



Public Health  
England



UCL Institute of Health Equity

## Local action on health inequalities

# Improving health literacy to reduce health inequalities

Practice resource summary: September 2015



LANGUAGE, LITERACY,  
NUMERACY

KNOWLEDGE

ACCESSIBLE SERVICES

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Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

## About the UCL Institute of Health Equity

The UCL Institute of Health Equity (IHE) is led by Professor Sir Michael Marmot and seeks to increase health equity through action on the social determinants of health, specifically in four areas: influencing global, national and local policies; advising on and learning from practice; building the evidence base; and capacity building. The Institute builds on previous work to tackle inequalities in health led by Professor Sir Michael Marmot and his team, including the Commission on Social Determinants of Health, Fair Society Healthy Lives (The Marmot Review) and the Review of Social Determinants of Health and the Health Divide for the WHO European Region.  
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## About this practice resource summary

This resource was produced for Public Health England by Jill Roberts of the UCL Institute of Health Equity. It is a summary of a more detailed report on the same topic and is intended to help local authorities, health and wellbeing boards, and health and social care professionals when devising local programmes and strategies to reduce health inequalities.

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# Improving health literacy to reduce health inequalities

## Summary

1. 'Health literacy' refers to people having the appropriate skills, knowledge, understanding and confidence to access, understand, evaluate, use and navigate health and social care information and services. In England, 42% of working-age adults are unable to understand and make use of everyday health information, rising to 61% when numeracy skills are also required for comprehension. Health literacy is also influenced by services' engagement of users and provision of clear, accessible information for all (service responsiveness).
2. Health literacy is related to health outcomes and service use. Limited health literacy is linked with unhealthy lifestyle behaviours such as poor diet, smoking and a lack of physical activity and an increased risk of morbidity and premature death. People with limited health literacy are more likely to use emergency services, less likely to successfully manage long-term health conditions and as a result, incur higher healthcare costs.
3. People with limited financial and social resources are more likely to have limited health literacy. In turn, limited health literacy limits opportunities for vulnerable and disadvantaged groups to be actively involved in decisions about their health and care over the lifecourse. This can undermine people's ability to take control of their health and the conditions that affect their health.
4. Efforts to improve health literacy can have a range of benefits. They can increase health knowledge and build resilience, encourage positive lifestyle change, empower people to effectively manage long-term health conditions and reduce the burden on health and social care services.
5. The available evidence suggests that strategies to improve health literacy are important empowerment tools with potential to reduce health inequalities. This is because the most disadvantaged groups in society, at risk of limited health literacy, are known to have the poorest health outcomes. However more large-scale, robust research is needed to better understand how to improve the health literacy of disadvantaged or vulnerable people.
6. There are some promising health literacy strategies to support people to take control of their health, which local areas might consider. Health and social care services have used the simple and effective teach-back method to check service user understanding. Local areas might also adopt an early intervention approach, ensuring that health literacy promotion is fully integrated into early years and school curriculums. Community-based, peer-support approaches may also help to distribute health literacy among social networks.

7. Integrated, cross-sector working is needed to promote health literacy with health and social care professional supported by those from other sectors such as child and adult education services and the third sector. Employers, communities and families also have a role in implementing successful health literacy initiatives.

## Introduction

Health literacy is people having the skills (language, literacy and numeracy), knowledge, understanding and confidence to access, understand, evaluate, use and navigate health and social care information and services. Health literate health and social care organisations are also critical to improved health literacy.<sup>1</sup>

Although anyone could have limited health literacy – and 42% of all working-age adults are unable to make use of everyday health information<sup>2</sup> - people and population groups with limited financial and social resources are more likely to have limited health literacy.<sup>2-8</sup> Health literacy thus contributes to health inequalities because the population groups most at risk of low health literacy are also known to have the poorest health outcomes. Limited health literacy can also undermine people's ability to take control of their health and the conditions that affect their health.<sup>2,9</sup>

At the local level, a targeted approach to improve the health literacy of disadvantaged or vulnerable groups, within a broader strategy to ensure health literate health and social care systems, and efforts to improve social and economic conditions, can contribute to strategies to reduce health inequalities.

This practice resource summary is based on a longer report on this topic, which gives references, further detail and additional case studies. It is intended to help those who commission or provide health and social care services, with linked agencies, particularly at a local level.

The summary and the full practice resource aims to:

- explain what health literacy is and how it contributes to health inequalities
- examine whether addressing health literacy can help to reduce health inequalities
- provide information, guidance and examples of effective and promising strategies to inform local action across England

## 1. General literacy and health literacy

**Literacy** – The ability to read, write, speak and listen to a level that enables a person to communicate effectively, understand written information and participate fully in society.<sup>10</sup>

**Health literacy** – The ability to engage with health information and services. This incorporates language, literacy and numeracy skills that are used in health settings and for managing health, as well as the ability to access, understand, evaluate, use and navigate health and social care information and services.<sup>11</sup> A person's health literacy depends both on their own abilities and on the efforts of health and social care systems to make their services and information clear and accessible for all.<sup>1</sup> Health literacy is often broken down into:

**Functional health literacy** – a person's ability to read and comprehend information and instructions in health settings.

Functional health literacy is linked to educational attainment<sup>12</sup> and general literacy.<sup>13</sup> <sup>14</sup> People with inadequate skills in reading and numeracy will have less exposure to universal health information, and the skills needed to comprehend and act upon health information will be less developed.<sup>6</sup> Functional health literacy is not always equivalent to level of education, despite the correlation.<sup>15</sup>

**Interactive health literacy** – a person's ability to be actively involved in decisions about their health and care over time, and in changing circumstances.

**Critical health literacy** – a person's ability to take control of the wider determinants of health.<sup>50</sup>

## 2. How many people have limited health literacy?

In the European Health Literacy Survey (EU-HLS), which includes measures of all three levels of health literacy – functional, interactive and critical health literacy nearly every second respondent showed limited health literacy.<sup>3</sup>

A study on functional health literacy levels across England reports that 42% of working-age adults<sup>1</sup> in England are unable to understand and make use of everyday health information, rising to 61% when numeracy skills are also required for comprehension<sup>2</sup>. Furthermore, 43% of working-age adults will struggle to understand instructions to calculate a childhood paracetamol dose.<sup>2</sup>

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<sup>1</sup> Aged 16-65 years

The Community Health and Learning Foundation estimate that 15 to 21 million people in the UK might not have the level of skills needed to live a healthy life.<sup>16</sup> These estimates do not factor in the number of people who have low interactive and critical health literacy skills as this is not yet known; overall numbers are likely to be even higher.<sup>17</sup>

Limited health literacy is most common in people with low basic education<sup>18</sup> and poor Information and Communication Technologies (ICT) skills; the two of which frequently overlap.<sup>19</sup> It is highly unlikely that people with poor general literacy will have good health literacy.

### 3. How does poor health literacy affect people's health?

Limited (functional) health literacy predicts poor diet, smoking and a lack of physical activity independent of risk factors including age, education, gender, ethnicity and income, and is associated with an increased risk of morbidity and premature death in older adults independent of age, socioeconomic position, cognitive function and pre-existing illness. People with long-term conditions including depression, diabetes, and heart, kidney and musculoskeletal disease are also more likely to have limited health literacy.

People with low health literacy, compared with the general population:

- are 1.5-3 times more likely to experience increased hospitalisation or death, and are more likely to have depression
- are more likely to struggle with managing their and their family's health and wellbeing, and are thus at increased risk of developing multiple health problems
- use fewer preventative and health promotion services, such as cancer screening and flu vaccinations, and have less recall and adherence to medical instructions and healthcare regimes
- find it more difficult to access appropriate health services, make more use of accident and emergency services and have longer in-patient stays
- have less effective communication with health and social care practitioners and are less likely to engage in active discussions about their health options, potentially leading to their health needs being hidden

### 4. Population groups most at risk of limited health literacy

Some population groups have been identified as experiencing disproportionately low or inadequate health literacy. These are:

- more disadvantaged socioeconomic groups
- migrants and people from ethnic minorities

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- older people
- people with long term health conditions
- disabled people (including those who have long-term physical, mental, intellectual or sensory impairment)<sup>2-8</sup>

Health literacy therefore contributes to health inequalities because the population groups most at risk of low health literacy are also known to have the poorest health outcomes.

Each of the low literacy populations is considered in turn in the remainder of this section.

## 5. The potential for health literacy to improve health outcomes and reduce health inequalities

Health literacy is an important empowerment tool that has the potential to reduce health inequalities. This is because:

- the population groups most at risk of low health literacy are also known to have the poorest health outcomes
- health literacy plays a larger role among those with lower education than among those with higher education, in terms of health outcomes

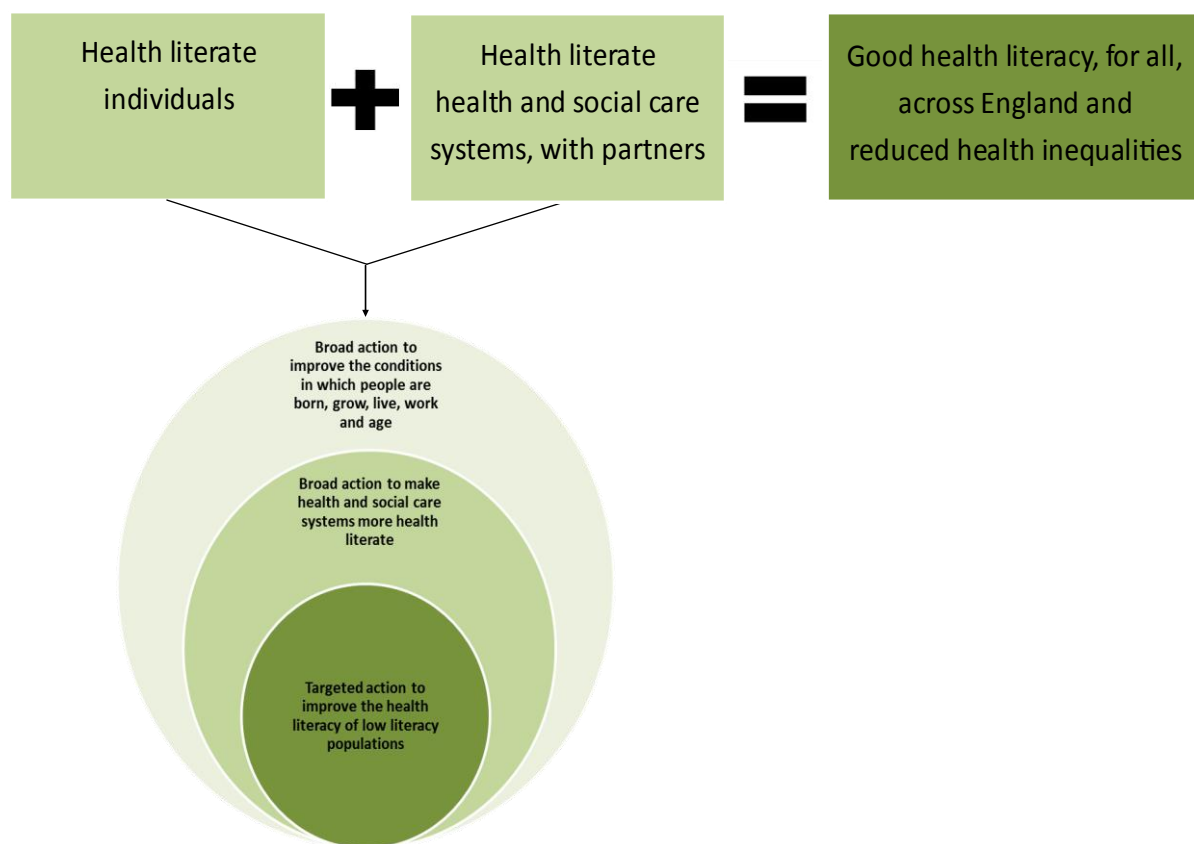
There is also evidence that improved health literacy can:

- build resilience
- reduce disease severity
- improve mental health
- increase health knowledge
- improve adherence to medical instruction
- promote healthy lifestyle changes
- improve engagement and involvement in health
- improve confidence and self-esteem
- empower people to effectively manage long-term conditions

At the local level, a targeted approach to improve the health literacy of disadvantaged or vulnerable groups, within a broader strategy to: a) improve the health literacy of health and social care systems, and b) address the conditions in which people are born, grow, live, work and age, can therefore contribute to strategies to reduce health inequalities (Figure 1). However, more research is needed to understand the effects of specific health literacy initiatives among disadvantaged or vulnerable groups, and to understand the effects of health literacy strategies on health inequalities overall.



Figure 1. Local action to improve health literacy and reduce health inequalities



## A. Broad strategy initiatives

The most common health literacy strategy reported in major health literacy reviews<sup>20-25</sup> is ensuring that health and social care services and information is clear and accessible for all, regardless of individual ability. Materials can be simplified by the use of plain and direct language and the careful application of good layout and design. The latter may employ the use of tested pictures and symbols, although care needs to be taken that these are understood correctly by the target audience. This has been found to positively influence literacy levels.<sup>20-22</sup> However, there is little evidence that it improves health outcomes.

Health experts that have contributed to this practice resource believe that empowering professionals about health literacy through training, continued education and inter-disciplinary initiatives can help to strengthen public–professional communications, and thus improve health literacy and health outcomes.

### Initiative: health literacy universal precautions toolkit<sup>26</sup>

The universal precautions approach to health literacy is gaining ground in the US. The idea is to make all health information and health systems as easy as possible to understand and navigate. The toolkit is designed to help health professionals and partner services take a systematic approach to reducing the complexity of health information and ensure that people can successfully navigate the healthcare system. The toolkit includes a number of strategies to use with all populations, including the much-lauded teach-back method, which involves asking people to repeat back to health professionals what they have just heard as a way of confirming understanding. Other strategies include advocating follow-up with service users via telephone or written materials between appointments, and a number of approaches to designing easy to understand communication. For further information and examples to replicate and test, see: [www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthliteracytoolkit.pdf](http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthliteracytoolkit.pdf)

The accompanying full practice resource details further effective broad health literacy strategies and case studies.

### B. Targeted action to improve the health literacy of low literacy populations

Promising strategies identified in major reviews of the literature,<sup>20-25 27-30</sup> on interventions intended to improve health outcomes for people with low health literacy include:

#### **Making further education more accessible**

Research has found that making further education more accessible for those whose parents did not have the opportunity to access it themselves will help promote social mobility and indirectly promote public health.<sup>31</sup> For further information, see the IHE/PHE report 'Local action on health inequalities: Adult learning services'.<sup>32</sup>

#### **Combining lifelong skills training with health**

A number of studies have found that combining general literacy, language and numeracy skills training with empowerment strategies to increase self-efficacy and attitudes towards health may be beneficial in terms of influencing health behaviours of families in disadvantaged socioeconomic groups and thus reducing inequalities.<sup>33-37</sup>

### **Specific health literacy strategies for disadvantaged socioeconomic groups**

Effective interventions include the limiting of teaching objectives and the facilitating of health goal setting – for example, cutting back on tobacco – with people from disadvantaged socioeconomic groups.<sup>38</sup>

### **Demonstrating medical instructions**

Demonstrating instructions such as measuring dosages and counting pills is known to be a more effective strategy than providing written materials or reading out instructions. Repeating health information in different ways also helps to mitigate low health literacy levels, but even better is to involve the service user in learning, through the use of techniques such as teach-back, whereby the service user is asked to repeat back the information they have just heard to the health professional. This will enable the health professional to check for understanding (see the health literacy universal precautions toolkit, above).

### **Using trained community workers or health champions to relay health messages**

Relaying messages in this way has been found to be an effective strategy to serve people from disadvantaged socioeconomic backgrounds, who are less likely to seek out health information, particularly from formal sources. Health professionals should also seek to involve family members or other caregivers in health decisions, and in general and health literacy initiatives.<sup>39 40</sup> This has been found to be an effective way of engaging this particular population group in health discussions and decision-making, and for disseminating key health information more widely.<sup>39 40</sup>

### **Ensuring that health materials are clear and concise<sup>41-45</sup>**

Health information and messages should be presented in a number of different ways to take into consideration the varied ways people learn. Health material providers should also use a range of different media to present health information, such as leaflets, the internet and different technologies, in recognition that people in disadvantaged socioeconomic groups are less likely to seek out health information online than more advantaged socioeconomic groups.

### **Writing health materials in plain English**

Simple and short written information, ideally avoiding the use of passive voice and medical jargon has a positive effect. As mentioned above, any written material should be combined with demonstrations and repeated oral instructions.

### Initiative: MindEd programme

MindEd is a portal that provides free e-learning to help adults to identify, understand and support children and young people with mental health issues. The learning materials were written and edited by leading experts from the UK and around the world.

As part of the MindEd programme, the National Collaborating Centre for Mental Health (NCCMH) was commissioned to carry out a systematic review of e-mediated therapies and computer-based applications for the prevention and treatment of mental health problems and substance misuse among children and young people<sup>46</sup>. The review reported that such e-learning applications and computer-based applications, such as computerised Cognitive Behaviour Therapy (cCBT) show promise to provide effective treatments and therapy. The design and presentation of programmes, and user-acceptability, however, was also found to be important. The review concluded that e-therapies should be delivered in a way that encourages people to have some control over their treatment, and should be integrated with their use of other mental health services.

For further information see: [www.minded.org.uk](http://www.minded.org.uk)

### Initiative: Healthy Eating for Young Children (HEY!)<sup>47</sup>

The HEY! Programme is an early years community health improvement project led by Danone Baby Nutrition UK (DBN) and the Community Health and Learning Foundation (CHL Foundation). The aim of the programme is to improve the health outcomes and life-chances of local children aged 1-3 by engaging their parents in healthy eating and promoting Skills for Life learning. The course is based on learning resources from Skilled for Health (see case study). The pilot project ran for seven weeks with a weekly three-hour session comprised of practical activities and group discussion, and was delivered through children's centres, targeting families living in the most disadvantaged areas.

In April 2013, HEY! Was accredited by the Royal Society for Public Health (RSPH).

An evaluation of the HEY! Programme based on participant and partner feedback found that parents and carers are making positive changes as a result of attending HEY!, such as checking food labels, understanding portion sizes and saving money on their food shopping. Overall, parents and carers reported increased knowledge about health, positive health behaviour change, as well as a social impact. For example, 98% of parents reported knowing how to eat and drink healthily, compared with 66% at the start, and 61% of parents now involve their toddler in food preparation and activities, compared with 21% before the intervention. Behaviour change was continuing at 6-8 weeks after the Hey! programme had ended.

The accompanying full practice resource details further effective targeted health literacy strategies and case studies, as well as strategies to serve and engage different at-risk groups (with supporting case studies). A one-size-fits-all behaviour change or education strategy will rarely be successful for serving and engaging certain population groups.<sup>48</sup> More evidence, however, is needed to identify the best strategies to improve the health literacy of specific disadvantaged or vulnerable groups, that is, appropriately adapting information and services, and strengthening people's skills and capabilities – and to reduce health inequalities. Some promising practice is, however, emerging.

#### Box A. Priority actions for local areas

In summary, to promote health literacy and reduce inequalities in health, local areas can take action to:

1. Adopt an early intervention approach to health literacy – ensuring that promoting health literacy is fully integrated into early years and school curriculums.
2. Consider the integration of health literacy promotion into other local policy and strategy which promote literacy, language, numeracy and ICT skills, for example.
3. Ensure that all health and social care information services are clear and accessible to for all, regardless of individual ability.
4. As part of a broader strategy, improve the economic and social conditions for at-risk groups (the social determinants of health), as there are known to impact on literacy, health literacy, health outcomes and health inequalities.
5. Develop awareness and empower health and social care professionals through training to improve health literacy by strengthening public-professional communications.
6. Invest, develop, evaluate and share good practice in relation to health literacy initiatives which improve health and reduce health inequalities.
7. Use local knowledge and skills by investing in effective and sustainable community-led approaches, such as 'health literacy champions' and using social networks to distribute good health literacy.
8. Develop awareness and empower health and social care professionals (across all tiers of an organisation) to improve health literacy and health inequalities by strengthening public-professional communications. This can be achieved through training, continued education and inter-disciplinary initiatives.

## 6. Areas for further research

Further large-scale, robust and clearly defined research is needed to determine:

- whether improving the health literacy of disadvantaged or vulnerable groups and health and social care systems can positively impact clinical and other health outcomes over time
- how best to improve the health literacy of disadvantaged or vulnerable groups, and health and social care systems
- the cost effectiveness of health literacy initiatives

The European Health Literacy Survey (HLS-EU) Consortium is the first large-scale study to address comprehensive health literacy. Consideration in England and the UK in undertaking a health literacy population study would significantly aid understanding.

## Conclusion

Poor health literacy is associated with poor health behaviours and outcomes. Although anyone can have low health literacy, low health literacy is central to health inequalities as disadvantaged or vulnerable groups, particularly those from disadvantaged socioeconomic backgrounds, disabled people, older people, and migrants and people from ethnic minority groups are most at risk.

As a person's literacy, language and numeracy skills are not fixed - they can be improved, and health literacy is likewise an amenable determinant of health. Local strategies to improve health literacy therefore have the potential to improve health outcomes more broadly, as well as to reduce health inequalities. To be effective, however, health literacy strategies need to address both individuals' abilities and health and social care responsiveness – the ability to serve people's needs, regardless of individual ability. Strategies that aim at broad populations and which incorporate a particular focus on serving and engaging low health literacy populations are likely to pay the greatest dividends in reducing health inequalities.

A wide range of stakeholders have a role to play in strengthening health literacy. Professionals (across all tiers of organisations) from health and social care services will need to be supported by other sectors, including child and adult education, employers and the third sector, as well as by families and communities themselves, to address health literacy and reduce health inequalities at the local level.

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