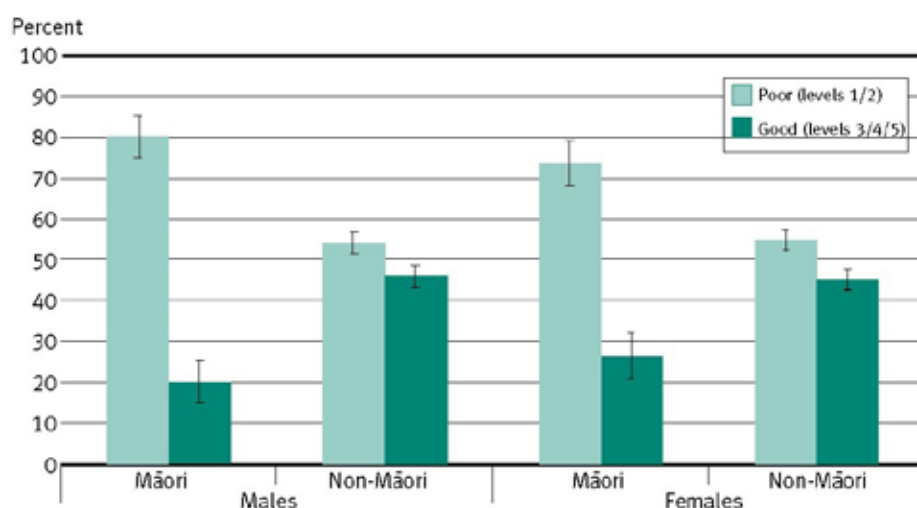
What is the state of health literacy in New Zealand?

The best data on health literacy in New Zealand are derived from the Adult Literacy and Life Skills Survey (ALLS) conducted in 2006.²⁰ This survey found that over half of all adult New Zealanders (56.2%) had poor health literacy skills.²¹

Māori had much poorer health literacy skills compared with non-Māori, regardless of gender (see Figure 1). Four out of five Māori males and three out of four Māori females had poor health literacy skills (levels 1 and 2). By comparison, just over half of non-Māori males and females had poor health literacy skills. Māori also had poorer health literacy skills compared with non-Māori, regardless of age, level of education, labour force status, household income, or rural/urban location. Almost 90% of Pacific men and women had poor health literacy.²²

Health literacy in New Zealand is broadly similar to that in other OECD countries including Australia, Canada and the United States.

Figure 1: The distribution of health literacy, for Māori and non-Māori, by sex



²⁰ Ministry of Health. Kōrero Mārama: Health Literacy and Māori. Wellington: Ministry of Health, February 2010.

²¹ Health literacy was measured on a scale of 0 to 500, broken down into five skill levels. People who scored at levels 1 and 2 (a score from 0 to 275) were defined as having poor health literacy skills. Level 3 or above (a score between 276 and 500) is recognised as adequate to strong health literacy skills.

²² Ministry of Health. 2012. Tupu Ola Moui: Pacific Health Chart Book 2012. Wellington: Ministry of Health.

How can health literacy be improved?

Health literacy is not an end in itself. The aim of efforts to improve health literacy should be to build the capacity of people to make effective decisions and take appropriate action for health and health care, and to build the capacity of the health system to support and allow this to occur.

The Ministry of Health has published a framework for health literacy that sets out the role of the health system and healthcare providers in reducing the health literacy demands placed on individuals and families. The framework also suggests how health professionals, individuals and families can build their health literacy.²³

Interventions to improve health literacy can be implemented at the level of the patient, provider, practice or organisation, and at a higher systems level. A multi-faceted, cross-sectoral, whole-of-society and patient-centred approach is likely to be the most successful.

In health literacy, a ‘universal precautions’ approach is based on the concept that “you can’t tell by looking”.²⁵

Doctors, patients and their families

Every interaction between a doctor and a patient or their family provides an opportunity to develop people’s health literacy. It is widely agreed that doctors and healthcare professionals should take a ‘universal precautions’ approach to health literacy. ‘Universal precautions’ in health literacy means assuming that anyone could have low health literacy. Therefore, it is essential to find out what is actually known, then help to build knowledge and skills as needed. The provision of good, clear communication (both written and spoken) to **all** patients and their family and whānau is important.²⁴ This approach maintains the mana of the patient and their family and whānau. When done effectively, a universal precautions approach benefits all patients and whānau, not just those with low health literacy.

The HQSC has developed *Three steps to better health literacy – a guide for health professionals* (see Figure 2).²⁶ We recommend that all doctors familiarise themselves with, and use, the three-step model outlined in the HQSC guide.

Figure 2: A three-step model for better health literacy



²³ Ministry of Health. A Framework for Health Literacy. May 2015, Wellington. Available from <http://www.health.govt.nz/system/files/documents/publications/a-framework-for-health-literacy-may15.pdf>

²⁴ Health Quality & Safety Commission. Background information about health literacy. September 2013, Wellington.

²⁵ Ibid

²⁶ Health Quality & Safety Commission. Three steps to better health literacy – a guide for health professionals. December 2014, Wellington. Available from <http://www.hqsc.govt.nz/assets/Consumer-Engagement/Resources/health-literacy-booklet-3-steps-Dec-2014.pdf>

A patient who had a radical prostatectomy was told to do pelvic floor exercises to reform and strengthen the muscles that control the bladder. No one explained to him that the exercises did not have to be done while sitting on the floor or that the pelvic floor muscles are a group of muscles at the base of the abdomen.

In a letter to the *New Zealand Medical Journal*,²⁷ the patient pointed out he had carefully listened to the instructions from hospital specialists and nurses and read the written material provided. It was 15 pain-filled months after his operation before he received a pamphlet from ACC that clearly explained what pelvic floor exercises were in a way that made sense. In the meantime, he tried to do the exercises on the floor. The pain of getting up and down from the floor prevented him from doing the exercise on an ongoing basis. After a year of incontinence, he had other, more painful treatments before he received the ACC pamphlet explaining the problem.



In his letter, the patient pointed out that he was well educated (two post-graduate degrees) but as a bachelor he had not been privy to any conversations about pelvic floor muscles or exercises prior to his operation. He also noted that he had been the source of some amusement when he told his retired nursing friends.

This example has been used to demonstrate the complexities and assumptions around health literacy in New Zealand.²⁸ The health professionals assumed that:

- as the patient was Pākehā and well educated, he would not have any problems understanding the information given
- they had been clear in the information they provided and the patient had understood the information
- the term 'pelvic floor exercise' is commonly understood.

For the year from the operation until the second treatment, not one health professional thought to ask the patient to show them or explain to them how he was doing his exercises. The patient was given both oral and written information about the exercises on a number of occasions by different health professionals and had never asked a question that showed he did not understand.

²⁷ Speary D. Pelvic floor exercises. *NZ Med J.* 2010 Nov; 123(1325)106

²⁸ Reid S. Health literacy: breaking down assumptions. *NZMJ Digest.* Issue 59. May 2016, p 24-28

Managers of healthcare organisations and services

Managers of healthcare organisations and services have a key role in providing an environment that supports improved health literacy. As a first step, these managers should make health literacy a priority in their organisations and services. This should entail ensuring that health literacy is an integral part of all aspects of service planning, design, delivery and evaluation. Several key attributes of health-literate healthcare organisations have been identified (see Table 1).

It is useful for managers of healthcare organisations and services to undertake health literacy reviews. Such reviews enable a better understanding of the health literacy demands created by health services and how they affect patients and families. The Ministry of Health has developed a useful resource to help carry out a health literacy review and build a health-literate organisation, and we recommend its use.²⁹



Government, policy makers and the education sector

Government organisations and bodies that advise on, or set, health and education policy have a



key role to play in advancing health literacy. For example, it is important to embed health literacy principles into health and education policy and to work collaboratively across all levels of government to promote coordinated action.

Health officials themselves also need high levels of health literacy, including numeracy and statistical literacy.³⁰ While this is important across society more broadly,³¹ it is particularly necessary for policy and decision makers in the health sector. Lessons can be drawn, for instance, from the failure in New Zealand to screen donated blood products for Hepatitis C in the 1990s. The official inquiry attributed the failure partly to officials not properly understanding the concepts of sensitivity and specificity of tests,

and went on to recommend that “steps should be taken to ensure appropriate medical and technical input into health policy”.³²

The education sector has a crucial role to play by incorporating the development of health literacy skills into the school curriculum. Educators should develop partnerships with the health sector to work collaboratively on health literacy initiatives.

²⁹ Ministry of Health. Health Literacy Review: A Guide. Wellington: Ministry of Health, May 2015. Available from <http://www.health.govt.nz/system/files/documents/publications/health-literacy-review-a-guide-may15-v2.pdf>

³⁰ United Nations Economic Commission for Europe. Making Data Meaningful Part 4: A guide to improving statistical literacy. Geneva, 2012.

³¹ Bandolier. How good are we with numbers? Eurohealth. 2007;13(2):26-7

³² Department of Health. Inquiry into Matters Relating to the Safety of Blood Products in New Zealand. Wellington. December, 1992.

Table 1: Six dimensions of a health-literate healthcare organisation, developed by the Ministry of Health³³

Leadership and management	<ul style="list-style-type: none"> • How is health literacy an organisational value, part of the culture and core business of an organisation or service? • How is it reflected in strategic and operational plans?
Consumer involvement	<ul style="list-style-type: none"> • How are consumers involved in designing, developing and evaluating the organisation's values, vision, structure and service delivery?
Workforce	<ul style="list-style-type: none"> • How does the organisation encourage and support the health workforce to develop effective health literacy practices? • Has it identified the workforce's needs for health literacy development and capacity? • Has the organisation's health literacy performance been evaluated?
Meeting the needs of the population	<ul style="list-style-type: none"> • How does service delivery make sure that consumers with low health literacy are able to participate effectively in their care and have their health literacy needs identified and met (without experiencing any stigma or being labelled as having low health literacy)? • How is meeting the needs of the population monitored?
Access and navigation	<ul style="list-style-type: none"> • How easy is it for consumers to find and engage with appropriate and timely health and related services? • How are consumers helped to find and engage with these services? • How well are services coordinated and are services streamlined where possible?
Communication	<ul style="list-style-type: none"> • How are information needs identified? • How is information shared with consumers in ways that improve health literacy? • How is information developed with consumers and evaluated?

³³ Ministry of Health. Health Literacy Review: A Guide. Wellington: Ministry of Health, May 2015.

Key recommendations

The NZMA believes that efforts to improve health literacy should be patient-centered, multi-sectoral and aim to create environments and systems that support health literacy. The following recommendations, while not exhaustive, are intended to provide the basis for such an effort.

1

Doctors and healthcare professionals should take a universal precautions approach to health literacy. This means assuming that anyone could have poor health literacy, finding out what is actually known, then helping build knowledge and skills as needed.

2

Doctors should familiarise themselves with, and use, the resource *Three steps to better health literacy – a guide for health professionals*.

3

Universities, training institutes, regulators and colleges should ensure that health literacy education and training are included in undergraduate and postgraduate curricula, as well as in continuing professional development.

4

Managers of healthcare organisations should consider undertaking organisational health literacy reviews.

5

Managers of healthcare organisations and services should develop and implement health literacy policies and processes that incorporate the six dimensions of health literate organisations.

6

Educators should incorporate the development of health literacy skills into the school curriculum.

7

Policy makers across the health and education sectors should embed health literacy principles into health and education policy.

8

The government should support cross-sectoral approaches and collaborative initiatives towards improving health literacy.

9

The government should support further research and evaluation of the effectiveness of interventions to improve health literacy.

10

Improving health literacy should underpin all national health and wellbeing strategies.

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The New Zealand Medical Association



The NZMA is the country's largest voluntary pan-professional medical organisation with over 5,000 members. Our members come from all disciplines within the medical profession and include general practitioners, doctors-in-training, specialists and medical students.

Statement of purpose

The NZMA aims to provide leadership of the medical profession, and promote:

- professional unity and values, and
- the health of all New Zealanders.

The key roles of the NZMA are:

- to provide advocacy on behalf of doctors and their patients
- to provide support and services to members and their practices
- to publish and maintain the Code of Ethics for the profession
- to publish the New Zealand Medical Journal.

The NZMA works closely with many other medical and health organisations, and provides forums which consider pan-professional issues and policies.



Providing leadership of the medical profession, and promoting:

- professional unity and values, and
- the health of all New Zealanders.

www.nzma.org.nz