Health literacy 'how to' guide

Produced in partnership with Public Health England, NHS England and the Community Health and Learning Foundation

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The purpose of this guide is to describe the practical tools and techniques that practitioners, in a variety of settings, can implement to enhance approaches and practice in a way that effectively supports people with low levels of health literacy. The guide also contains some wider background to health literacy.

The following 'how to' guide is adapted from a toolkit and guidance document produced by the Community Health and Learning Foundation as part of an ongoing "Health Literacy Award" pilot project, delivered in partnership with Stoke on Trent City Council.*

A health literacy toolkit published by the World Health Organisation (WHO) was circulated to participants attending Health Literacy Awareness sessions delivered as part of East Midlands Health Literacy demonstrator work during 2016 – 17. Feedback demonstrated that this guidance was a helpful reminder not only of the tools and techniques taught as part of the sessions, but also of the wider context for such interventions.

It is suggested that this guide could be circulated to those who have participated in a **Health Literacy Awareness session** following training, as a helpful aide memoire, to support implementation of effective health literacy approaches.

The guide can also be utilised as a standalone resource, to support and enhance effective health literacy approaches in a variety of both clinical and non-clinical settings. Some examples include primary or secondary care and social care. It can also be used to support the role of the wider workforce in embedding prevention, for example, staff in housing, education, environment and other local authority functions, by police, fire and rescue services, ambulance services, the Department of Work and Pensions and other system partners.

*The Health Literacy Award encourages organisations which provide health information and services to the public to become health literacy friendly. The Toolkit and Guidance document supports the organisations to meet the required criteria, following a self-assessment. For more information on this project, please contact **Mike Oliver**.

Contents

Introduction and context

What is health literacy?

A health literacy toolkit published by the **World Health Organisation (WHO)** website contains the following definition:

Health literacy refers to the personal characteristics and social resources needed for individuals and communities to access, understand, appraise and use information and services to make decisions about health. Health literacy includes the capacity to communicate, assert and enact these decisions.

Professor Don Nutbeam suggests that the differences in cognitive and social skills, and the ability of individuals to apply those skills to achieve health outcomes in different circumstances, can be categorised as '**functional, interactive and critical health literacy**':

Functional health literacy is a term used to describe basic health literacy skills that are sufficient for individuals to obtain relevant health information (for example on health risks, and on how to use the health system), and to be able to apply that knowledge to a limited range of prescribed activities.

Interactive health literacy describes more advanced literacy skills that enable individuals to extract information and derive meaning from different forms of communication (interpersonal, mass media), and to apply new information to changing circumstances. Such skills enable individuals both to act independently on new information, and to interact with greater confidence with information providers such as health care professionals.

Critical health literacy describes more advanced cognitive skills which, together with social skills, can be applied to critically analyse information, and to use this information to exert greater control over life events and situations.

> '**Health literacy refers to the personal characteristics and social resources needed for individuals and communities to access, understand, appraise and use information and services to make decisions about health. Health literacy includes the capacity to communicate, assert and enact these decisions.**'

These definitions show that being able to understand health information, (and make subsequent decisions based on this understanding), and engage with health care structures and systems, are important determinants of health and wellbeing. Those with a lower level of health literacy are therefore more likely to suffer from health inequalities that lead to the poorest health outcomes in society. For example, decreased likelihood of making informed lifestyle choices and engaging with preventative programmes, higher levels of morbidity and premature mortality and reduced ability to manage long term conditions.

Health literacy is also a system or societal issue, reflecting the complexity of health information and of the healthcare system. Health information (written and verbal), and the way in which services are set up, often do not take into account the needs of individuals with low levels of health literacy.

Evidence suggests that health literacy interventions at both system and practitioner level can impact positively upon health behaviours and health outcomes in those with low health literacy. The practical tools and techniques contained within this document, and in the other **health literacy toolkit documents**, will support practitioners in a variety of settings to enhance their approaches to health literacy. In turn, this will support individuals to develop the health literacy knowledge and confidence to improve their own health and wellbeing.

> **Evidence suggests that health literacy interventions at both system and practitioner level can impact positively upon health behaviours and health outcomes, in those with low health literacy.**

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Guidance and tools

1.   General communication with people

The way we communicate with people
is key to their good health literacy.

In England 43% of adults (18-65) do not have adequate literacy skills to routinely understand health information and 61% of adults (18-65) do not have adequate numeracy skills to routinely understand health information.[1]

Different levels of literacy and numeracy have been defined and are shown in **Tool 1**. Adults are considered to be "functional" in literacy i.e. they can function in everyday life if their level of literacy is at Level 1 and above. 15% of the adult population are below this level (7.45 million people). The majority of adults in England are in the 11-14 year old reading age group.

Adults are considered to be 'functional' in numeracy i.e. they can function in everyday life, if they are at Entry Level 3 and above. 23.7% of the adult population is below this level. The Department of Business Innovation and Skills found that the majority of adults in England have the numeracy capabilities of a nine year old.[2]

Taking that into account, organisations which deliver health services or provide health information to people need to ensure that the information they provide, and the way it is communicated, is at an appropriate level for the majority of the population to understand.

According to research by Raynor DK, Blenkinsopp A, Knapp et al, patients and people receiving health information do not want written information as substitute for spoken information.[3] Often good communication is not a case of using one method or another, but rather multiple methods.

[1] Rowlands, G. et al (2015) British Journal of General Practice 65 e379-e386
[2] 2011 Skills for Life Survey: Headline findings. Department of Business Innovation and Skills
[3] Raynor DK, Blenkinsopp A, Knapp et al. Systematic review of research on role & effectiveness of written information to patients about medicines. Health Technol Assess 2007;11:1-160

Useful websites and links for further reference:

- **Health literacy - an introduction for people who produce health information**
- **The Accessible Information Standard: making health and social care information accessible**
- **The Community Health and Learning Foundation (CHLF) website containing health literacy information and resources**
- **The Scottish health literacy e-learning package**
- **A module produced by NHS Education for Scotland (NES) on health literacy tools and techniques launched in June, 2017**
- **The Scottish "Health Literacy Place"** - includes information on encouraging patient questions and communication strategies
- **The Stoke-on-Trent 'It's OK to Ask' campaign*** - aimed at reminding and reassuring patients that it is 'OK to ask' if they are unsure about any health advice and information provided to them. The website includes a number of helpful YouTube videos that focus on the importance of asking questions in a number of topic areas and healthcare settings, including long term conditions, childhood injections, and in a pharmacy.

The majority of adults in England are in the 11-14 year old reading age group.

* The 'It's OK to Ask' campaign was developed by North Staffordshire CCG and Stoke-on-Trent CCG in partnership with University Hospital of North Midlands NHS Trust and Stoke-on-Trent City Council.

Tool 1: Levels of literacy and numeracy related to age and understanding in a health setting [4]

Literacy national standard	Age and school level	Adults will be able to:	In a health setting adults will be able to:
Entry 1	Typical 7 year old	• read short texts with repeated language patterns on familiar topics • read signs and symbols, produce limited writing – only short sentences • engage in simple exchanges of information	• understand pictures on a health promotion poster • read and understand 'way in' and 'way out' signs but not 'entrance' and 'exit' signs • tell a clinician that they are not feeling well but not describe degrees or type of pain
Entry 2	Typical 9 year old	• read short straightforward texts on familiar topics • obtain information from familiar sources (e.g. a leaflet, a short letter) • show some awareness of audience when writing (e.g. a short informal letter or note) • engage in discussions with familiar people	• understand the words on a simple poster such as 'smoking is bad for you' • understand the words but not necessarily the numbers of a routine appointment letter • tell a clinician in simple language the degree and type of pain they have
Entry 3	Typical 11 year old	• read more accurately and independently • obtain information from everyday sources e.g. newspapers • communicate (orally and in writing) information and opinions with some adaptation to the intended audience	• understand the words on more complex posters and simply worded leaflets • understand short formal letter, note or form, telephone call to 111 • describe in more detail degree and type of pain and understand what they have been prescribed by a clinician
Level 1	GCSE grade D-F	• read texts of varying lengths on a variety of topics • obtain information from different sources (simple reports, text books, work manuals) • in written communication, demonstrate an ability to express ideas and opinions clearly using length, format and style appropriate to audience and purpose (formal letter, memo, brief report etc) • be confident in oral communication • make contributions to discussions that demonstrate awareness of others' views	• understand more complex information on a variety of different health related matters e.g. health promotion information on the importance of diet and simple clinical information, mediated and interpreted in a supported manner • can describe confidently degree and severity of pain • understand simple oral instructions but not the importance of compliance or can clarify what they have been told
Level 2	GCSE grade A*-C	• read from texts of varying complexity accurately and independently (more complex books, text books, report, training manuals) • write to communicate information, ideas and opinions clearly and effectively using length, format and style appropriate to purpose, content and audience (e.g. complex letter, essay, reports) • make a brief presentation or speak in a meeting	• understand and interpret more complex information on a variety of different health related matters e.g. health promotion information on the importance of diet and simple clinical information, mediated and interpreted in a supported manner • volunteer unsolicited information about degree and severity of pain • ask simple questions in order to gain an understanding of the rationale behind a prescribed course of treatment

[4] Skilled for Health: Making the Case, DH, DfEE, ContinYou (2006)

Numeracy national standard	Age and school level	Adults will be able to:	In a health setting adults will be able to:
Entry 1	Typical 7 year old	• count, read and write numbers to 10, add and subtract to 10 • recognise coins and notes • know days of the week and months of the year	• would not understand appointment times written in a letter • would not be able to read written examples of dosage and medication timings e.g. 5ml three times a day • unable to measure their own weight • unable to take their own temperature
Entry 2	Typical 9 year old	• count to 20, read, write and order numbers to 100 • do simple multiplication • tell the time in 12-hour clock to whole, half and quarter hour • measure using simple scales • get information from simple charts	• could understand appointment times in whole hours using 12-hour clock e.g. 9am but not 9.15am or 13.00 hours • understand simple dosage and medication timings e.g. take one teaspoon 3 times a day • able to measure their own weight in kilos • able to take their own temperature but not understand the reading
Entry 3	Typical 11 year old	• work with numbers to 1000 with simple times tables and simple division • understand the decimals to two decimal places (e.g. money) • tell the time to the nearest 5 minutes • get information from charts and diagrams	• understand appointment times using the 12-hour clock e.g. 9.15 but not 14.15 • measure weight, height and temperature using straightforward scales and metric measures • understand simple instructions about medication and timings and dosages e.g. take 5ml three times a day after food
Level 1	GCSE grade D-F	• make number calculations, including decimals and negative numbers • work out area and simple percentages • calculate time in 12 and 24-hour clock	• able to understand appointment times using 12 and 24-hour clock • understand instructions about medication timings and dosages e.g. take 5ml every 4 hours, three times a day
Level 2	GCSE grade A*-C	• work confidently with calculations in whole numbers and decimals • calculate ratio and proportion • measure in metric and imperial units • use simple formulae • compare data presented in different ways	• describe and calculate their own weight loss • could describe the percentage of time that they have been pain free in the previous 24 hours

Note 1: These tables are incremental and consequently the abilities described at Level 2 e.g. "describe and calculate their own weight loss" are not present in adults assessed to be at Level 1 and below. The same applies at each level with regard to the level below.

Note 2: In 2015, the Department for Education and Ofqual announced proposed changes to the content and structure of GCSEs taken by students in England. As part of these reforms, a numerical grading system is being phased in to replace the letter grading system. For more information see the document '**Your qualification Our regulation GCSE, AS and A level reforms in England**' and **the Ofqual website**.

2   Verbal communication with people

Clear communication between your organisation and the people who want to access the services and/or information you provide is essential.

Staff members and/or volunteers need to be able to communicate effectively with individuals during encounters such as phone conversations, enquiries at the reception desk, responses to information requests, group sessions, one-to-one meetings, medical examinations/discussions and consent procedures.

What is 'teach back'?

A technique often referred to as the 'teach back' technique, or the 'show me' method, is a communication confirmation method designed to improve health literacy. It can be used by healthcare professionals to confirm whether a patient or carer has heard and understands what they have been told, by inviting the patient to repeat or 'teach back' the information that they have just received. If a patient understands, they will be able to 'teach back' the information accurately. The technique also enables the health professional to check that they have clearly explained information in a way that the patient understands. Examples of what this might sound like are:

- "We discussed a lot today. Can you tell me what you found most important?"
- "To check that I've explained everything properly, can you explain to me how you are going to take your medicines?"
- "Just to make sure that my instructions make sense to you, can you tell me what you are going to do next?"

This technique goes beyond asking questions such as "Is what I have explained to you clear?" or "Have you understood everything that you have heard?" because the health professional asks the patient to explain or demonstrate, in their own words, that they have heard and understood what has been discussed. The related 'show me' technique allows the health professional to check that the patient has understood an action – for example, applying a cream or using an inhaler.

Depending on the patient's response, the practitioner will be able to clarify or modify information and implement the 'teach back' approach again, as necessary, until the patient's understanding is confirmed. 'Teach back' is appropriate for use with everyone and can help:

- improve understanding and adherence
- decrease call backs and cancelled appointments
- improve customer/patient/service user satisfaction and outcomes.

It is good practice to check that people understand the information they have been given regardless of their health literacy levels, so this technique can be used as a matter of routine with everyone who uses your services.

Tool 2: Tips for using 'teach back'

How would you check for understanding? What words would you use? Everyone is different and it depends on your relationship with the person you are talking to. Some guidelines and examples are provided below.

Using 'teach back'

✅ I would like to check that I have explained things properly, would you mind telling me what it is we have discussed and what we have agreed you will do?

✅ Can you tell me how you are going to explain things to your family when you get home tonight?

✅ I want to make sure you have understood, can you tell me what I've asked you to do?

❌ Have you understood everything we have dicussed?

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Tool 3: 'Chunk and check'

This approach can be used in conjunction with using the 'teach back' technique.

The person providing the information breaks down the information that is being given into small sections or 'chunks'. After each 'chunk', the person providing the information checks with the recipient for understanding before moving on.

An example of how to use the 'chunk and check' technique:

Pharmacist: "Mrs Smith, could you just confirm your address please? Thank you. Now, there're two lots of tablets here. These ones are to be taken with water after a meal, three times a day. Take these smaller ones twice a day, preferably on an empty stomach or several hours after eating. You might find one of those leaflets over there in the rack useful."

This could be split into the following smaller chunks, using the 'teach back' technique between chunks where appropriate:

- Mrs Smith, could you just confirm your address please? Thank you.
- There are two lots of tablets here. These ones are to be taken with water after a meal, three times a day.
- Take these smaller ones twice a day, preferably on an empty stomach or several hours after eating.
- You might find one of those leaflets over there in the rack useful.

Useful websites for further reference

More resources and information on **'teach back'** and **'chunk and check'** can be found on The Health Literacy Place website, developed as the main source of health literacy information and resources in Scotland.

The Scottish Health Council has also developed some **further guidance**, including a short video clip, demonstrating the 'teach back' technique in action.

The importance of good communication skills

Being health literacy aware involves taking a "universal precautions" approach – in other words, not automatically assuming that patients, carers and service users understand what they are being told. Implicit in this approach is the need to use good communication skills, and to modify practice by using techniques such as 'teach back', which checks that a person has understood information provided to them. Whilst this 'how to' guide does not aim to provide information about all of the techniques for good communication, the following resources provide some good examples:

The e-Learning for Healthcare website includes a **'Principles of Communication'** module which looks at how to facilitate good communication - whether you are a patient, a carer or a health or social care professional.

The CPPE consultation skills learning programme for pharmacy professionals is aimed at ensuring good communication skills for the pharmacy workforce.

Tool 4: How to routinely offer help

It's not always easy to know who might need help with paperwork, forms, directions etc, so try not to make assumptions and, instead, offer everyone help as a matter of routine.

Offer help in a friendly, non-stigmatising way, keeping the choices with the service user and ensure that they understand that the responsibility for making sure everything is clear with you. For example:

"Please let me know if there is anything on the form that isn't clear and I'll be happy to go over it with you."

"Would you like me to go over the form with you to make sure we get all the information we need? Some of the questions are not always clear and we want to make sure we capture everything."

"I have a few forms I need you to complete. You can either fill them out now or [name of person] can help you fill these out once they see you."

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> **You can change the question on a regular basis to get feedback about different areas of communication or the service in general.**

Tool 5: Quick and easy ways to get feedback about spoken language

A quick and simple way to collect feedback on a regular basis from the people who use your services is to have a box available in reception with a question 'Today's question...' written on the front. Make sure the questions have a 'yes' or 'no' answer. Provide piles of 'yes' and 'no' cards for posting into the box.

Ask people to answer the question on the way out by posting their answer into the box. You can read the question to them, but let them answer privately. You might like to have a volunteer helping with this task, rather than having the question asked by the person that dealt with them as this could be intimidating.

Questions might include:

- Did staff members use every day, plain language today?
- Did staff members speak clearly today?
- Did staff members explain things well to you today?
- Did staff members check with you that they had explained things properly?
- Did staff members give you the chance to ask them any questions?
- Did staff members offer you help today?

You can change the question on a regular basis to get feedback about different areas of communication or the service in general.

Make your opinion count

Today's question

Do you know when you can have your flu vaccination at the surgery?

YES   **NO**
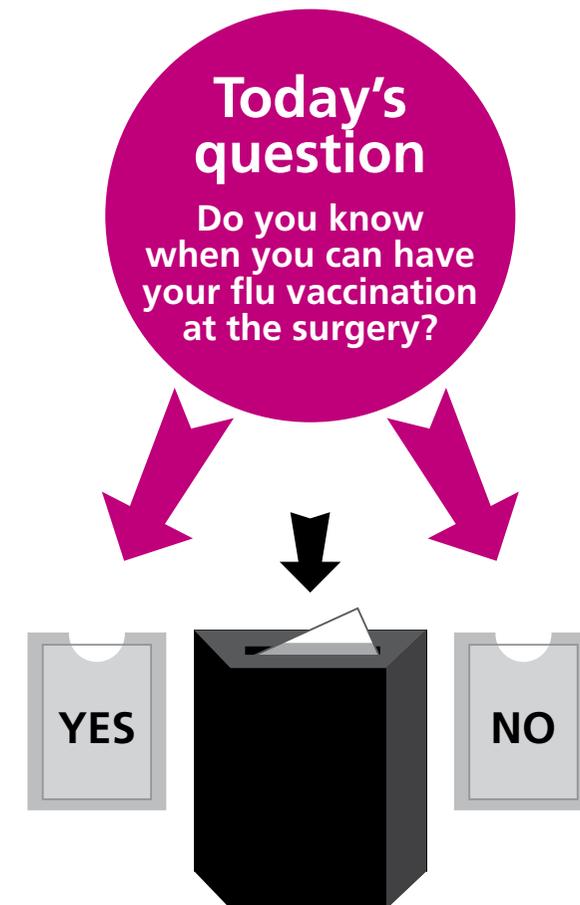
3.   Written information: Style

Style

People are often given information in a written format when they use health services or are looking for information to help them make informed choices about their health and wellbeing.

These materials are only helpful for people when they are written at an appropriate reading age level. The majority of adults in the UK have a reading ability at or below Level 1, which is what is expected of the average 11-14 year old. A lot of health information is written at a level much higher than this and so regardless of how accurate and useful the information may be, many "average" adults may not be able to access, understand or use it. To be sure that it is accessible, it needs really to be aimed at the average 11 year old.

A key part of the process of creating written information is checking that your intended audience can understand it. This is called "user testing" and we recommend that you user-test all written information you produce to check that the style is appropriate.

Useful websites and links for further reference:

- **Tools and case studies** (Patient Information Forum)
- **Tools and guides** on many different aspects of writing in Plain English
- **The Literacy Trust, an independent charity that aims to transform lives through literacy, website**
- **Skills for Life survey by the Department for Business Innovation and Skills** aims to produce a national profile of adult literacy, numeracy, and information and communication technology skills and assess the impact that different levels of skills have on people's lives.

The majority of adults in the UK have a reading ability at or below Level 1, which is what is expected of the average 11-14 year old.

Tool 6: How to write in plain English

The **How to write in plain English guide**, produced by the Plain English Campaign, begins with an introduction called 'So what's plain English?'

The guide then looks at the main ways to make writing clearer:

- Keep sentences short, using lists where appropriate
- Use active verbs
- Avoid writing in the third person
- Use words that are appropriate for the reader

The guide then looks at the difficult subject of apologising, and deals with some of the myths that can get in the way of clear communication.

The guide finishes with a summary and a list of words to avoid.

Tool 7: The A-Z of alternative words

This guide, produced by the Plain English Campaign, gives hundreds of plain English alternatives to the pompous words and phrases that litter official writing. On its own the guide won't teach you how to write in plain English. There's more to it than just replacing 'hard' words with 'easy' words, and many of these alternatives won't work in every situation, but it will help if you want to get rid of words like 'notwithstanding', 'expeditiously' and phrases like 'in the majority of instances' and 'at this moment in time'. Using everyday words is an important first step towards clearer writing.

Tool 8: A brief guide to easy read: top tips

An **online guide** by the Scottish Accessible Information Forum (SAIF), provides top tips for writing easy read documents. On the style of written documents, it recommends:

Things to think about before you start:

- Who the information is for
- What they need to know
- Why they need to know.

Words

- Use short words
- Use simple words
- Avoid putting more than one idea in a sentence
- Stick to concrete ideas
- Try to use I, we, you
- Try to use the present tense
- Try not to use jargon or long, hard words
- If you must use a hard word, explain what it means.

Numbers

- Write numbers in figures
- Use a clock to illustrate time.

Length

- Write short sentences
- Keep your documents short
- Don't miss anything important.

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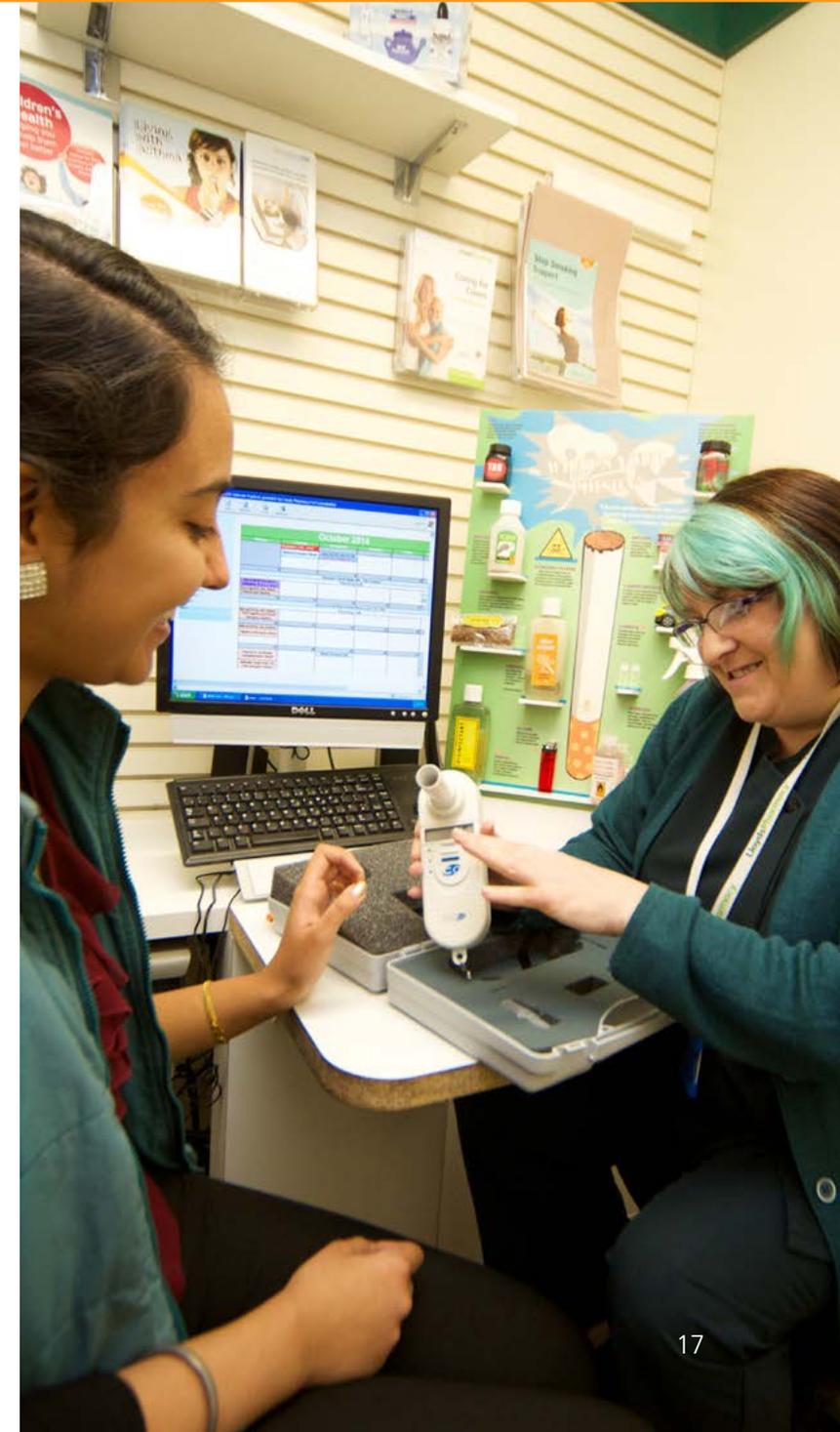
Tool 9: Readability tools

Readability

Readability is the measure of how easy it is to read and comprehend a document. Readability tests were first developed in the 1920s in the United States. They are mathematical formulas, designed to determine the suitability of books for American students at a certain age, or grade level. Automating the process was intended to make it easier for tutors, librarians and publishers to determine whether a book would be suitable for its intended audience. The formulas are based around the average words to a sentence and the average syllables used per word. As such, they tend to reward short sentences made up of short words.

Being mathematically based, readability tests are unable to determine the likelihood that the document is comprehensible, interesting, or enjoyable. It's possible to obtain good readability scores with gobbledygook, providing the content contains short sentences made up of monosyllabic words. Layout and design are also important factors to the readability of a document that cannot be determined using readability tests. Documents aimed at a higher level may require background knowledge, which cannot be determined by the tests.

For a document to be easily understood, the writing style should be clear and simple. This involves a writing style that is direct and familiar to the intended reader. The structure of the document should be logical, unambiguous, and avoid redundant words.

While readability tests can predict how easy documents will be to read, they should always be used in conjunction with good writing style guidelines.

For a document to be easily understood, the writing style should be clear and simple. This involves a writing style that is direct, and familiar to the intended reader. The structure of the document should be logical, unambiguous, and avoid redundant words.

Reading Level Algorithms

Gunning Fog, **Flesch Reading Ease**, and **Flesch-Kincaid** are reading level algorithms that can be helpful in determining how readable your content is.

Reading level algorithms only provide a rough guide, as they tend to reward short sentences made up of short words. Whilst they're rough guides, they can give a useful indication as to whether you've pitched your content at the right level for your intended audience.

The **Readable.io** website provides a text scoring tool that tells you how easy a piece of text is to read, and offers the option of different algorithms.

Tool 10: SMOG Test and SMOG Calculator

The SMOG Test (simplified measure of gobbledygook)

Successful reading is about far more than word recognition: it's about style, content, physical presentation, complexity of intellectual engagement required, learner interest, confidence and skill.

There are no simple answers about relating readability levels to adult literacy levels: they do not equate exactly and are not meant to. The SMOG (simplified measure of gobbledygook) test provides a measure of readability and not the reading age of a text.

SMOG is a formula that gives a readability level for written material. Readability is an attempt to match the reading level of written material to the "reading with understanding" level of the reader.

The easiest way to establish the readability level of a text is to use an online **SMOG calculator.**
In Spring 2009, National Institute of Adult Continuing Education (NIACE) made a new calculator available to calculate the readability level of any text pasted into it. This is based on research into different readability tests commissioned by NIACE and carried out by Professor Colin Harrison at Nottingham University.

Tool 11: Drivel Defence

Drivel Defence is a software package produced by the Plain English Campaign that will help you to check the use of plain English in reports, letters and websites.

Most written material is now produced on a computer, so wouldn't it be good if the computer could help you to check it? That is exactly what Drivel Defence does. It includes the following two tools:

Drivel Defence for Text allows you to check text by copying it from any software or document. It's ideal for letters or reports. You can use Drivel Defence for Text from the website, or you can download it and run it on your own computer.

Drivel Defence for Web is a tool specifically to help website developers check whether the content of web pages is in plain English.

Both programs can give you a detailed report on your use of Plain English, but neither makes any changes. This leaves you in control.

Tool 12: A brief overview of user testing

The only way to be sure that your chosen approach to clear communication will be understood by your target audience is to involve them in the development and testing of your health information[5].

User testing attempts to answer:

- How does the information perform?
- Can people find and understand the information they need?

A brief overview of user testing in four steps:

1. Select 15 key points from your information relevant to the content you wish to test e.g. medicines: safe and effective use
2. Design and pilot a questionnaire which tests:
   a. Finding each piece of information
   b. Understanding of the information (expressed in own words)
3. Recruit 20 people from your target group
4. Interview them individually to answer the questions on the questionnaire (locating information and understanding it). The interview concludes with qualitative questions e.g. what did they like and not like about the leaflet.

User testing is an iterative process

Test material

Identify problems (the points people struggled with and their general comments)

Remedy problems (using research evidence and good practice in writing and design)

Test again

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[5] Taken from **Raynor DK. Testing, Testing: The Benefits of User-testing Package Leaflets Regulatory Affairs Focus 2008**

4. Written information: Design

Design

People are often given information in a written format when they use health services or are looking for information to help them make informed choices about their health and wellbeing.

We've already looked at how the style, structure and language of your written information are crucial to what extent it is 'readable' and easy to understand. The layout and design of your written materials are also important factors to think about when producing written information, and can make reading easier or more difficult. Poor visual presentation may make your information harder for people to find and understand, and may damage the perceived reliability of your health information.

Remembering that the majority of adults in the UK have a reading ability of the average 11-14 year old, it is vital to make sure that your written information looks attractive, clear and non-threatening. If it looks complicated, cluttered and confusing, people with literacy difficulties will be put off from even attempting to read it. So, it could be argued that it is even more important to get this aspect right than the style of your writing. Experience from user testing medicines leaflets has found that the way information is laid out is as important as the words that are used.

Poor visual presentation may make your information harder for people to find and understand, and may damage the perceived reliability of your health information.

Useful websites and links for further reference:

- **Additional tools and case studies from the Patient Information Forum**
- **Scottish Accessible Information Forum guidelines** provide practical guidance on making printed and electronic information more accessible
- The **NHS Identity website** is a central resource for all those involved in developing NHS communications. It contains detailed guidance on how to apply the NHS brand to communications materials, and provides access to free downloadable guidelines tailored to specific audience groups.

Tool 13: Information design principles

The slide below outlines basic design principles for medicine information and is based on research [6].

Information design principles

UNIVERSITY OF LEEDS

- Short familiar words and short sentences
- Short headings that stand out
- Type as large as possible
- Leave 'white space'
- Use bullets for lists
- **Be conversational**
- **Use the 'active voice'**
- Use non-justified text
- Use bold lower case for emphasis
- **Pictures and graphs don't necessarily help**

Raynor DK, Dickinson D. Key principles to guide development of consumer medicine information--content analysis of information design texts. Ann Pharmacother 2009;43:700-706

Knapp, P; Raynor, DK; Jebar, AH; Price, SJ, Interpretation of medication pictograms by adults in UK. Ann Pharmacother, 2005;39:1227-1233

> **If it looks complicated, cluttered and confusing, people with literacy difficulties will be put off from even attempting to read it.**

Tool 14: Guide to design and layout

The design and layout guide, produced by the Plain English Campaign, gives guidelines on how to design and lay out information in a clear way. It provides information and advice on things like font shape and size, line spacing and alignment, the use of white space and when and how to use quotations, captions and bold print.

Tool 15: Tips for clear websites

Tips for clear websites, produced by the Plain English Campaign, gives tips for producing clear websites. It provides tips on structuring websites, deciding on the key information you want to communicate and page design.

[6] Produced by DK Raynor, University of Leeds. From presentation "Leeds Research on Consumer Medicines Information. Health Literacy, Medicines and Pharmacy: Setting the Scene."

5.   Written information: Print

People are often given information in a written format when they use health services or are looking for information to help them make informed choices about their health and wellbeing.

The way you use print in your written materials can also make reading easier or more difficult, especially for people with lower health literacy levels.

Useful websites and links for further reference:

- Additional **tools and case** studies (Patient Information Forum)
- **Scottish Accessible Information Forum (SAIF) guidelines** provide practical guidance on making printed and electronic information more accessible
- Read the case study about the **development of an infographic on breast cancer risk**. View the infographic **here**.

> **The way you use print in your written materials can also make reading easier or more difficult, especially for people with lower health literacy levels.**

6.   Written information: Pictures, photographs and symbols

Pictures

Pictures, photographs and symbols can be used to improve understanding and reinforce key messages.

The use of pictures, photographs and symbols can make a piece of health information more interesting, as well as helping to support what you are trying to say or reinforce key messages.

However, inappropriate pictures, tables and graphs can cause confusion or send out the wrong messages. This is where user testing becomes very important. You should test out any visual representations that you use to make sure they are not confusing and that they actually add value to your information.

Using poor quality and inappropriate visuals may look unprofessional and may damage the perceived reliability of your health information.

This section provides suggestions for how to make sure that images and graphics that you use within your health information are appropriate and add value. It also provides resources and tools to help you use image in your information in a way that is health literacy friendly.

Using poor quality and inappropriate visuals may look unprofessional and may damage the perceived reliability of your health information.

Useful websites and links for further reference:

• Find more tools and case studies **on the Patient Information Forum website**
• **Healthcare information resource, Chelsea and Westminster Hospital.**

Tips for using pictures and images in a meaningful way

The following is an example of how pictures can cause confusion and send out the wrong messages.

This picture was tested to see whether it would help patients understand medication instructions. What do you think it means?
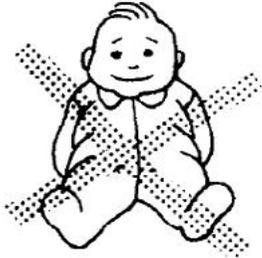
Answers included:

- Don't give this medicine to babies
- Keep out of the reach of children
- Don't take this medicine if you are breastfeeding
- Don't take this medicine if you are trying to get pregnant
- If you take this medicine you won't get pregnant.

Pictures, especially when used on their own, can cause confusion and misunderstanding and need to be user-tested. Research looking at how adults interpret and understand pictures in the context of medication instructions, came to the following conclusion[7]:

"Pictograms have the potential to help patients understand information on drug therapy. This study shows that some existing pictograms are not easily interpreted and that testing is needed before their implementation. A reduction in their size to allow incorporation into conventional written formats may cause additional problems for patients."

Use appropriate images in a meaningful way:

- Pictures should support the meaning of the words
- Pictures must be easy to understand
- Pictures can be drawings, photographs or other images
- Make pictures as big as possible
- Where possible, use pictures that have a meaning for the person or group of people.
  For example, use pictures that are local.

[7] Knapp, P; Raynor, DK; Jebar, AH; Price, SJ, Interpretation of medication pictograms by adults in UK. Ann Pharmacother, 2005;39:1227-1233

Tool 16: Visualizing Health project

"When it comes to our bodies, data abounds. We all have a blood pressure, weight, cholesterol levels, BMI, and more. We have risks, too. We might have or be at risk for cancer, or heart disease, or have a higher risk of experiencing a side effect of a medication or treatment than someone else.

"In theory, this data can help us make better decisions about our health. Should I take this pill? Will it help me more than it hurts me? How can I reduce my risk? And so on.
But for individuals, it's not always easy to understand what the numbers are telling us. And for those communicating the information – doctors, hospitals, researchers, public health professionals – it's not always clear what sort of presentation will make the most sense to the most people."

That problem is the inspiration behind **Visualizing Health**, a project of the Robert Wood Johnson Foundation and the University of Michigan Centre for Health Communications Research. Their website contains 54 examples of tested visualisations – that is graphic displays of health information that they have evaluated through research among the general public. The objective was to create a gallery of beautiful and easy-to-make-sense-of graphs, charts and images that effectively communicate risk information – health data that makes sense.

These visualisations are distributed via a Creative Commons license, which allows anybody, academics, healthcare organisations, even for-profit businesses, to adapt them for their own objectives. Please use them and let the centre know how you are using them by **emailing** the team.

Here's what has been developed:

- A 'wizard' tool to help you learn how to find the right type of display to fit your needs
- A gallery of the images tested
- A sample risk calculator that shows off some of the best design concepts
- A real-world story to demonstrate how the images created by Visualizing Health could be adapted to help you to communicate information about risk.

Tool 17: Fact Boxes

The Harding Centre for Risk Literacy, a research organisation founded in Germany during 2009, has developed a range of factsheets on different health topics showing how to express risk clearly using different visual representations, called fact boxes.

Fact boxes communicate the best available evidence about a specific topic in an easily understandable manner. The most important pros and cons are contrasted with each other in a table, allowing people with no medical or statistical background to make competent decisions.

The idea of fact boxes was developed by **Lisa Schwartz and Steven Woloshin**. In several studies, including '**Using a Drug Facts Box to Communicate Drug Benefits and Harms: Two Randomized Trials'**, Schwartz and Woloshin demonstrated that **fact boxes** were effective tools for informing the general public about harms and benefits of medical treatments.

A 2017 article published in the **British Medical Journal** supports the concept that fact boxes can help to communicate evidence based health information, putting health professionals and patients in a better position to make informed decisions.

Example of a fact box:

The Drinkaware Trust*, an independent UK-wide alcohol education charity, has published a **fact box** to visually demonstrate what 1 unit of alcohol looks like.

* **The Drinkaware Trust** is funded largely by voluntary and unrestricted donations from UK alcohol producers, retailers and supermarkets. The Trust is governed independently and works in partnership with others to help reduce alcohol-related harm by helping people make better choices about their drinking.

Tool 18: Checklist for easy-to-read print materials

The Centers for Disease Control and Prevention (CDC), the leading national public health institute of the United States, has produced a useful checklist for easy to understand print materials as part of their **'Simply Put: A guide for creating easy-to-understand materials' publication**[9]. The checklist examines the various elements of producing written health information in a health literacy friendly way. Here is a summary:

- ☐ Have you limited your messages to 3-4 per document (or section)?
- ☐ Have you left out information that is "nice to know" but not necessary?
- ☐ Is the most important information at the beginning of the document, and repeated at the end?
- ☐ Have you identified action steps or desired behaviours for your audience?
- ☐ Is information presented in an order that is logical to your audience?
- ☐ Is information chunked, using headings and subheadings?
- ☐ Do lists include bullets?
- ☐ Are the language and the visuals culturally appropriate?
- ☐ Have you eliminated as much jargon and technical language as possible?
- ☐ Is technical or scientific language explained?
- ☐ Have you used concrete nouns, active voice, and short words and sentences?
- ☐ Is the style conversational?
- ☐ Is the cover attractive to your target audience?
- ☐ Does the cover include your main message?
- ☐ Are your visuals simple and instructive rather than decorative? Do they help explain the messages found in the text?
- ☐ Are your visuals placed near related text?
- ☐ Do they include captions?
- ☐ Does your document have lots of white space?
- ☐ Are margins at least 2.5cm?
- ☐ Is the print large enough (at least 12 point)?
- ☐ Have you used bold, underlining, and text boxes to highlight information?
- ☐ Have you avoided using all capital letters (except for grammatical reasons)?
- ☐ Is text justified on the left only?
- ☐ Have you user tested your information?

[9] From CDC's Simply Put, 2nd ed., 1999

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