

Health disparities: using data and health literacy techniques to reduce inequalities



Ruth Carlyle and Sue Robertson

National NHS Knowledge and Library Services team

Email: kfh.England@hee.nhs.uk Website: <https://library.nhs.uk>

Patients, carers and members of the public who access, understand, appraise and use health information have better health-related outcomes.

1 in 6

1 in 6 adults struggle with literacy

6 Million

Cannot switch on a digital device without help

Health literacy levels in England

43%

43% adults aged **16-65** cannot understand word-based health information sufficiently well to make health decisions.

61%

Where numbers are added in, **61%** of adults are unable to understand and act on the information.

Health Literacy: local variation

Borough-level geodata commissioned by HEE from University of Southampton:

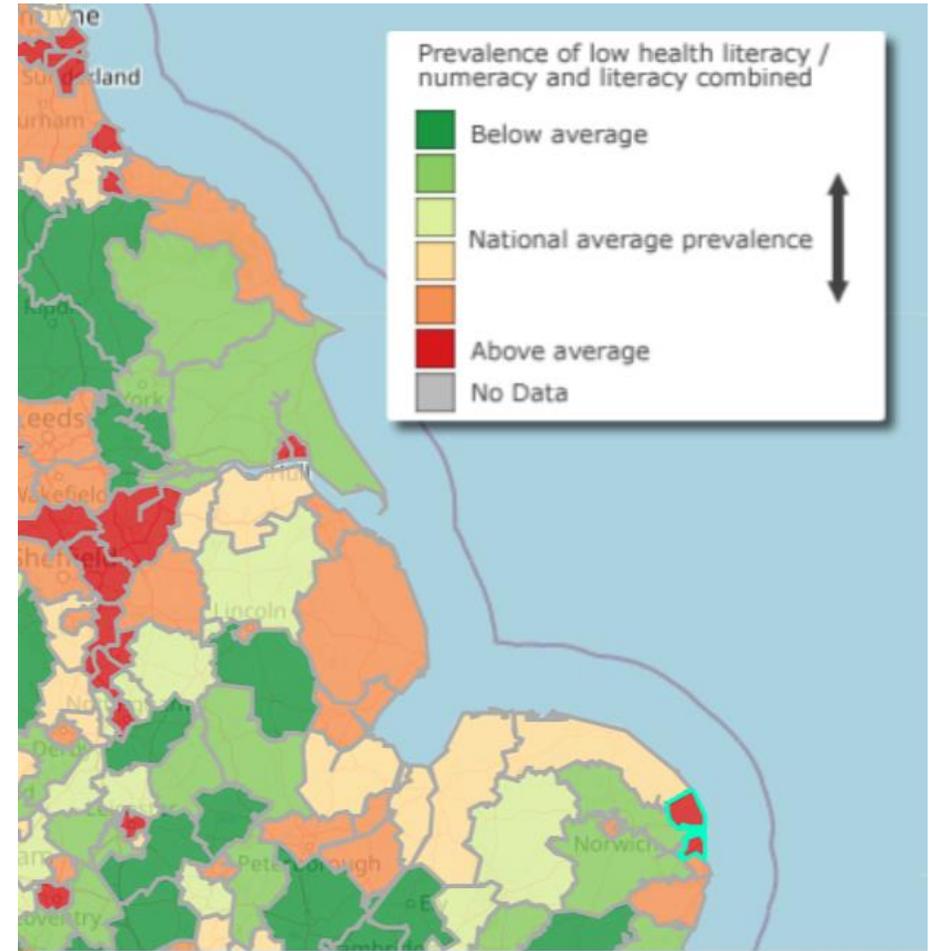
<http://healthliteracy.geodata.uk/>

Variation (% struggling words and numbers):

Best - South Cambridgeshire: 46.11%

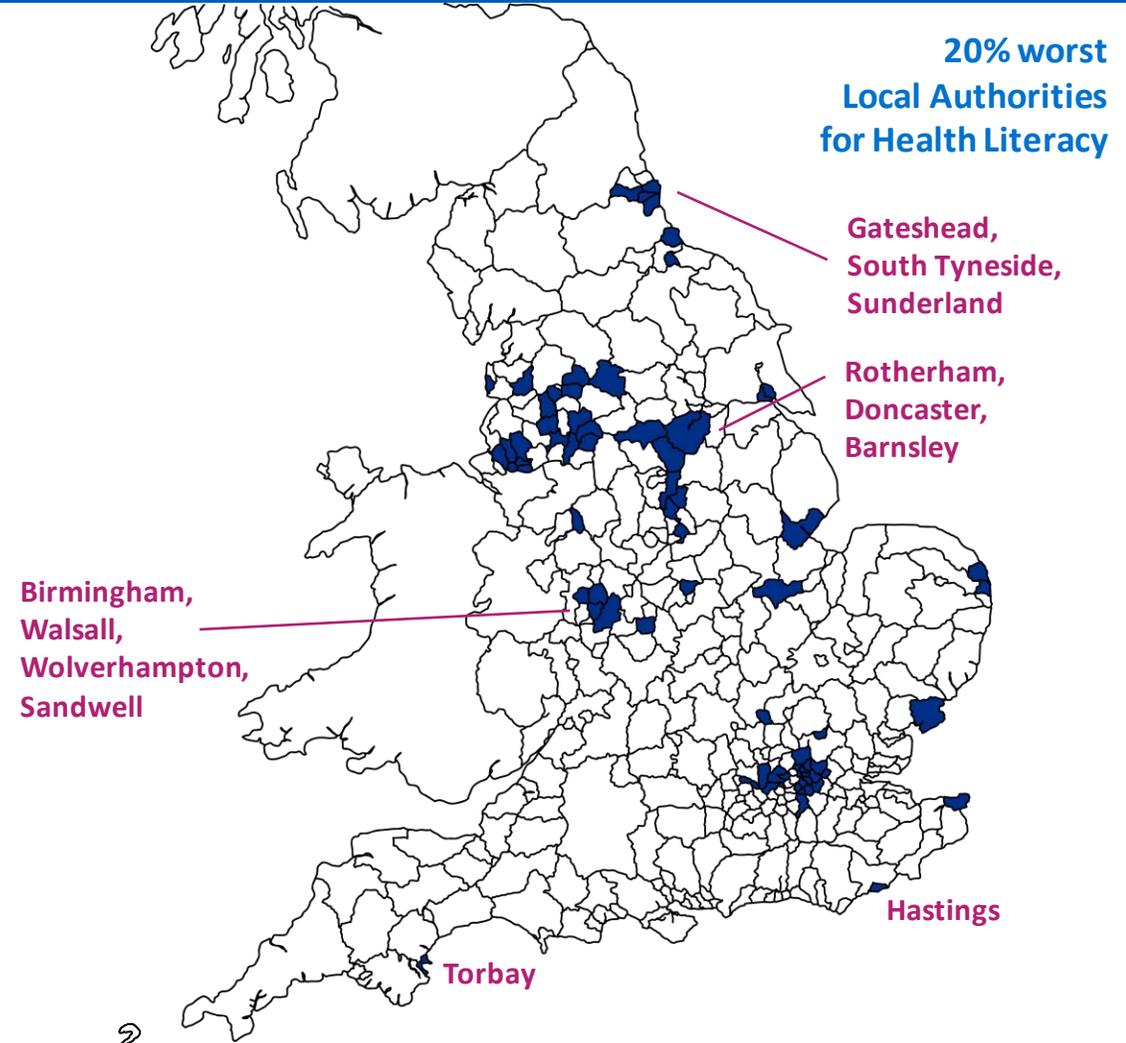
Worst - Newham: 81.75%

Significant issue in rural and coastal areas



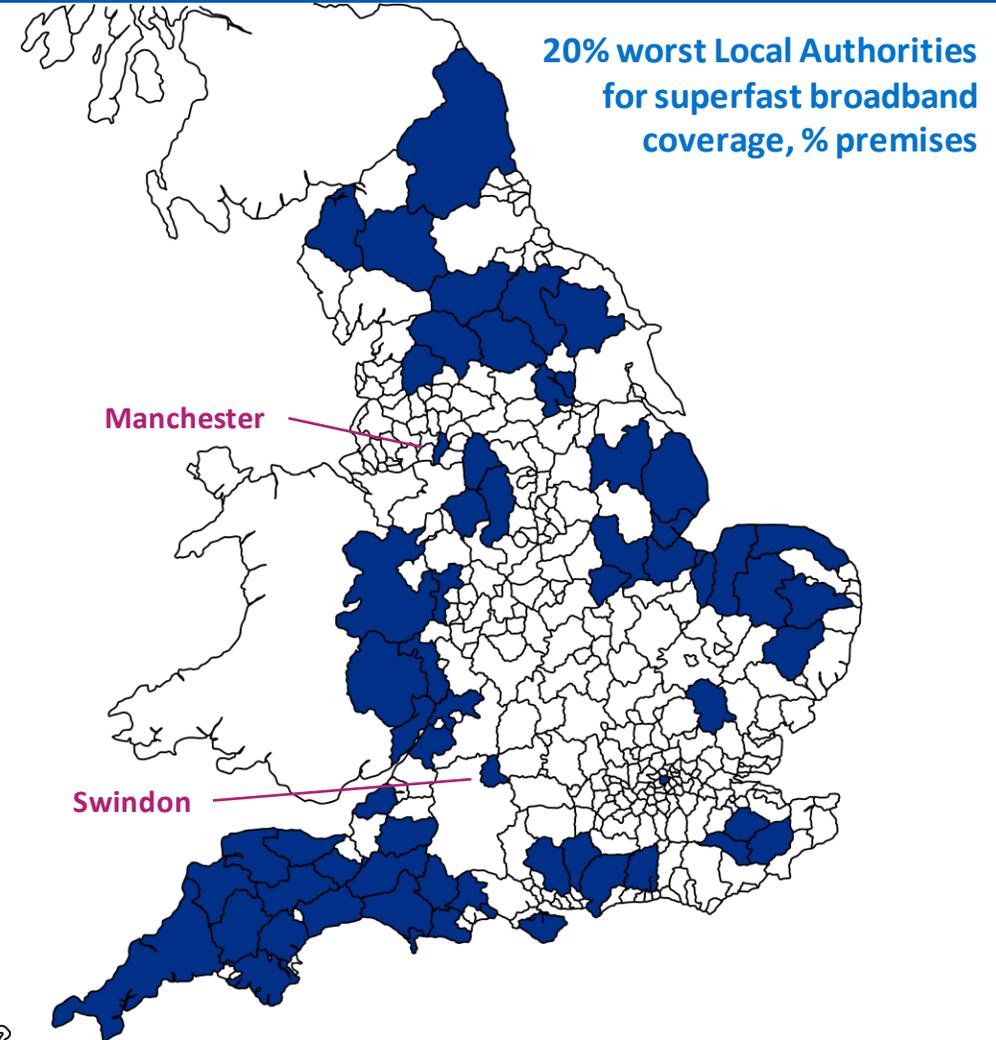
Health Literacy: national variation

- The 20% worst local authorities for health literacy are concentrated in many urban areas of the North and North-West, North-East, West Midlands and certain London Boroughs.
- Health literacy levels are also low in more isolated areas including coastal communities like Torbay and Hastings.



Mapping commissioned by HEE from University of Southampton

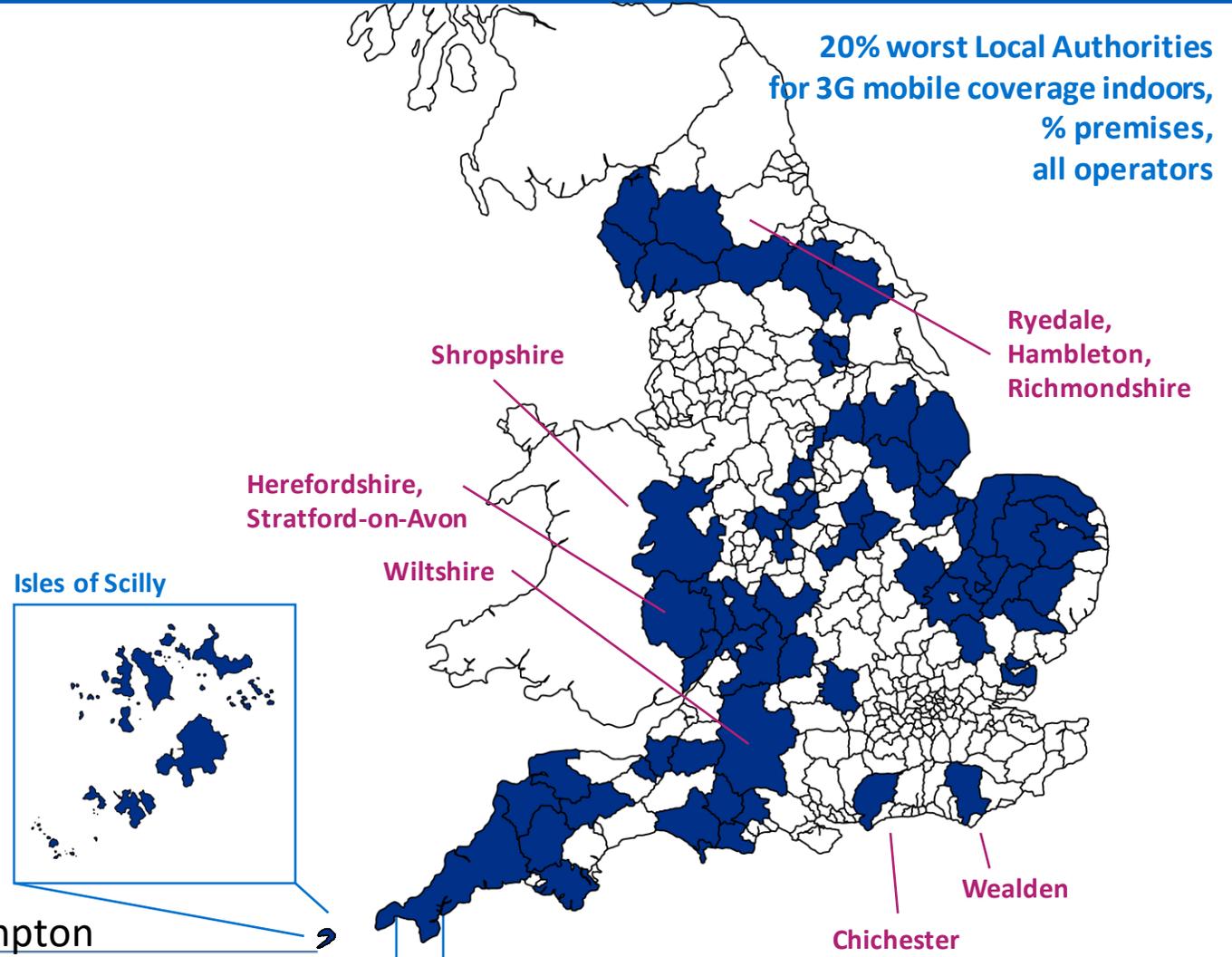
- The 20% worst local authorities for superfast coverage are concentrated in rural locations, although there are some urban outliers such as Manchester and Swindon.
- This can possibly be explained by rural locations having an ageing population with less of an appetite for superfast connectivity, whereas in urban areas the decision to opt for superfast over standard broadband is more a question of affordability.



Mapping commissioned by HEE from University of Southampton

Digital Access: Smartphone 3G

- The 20% worst local authorities for 3G coverage are again in rural locations where distance to cell towers is greatest, such as:
 - Cornwall and parts of Devon
 - Dorset
 - rural North
 - rural Midlands
 - East coast.
- There are pockets of poor access in the rural and coastal south-east.



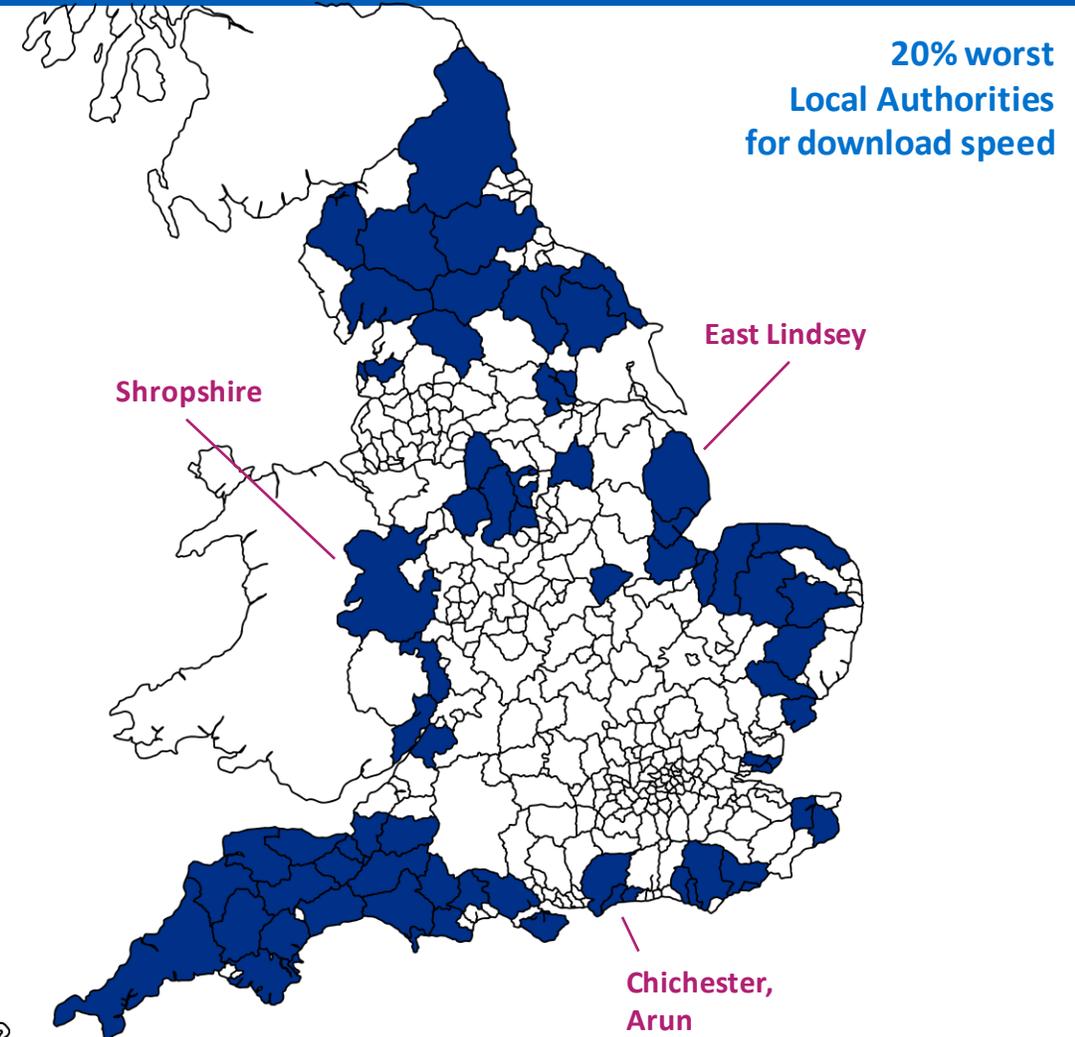
Mapping commissioned by HEE from University of Southampton

Digital Connectivity: download speed

The 20% worst local authorities for download speeds are found in **rural areas** where the problem of ‘last-mile’ connectivity is most pronounced, such as:

- the South-West peninsula,
- rural Northern England,
- Shropshire and the Welsh Borders,
- many parts of Eastern England,
- more rural parts of the South Coast.

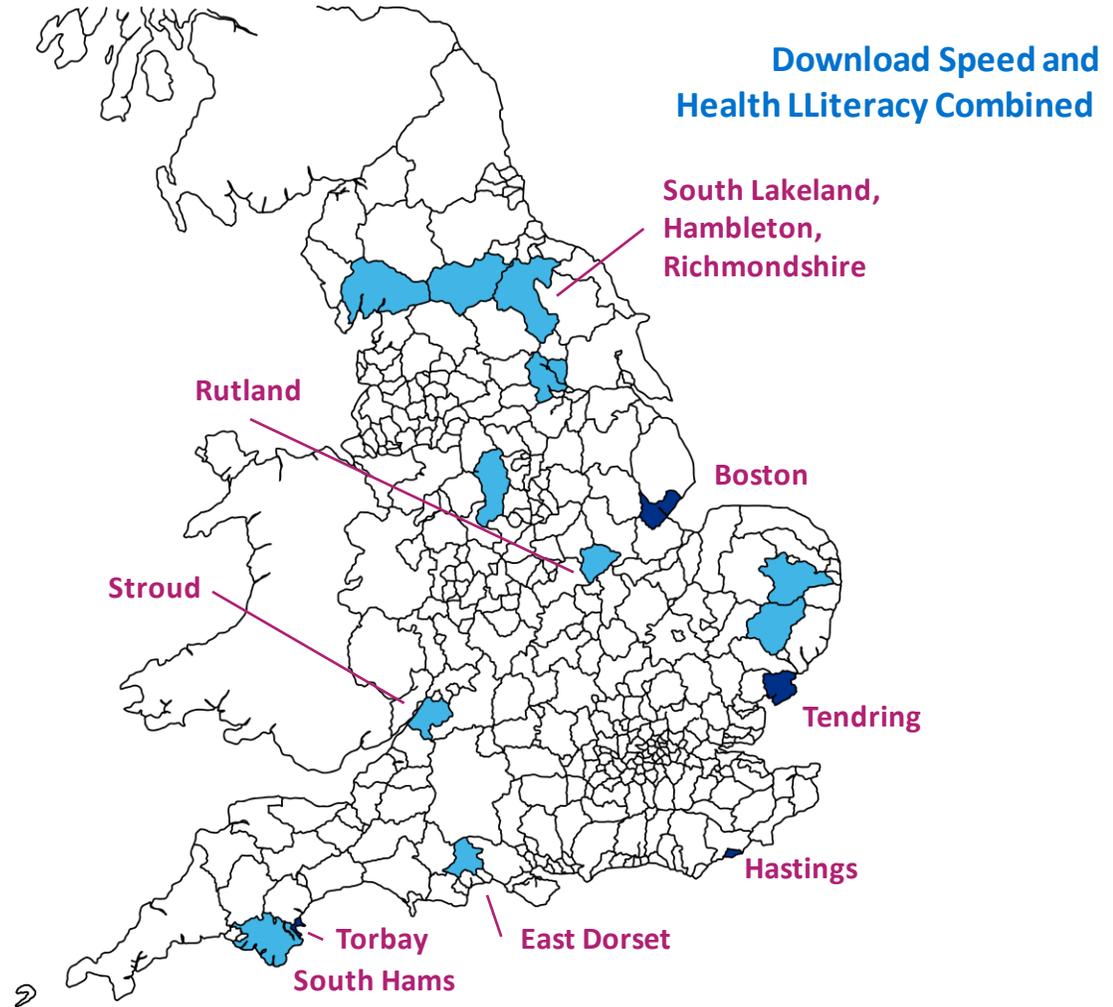
Mapping commissioned by HEE from University of Southampton



Health Literacy and Digital Connectivity: overlap

- The overlap between the 20% worst local authorities for health literacy and the 20% worst local authorities for digital access show how:
 - Poor digital access can **limit** the benefits of the highest levels of health literacy.
 - Poor digital access can **compound** the impact of the lowest levels of health literacy.

-  Lowest download speed but highest Health Literacy
-  Lowest download speed and lowest Health Literacy



Mapping commissioned by HEE from University of Southampton

Poor Health Literacy Compounded by Poor Digital Access: Local Authorities Tabulated

Broadband Coverage	Broadband Speed	3G Coverage
Manchester Boston	Hastings Torbay Tendring Boston	Bolsover Boston

Local authorities **in red** are disadvantaged on all three dimensions of digital access.

Good Health Literacy Damaged by Poor Digital

Access: Local Authorities Tabulated



Health Education England

Broadband Coverage		Broadband Speed	3G Coverage	
South Norfolk	Hambleton	South Norfolk	South Norfolk	Hambleton
Selby	Harrogate	Selby	Wiltshire	Cotswold
East Dorset	East	South Lakeland	Selby	East Cambridgeshire
South Hams	Hampshire	East Dorset	South Lakeland	Isles of Scilly
Stroud	Ribble Valley	South Hams	East Dorset	Stratford on Avon
Richmondshire	Horsham	Stroud	South Hams	Harborough
Tunbridge Wells	Rutland	Richmondshire	Richmondshire	Rutland
Mid Suffolk	City Of London	Mid Suffolk	Huntingdonshire	West Oxfordshire
Derbyshire	Winchester	Derbyshire Dales	Mid Suffolk	South Oxfordshire
Dales	Uttlesford	Hambleton	North Kesteven	Uttlesford
Tewkesbury		Rutland	Tewkesbury	South
		City of London		Cambridgeshire

Local authorities **in red** are disadvantaged on all three dimensions of digital access.

Addressing the challenge: Four Steps



1. Improve the health literacy confidence of your team

Core techniques (in line with NICE shared decision- making guidance):

- Teach Back
- Chunk and Check

Free 35-minute eLearning programme

Action plan to include in CPD file

<https://www.e-lfh.org.uk/programmes/healthliteracy/>



Jointly developed by NHS Education for Scotland and Health Education England

2. Use evidence-based patient information

High-quality patient information should not duplicate what already exists, be developed with user involvement, evidence based and reviewed regularly

<https://pifonline.org.uk/resources/publications/good-health-information/>

NICE shared decision-making guidance requires evidence-based patient information

Local NHS knowledge and library services can support you to identify, appraise and embed the evidence

NHS library and knowledge services can help you to identify, appraise and embed the evidence.



3. Partner with others to improve health literacy



Partnership working is central to sharing best practice, optimising limited resources and reducing duplication.

Opportunities at ICS/local level to:

- Optimise development of health literacy alongside digital skills
- Target collaborative activity to best effect
- Develop sustainable approaches beyond specific information campaigns
- Build local community engagement in health

4. Equip the public: Your Health Collection

Print books and digital resources

- Ageing well
- Recovering from illness
- Men's health
- Women's health and menopause
- LGBTQ + Trans life
- Eating well and moving more
- Pain management

THE
READING
AGENCY

NHS Knowledge and Library Services

Take control of your health

Your Health Collection

<https://library.nhs.uk/yhc/>

Can you think of simpler ways of saying these words?
Add your suggestions into chat.

- Modify
- Hypertension
- Positive/negative
- Fever
- Topical

- Change
- High blood pressure
- Good / Bad result
- High temperature
- Applied directly to a part of the body

- Health literacy data are from <http://healthliteracy.geodata.uk>
The underpinning statistical models use data from the Skills for Life Survey 2011, 2016 population projections and 2011 census data to derive estimates that reflect variations in local demography, educational and social status, deprivation and self-reported English Language proficiency.
- Digital access data were drawn from OFCOM 'Connected Nations' data downloads for 2021, local and unitary authority fixed and mobile coverage and performance variables as named on maps. [Connected Nations 2021: data downloads - Ofcom](#)

-  library.nhs.uk
-  @NHSKFBH
-  Health Education England NHS
-  HEE Innovation and Transformation

NHS knowledge and library services: <https://www.hlisd.org/>

Read Knowledge for Healthcare



Including an executive summary or Easy Read version

For further information about Knowledge for Healthcare please email: kfh.england@hee.nhs.uk