Patient Information Forum

Web accessibility
A quick guide

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Contents

This guide supports the following PIF TICK criteria:
6.0 ***Health inequalities****: Information is written to meet health and digital literacy, language and accessibility needs of the target audience.*
7.0 ***Content and design****: Information is clearly communicated, easy to access and navigate.*

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We would also like to thank our 2023 expert reviewers Joanna Dundon, Morag Evans and Trishna Bharadia.

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Patient Information Forum

1. Introduction

Make digital health accessible to all

This guide provides practical support to help make sure health information websites are accessible to all. It offers guidance based on guidelines set by the World Accessibility Initiative (WAI).

PIF's Health and Digital Literacy Survey report, published in October 2020, made 10 recommendations to help overcome the health and digital literacy challenges faced by the UK population. A central recommendation was to ensure health websites met WCAG 2.1 global accessibility guidelines. In summary, this meant organisations should:

1. Ensure every element of the website is easy to find
2. Ensure the website is fully operable
3. Ensure the content of the website is easy to understand
4. Ensure the website can be accessed from different devices and browsers
5. Ensure digital content is accessible to all audiences
6. Learn best practice from other organisations across various industries.

Organisations providing NHS or publicly-funded care must meet the Accessible Information Standard. It is good practice for other organisations to meet this standard.

Since the original guide was published in 2021 WCAG 2.2 guidelines have been released. We have also repeated our Health and Digital Literacy Survey. A core recommendation was for all organisations to consider the equalities impact of digital tools.

Accessibility is built into the PIF TICK criteria for trusted health information.

A working draft of WCAG 3 guidance was released in July 2023. WCAG 3 will explain how to make the web more accessible to people with disabilities. WCAG 3 applies to web content, apps, tools, publishing, and emerging technologies on the web.

This guide was developed in collaboration with accessibility specialist and long-standing PIF partner TextHelp.

2. World Content Accessibility Guidelines and UK legislation

The World Accessibility Initiative (WAI) WCAG 2.1 guidelines were developed in cooperation with individuals and organisations around the world. They provide a single shared standard for web content accessibility that meets the needs of individuals, organisations and governments.

WCAG 2.2 builds on those guidelines. It aims to improve accessibility guidance for three major groups: users with cognitive or learning disabilities, users with low vision, and users with disabilities on mobile devices.

The Accessibility Guidelines Working Group recommends sites adopt WCAG 2.2 as their new target, even if formal obligations mention previous versions.

The WAI website offers advice on making web content more accessible. This includes advice on text, images, sounds and the code that defines the structure of the website and its presentation.

Websites can achieve one of three levels of accessibility – A, Double A, or Triple A. It sounds complicated but the guidelines are easy to understand and often easy to implement.

Countries all over the world have developed their own web accessibility legislation and regulations based on the guidelines provided by WCAG.

Legislation in the UK includes:

- Public Sector Bodies (Websites and Mobile Applications) (No 2) Accessibility Regulations 2018
- Equality Act 2010
- Disability Discrimination Act (1995) NI
- Accessible Information Standard

3. What you can do to meet WCAG guidelines

WCAG guidelines use the POUR structure. This outlines what it means for a website to be perceivable, operable, understandable and robust. In other words, accessible.

Based on POUR, we have suggested some actions to improve accessibility and shown where digital inclusion software can help meet some of the requirements.

Ensure every element of your website is perceivable

Every element of every website should be discoverable. This means content should switch between formats. For example, content should switch from images to text and text to audio, so people with visual impairments, hearing limitations, and cognitive disorders can use it too.

Your Action	Digital Inclusion Solution
Use metadata to provide text alternatives to images.	Create alt text which is short and descriptive for non-decorative images.
Minimise visual overload.	Remove distracting content allowing users to focus on what's important.
Ensure downloadable content is accessible too.	Convert text to an alternative format such as audio for offline listening.

Ensure your website is fully operable

Web users with limited movement or tremors may use adaptive devices instead of a keyboard and mouse to access web content. Options for visual display can help other groups of users.

Your Action	Digital Inclusion Solution
Optimise web code to ensure all functionality is available from a keyboard or alternative devices.	Make sure the website is fully keyboard accessible without the use of a mouse or touchpad.
Help users navigate and find content.	Dual colour highlighting shows users where they are on the page. Screen masking tools with a ruler can help users to focus on one area of the screen at a time.
Do not use content that could cause seizures.	A screen mask can be applied to 'dim' the screen and web page simplifiers can remove distracting content.

Ensure the content on your website is understandable

Content that someone can access is not necessarily accessible. The language used should be easy to read and understand. Some users may need additional tools to be able to 'read' text including screen readers and translation.

Your Action	Digital Inclusion Solution
Give users enough time to read and use content.	Audio speed and voice options can allow users to customise to suit their needs and preferences.
Ensure text is readable.	Magnifying tools can increase the size of text. Fonts can also be changed to sans serif options.
Use language that can be understood by all.	Readability checkers can help make sure you are using plain language. Translation tools can convert text into other languages.
Make sure visitors understand what actions to take on the site.	Read aloud hidden text descriptors, or alternative text, behind images and videos. Identify hyperlinks by reading them aloud.
Help users to avoid and correct mistakes.	Audio features read text out loud, including information typed into forms, so visitors can identify and correct spelling mistakes.

Ensure your website is robust – can be accessed from different devices and browsers

Each individual accesses the web using technology which suits their needs and preferences. This includes different devices and browsers.

Your Action	Digital Inclusion Solution
Optimise your website for use with assistive technologies.	Digital inclusion solutions such as screen readers work most effectively on websites optimised for accessibility. Use audit tools to check your website's accessibility, for example, ReachDeck from Texthelp.
Maximise compatibility with current and future user tools.	Make sure digital inclusion solutions are regularly updated to continue to work across all common browsers and platforms.

4. Make your digital content health-literacy friendly

Digital content should be accessible to all your audiences. This includes people with low digital skills, dyslexia, visual impairments and those who speak English as a second language.

There are a number of important areas content creators should consider when writing for the web:

Use clear and simple language

1 in 6 adults in the UK have very low literacy levels[1,2]. The clearer your message, the more likely it will be remembered.

Try to avoid technical terms or jargon. Where this is not possible, provide a simple explanation to help tailor the content to your audience.

When using acronyms, remember to write them out in full the first time you use them.

You might find it useful to use a readability tool to check your text. The most popular tool in a survey of PIF members was the Hemmingway App.

For more tips view the PIF quick guide: Using plain language in health information.

Structure your content well

The structure of your content can also enhance its readability. Use short paragraphs, active voice, sub headings and bullet points. Avoid long complicated sentences. It's more inviting and easier to read well-structured content than long sections of text.

Use real headings

Web content design templates define the hierarchy of your headings. So, for example, H1 is the most important heading, followed by H2 and H3. Structuring your headings this way makes your content more accessible. For example, use of proper headings helps people who use screen readers navigate between sections of your site.

References: 1. Survey of Adult Skills 2015 oecd.org/skills/piaac
2. Skills for Life 2011 assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/36000/12-p168-2011-skills-for-life-survey.pdf

Make page titles meaningful and unique

Page titles should provide the most relevant information about the page so be concise and unique.

Make links informative

Links should be descriptive – the user should know what they will find if they click on the link. People relying on screen readers to navigate your site may decide to read all the links on your page first, to get a feel for the content. If your links all say, 'click here' or 'read more', that is not helpful.

Add alt text to images

It's good practice to add alternative text describing non-decorative images for those who cannot see them. Alt text is also good for search engine optimisation (SEO). Some content management systems will not publish your content if your alt text is missing.

AbilityNet has useful guidance on compliant alt text at:
abilitynet.org.uk/news-blogs/five-golden-rules-compliant-alt-text

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Provide transcriptions or captions for video and audio

Transcriptions and captions present spoken content as written text. Providing written text for audio is important for people who:

- Cannot hear well or at all
- Speak English as a second language
- Want to grasp the content more quickly and efficiently
- Need to hear the content over distracting sounds.

Make sure captions do not cover any important information which is being shown on screen.

Make downloadable documents accessible

PDFs are inaccessible to screen readers. If you are adding documents for site visitors to download, make sure they're in an accessible format too.

Consider the accessibility of all website tools

Think about the accessibility of everything on your website, not just text or video. For example, if you ask users to give feedback and they have to complete a Captcha test before submitting their answers, you will exclude people who use screen readers.

5. Case studies

Royal National Institute for Blind People

RNIB has transformed its website – with accessibility a priority – to reflect its commitment to inclusivity.

A range of features have been added – including a choice between light and dark modes to reduce eye strain, especially in low-light settings. New colour contrasts meet WCAG's highest standards for readability in both modes and allow users to set their preferred default.

Back-end accessibility for content editors is equally important. A revamped content management system (CMS) is entirely navigable and operable via keyboard controls, ensuring accessibility for people with mobility challenges.

Comprehensive accessibility training has been introduced for content editors, supporting them to create accessible content. Importantly, the CMS is compatible with assistive technologies.

A rigorous programme of testing was essential and involved screen reader compatibility checks, semantic mark-up for clarity, Accessible Rich Internet Applications (ARIA) roles for dynamic content and user feedback collection.

This holistic approach to accessibility compliance has created a more inclusive and user-friendly online space, underscoring the charity's dedication to accessible web design.

Guy's and St Thomas' NHS Foundation Trust

Guy's and St Thomas' NHS Foundation Trust (GSTT) is one of the largest and busiest NHS trusts in the country.

Its patient population is exceptionally diverse and vibrant, but high levels of deprivation contribute to significant health inequalities.

Patients have short- or long-term disabilities, or are experiencing fatigue and pain, or distress and shock.

This underlined the need for a new website that's accessible by design, complying with WCAG, and based on NHS digital best practice to help patients easily find and understand information.

GSTT is one of the first NHS trusts to replace PDFs of patient leaflets with printable web pages. This includes a large font size option and an innovative online Easy Read section, designed to meet established best practice for Easy Read materials in an accessible format.

In June 2023, 91% of website visitors said it was easy to find information compared to 55% in June 2020. 84% of users rated assistive technology on the website as good or very good, compared to 60% in 2020.

The NHS website

As many as 4 in 10 adults in the UK struggle to understand and use typical health information designed for the public. Low health literacy has been linked to a range of problems, including poor general health, inappropriate use of health services and reduced life expectancy.

The NHS.UK team analysed the content on the NHS website (www.nhs.uk), spoke to health literacy experts and tested new content approaches with users. They found reducing the reading age of the content made things a bit easier for users. But it made much more difference when they started from scratch, researching user needs and structuring content around those needs. They rewrote content in simple plain English following the NHS content style guide.

Doing this made it easier for people to navigate, pick out and recall information, and identify calls to action. Users with high health literacy benefited as much as those with low health literacy.

Reducing the reading age of the content made things easier for users.

The NHS Wales App

Digital Services for Patients and the Public (DSPP) Programme is currently rolling out the NHS Wales App across Wales by GP practice. The app is based on the NHS App in England and 'dragonised' using systems available in Wales.

The journey from discovery to public beta has included extensive user testing to ensure accessibility.

A Patient User Involvement Survey was completed by more than 1,100 people.

The Active Patients and Public Assurance Group provided 30 testers with a wide range of skills and specific conditions, disabilities and sensory loss to test prototypes and amend.

A Welsh translation, carried out by an approved translation service, and accessibility audit were completed before production.

A DSPP User Design Group assures look and feel, content, colours, navigation using accessibility standards, Welsh design standards etc.

Continuous improvement is enabled by a feedback mechanism button in the NHS Wales App and on App Help and Support pages. Surveys built into the app also capture the following:

- Register interest – contact patient when GP practice is onboarded
- In app feedback – issues, feedback and sentiment analysis
- Review intercept poll pop up – satisfaction initially and three month intervals
- Tester sign up survey to complete tasks in short timespan
- User Research Panels – via 'Register interest' and 'Feedback' in App

App feedback is evaluated during daily wash up meetings.

6. Involve users

The best way to make sure your website is accessible is user involvement. The gold standard is full co-production but any user engagement will help improve your website or online resource.

Remember to recruit from diverse patient populations with different information needs and potential barriers.

More information on how to step up involvement and recruit diverse users is available in our Co-production: Involving users in developing health information guide.

7. Glossary of terms

Accessible Information Standard
A law aiming to make sure people with a disability or sensory loss are given information they can understand.

Alt (alternative) text
Describes the appearance and function of an image on a page. Also known as alt descriptions, alt attributes and alt tags.

Beta version
A website which is on limited release with the goal of finding errors and issues before the final release.

Google rankings
Systems used by Google to sort through billions of web pages to find the most useful and relevant results.

Headings
HTML headings start at level 1 and end at level 6. Well designed websites will use these headings to form an outline of content. Heading 1 is the most important.

HTML
HyperText Markup Language is the language used to create web pages.

Hyperlinks
A link which someone can click on to take them to more information.

Metadata
Data providing information about other data. For example, text descriptions of images.

Navigation journey
The path a user may take to reach their goal on a website.

POUR structure
A website is perceivable, operable, understandable and robust.

Search Engine Optimisation (SEO)
The practice of improving both the quality and quantity of website traffic through non-paid (organic) search results.

Web Accessibility Initiative (WAI)
A global organisation developing standards and support materials to help you understand and implement accessibility.

8. Useful websites

Ability Net
abilitynet.org.uk

British Dyslexia Association
www.bdadyslexia.org.uk

NHS England – Accessible Info
www.england.nhs.uk/ourwork/accessibleinfo

NHS England – Digital Service Manual on Accessibility
service-manual.nhs.uk/accessibility

NHS Wales CMS Support – Best Practice
cmssupport.nhs.wales/best-practice

Plain English Campaign
www.plainenglish.co.uk

Royal National Institute for Deaf People – Supportive technology and products
rnid.org.uk/information-and-support/technology-and-products

Royal National Institute for the Blind – Technology and useful products
www.rnib.org.uk/advice/technology-useful-products

Sense – Accessible Information Standard
www.sense.org.uk/get-support/information-and-advice/accessible-information-standard

Accessible Information Standard Explained – animation
www.youtube.com/watch?v=ZJngMo37WvA

Texthelp – Web accessibility
www.texthelp.com/resources/web-accessibility

Thomas Pocklington Trust – Technology and Accessibility
www.pocklington-trust.org.uk/technology
www.pocklington-trust.org.uk/accessibility

World Accessibility Initiative
www.w3.org/WAI

About the Patient Information Forum

The Patient Information Forum (PIF) is the independent UK membership body for people working in health information and support. We run the only UK-wide quality mark for health information – the PIF TICK.

PIF membership comes from all sectors. We represent all kinds of information producers and providers, from NHS organisations to large international companies, health charities to tech startups, healthcare professionals to medical writers.

PIF is a charitable incorporated organisation, registered with the Charity Commission, charity number 1203984.

You can find out more:
Web: pifonline.org.uk
LinkedIn: linkedin.com/in/patientinformationforum
Twitter: twitter.com/PIFonline

About Texthelp

Founded in 1996, the Texthelp Group is a global technology company helping people all over the world to understand and to be understood. It has led the way in creating innovative technology for the education and the workplace sectors for the last three decades.

Texthelp believes in a world where difference, disability or language are no longer barriers. It is focused on helping all people learn, understand and communicate through the use of digital education and accessibility tools.

With over 40 million users worldwide, the Texthelp suite of products include Read&Write, EquatiO®, WriQ®, Fluency Tutor®, ReachDeck® and Speechstream® which work alongside existing platforms such as Microsoft Office and G-suite, enabling them to be integrated quickly into any classroom or workplace with ease.

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