

Knowledge for Healthcare

Mobilising evidence; sharing knowledge; improving outcomes



**A strategic framework for
NHS Knowledge and Library Services
in England 2021-2026**

Developing people
for health and
healthcare

www.hee.nhs.uk

Foreword

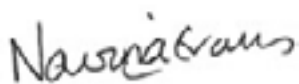
Healthcare is a knowledge industry. “It is not enough to have the right teams in the right place, collaborating to deliver high quality, efficient patient care. It is essential that they use the right knowledge and evidence at the right time.”¹

It is through education, and sharing knowledge, research evidence and best practice, that we continue to inspire and inform innovation and improvements in healthcare, patient safety and outcomes.

Information will “increasingly become the currency of healthcare in the future, and our ability to access, understand and interpret it at individual and population level will be a key determinant in the future success of our healthcare system”² NHS knowledge and library services are crucial to unlocking this value.

Much has been achieved since we published Knowledge for Healthcare in 2014. I want to thank our national library and knowledge services leadership team. They have inspired the knowledge specialist workforce and our partners, bringing them together around a shared vision. Together we have improved the quality of NHS knowledge and library services in England, extended their reach and expanded the range of digital evidence resources.

It is my pleasure to launch this strategic framework for 2021-2026, in which we outline our ambitions for the future. We invite you to work with us to deliver Knowledge for Healthcare.³



Dr Navina Evans
Chief Executive
Health Education England



“Applying knowledge into action is the currency of a successful healthcare organisation.

Taking the ‘heavy lifting’ out of getting evidence into practice to improve the quality of care, NHS Knowledge and Library Service teams offer the ‘gift of time’ to healthcare professionals.”

Dr Navina Evans
Chief Executive
Health Education England

Preface

Knowledge for Healthcare is for everyone who works in the NHS, irrespective of role, seniority and discipline; for clinicians and non-clinical staff, for educators and learners; for patients and the public.

Publication of the strategy for 2015-20 was ground breaking. Where many a strategy is long forgotten, Knowledge for Healthcare is a live force for change. With patients at its heart, it shares a compelling vision. Using the right knowledge and evidence, at the right time, in the right place, underpins the highest standards of excellence and professionalism to which the NHS aspires.

Collaboration is a guiding principle of our approach. Working with colleagues, with partner organisations and across the library, knowledge and information profession, we have made considerable progress - together inspired to harness our expertise and resources to common purpose.

We have seen more people using NHS knowledge and library services, an expansion of their reach, with more librarians embedded within clinical and other teams as knowledge brokers. There is greater demand for evidence summaries. We have doubled investment in digital resources and set up a nationwide document delivery system. We are working to promote universal health literacy underpinned by digital literacy.

We advise NHS employers on service redesign; we have invested in the professional and leadership development of the knowledge and library workforce. Our joint #AMillionDecisions campaign with CILIP, the library and information association, brings the narrative of the positive impact of our work to the fore.

Crucially, we have for the first time introduced a national clinical decision support tool for the NHS in England, and now procured a national discovery service. Knowledge and library services are key to the ecosystem through which knowledge and evidence flow as the life blood of healthcare services today, and tomorrow.

“The expertise of knowledge specialists is business-critical for the success of the NHS. We are committed to a compelling ambition to drive transformation and improvement across the healthcare system. We are transforming the infrastructure for digital knowledge resources. We are upskilling the workforce to mobilise evidence and knowledge. We are championing improved health literacy.”

Sue Lacey Bryant

Mobilising evidence, sharing knowledge, improving outcomes has never been more business critical for the NHS. I commend this strategy to you and look forward to engaging with you as we take the work forward.



Sue Lacey Bryant BA Hons, Dip Lib, MSc, FCLIP
National Lead for NHS Knowledge and Library Services
Directorate of Innovation and Transformation
Health Education England

Senior leadership team National NHS Knowledge and Library Services

I want to thank everyone who has contributed their expertise, time and experience to shape Knowledge for Healthcare 2021-2026.

Particular thanks are due to the senior leadership team. Together we will drive implementation of the strategy, engaging with partners, NHS employers and the knowledge and library services workforce.

National Lead



Sue Lacey Bryant

Heads of knowledge and library services, Health Education England



Helen Bingham



Ruth Carlyle



Louise Goswami



David Stewart MBE

Contents

Foreword	2
Preface	3
Senior leadership team	4
1. Our ambition	6
2. The next phase of Knowledge for Healthcare	14
3. Developing the strategic framework	20
4. Turning the strategy into action	21
4.1. Mobilising evidence and knowledge	22
4.2. Quality and impact	29
4.3. Health literacy and patient information	35
4.4. Quick and easy access to digital knowledge resources	39
4.5. Developing the right knowledge services workforce	45
5. Delivering on the ambition	50
Acknowledgements	52
Appendices	53
References	65



1. Our ambition

Every day more than a million decisions are made across the healthcare sector which have a profound and lasting impact on people's lives, influencing both the quality and cost of health services.⁴

Knowledge is business critical because excellent healthcare and health improvement are underpinned by informed decision-making. As the strategic lead for NHS knowledge and

library services on behalf of the system, Health Education England is committed to a compelling ambition to drive transformation and success across the healthcare system.

Our ambition

NHS bodies, their staff, learners, patients and the public use the right knowledge and evidence, at the right time, in the right place, enabling high quality decision-making, learning, research and innovation, to achieve excellent healthcare and health improvement.



Significant progress has been made since the publication of Knowledge for Healthcare, 2015-2020.³ We take this opportunity to thank everyone who contributed to these successes.

Building on the achievements through phase one, Health Education England is:

- investing in a high quality digital knowledge infrastructure to meet the requirements of staff and learners
- empowering the NHS knowledge and library services workforce with the skills and confidence to deliver the vision
- shaping forward-looking and innovative health knowledge and information services

Through phase two we will work with our partners to harness this capability to successfully transform policy, practice and health outcomes in line with the NHS Long Term Plan.⁵

The priorities are to enable all NHS staff and learners to benefit equally from high-quality knowledge services, and to optimise the expertise of knowledge service teams to inform decision-making from Board to ward, at the bedside and in community and primary care settings.

Our purpose

Evidence is critical to the quality of care, patient safety and service transformation. Staff and learners need ready access to high quality evidence and to the expertise and resources of knowledge and library services.

This strategic framework sets the direction and defines priorities for the development of NHS knowledge and library services in England 2021-2026. There is renewed focus on:

- getting the right team, resources and services in place
- mobilising evidence and knowledge
- enabling resource discovery
- assuring the quality of knowledge services improving health literacy
- developing the knowledge and library services workforce

We encourage Boards to strengthen their capability to manage knowledge and mobilise evidence, getting the right expertise, roles and resources in place to realise the business benefits of NHS knowledge and library services in our digital age.

Knowledge and Library Specialists

Take the 'heavy lifting' out of getting evidence into practice

NHS

Health Education England



"It helps the committee to provide an objective viewpoint and to take things forward for best outcomes for patients. It saves me and the committee a lot of time, when we receive clear literature advice."

Clinical Change Management Group

The Deputy Library and Knowledge Service Manager at University Hospitals of Derby and Burton NHS Foundation Trust is a member of the Clinical Change Management Group, the purpose of which is to ensure a systematic approach is taken to proposed changes of clinical practice, new service models, and extensions to scope of practice.

Pertinent evidence is made available through objective and comprehensive searches, delivered in a timely, easily digestible format leading to a reliable evidence base for the group.

M Krishna Lingam, Consultant Surgeon and Chair of CCMG, working with the library team at University Hospitals of Derby and Burton NHS Foundation Trust.



Working in partnership

Partnership working is central to sharing best practice, optimising limited resources and reducing duplication. Excellent knowledge services require strategic buy-in, collaboration and commitment to maximise investment, nationally, locally and across health systems.

We celebrate the achievements of health knowledge and library staff towards realising the vision of Knowledge for Healthcare. We welcome their ongoing engagement.

Health Education England operates as part of a broad ecosystem bringing knowledge, research and evidence to the workforce.

We initiated a Concordat with Arm's Length Bodies focused on maximising digital knowledge resources for health and care in England. Building on this Concordat, we will work together with strategic partners to develop a system-wide approach to knowledge content and standards.

Our priority is to optimise the use of evidence and knowledge for policy and practice and maximise value for money.

We invite stakeholders and partners to work with us to better deliver Knowledge for Healthcare.

Health Education England operates as part of a broad ecosystem bringing knowledge, research and evidence to the workforce.



Our responsibility

Part of the role of Health Education England is to build an NHS with people with “adaptable skills responsive to evidence and innovation to enable ‘whole person’ care”. We recognise these as crucial skills for the NHS workforce.²

A strong scientific tradition of evidence-based decisions about care is one of the organising principles which have stood the test of time for the NHS.⁵ Indeed, a duty to promote “the use in the health service of evidence obtained from research” is embodied in legislation.⁶

In reality, adopting evidence-based practice day to day “does not come easily to many. It requires us to be sceptical, to question our knowledge and beliefs, to identify the key questions, and to not be afraid to admit we don’t have all the answers.”⁷

NHS knowledge specialists put the evidence into evidence-based practice

“Evidence does not speak for itself but needs to be mobilised at the right time, and through the right people, to make a difference in decision making.”⁸

Knowledge specialists play a pivotal role in improving the quality of healthcare, increasing productivity and reducing unwarranted variation.



“By offering an ‘open door’ for anyone looking for answers, being non-judgemental, providing clinical decision support and digital resources 24 hours a day, NHS knowledge specialists put the evidence into evidence-based practice.”

Patrick Mitchell

Director of Innovation and Transformation, Health Education England

The national context

It is a huge achievement that “for all major conditions, results for patients are now measurably better than a decade ago.”⁵ Nevertheless, “for the biggest killers and disablers of our population, we still have unmet need, unexplained local variation.”⁵

The Long Term Plan is clear that local NHS organisations “will increasingly focus on population health, moving to Integrated Care Systems everywhere.”⁵ A shared focus on place, population and priorities defines this emerging landscape. It offers new opportunities for NHS knowledge services to inform changes in clinical practice.

Health Education England will facilitate engagement across the system to ensure that the workforce in Integrated Care Systems, primary and community care and mental health, as well as in acute settings, fully benefit from proactive knowledge and library services. This is crucial for new models of service, the provision of evidence-based patient information and for multi-professional training and education.

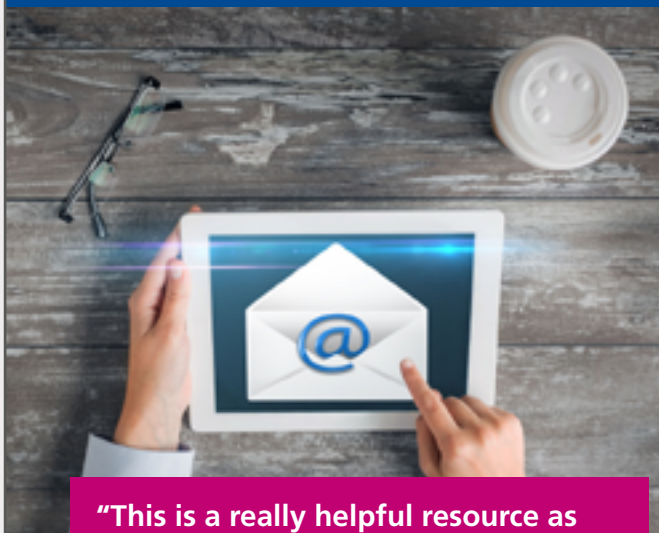
As the landscape of healthcare continues to evolve, we will scan the horizon to anticipate and lead changes in the design and delivery of high quality NHS knowledge and library services.

Knowledge and Library Specialists

Take the ‘heavy lifting’ out of getting evidence into practice



Health Education England



“This is a really helpful resource as it is often difficult to get the time to find the interesting literature to drive our thinking about new ways to tackle embedded issues.”

Evidence-informed strategic decision-making

The Senior Leadership Team at University Hospitals Bristol approached the library and knowledge service for assistance in keeping up to date with evidence.

An outreach librarian now provides regular, tailored current awareness bulletins to the Trust Senior Leadership Team on a range of strategic topics from commissioning to leadership and health & safety. The evidence drives transformational change and saves decision makers’ time.

Paula Clarke, Director for Strategy and Transformation working with Knowledge Specialists at University Hospitals Bristol NHS Foundation Trust



Preparing the healthcare workforce to embrace new opportunities

21st century healthcare requires an increasingly multidisciplinary and adaptive workforce.⁹ Central to the mission of Health Education England is that “the workforce is educated to be ... responsive to innovation and new technologies with knowledge about best practice, research and innovation.”¹⁰

The Service needs more people, “working differently by embracing new ways of working in teams, across organisations and sectors, and supported by technology.”¹¹ Digital technologies offer the promise to deliver healthcare on a far more rational, efficient and tailored basis.

Together these external drivers represent a series of changes in the environment in which health and care staff operate.

Library and knowledge specialists have a key role in empowering all NHS staff and learners, in all disciplines, specialities and settings, to respond effectively, seizing these opportunities. This calls for knowledge services, information products, tools and techniques delivered ‘just in time’ and ‘just for me’. It also calls for the creative use of library space to enable the spread of organisational innovation and to address digital poverty.

The Topol Review recommends that the NHS should increase the numbers of knowledge specialist posts.¹²

Health knowledge specialists take the ‘heavy lifting’ out of getting evidence into practice.

Building on their core knowledge management skills, Health Education England has invested in enhancing the capability and confidence of librarians to put knowledge mobilisation techniques into practice in the NHS.

We have enabled over 300 NHS knowledge specialists to strengthen their evidence summarising and synthesising skills.

Knowledge and Library Specialists

Take the ‘heavy lifting’ out of getting evidence into practice



Health Education England



“This service model has so far shown improved quality of care... patient feedback suggests they have better communication about ongoing needs.”

New model of working implementing an advanced nurse practitioner role

Knowledge specialists carried out a comprehensive evidence review to inform a service review in a community hospital.

As a result of the research evidence, the Management Team proceeded with a move from a medical model to a blended medical/nurse-led service for inpatient care.

Cheryl Haswell, Matron, working with Knowledge Specialists at Gloucestershire Health and Care NHS Foundation Trust



The vital role of NHS knowledge specialists

Knowledge specialists enable organisations, teams and individuals to use evidence and share 'know-how' with the impact of:

- Improving patient outcomes and safety; informing treatment options
- Reducing unnecessary interventions
- Shaping policy, guidelines and practice
- Underpinning education and lifelong learning
- Enabling shared decision-making
- Facilitating research and the spread of innovation

Supplying the evidence base to the NHS, the work of health librarians and knowledge specialists:

- strengthens decision-making by practitioners and teams
- strengthens the Service at strategic and policy level
- strengthens the performance of healthcare organisations



Figure 1: Strengthening the Service



By delivering expert searches, knowledge specialists save staff time and improve outcomes. To equip the healthcare workforce to deliver evidence-based practice and innovation, knowledge services:

- Search for evidence, good practice, innovation; undertake literature searches
- Prepare evidence reviews
- Respond to enquiries and requests for information
- Offer horizon scanning, evidence updates, news and alerts
- Promote and manage digital knowledge resources including those nationally funded by Health Education England
- Manage print collections; source documents
- Provide knowledge management functions
- Foster a learning organisation, overcoming silos
- Advise; offer information consultancy
- Training on skills for sharing good practice and ideas
- Develop knowledge assets based on lessons learned
- Maintain repositories and intranet resources
- Training in information skills, research, health literacy, digital skills
- Enable staff to access e-learning

“Our Library and Knowledge Service enables us to be a learning organisation, ensuring our staff are well supported to make informed decisions and continue to drive innovation.”

Rob Webster CBE

Chief Executive of South West Yorkshire Partnership NHS Foundation Trust;
Lead Chief Executive West Yorkshire and Harrogate Integrated Care System

2. The next phase of Knowledge for Healthcare

Health Education England aspires to lead the development of world-class knowledge services, enabling the system to use evidence from research to deliver excellent healthcare and health improvement.

Demand for knowledge services has grown, with a 30% increase in service users since 2014. ([Appendix 1](#)). Our achievements include the introduction of a clinical decision support tool for all staff and learners. We have extended the range of evidence resources and the reach of NHS knowledge and library services. We have prioritised the knowledge mobilisation and health literacy skills of the healthcare workforce, and the continuing development of knowledge specialists. ([Appendix 2](#)).

During phase one we have established a strong evidence base on which to found the next phase of Knowledge for Healthcare. We have demonstrated:

- the value proposition for NHS knowledge services
- the benefits of aligning health librarians with multi-professional teams
- the importance of implementing equitable funding

Using this evidence base, and taking a phased approach, Health Education England will work with partners to achieve equity of access and opportunity delivered by:

The right resources: Informed by an independent audit¹³, our ambition is to ensure that knowledge services have the right resources to offer the right services. An independent cost consequence analysis¹⁴ demonstrates the return on investment

The right team with the right roles: Services with more knowledge specialists work with more teams, releasing more time for care, having a greater impact¹⁵

The right services: Knowledge services built on the principles of equality, diversity and inclusion.



The right resources: maximising value

The health and care system has a “duty to use evidence from research in the Service”⁶

There are 184 NHS knowledge and library services with 1000 WTE staff. ([Appendix 3](#)).

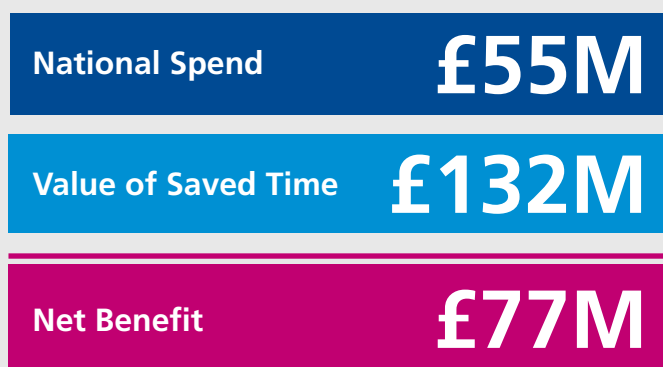
NHS knowledge specialists and health librarians use their expertise to take the ‘heavy lifting’ out of getting evidence into practice and give the ‘gift of time’ to healthcare professionals.

Thus the core value proposition is simple: “The service provides healthcare professional staff with time-saving accelerated access to better quality evidence which, in turn, enables the NHS to meet its statutory obligations to utilise evidence from research, and, as importantly, for healthcare professionals to use their time more effectively to drive improvements against the quadruple aim.”¹⁴

An independent study commissioned by Health Education England¹⁴ found that:

- There is a growing and consistent body of robust international evidence to support this value proposition.
- Recently published research from the NHS suggests similar benefits do exist for the NHS.
- Assuming findings from the international literature are applicable to the NHS, the service is potentially already generating an overall economic benefit of £132m per annum for the NHS, delivering a net economic benefit of £77m per annum.

The study did not even take into account the additional gains and impacts of knowledge services on the quality of patient outcomes and experience, operational efficiency and workforce development.



The economic value could increase to £106m per annum were target staff ratios for librarians achieved.

Figure 2: The economic benefit

The right resources: achieving equitable and sustainable funding

Health Education England is committed to achieving equitable and sustainable funding for NHS knowledge and library services irrespective of the setting in which staff are based.

NHS knowledge and library services funding is highly dependent on Health Education England education tariff funding. Currently, annual investment in NHS funded library and knowledge services in England is £55.8M, of which 55% derives from Health Education England (£22.6M from tariff plus another £8.4M).

An independent audit¹³ reported variable levels of investment by employers. Healthcare staff and learners experience significant variation in service by postcode, and by care sector.

We will work to:

- Introduce a fair formula based on workforce and trainee numbers
- Provide tariff funding for knowledge services as a discrete, dedicated funding stream
- Advocate the principle that NHS employers match education tariff funding to enable evidence-based practice and decision-making by their staff

An equitable funding model will enable delivery of the full benefits of knowledge services to inform evidence-based care and innovation for the NHS across England.

We have developed a national funding model and will seek approval from the Department of Health and Social Care for its implementation.





The right team; the right roles; the gift of time

We see growing demand for embedded knowledge broker roles responsible for searching and presenting evidence that is synthesised and summarised. Today's NHS requires proactive knowledge services with a blend of expertise encompassing:

- Posts embedded in clinical and management teams delivering decision-ready information
- Knowledge managers who mobilise both organisational knowledge and staff know-how to underpin strategy and operations

Over and above the generic value proposition for NHS knowledge services, the independent study reported on a published case study which identified a cost benefit ratio of 3:1 for an embedded knowledge specialist¹⁴. The same study found potential time savings of 3.85:1 where library services are used for evidence searching.

To enable the NHS to fully realise this value, Health Education England recommends that all NHS organisations aspire to improve staffing ratios for knowledge specialists per member of the NHS workforce.¹⁵ This can be achieved through incremental steps redesigning services and roles as well as expanding this specialist workforce. ([Appendix 4](#)).

“Library and knowledge services form the backbone of all our efforts to provide healthcare staff with the necessary tools to acquire and disseminate knowledge. The use of specialist clinical librarians, patient education librarians and appropriate technology is indispensable in a modern NHS.”

Mr. Kalidasan Varadarajan

Director of Medical Education Brighton and Sussex University Hospitals NHS Trust

The right services: positioning the service for success

The positive impact of NHS knowledge and library services on the quality of care, and their contribution to education, innovation and productivity, are illustrated by the case studies that appear throughout this strategy.

As part of the independent study commissioned by Health Education England, a rapid review was conducted of three high performing knowledge and library services hosted in trusts rated as outstanding by the Care Quality Commission.¹⁴ This demonstrated features critical to their success.

HLISD Health Library and Information Services Directory at www.hlisd.org enables healthcare staff to find their local knowledge service. It is coproduced in partnership with CILIP Health Libraries Group.

Key features of a high performing NHS library service include:

- The positioning of the Knowledge and Library Service in relation to the Clinical Practice Guidelines Committees (senior leadership role)
- A leadership role in the governance and management of knowledge resources and assets (e-platforms)
- That there is specialty/departmental alignment, preferably with embedded knowledge specialists
- That they are an integral part of Quality Improvement teams



The right services: equity of access and opportunity

Health Education England has an instrumental role in furthering diversity and inclusion in medical and clinical education and the healthcare system.¹⁶ As the system leader for NHS knowledge and library services, we have a responsibility to ensure equity of access to knowledge services and to work with stakeholders.

The healthcare workforce

- Advocate our policy to enable “all NHS workforce members to freely access library and knowledge services so that they can use the right knowledge and evidence to achieve excellent healthcare and health improvement”¹
- Contribute to building a digitally inclusive workforce by providing access to digital content and helping staff and learners develop the necessary skills

Suppliers

- Work with publishers and information providers to encourage content development that is culturally sensitive and reflects the needs of the population

The specialist workforce

- Deliver training enabling all NHS knowledge and library teams to understand and adopt the principles of equality, diversity and inclusion

Citizens

- Partner with information providers to develop the health literacy of citizens, underpinned by essential digital skills

“Libraries are, arguably, social justice institutions, committed to giving everyone the opportunity to learn, grow and develop.”

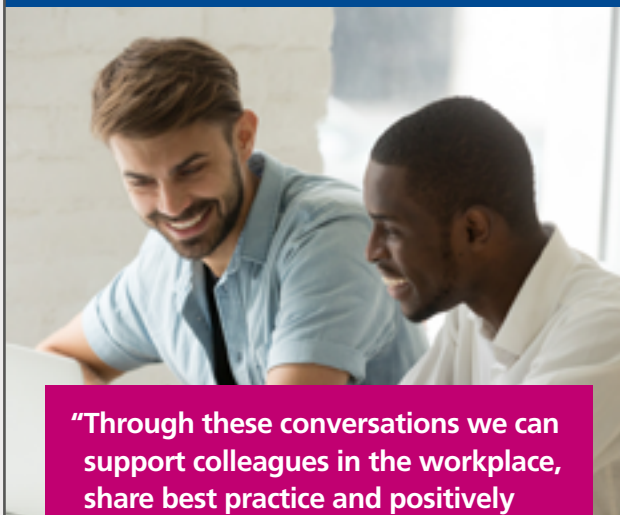
IFLA: A Social Justice Mission: Libraries, Employment and Entrepreneurship, 2019

Knowledge and Library Specialists

Take the ‘heavy lifting’ out of getting evidence into practice



Health Education England



“Through these conversations we can support colleagues in the workplace, share best practice and positively challenge prejudice or discrimination in a safe environment”

Connecting people through a Living Library

The Knowledge and Library Service Manager at Lancashire Teaching Hospitals proactively approached the Head of Diversity, Inclusion and Blended Learning to highlight opportunities to use the Living Library model in support of the Trust's Workforce Strategy.

The Living Library, which lends people (members of staff) instead of books, promotes conversation about lived experience. The event was well received by colleagues and quoted as good practice during the CQC inspection.

Mandy Davis, Head of Diversity, Inclusion, and Blended Learning, working with library and knowledge specialists at Lancashire Teaching Hospitals NHS Foundation Trust



3. Developing the strategic framework

Focused on the future, the Knowledge for Healthcare strategy 2021-2026 has been developed through an extensive process of review and engagement. Please see [Appendix 2](#) for a summary of progress to date.

We have reviewed and reaffirmed our guiding principles which are a helpful ‘touch point’ for decisions on ways of working and investment for all NHS organisations that manage knowledge and library services. They underpin the Knowledge for Healthcare strategy. The importance of achieving equity and ensuring environmental sustainability cannot be overstated. Knowledge services have a specific contribution to make to these. ([Appendix 5](#)).

We have considered the policy environment, undertaken a literature review and analysed the data returns from all NHS-funded libraries in England. We have listened to feedback from healthcare learners and NHS staff and engaged with senior stakeholders and from health library and knowledge staff. ([Appendix 6](#)).

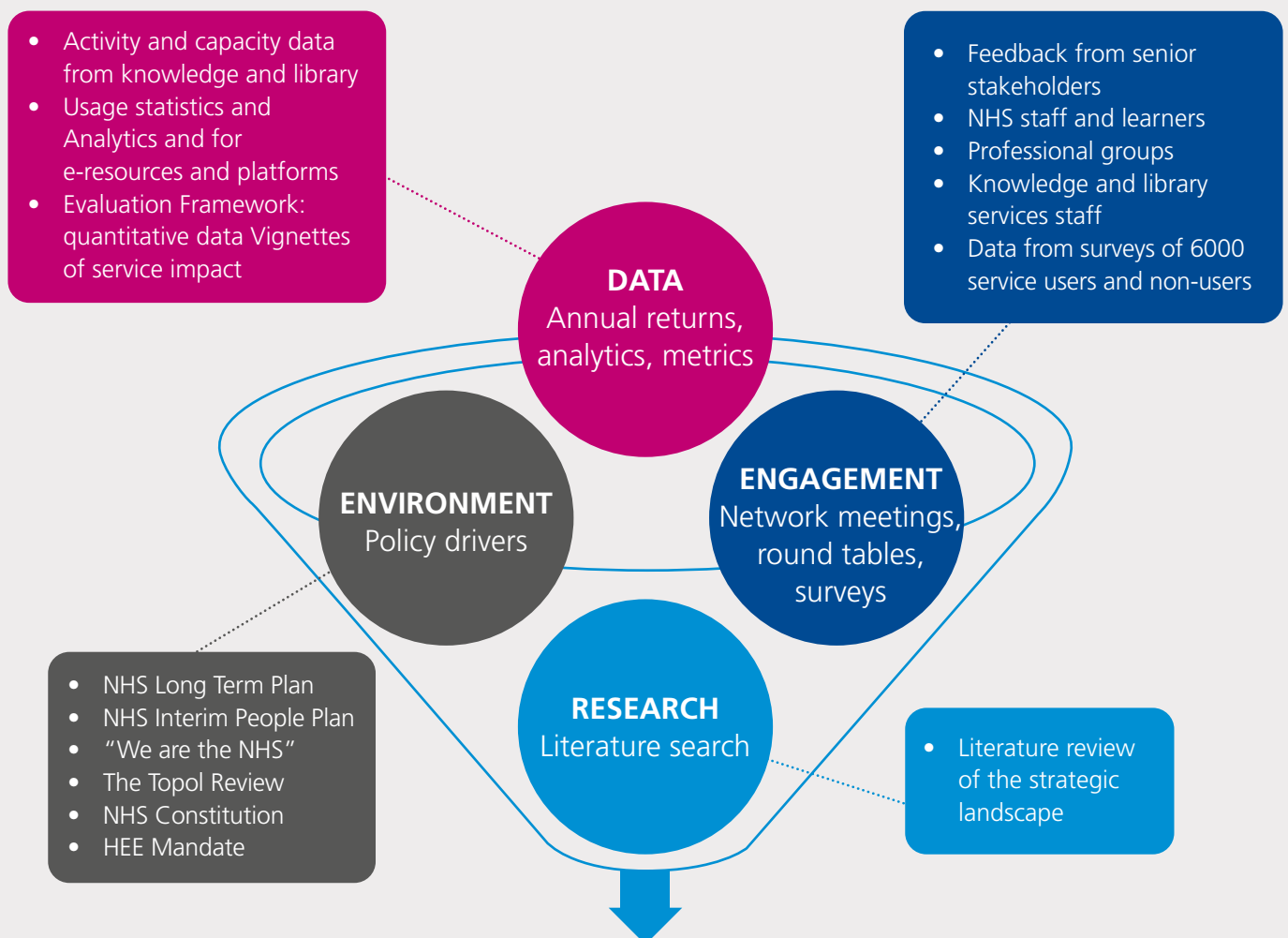


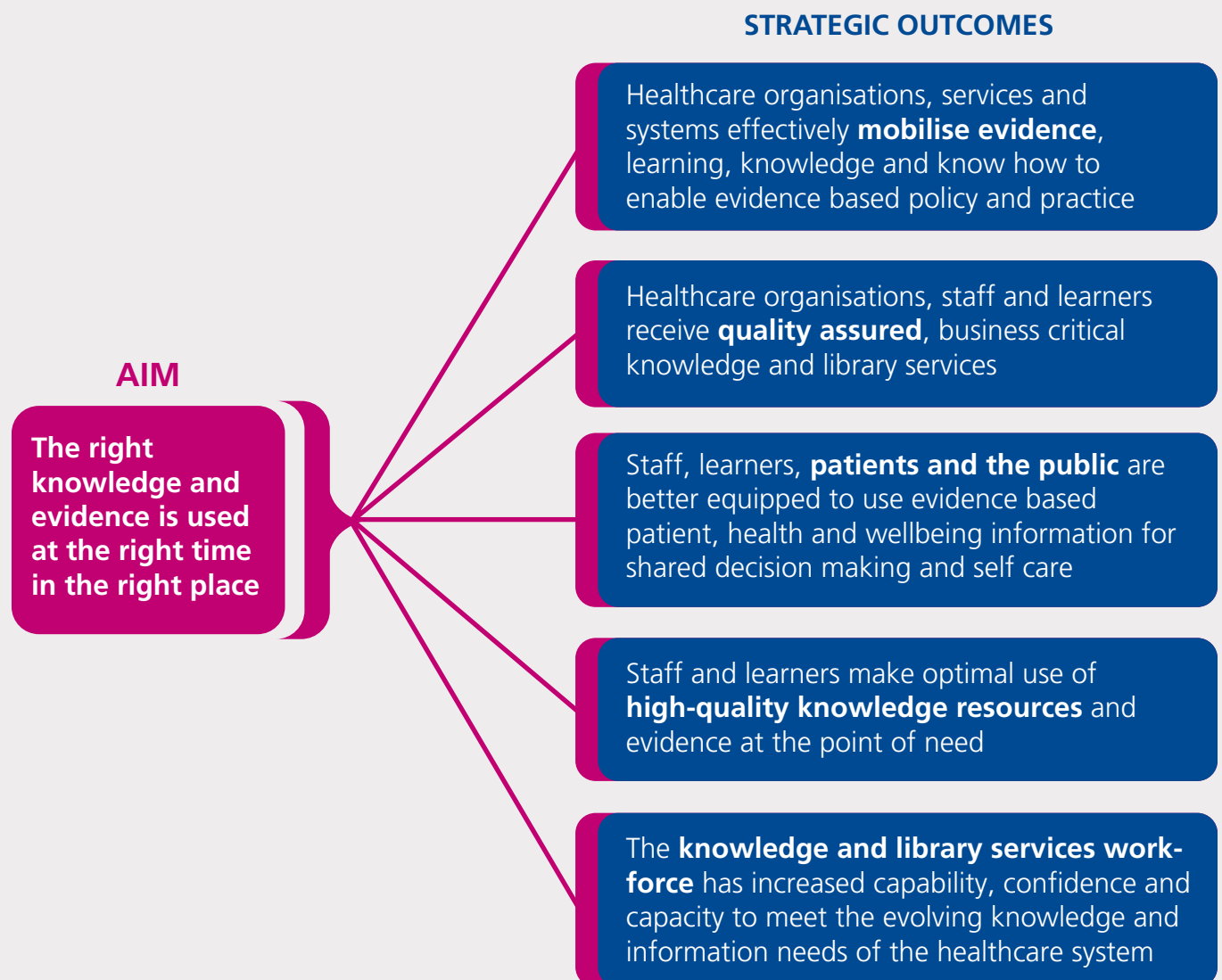
Figure 3: Evidence base to inform our approach

4. Turning the strategy into action

Bringing together all the evidence, we used driver diagrams as a quality improvement technique to shape this iteration of the strategy.

This approach allowed leads to engage with members of working groups, and stakeholders, exploring the factors to be addressed to achieve the overall ambition.

Driver diagrams act as a useful visual communication tool that map interdependencies. We identified five primary drivers of the transformation needed to deliver on our ambition.



4.1. Mobilising evidence and knowledge

“Healthcare is a knowledge industry. Decisions are not made in isolation but must take account of individual and organisational knowledge as well as the best available evidence. NHS knowledge specialists enable decision makers to take account of this full continuum. They also nurture a learning culture which is critical to transformation, efficiency and innovation within the NHS.”¹

“Enabling the workforce to access and use high-quality evidence is fundamental to the delivery of high-quality care.”¹ Therefore, it is essential that all healthcare organisations, services and systems are effective in mobilising evidence, learning, knowledge and ‘know-how’ into policy and practice.

Harnessing technological advances offers the potential for the NHS to better mobilise biomedical computable knowledge. Health Education England is an advisory partner working with Health Data Research UK on building communities to share and use knowledge, tools and insights for better care.

Increasingly, knowledge specialists are responding to the need for active knowledge brokerage. They share their expertise in all aspects of the knowledge cycle to support NHS staff to find and evaluate the information they need.

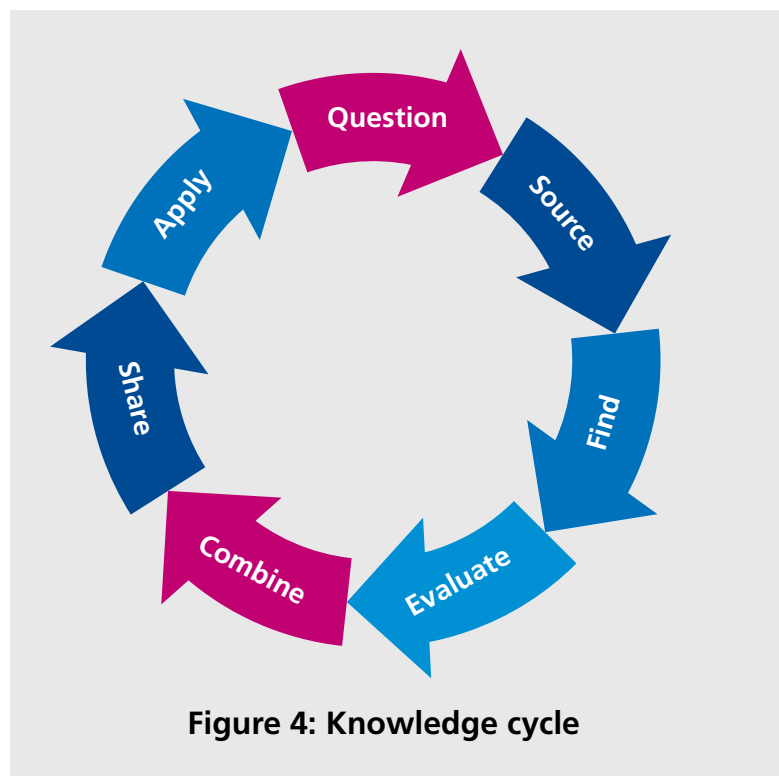
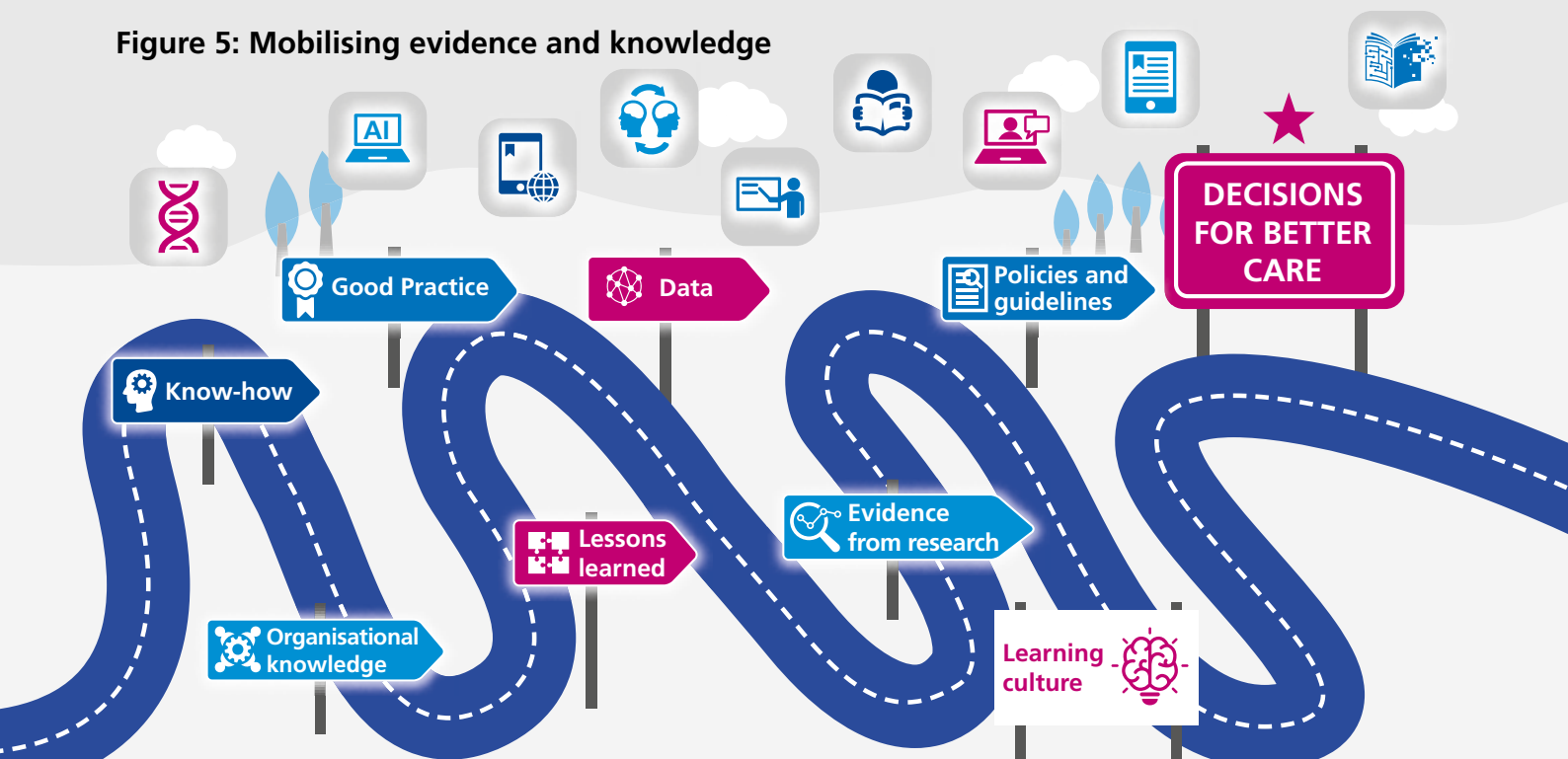


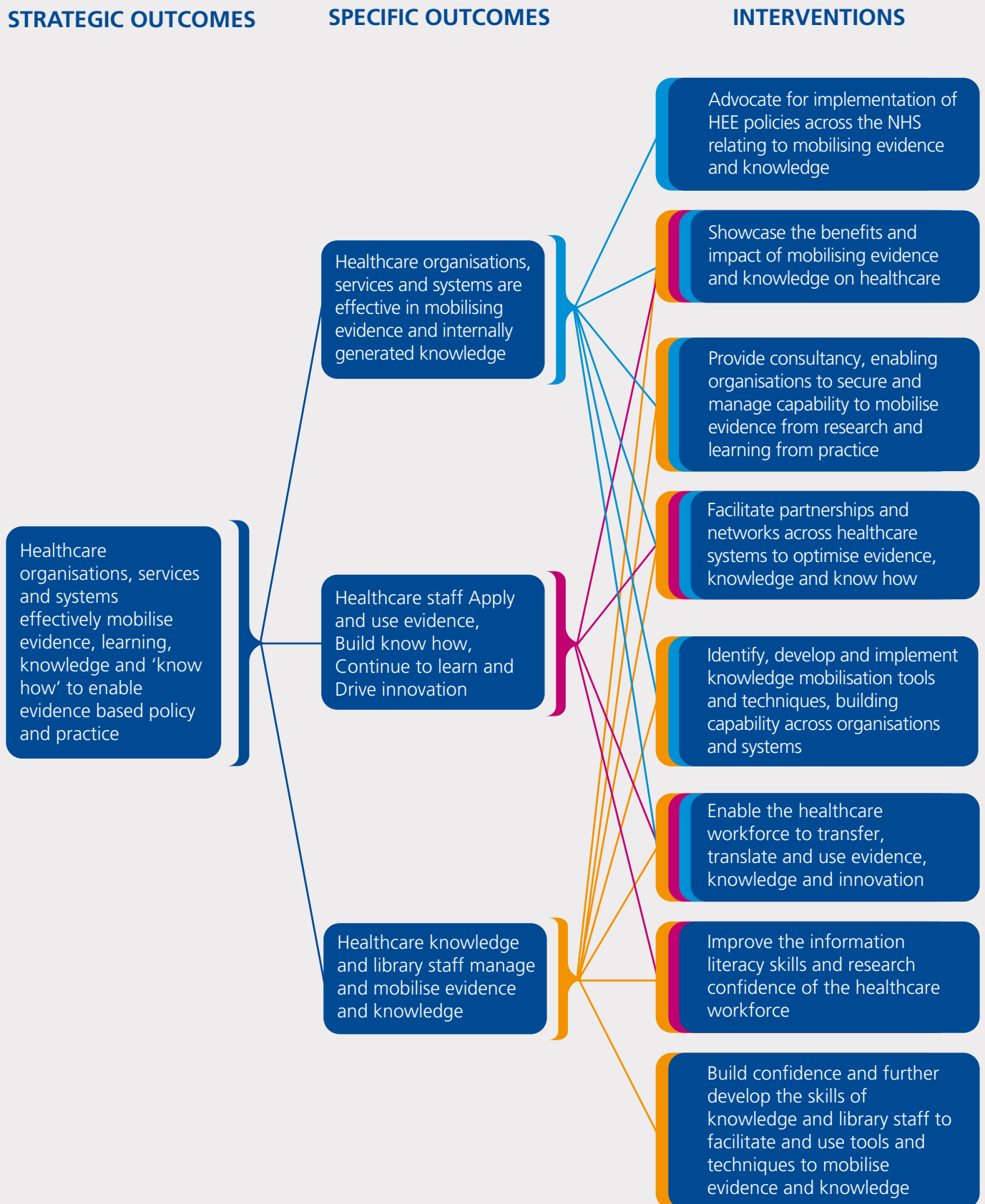
Figure 4: Knowledge cycle

Figure 5: Mobilising evidence and knowledge



Based on Lambe, A. (2018) Knowledge Management Toolkit. Leeds: NHS England and NHS Improvement

Mobilising evidence and knowledge: strategic approach



Working with health organisations

In line with Health Education England policies, we will work with organisations to assess and strengthen their capability, capacity and resource to manage knowledge and mobilise evidence.

The Health Education England team will provide professional advice and consultancy to enable organisations to secure and manage capability to mobilise evidence from research and learning from practice.

We will launch an online mobilising evidence and knowledge self-assessment tool to help organisations identify their needs and priorities for knowledge management.

To optimise evidence, knowledge and know-how it is essential to facilitate partnerships and networks within, between and across healthcare organisations and systems. Knowledge specialists will work with organisations to prioritise how they will use knowledge as an asset.¹⁷

“The library team should be our knowledge stewards in the same way as microbiology are the antibiotic stewards for the Trust.”

Dr Ben Mearns

Chief of Medicine

Surrey and Sussex Healthcare NHS Trust



Figure 6: Mobilising evidence and knowledge self-assessment tool

Embedded roles

The NHS requires proactive knowledge services as business-critical instruments of informed decision-making. These services call for a blend of expertise, encompassing:

- embedded roles in clinical and management teams providing decision-ready information
- knowledge managers who mobilise corporate knowledge and staff 'know-how' to underpin strategy and operations

Aligned to multidisciplinary teams, embedded knowledge specialists release the time of health professionals by seeking out evidence and good practice. They are often asked to synthesise and summarise information, working with clinical team members as needed to deliver information that is decision-ready.

"Culture is critical to the effectiveness of knowledge mobilisation."¹⁸ Embedded roles foster a culture of using evidence from research and best practice and of utilising corporate knowledge and staff know-how to best advantage.¹⁵

"With an embedded Quality Improvement Knowledge Specialist all of our improvement projects are now underpinned by evidence and build on best practice. This allows us to make informed, evidence-based decisions, giving our projects the very best chance of success"

Greg Cobb

Manager, Improvement Team,
Somerset NHS Foundation Trust

Knowledge and Library Specialists

Take the 'heavy lifting' out of getting evidence into practice

NHS

Health Education England



Embedded Knowledge Management Team

As part of Health Education England's knowledge and library services team an embedded knowledge management team was established with the aim of helping all staff to:

- share their knowledge and learning from experience
- share and promote innovations to further the organisation's role in system transformation
- capture and share organisational knowledge
- use and apply evidence from research and best practice

The knowledge specialists are located strategically within the organisation and are embedded in the national and regional teams. This positioning enables the specialists to proactively offer services throughout the lifecycle of a piece of work.

Emily Hopkins
Knowledge Management Lead



Enhancing skills

Our ambition is for the entire healthcare workforce to:

Apply and use evidence

Build know-how

Continue to learn

Drive innovation

Health Education England will provide engaging learning resources to help staff and learners gain confidence in [knowledge mobilisation](#).

We will promote tools and techniques, so that teams can capture, share and re-use staff know-how and organisational knowledge.¹⁹ Our aim is to encourage the transfer, translation and use of evidence, knowledge and innovation.

We will build the [information skills](#) and research confidence of healthcare workers.

“I would recommend that everyone learns this knowledge mobilisation technique. It has changed my staff meetings and significant event analyses, the non-judgmental approach supporting a no blame culture. Not bad for four simple questions I learnt in under 20 mins.”

Dr Farzana Hussain FRCGP

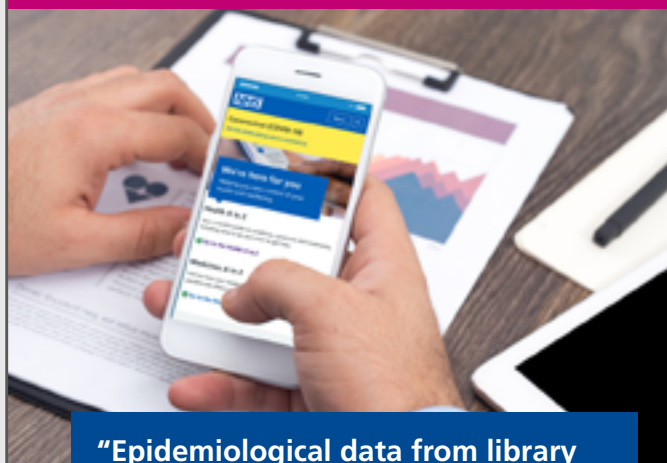
GP Principal, Clinical director for Newham Central 1 Primary Care Network, Trainer and Coach

Knowledge and Library Specialists

Take the ‘heavy lifting’ out of getting evidence into practice

NHS

Health Education England



“Epidemiological data from library resources helped me to inform my patient about the risk of recurrence of unprovoked DVT and guide my management”

Information skills training to inform patient care

When a Haematology Consultant at George Eliot Hospital needed fast mobile access to evidence they approached the library and knowledge service for assistance.

A knowledge specialist provided tailored, one to one training on finding and accessing high quality clinical evidence apps for use during patient consultations and practical searching tips.

The clinician has so far used these skills to inform his clinical practice, to explain risks to his patient and to prepare a clinical update presentation for GP colleagues.

Dr Majed Ali, Consultant in Haematology working with Knowledge Specialists at George Eliot Hospital NHS Trust



Enabling NHS research and innovation

Working alongside research teams

Knowledge specialists not only provide access to evidence from existing research but also assist researchers and the subsequent knowledge translation for the spread and adoption of innovation. They enable NHS bodies and the workforce to fulfil the statutory duty to use evidence from research.⁶

Health Education England will work with the NHS research community advocating for the expertise of health knowledge and library specialists contributing to research bids, undertaking literature reviews and working alongside research teams.

Knowledge and Library Specialists

Take the 'heavy lifting' out of getting evidence into practice



Health Education England



"The literature search supported our successful application for £2.6m in funding from NHS Digital to develop Trust systems as part of a National Digital Exemplar Programme."

Funding bid

Tasked with writing a bid to obtain Digital Exemplar Funding from NHS Digital, the Associate Director for Transformation at North Staffordshire approached information specialists at the Health Library for assistance.

A comprehensive systematic and iterative literature search was undertaken to provide the evidence base for the funding bid which was ultimately successful.

Associate Director Transformation, North Staffordshire Combined Healthcare NHS Trust working with library staff at Health Library for North Staffordshire



Bringing evidence to the fore

Health Education England will take a thought leadership role in innovation, ensuring the spread of good practice in education reform and in workforce and digital transformation. We will raise the awareness amongst healthcare staff of approaches, tools, techniques and models of spread and adoption of innovation. We will equip NHS knowledge specialists to nurture innovation across their health economy.

Knowledge and library services play key roles as enablers of innovation and quality improvement:

- Bringing evidence to the fore
- Mobilising knowledge for adoption and spread
- Translating knowledge for application to new developments

Knowledge and Library Specialists

Take the 'heavy lifting' out of getting evidence into practice



Health Education England



“Based on a cost of £25 per X-ray, the project estimated that it will result in an annual saving to the Trust of £30,000.”

Reducing unnecessary abdominal X-rays

Dr Anna Bayston, Specialist Registrar in Emergency Medicine, worked with the Clinical Librarian at Doncaster and Bassetlaw Teaching Hospitals for evidence to inform a Quality Improvement project on the appropriate use of abdominal X-Rays.

The search identified that many abdominal X-Rays are unnecessary for diagnostic purposes and expose the patient to many times the radiation levels of a chest X-Ray.

In addition to saving the registrar's time searching, the longer-term impacts are increased patient safety and reduced costs.

**Dr Anna Bayston, Specialist Registrar in Emergency Medicine working with Sarah Gardner, Clinical Librarian, Doncaster and Bassetlaw Teaching Hospitals
NHS Foundation Trust**



4.2. Quality and impact

Effective knowledge services are business-critical for high-quality healthcare. As the steward of national NHS investment in knowledge and library services, Health Education England will assure the quality of these services, driving improvement and innovation, on behalf of patients, carers, families and the tax-payer. We will:

- Implement the Quality and Improvement Outcomes Framework with a consistent, national assurance process integrated within the Health Education England Quality Framework as a requirement of the Education Contract with providers
- Amplify #AMillionDecisions - our joint advocacy initiative with CILIP, the Chartered Institute of Library and Information Professionals.
- Promote the use of our Value and Impact Toolkit to demonstrate to employers the difference that knowledge services make to patient care
- Showcase and share good practice via innovation awards
- Build the evidence base for the value and impact of knowledge and library services
- Evaluate the implementation and impact of the Knowledge for Healthcare strategy

Knowledge and Library Specialists

Take the 'heavy lifting' out of getting evidence into practice

NHS

Health Education England



“It helped the team to understand where to focus education for staff and the best way to do this. Staff also realised the importance of involving patients in the process of completing fluid balance charts.”

Improving compliance with fluid balance charts

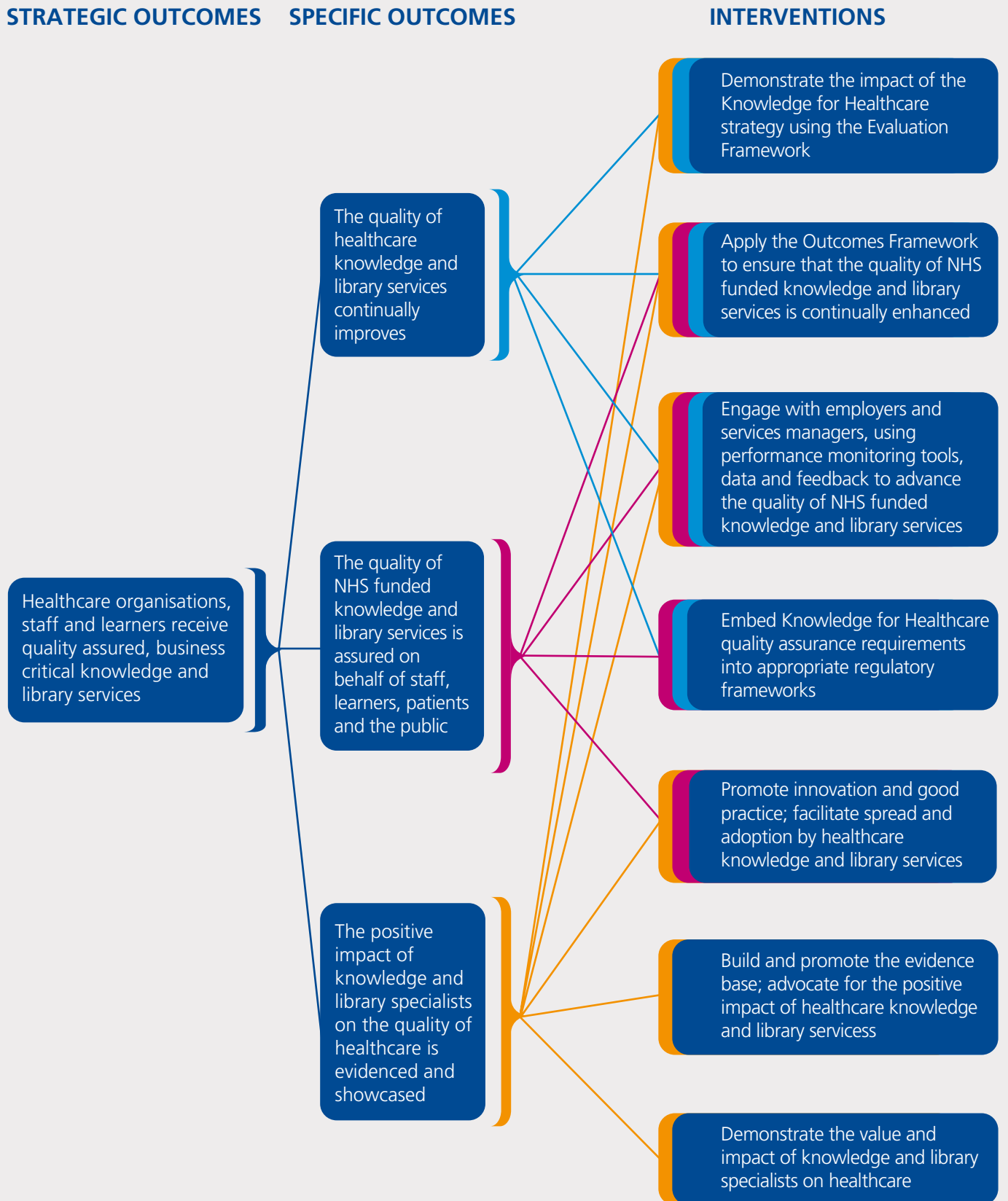
When CQC inspectors highlighted an issue with completion of fluid balance charts at North Bristol NHS Trust, the library and knowledge specialists were approached to assist.

As part of a structured improvement plan, the clinical librarian carried out a comprehensive search of the literature which has helped to inform next steps.

Anne Langford, Matron working with Knowledge Specialists at North Bristol NHS Trust



Quality and impact: strategic approach



Quality and Improvement Outcomes

The Quality and Improvement Outcomes Framework, 2019, signals a step change to help library and knowledge staff both to improve service delivery for patients and to better articulate the positive outcomes of their work.²⁰

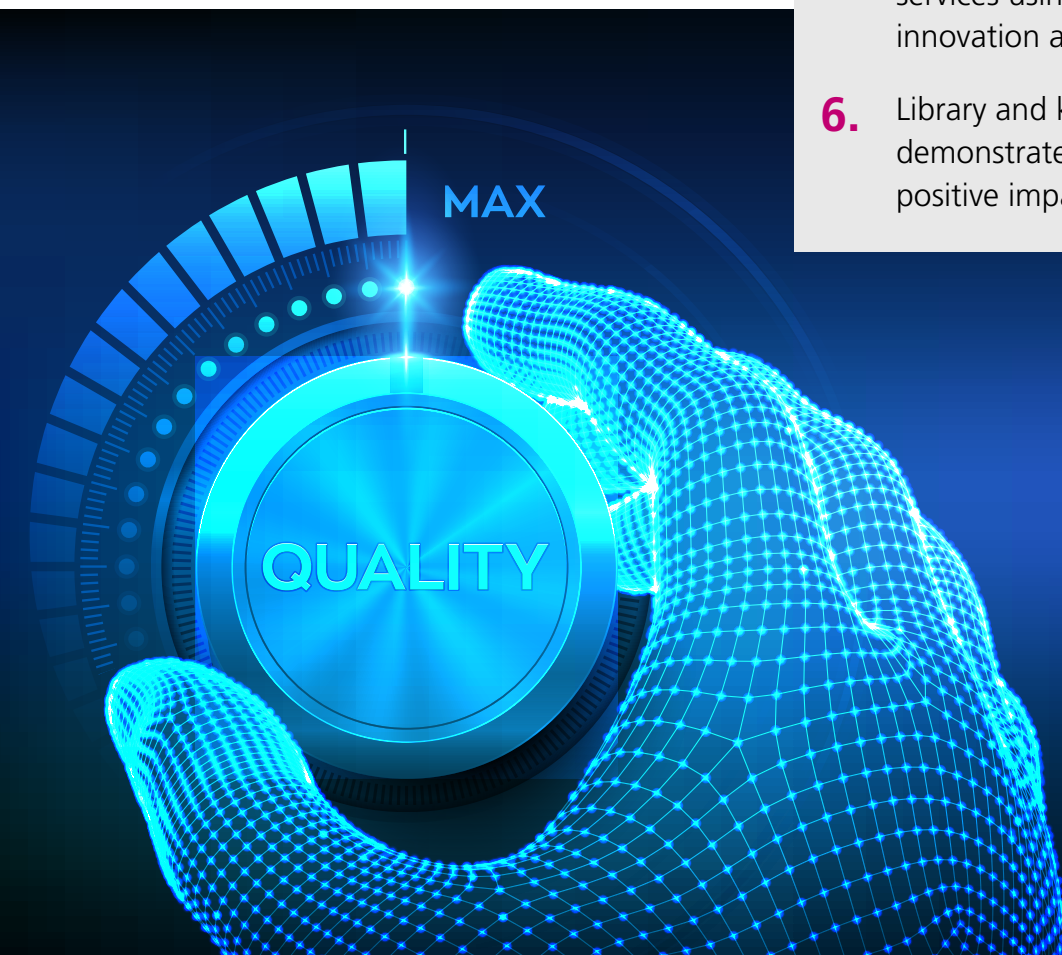
There will be a consistent, national evaluation process that is fully aligned to the Health Education England Quality Framework.

This assurance framework represents a fundamental shift in emphasis, focusing on outcomes rather than process. The approach is informed by robust research on impact and evaluation methodologies.²⁰

By implementing this framework²⁰ across all provider organisations, we will concentrate attention on quality, the delivery of service outcomes and continual service improvement.

The Framework has six outcomes:

1. All NHS organisations enable their workforce to freely access proactive library and knowledge services that meet organisational priorities within the framework of Knowledge for Healthcare.
2. All NHS decision making is underpinned by high quality evidence and knowledge mobilised by skilled library and knowledge specialists.
3. Library and knowledge specialists identify the knowledge and evidence needs of the workforce in order to deliver effective and proactive services.
4. All NHS organisations receive library and knowledge services provided by teams with the right skill mix to deliver on organisational and Knowledge for Healthcare priorities.
5. Library and knowledge specialists improve the quality of library and knowledge services using evidence from research, innovation and good practice.
6. Library and knowledge specialists demonstrate that their services make a positive impact on healthcare.



Value and impact

Impact is defined as

“The difference or change in an individual or group resulting from the contact with library services (3.25)²¹

Health Education England will work with knowledge service managers to embed use of the Value and Impact Toolkit²² to generate evidence of impact. This is a key resource for advocating the business benefits of knowledge and library services and attracting more decision-makers to make best use of the evidence base.

Evidence of impact illustrates the contribution of knowledge and library teams to improving patient care and supporting the workforce:

- Reducing risk; improving safety
- Improving quality of patient care
- Reducing costs; contributing to financial effectiveness
- Informing decisions
- Contributing to service improvement
- Facilitating collaborative working
- Enhancing personal and professional development

“It saved me a HUGE amount of time. It was also reassuring to know that a comprehensive literature search had been undertaken by someone much more skilled in this than me.”

Consultant Dietitian

Leeds Teaching Hospital NHS Trust

“Librarians have the expertise to collate, summarise and send the information to me in a usable format which makes it so much easier for me to put them into practice.”

Head of Therapies

Blackpool Teaching Hospitals NHS Foundation Trust

“Our confidence in critical appraisal gained from journal club will ultimately enable the therapy team to more effectively transfer the evidence base to our clinical practice.”

Speech and Language Therapist

Royal Free London NHS Foundation Trust

“The great learning environment provided me with a space to work that was hugely beneficial to my productivity.”

University College London Hospital

“The literature searches saved the team considerable time in preparation of the grant application. £1.4 million grant funding for the study was successfully approved.”

Clinical Trial Co-Ordinator

Royal Papworth Hospital NHS Foundation Trust



Knowledge and library service space

Health Education England recognises that physical library space is crucial element in providing a quality learning environment. It is also essential for the development, recruitment, retention and wellbeing of the workforce. This is highly valued by staff, educators, learners and researchers, offering space for reflection and private study, health and wellbeing, collaboration and as a technology hub; a place to complete e-learning and explore augmented reality.

NHS knowledge and library specialists play an important role in promoting a positive workforce culture, helping to make the NHS the best place to work.¹¹ They are ideally placed to provide the evidence-base to underpin the work of NHS Wellbeing Guardians.¹¹ The physical library provides space and resources to support the health and wellbeing of all staff.

As a matter of policy²³ Health Education England makes the following recommendations to NHS providers:

- The library service space should be developed to ensure value and meet the changing needs of healthcare staff, educators and learners
- The library study and wellbeing space should be available to all staff, educators and learners both during and outside the working hours of the knowledge and library services team

“As a Deputy Dean for Learner Support, I know that having the library as a safe space in which to reflect, learn, meet and hold conversations is vitally important. Physical library space is a crucial element in providing a quality learning environment and also in supporting the wellbeing of both trainees and trainers.”

Dr Shirley Remington

Deputy Dean for Learner Support
Health Education England

Enabling knowledge services research and innovation

Intrinsic curiosity, research, and an appetite to adopt innovation that advances provision to the communities we serve, are markers of a forward-looking service and a forward-looking profession.²⁴

Health Education England will work with academic partners, research bodies, Trusts and the library community to extend the evidence base, spread good practice and inform the strategic development on NHS knowledge services.

Our focus through the next stage of Knowledge for Healthcare will be on return on investment, models of service delivery and the impact of embedded roles. We also aim to devise reliable measures by which to assess the impact of initiatives to mobilise knowledge and improve health literacy.

We will equip knowledge and library practitioners to enhance their own research skills. Using a tailored Research Toolkit and offering training, we will enable knowledge staff to deliver an evidence-based service.

By identifying and sharing good practice with the workforce, health knowledge services enable innovation across the NHS in England. Through the #AMillionDecisions campaign in collaboration with CILIP, Health Education England will continue to raise the profile of librarians in the innovation process.

To enable the continuous improvement of knowledge services, we will raise awareness among knowledge and library services teams of models for the spread and adoption of innovation. The Sally Hernando Innovation Awards highlight innovation within knowledge and library services.

Knowledge and Library Specialists

Take the 'heavy lifting' out of getting evidence into practice



Health Education England



"Provision of evidence... changed some of the radiotherapy doses and fractionation we deliver. This means that our patients will directly benefit."

Radiotherapy Protocol Updates

Working on a multidisciplinary review of in-house radiotherapy protocols for Thoracic cancers at Taunton and Somerset NHS Foundation Trust, the Radiographers approached the Library and Knowledge Service for an evidence review.

The search identified three new guidelines which were circulated to the team and resulted in direct changes to the patient treatment protocols.

Simon Goldsworthy, Principal Research Radiographer, working with library staff at Taunton and Somerset NHS Foundation Trust



4.3. Health literacy and patient information

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

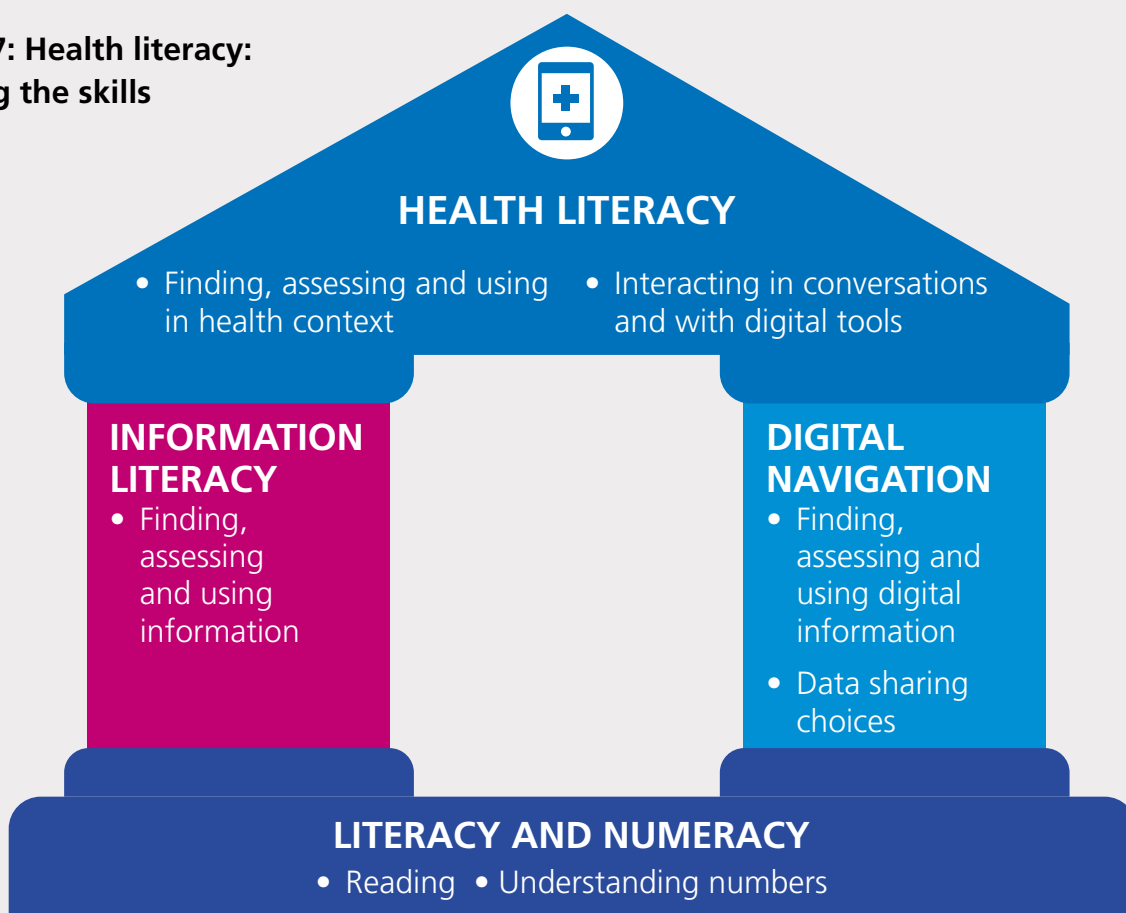
Health literacy levels in England are very low. 43% adults aged 16-65 cannot understand word-based health information sufficiently well to make health decisions. Where numbers are added in, 61% of adults are unable to understand and act on the information.²⁵ Health literacy is underpinned by information literacy and digital navigation skills. These skills are essential for interaction with increasingly digital health and care services. Knowledge service teams make an important contribution in improving health literacy.

NHS organisations have a legal duty to provide patient information in “alternative formats” under the Accessible Information Standard²⁶. Knowledge staff have embraced additional responsibilities in enabling Trusts to create and use high-quality patient, health and wellbeing information for citizens.

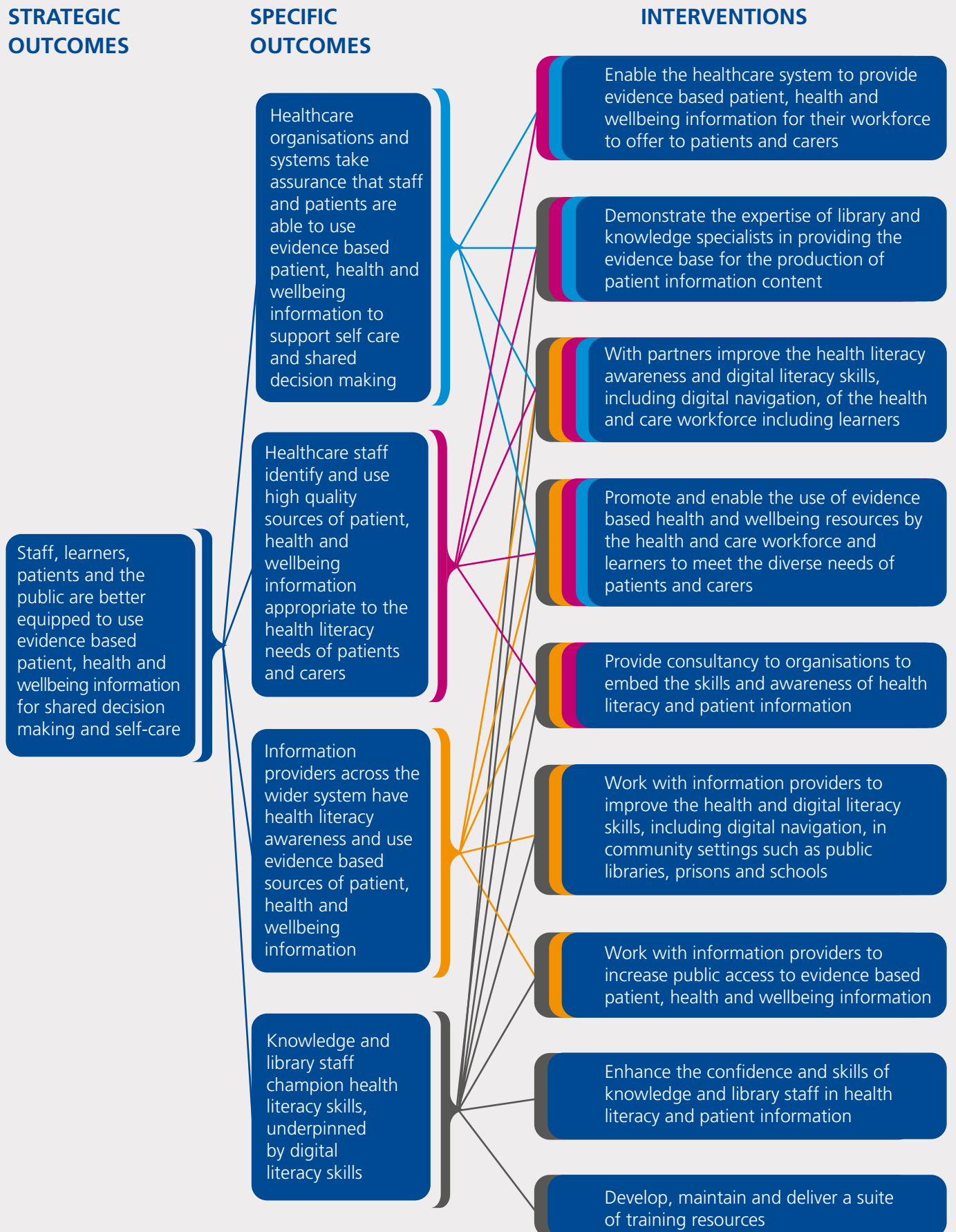
The proportion of services engaged with patient information activity increased from 27% in 2014 to 78% in 2018²⁷. There are resource implications for this work. The Topol Review was explicit that as more healthcare services and information are provided digitally there must be a focus on vulnerable and marginalised groups to ensure equitable access to health services.¹²

Our ambition is to assist the health and care workforce, and information providers in the community, to enhance their communication skills and use appropriate techniques and resources to address the health literacy challenge. Working with highly-experienced partners in this field, Health Education England will lead a cross-sectoral partnership, to build health literacy skills within the community. This work will be informed by local priorities using geodata commissioned by Health Education England.²⁸

Figure 7: Health literacy: building the skills



Health literacy and patient information: strategic approach



Health information for NHS staff and patients

Health Education England will provide knowledge and library teams with further training and techniques to:

- Increase health literacy awareness in the wider system
- Champion the skills needed for health literacy, underpinned by digital literacy
- Enable healthcare staff to apply information skills that support shared decision-making
- Equip healthcare organisations to select or develop accessible, evidence-based patient, health and wellbeing information
- Health Education England will work with partners and knowledge service teams to identify appropriate standards and evaluation criteria.

NHS knowledge and library services play an increasingly active role in supporting NHS staff wellbeing. Health Education England will work with the Reading Agency to produce a new Reading Well list for NHS staff wellbeing.

“The expertise of knowledge and library staff supports the development of health literacy for patients, ensuring medical information is both understandable and patient-centred, allowing patients to make informed decisions about their care and thereby ensuring equality of access to healthcare.”

Professor Liz Hughes MBE

Deputy Medical Director,
Health Education England

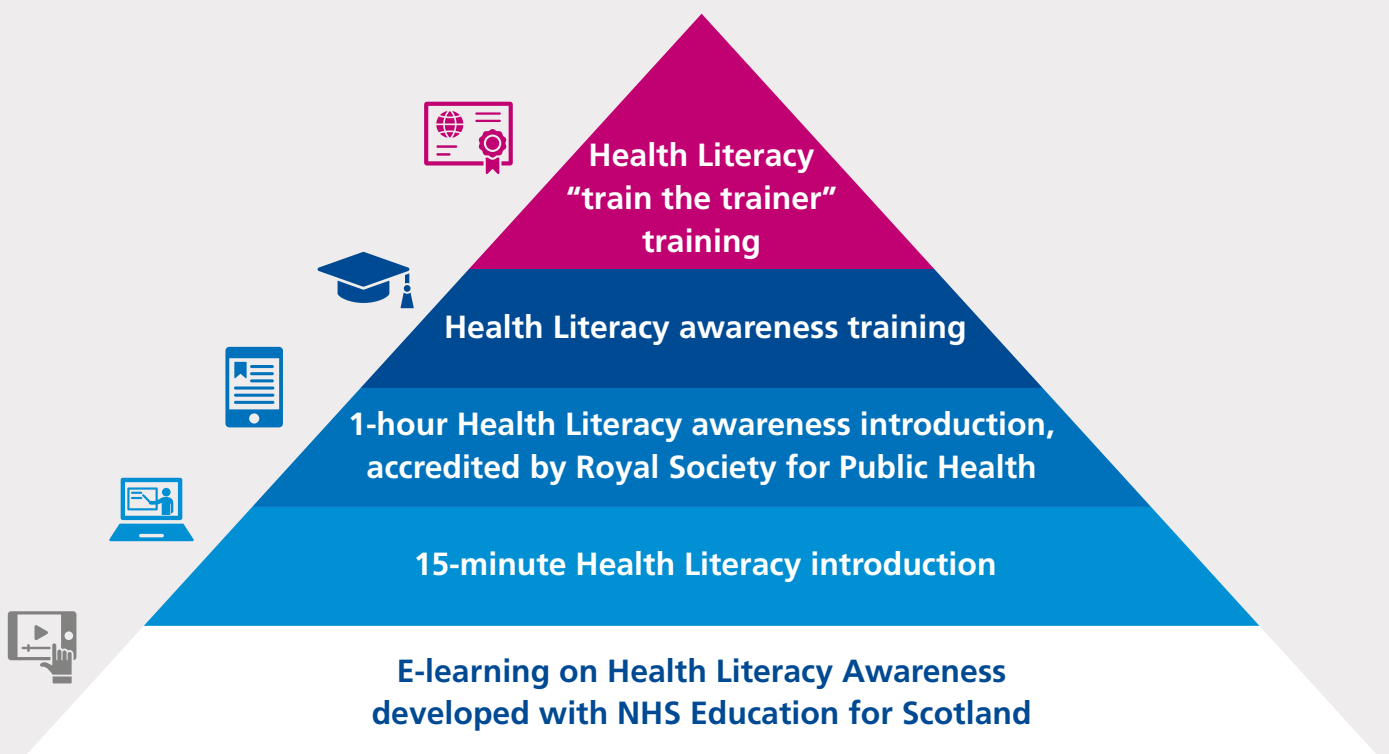


Figure 8: Suite of health literacy training tools

Empowering health literate citizens

The community setting is the ideal place to develop the health literacy skills of the public. In our digital age, these skills must be underpinned by digital navigation. Information providers in the community include public libraries, college and education libraries, pharmacies, third sector organisations and prison libraries.

Health Education England will collaborate with CILIP, working with partners to establish a sustainable, common information environment through which skilled librarians and information providers support and empower health literate citizens.

Local NHS knowledge and library services staff will share their knowledge and skills with information providers in community. By building on existing activity, and working in partnership with expert information providers, we aim to empower citizens to be more confident to look for health information in libraries and online and to engage with health and care services.

“Libraries Connected and public libraries are excited about the potential of working with librarians and knowledge specialists in the NHS and other sectors to build on information literacy and improve health literacy in the general population.”

Sue Ball MBE

Staffordshire Libraries and Health Offer Lead, Libraries Connected

Knowledge and Library Specialists

Take the ‘heavy lifting’ out of getting evidence into practice



Health Education England



“Took away quite a lot from Health Session about finding reputable websites”

Health Literacy training for public library staff

Patricia Garret, Health and Wellbeing Officer at Portsmouth City Council, worked with Library and Knowledge Specialists at Portsmouth NHS Trust to design and deliver a training session for the dissemination of health literacy resource training to public library staff.

As a result of this training, most of Portsmouth Library Services frontline staff are now equipped to support customers when looking for up to date, good quality health information.

Delegate from Health Literacy training delivered by Portsmouth NHS Trust



4.4. Quick and easy access to digital knowledge resources

To achieve excellent patient care and health improvement staff and learners require seamless access to high-quality digital knowledge resources.

We have taken strides over the past six years to enhance staff and learner access to digital knowledge resources and streamline delivery systems and processes.

The healthcare workforce has benefited from Health Education England's investment in clinical decision-support, e-books and journals, and from progress in establishing a strong national infrastructure and consolidating resource.

There is more to do to improve equity of access, enhance user experience, simplify the discovery infrastructure, and reduce duplication of effort and expenditure. To achieve this we will work with partners – locally, at system level and nationally through the Concordat. We will work with Arm's Length Bodies to develop a system-wide knowledge management strategy to deliver the evidence that is so critical to high quality care and achieves value for money for patients and taxpayers.

Our priorities are to increase nationally-coordinated procurement and management of digital knowledge resources, introduce a new national discovery service, move to regional library management systems, and champion Open Access publishing.

We will ensure that investment in digital knowledge resources and infrastructure is informed by a sound understanding of the needs and preferences of healthcare staff and by robust usage data.

Our resource discovery work is a significant change programme which demonstrates Health Education England's commitment to funding and supporting the infrastructure which enables the discovery and management of knowledge resources and the day-to-day operation of NHS knowledge and library services.

We will also gather evidence to demonstrate how use of evidence resources impacts on patient safety, the quality of care and outcomes.

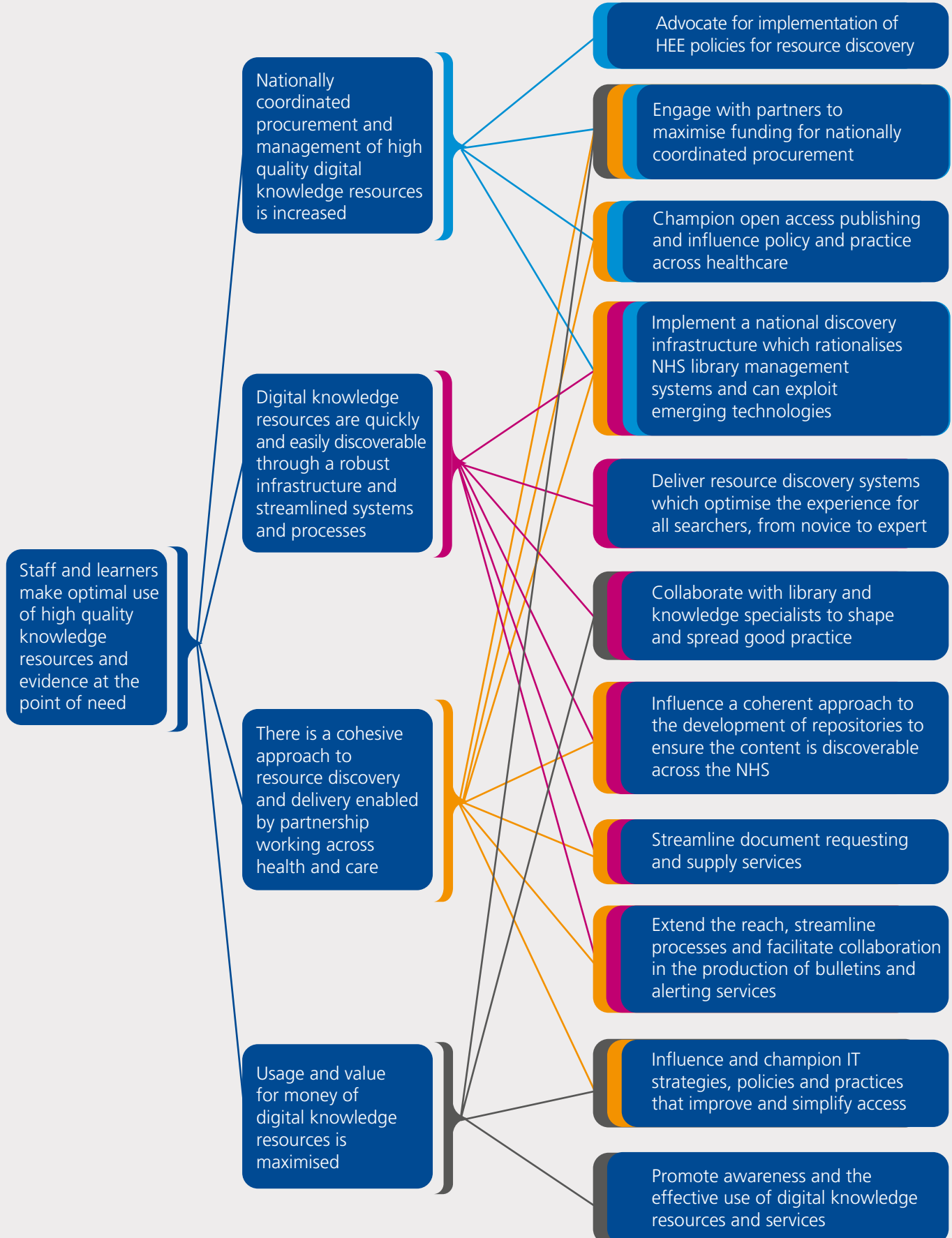


Resource discovery: strategic approach

STRATEGIC OUTCOMES

SPECIFIC OUTCOMES

INTERVENTIONS



Extending central and collaborative procurement

Health Education England funds a national collection of digital knowledge resources, working in partnership with the National Institute of Health and Care Excellence (NICE) to make this freely available to the whole health and care workforce. The collection includes bibliographic databases, journals and textbooks and a clinical decision support tool, BMJ Best Practice.

We will work with partners to encourage healthcare providers to embed this into clinical workflows. Use of decision support is identified in the Long Term Plan as a practical priority “to help clinicians in applying best practice, eliminate unwarranted variation across the whole pathway of care.”⁵

Currently, 75% of NHS investment in digital knowledge resources takes place at local trust level, primarily using money distributed through education tariff. This limits the opportunity to improve value for money via national negotiation with publishers, results in inappropriate variation of access to resources and perpetuates inequity.

The NHS will benefit by an accelerated transition to more centralised procurement via greater pooling of funds.

To make progress, Health Education England will continue the work we have initiated with suppliers to facilitate more nationally-coordinated, collaborative procurement with pricing based on workforce numbers and usage.

“I use BMJ Best Practice summaries every day I work. It is a quick, up to date, well referenced guide - perfect for GPs. I would struggle without access as I really feel it improves my clinical knowledge and benefits patients”.

Dr Charlotte Reynolds
GP, Leeds

BMJ Best Practice

Make confident clinical decisions any time, day or night.

Funded by Health Education England, free to all NHS staff and learners

bmj.com/hee

NHS
Health Education England



Optimising searching for all

Developing a national discovery service

Health Education England will implement a national discovery service to “provide NHS staff with a single, coherent national gateway to their trusted library and knowledge service, connecting them seamlessly to quality resources, services and support tailored to their needs”.²⁹

This new service will transform staff and learners’ experience of searching for information. It will be part of an ‘ecosystem’ delivering new routes to NHS-funded and curated content. It will:

- Surface local knowledge repositories, as well as subscription content
- Interface with other popular search tools
- Integrate with regional library systems

Crucially, users of the discovery service will be able to connect with local knowledge and library teams for more help including to request expert searches and evidence summaries.

Supporting the work of expert searchers

Expert searchers provide a unique and valuable service as mediators between health professionals who need evidence and multiple sources of complex information. Most expert searching in the NHS is carried out by knowledge specialists, including clinical, outreach and embedded librarians and library services staff, by medicines information specialists and researchers.

Health Education England aspires to developing world-leading knowledge services for the NHS. We will support the role of expert searchers showcasing the impact of their work and implementing technologies to assist with the end-to-end expert search process.



Streamlining processes and exploiting new technology

Simplifying sign-on to digital knowledge resources

Staff and learners tell us that managing multiple logins is frustrating and a significant barrier to using knowledge resources. Health Education England will work with partners and suppliers to enable increasingly seamless access.

Streamlining library management systems

Library management systems enable the day-to-day operation of knowledge and library services. In 2019 there were over 90 of these systems in the NHS in England. Health Education England will manage a phased transition to less than ten regionally-shared systems, searchable via the new National Discovery Service.

Enabling efficient document delivery

Health Education England will work with library staff and system suppliers to ensure NHS staff and learners can obtain journal articles and book extracts quickly and effectively.

Exploiting new technologies

Access to digital knowledge resources is dependent on technology. Health Education England will make judicious use of new technologies to develop the infrastructure which allows access to digital knowledge resources and to streamline library and knowledge functions.

“I was able to use the evidence to inform clinical decision making and to enable shared decision-making concerning treatment.”

CBT Therapist
Oxford Health NHS Foundation Trust



Optimising access to evidence

Keeping up-to-date

“Safety is dependent on us all staying current and evidence based... Keeping current with new developments can only ensure that we are able to maintain the quality of care we give.”

Matron

Royal United Hospitals Bath NHS Foundation Trust

With more than three million scientific papers published each year,³⁰ it is not surprising that clinicians and managers may feel overwhelmed by information and struggle to find the most current, reliable and significant. Hence the importance and popularity of targeted current awareness bulletins, social media posts and tailored alerting services produced and shared by knowledge and library staff.

To extend the reach and impact of these popular services and improve the productivity of knowledge services, we will:

- Provide a single interface for healthcare staff to access good quality, topic-specific bulletins
- Promote the use of personalised alerting services
- Support collaborative working and quality assurance

Health Education England’s own knowledge service will expand the coverage and extend the reach of evidence bulletins on education and workforce development.

Championing Open Access

“Open Access maximises the academic, societal and economic impact of research, and enhances the integrity and rigour of research through greater openness and transparency.”³¹

The NHS workforce and the public reasonably expect to be able to access publicly-funded research. Working with stakeholders, Health Education England will champion the principle that research outputs funded by the NHS freely and immediately available to all.

We will lead the implementation of Open Access policies and negotiate agreements with publishers to ensure that public funds are used effectively.



4.5. Developing the right knowledge services workforce

The expertise of health knowledge and library services staff is central to delivering this strategy.

Developing the right skills and experience will be critical. For this effective national, regional and local leadership, planning and development of the specialist health knowledge and library workforce are essential.

Focused on the changing landscape and priorities of the NHS, we anticipate knowledge services working across larger footprints. This will call for flexible models of service delivery with multi-skilled knowledge specialists, confident to work with senior stakeholders. This will be a focus in our work to develop both the current and the future workforce.

The right roles in the right numbers

A capable and confident knowledge and library services workforce is needed in the right roles, with the right numbers to deliver knowledge and evidence to the Board, at the bedside and in community and primary care.

Providing expert professional advice to employers, Health Education England's Knowledge and Library Services Leads will advocate for the policy recommendation to improve the staff ratio for qualified librarians and knowledge specialists per NHS staff.

"Library and knowledge services with better staff ratios are more able to work proactively with a wider range of healthcare teams to enable evidence-based decision-making, impacting on treatments options and the quality of patient care as well as impacting on productivity gains and cost improvement and the spread of innovation."¹⁵

We recommend growing the number of knowledge professionals embedded within NHS teams to a minimum of 1 qualified librarian to every 1,250 NHS staff.

The application of advanced technologies will change the roles and functions of knowledge staff and offer them exciting opportunities to innovate and extend their roles.

Where we are now



1.3 million
NHS staff are served by

184 NHS Knowledge
and Library Services



One qualified knowledge
and library specialist per
1,730 WTE NHS staff



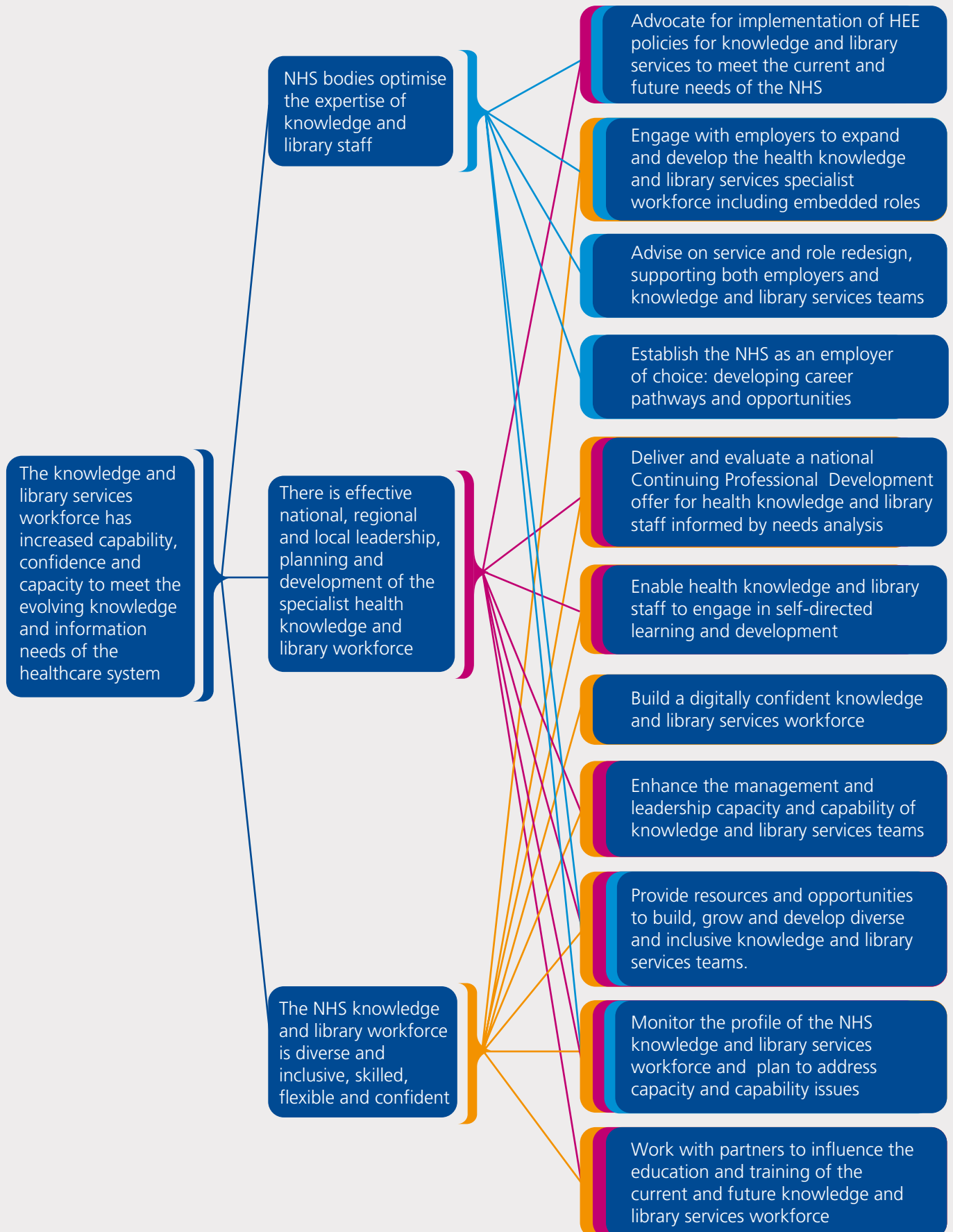
59% of NHS Knowledge
and Library Services staff
hold one or more degrees in
information science, library
and information management
or knowledge management

Workforce planning and development: strategic approach

STRATEGIC OUTCOMES

SPECIFIC OUTCOMES

INTERVENTIONS



Developing the talent pipeline



“The information professional dimension of Knowledge for Healthcare cannot be over-stated. In the highly specialised and regulated environment of healthcare, it is this connection back to professionalism that enables librarians and knowledge specialists to deliver meaningful impact.”

Nick Poole

Chief Executive Officer, CILIP

Professional registration offers assurance to NHS employers and enables employees to demonstrate their skills and experience.

To assist the NHS to meet its organisational knowledge management needs, we promote the professional qualification of Chartered Knowledge Manager, alongside that of Chartered Librarian. Health Education England encourages all library staff to gain professional registration via CILIP.

We encourage practitioners and employers to use the CILIP Professional Knowledge and Skills Base for service design and individual professional development. This tool describes the core and specialist competences for knowledge services staff.³²

Health Education England will explore the opportunity to launch a Learning Academy as an employer-led centre of excellence for all health knowledge and library staff.

The Academy will:

- work to secure a sound talent management pipeline
- address workforce skills shortages and gaps
- support role extension, expansion and enrichment
- offer accredited knowledge, skills and qualifications
- encompass leadership development, digital skills and continuing professional development opportunities
- explore a new apprenticeship at level 7
- improve careers information

Developing the specialist workforce

Given that this is a highly specialised but small workforce within the NHS, the national Knowledge and Library Services Team within Health Education England coordinates a tailored training offer on behalf of the system. This programme is informed by strategic priorities coupled with the findings of a biennial survey of development needs. It is also responsive to 'hot topics' identified by Trust staff and through horizon-scanning.

Participants benefit from a mix of learning opportunities including virtual and blended learning. Service improvement projects, skills-sharing, networking, shadowing and mentoring are all as relevant as onsite tailored training and externally facilitated events.

Health Education England will support self-directed personal and professional development via the online Learning Zone for qualified and paraprofessional knowledge staff. We will provide leadership development opportunities, equipping knowledge specialists to become the leaders of tomorrow.

"The most valuable thing overall was the confidence that I gained in acknowledging that I occupy a leadership role. I learnt that you have a responsibility as a leader; it's not always just about senior people. The learning contributed to my new role, I felt that I was able to lead with more confidence and a greater degree of self-awareness."

Victoria Treadway

Knowledge Manager

NHS England and NHS Improvement



LEADERSHIP

Working effectively in a digital environment

The NHS is hungry for solutions that bring evidence from research, data and information from a myriad of sources together as actionable intelligence. Machine learning, Artificial Intelligence and robotics are reshaping the ways teams create, discover, use and share information.

We expect the emergence of new roles and responsibilities for knowledge and library service staff working alongside clinical teams and health informaticians. We anticipate the use of new learning approaches including immersive technologies.

Learners and NHS colleagues trust library personnel to help them gain digital navigation skills and to integrate new technologies into their working lives in ways that are informed, safe and productive. We see fresh opportunities here for paraprofessional staff to develop new roles and skills.

Increasingly, knowledge services teams are sharing their health literacy skills, underpinned by digital navigation skills, across sectors.

Meanwhile, in response to the Topol Review¹², CILIP is leading an enquiry into the impact of new technologies on library and information roles and ways of working.³³ Building on the findings, Health Education England will develop education and training to meet the needs of the current and future knowledge services workforce.

I'm Iris. I'm 6.0 and I'm one of the first AI applications used within NHS Libraries.³⁴



"Hi Everyone,

I'm Iris and I've recently joined the Evidence Service in Mersey Care. I'm training to become a fully-fledged researcher, doing literature based discovery.

This is my first time working in healthcare so everything is new to me. I'm learning so much with Helen and Erica. I'm already helping them find papers for the amazing evidence reviews they do on behalf of colleagues instigating a clinical or corporate change.

In time I aim to be able to unify all our individual resources into a graphical representation alongside the true meaning of each document: a conclusion, a hypothesis and/or a logical statement. Then I'll be able to help the team discover gaps in the knowledge base and work with our research colleagues to fill them."

5. Delivering on the ambition

Knowledge for Healthcare is a strategic framework for the system transformation needed to ensure that NHS bodies, staff, learners, patients and the public benefit from using the right knowledge and evidence at the right time, in the right place.

Service transformation on this scale requires a series of initiatives enabled by national leadership and partnership working together with locally led service innovations, reimagining the design of knowledge services and extending their reach.

What differences will we see?

Health Education England has developed an Evaluation Framework through which to measure our performance through Phase 2 of Knowledge for Healthcare. It provides a coherent approach to measuring the impact of Knowledge for Healthcare. This evidence-based Framework is modelled on the Impact Planning Assessment³⁵ used internationally with the Global Libraries Programme of the Bill and Melinda Gates Foundation.

Aligned with the drivers and principles we have identified, the Evaluation Framework defines six impact objectives, each offering a clear statement of difference that will be made as Knowledge for Healthcare is successfully implemented.

Six impact objectives:

1. Healthcare organisations mobilise evidence and internally generated knowledge to enable evidence-based policy and practice
2. The healthcare workforce and learners receive high quality knowledge and library services
3. Staff, learners, patients and the public are equipped to use evidence-based patient, health and wellbeing information for shared decision making and self-care
4. NHS-funded knowledge and library services are equitable, efficient and productive
5. The knowledge and library services workforce has the capability, confidence and capacity to meet the evolving knowledge and information needs of the healthcare system
6. Partnership working is the norm in delivering knowledge to the healthcare system

Our invitation to you

Health Education England is committed to working with stakeholders and partner organisations. We will generate opportunities to look for synergies and develop joint initiatives as we shape the NHS knowledge and library services of the future.

We invite stakeholders and partners to work with us to extend and enhance Knowledge for Healthcare.

We encourage Boards to:

- strengthen their capability to manage knowledge and mobilise evidence
- put the right expertise, roles and resources in place to realise the business benefits of NHS knowledge and library services in our digital age.

We welcome the continuing engagement of health knowledge and library teams without whose drive and commitment none of this can be achieved.



You are warmly invited to contact the Knowledge and Library Services leads to discuss how to get involved: kfh.england@hee.nhs.uk



Acknowledgements

The development of this strategy was led by Sue Lacey Bryant, national lead for NHS Library and Knowledge Services, Health Education England.

Particular thanks are due to the following members of the team: Helen Bingham, Ruth Carlyle, Alison Day, Clare Edwards, Dominic Gilroy, Louise Goswami, Emily Hopkins, Lucy Reid, Sue Robertson, David Stewart and all members of the national NHS Library and Knowledge Services Team at Health Education England.

Sincere thanks are also extended to the many individuals who have helped to shape the strategy and taken a role in preparing this document, including as critical friends, through the provision of case studies, by participation in network meetings, interviews, focus groups and surveys, and in the design and communications process.



Patrick Mitchell

Director of Innovation and Transformation
Health Education England.



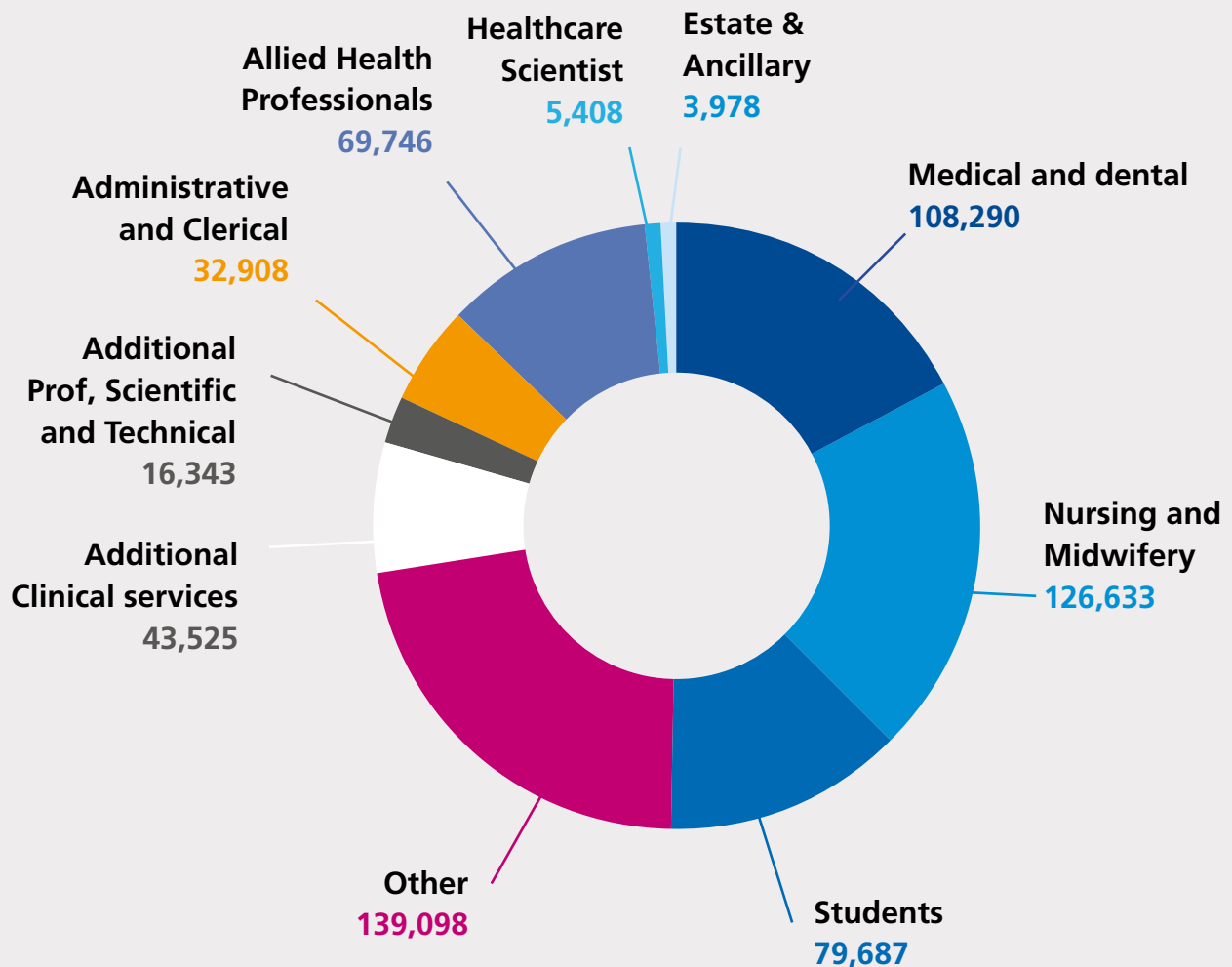
Appendices



Appendix 1. Who uses NHS knowledge and library services?

We saw a 30% increase in the number of registered users of NHS knowledge and library services between 2014 and 2019, increasing to 622,616 compared with 480,000.

Figure 9: Users of NHS-funded knowledge and library services



Source: NHS Knowledge and Library Services statistics 2018/19

Appendix 2. Progress to date

We are delighted to report that NHS staff and learners have benefited from significant progress in each the workstreams originally defined in Knowledge for Healthcare, 2015-2020.³

Progress to date

Delivering proactive knowledge services



Health Education England

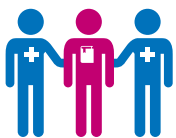
We are delighted to report that NHS staff and learners have benefited from significant progress in each of the workstreams originally defined in Knowledge for Healthcare, 2015-2020.



More people registered to use NHS library services



Extended the reach of knowledge services



More librarians embedded within clinical teams



More demand for evidence summaries



Greater use of tailored bulletins and alerting services



Created a knowledge and evidence self-assessment tool for NHS organisations



Expanded a suite of techniques to help staff share learning



Raised awareness of health literacy and patient information



Increased the proportion of NHS library services working in patient information



Progress to date Extending quick, easy access to evidence

NHS
Health Education England

We are delighted to report that NHS staff and learners have benefited from significant progress in each of the workstreams originally defined in Knowledge for Healthcare, 2015-2020.



Doubled Health Education England investment in digital resources for the NHS



Purchased a national clinical decision support tool for staff and learners



Developed online information skills training



Set up a nationwide document supply network



Copyright Licence Plus for the NHS in England, enabling enhanced sharing of copies



Extensive user discovery research



Proactive engagement with publishers and suppliers delivering value for money



Increased library specialist involvement in Open Access and research repositories



Progress to date Developing NHS knowledge staff

NHS
Health Education England

We are delighted to report that NHS staff and learners have benefited from significant progress in each of the workstreams originally defined in Knowledge for Healthcare, 2015-2020.



Assisted employers with resources for role redesign.



Offered extensive CPD informed by needs analysis



Enhanced Professional Knowledge and Skills Base



Developed a Learning Zone



Nurtured the talent pipeline, working with higher education



Introduced Level 3 library apprenticeships



Leadership development for mid-career and senior librarians



Initiated training and dialogue on inclusivity, diversity and equality



Delivered training in summarising evidence, mobilising knowledge and health literacy



Progress to date Optimising funding



Health Education England

We are delighted to report that NHS staff and learners have benefited from significant progress in each of the workstreams originally defined in Knowledge for Healthcare, 2015-2020.



Established the value proposition for NHS knowledge and library services



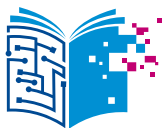
Commissioned external audit of knowledge services funding



Greater partnership working with Trust libraries to increase shared investment in digital evidence resources



Agreed investment in a national resource discovery service and systems



Initiated concordat with Arm's Length Bodies on maximising digital knowledge



Developed model for equitable funding; advocacy for a dedicated knowledge services tariff



Progress to date Improving quality and impact



Health Education England

We are delighted to report that NHS staff and learners have benefited from significant progress in each of the workstreams originally defined in Knowledge for Healthcare, 2015-2020.



Established national and regional professional leadership and advice



Launched high profile #AMillionDecisions advocacy campaign



Agreed an Evaluation Framework for the strategy



Approved policy recommendations to:

- extend access to knowledge services
- increase the number of knowledge specialists



Enhanced the Impact toolkit



Developed a Quality and Improvement Outcomes Framework for knowledge services



Published and promoted 350+ impact narratives



Showcased innovations in knowledge services



Established consistent assurance process for NHS libraries



The journey so far

Advocacy

When we published the original Knowledge for Healthcare in 2014, we knew that there was much to do to achieve our ambitious vision.³

Strong advocacy is an aspect of the delivery of NHS Knowledge for Healthcare. Health Education England and CILIP jointly launched the #AMillionDecisions campaign at the Libraries All-Party Parliamentary Group in 2017. Giving voice to the strategic importance of NHS knowledge services, it showcased how they deliver “the right knowledge and evidence, at the right time, in the right place.”³

The NHS in England interacts with one million patients every 17 hours, making decisions with them and on their behalf.⁴ These decisions have a profound and lasting impact on people’s lives, influencing both the quality of healthcare and the cost of services.

Establishing effective leadership

Knowledge for Healthcare recognised that “to turn the rhetoric of our vision into reality requires the establishment of a national, strategic professional lead for healthcare library and knowledge staff to inspire and sustain the implementation of this development framework.”³

Health Education England has formed a single national NHS Knowledge and Library leadership and development team for England, with a professional head of service responsible for strategic planning and investment, implementing Knowledge for Healthcare.

The national team has significant regional-facing responsibilities. The team provides professional advice and expertise to the healthcare system and to the specialist workforce. They assure the quality and drive the performance of NHS knowledge and library services. Advocating for appropriately resourced services, they advise on service transformation including options for service and role design.

To provide the evidence base for Health Education England’s own staff, we have formed a dedicated Knowledge Management service.



Strong professional engagement

Partnering with health librarians across the world

The expertise, support and enthusiasm of health knowledge and library staff has been a powerful factor in the success of Knowledge for Healthcare. The high level of involvement by staff in all roles and from across all regions is striking.

More than 300 people, 50% of qualified librarians and knowledge specialists working in NHS knowledge services have been directly involved, as well as paraprofessional staff.

The Health Education England national library and knowledge services team has also benefited from a strong partnership with the CILIP and in particular with Health Libraries Group and the Knowledge and Information Management Group,

Colleagues from academia, government bodies, public libraries and the third sector have similarly contributed their time. In addition, dialogue with the health library leads from Northern Ireland, Scotland, Wales and the Republic of Ireland has been most helpful.

Internationally, Health Education England has been invited to share information about the strategy and its implementation with colleagues across Europe, Australia and North America.

Making a wider impact across the profession

The strategy has attracted considerable attention within the profession and has been widely reported in the professional press.

Knowledge for Healthcare has since its inception sought to build connections with the wider library, information and knowledge workforce. This cross-pollination of ideas and innovations has both enhanced the capability of librarians and knowledge specialists in health and driven improvements across the wider profession.

The partnership between Health Education England and CILIP, centred on Knowledge for Healthcare, has allowed us to revisit and re-shape Sector Skills Standards, to embed evidence-informed practice in the wider community and to help librarians in other professional sectors to demonstrate their impact.

The impact of Knowledge for Healthcare therefore has not been limited to the immediate scope of the healthcare ecosystem but has created positive benefits across the 20+ industry sectors in which CILIP supports information professionals.



Nick Poole

Chief Executive, CILIP
Chartered Institute of Library and Information Professionals

Appendix 3. Knowledge services: the current picture

As the strategic lead for NHS knowledge and library services in England, we have a full sight (100% returns) of the volumes of activity and of the specialist workforce within Trusts. This annual data allows us to monitor demand and usage. We use this to inform the strategic direction of Knowledge for Healthcare.

Services provided by NHS funded Trust libraries

184 knowledge and library services

51% offer evidence synthesis and summaries

63% provide clinical librarian or other embedded and outreach roles

1.3M enquiries handled

32.5K expert searches

59.5K staff trained in information skills

622.6K registered library members

333.9K registered to use NHS digital resources

Source: 2018-19 Activity Statistics

Knowledge and library staff

1,004 WTE in NHS knowledge and library services at trust level. In addition, a significant proportion of staff are part-time

55% qualified in library/information science or knowledge management at degree or postgraduate level

28 WTE staff in the national leadership team, including the internal Knowledge Management function

Source: 2019- 20 Activity Statistics

Knowledge and Library Specialists

Take the 'heavy lifting' out of getting evidence into practice



Health Education England



"Useful to have quantitative and qualitative information to back up your own risk assessment process to be able to say this is why we have done it"

CPR manual override on electric hospital beds

When bariatric beds in the Trust were found to lack a manual override, the Health and Safety Adviser at Royal Berkshire NHS Foundation Trust approached library and knowledge specialists for assistance in reviewing the evidence base around this.

The resulting evidence, located and supplied by library and knowledge specialists, led to a change in equipment provider and cost savings of 45% in addition to improving patient safety and the safety of staff caring for them.

Joao Pedro Silva Matias, Health and Safety Adviser, working with library and knowledge specialists at Royal Berkshire NHS Foundation Trust



Appendix 4. Service redesign criteria

Our criteria for service redesign are a useful prompt when planning improvements to knowledge service delivery across a wider footprint, for instance by forging greater collaboration between services to inform place-based care. Valuing in-depth knowledge of the needs of the local health economy, these criteria encourage thinking about the benefits of standardised ways of working.

Criteria for the redesign of knowledge and library services	
Nationwide functions	Function will benefit from national leadership to achieve delivery across England
Specialist skills	Function requires scarce specialist skills which may not be accessible equitably across the country
Economy of Scale	Function can generate economies of scale, offering value for money if delivered at a larger scale
Opportunity for standardisation	Function can be delivered using a standardised approach across a wider region or customer base
Local knowledge	Function requires in-depth knowledge of the needs of the local health economy and active partnership working

These criteria proved helpful as we formed the national NHS Knowledge and Library Services leadership and development team within Health Education England.

Appendix 5. Guiding principles

These principles are a helpful ‘touch point’ for decisions on ways of working and investment for all NHS organisations that manage knowledge and library services and underpin the Knowledge for Healthcare strategy.

Collaboration	Work in partnership and across boundaries; pooling resources to optimise impact
Digital by default	Digital and mobile by design
Effective and efficient	Streamline management, system and process; achieve value for money
Equity	Equity of access and opportunity; meeting accessibility standards
Innovation	Flexibility, new models of service, best practice
Quality	Benefits to patients: high performing; continually improving; evaluated outcomes; a positive impact
Sustainability	Changing working practice; contributing to a low-carbon society
Technology	Harnessing technology to continually improve services
Workforce development	Developing a diverse and inclusive, skilled, flexible and confident knowledge and library services workforce; improving staff ratios

These principles are threaded through the strategy; they have stood the test of time. Collaboration has been central to the improvements we have achieved through Knowledge for Healthcare. Health Education England recognised that the importance of ensuring environmental sustainability cannot be overstated.

Sustainability: towards low-carbon knowledge services

The health and care system in England is responsible for an estimated 4-5% of the country's carbon footprint.³⁶

Health Education England seeks to 'take whatever steps we can to ensure that we carry out all of our activities in a sustainable manner'.³⁷ Improving working practices to contribute to a low-carbon society has been added to the Knowledge for Healthcare strategy as a guiding principle.

The national team leads on procuring and delivering digital evidence resources on behalf of the NHS and follows the principles of sustainable procurement, optimising investment and reducing duplication.

Knowledge specialists have a dual role in contributing to the sustainability agenda, within the knowledge service itself and by providing the evidence to underpin policy, commissioning, operational practice and training.

Health Education England is committed to taking a lead role in the sustainable development agenda, encouraging NHS Knowledge and Library Services to make every practical effort to reduce their impact on the environment.

Practical examples:

Our review of the literature shows that there are many ways that Knowledge Services can contribute to the sustainability agenda.

- Building sustainability into strategy, policy, and marketing initiatives
- Developing services that are digital by default, providing online access to knowledge resources
- Procuring "eco-friendly" materials
- Managing waste: encouraging Reduce, Reuse and Recycle
- Working with local estates teams to use water and energy from renewable sources efficiently.
- Influence the design of "green" library buildings
- Working in partnership with other organisations to reduce duplication of effort



Appendix 6. Listening to staff, learners and knowledge staff

We actively engaged with all NHS library and knowledge services staff, both service managers and their teams, through our regional networks, an online survey and dedicated meetings. We invited and welcomed input from professional organisations including CILIP Health Libraries Group and the University Health and Medical Librarians Group. We held fora for clinical librarians and paraprofessional staff working in NHS libraries.

Reviewing survey data from 6000 NHS staff and learners, gathered by NHS libraries during 2018 - 2019, clarified what service users want and value. This analysis is verified by our review of the literature.

NHS staff and learners value:

- Personalised customer service
- Expertise and assistance to save time
- 24 hour, mobile access to e-resources
- Information at the point of need
- Literature searches and synthesised evidence
- Training to find and evaluate evidence
- Physical space for study, collaboration, wellbeing
- Speedy supply of documents

Many NHS staff are:

- Time poor
- Overloaded by information
- Struggling to find specialised information
- Frustrated by technical issues
- Unaware of the benefits of NHS knowledge services
- Unaware all staff and learners can use the services
- Reliant on colleagues and networks for information

Knowledge and library services teams value:

- National leadership, strategic vision and policies.
- National purchasing of resources
- Focus on impact and return on investment
- Collaborative working
- Continuing professional development
- Diversity within the workforce
- Career opportunities and succession planning
- Showcasing innovation by knowledge services

Knowledge and library staff want to see:

- More system-wide, place-based working
- A sustainable funding model for knowledge services
- Implementation of the national staffing ratios policy
- Equity of provision for all NHS staff and learners
- More embedded roles
- Integration of point of care tools into clinical workflows
- The application of emerging technologies

References

1. Health Education England. *NHS Library and Knowledge Services in England: Policy*. 2016. <https://www.hee.nhs.uk/sites/default/files/documents/NHS%20Library%20and%20Knowledge%20Services%20in%20England%20Policy.pdf>
2. Health Education England. *Framework 15. Health Education England Strategic Framework 2014 -2029*. Health Education England, 2017. https://www.hee.nhs.uk/sites/default/files/documents/HEE%20strategic%20framework%202017_1.pdf
3. Health Education England. *Knowledge for Healthcare: a development framework for NHS library and knowledge services in England 2015-2020*. 2014. <https://www.hee.nhs.uk/sites/default/files/documents/Knowledge%20for%20healthcare%20-%20a%20briefing%20on%20the%20development%20framework.pdf>
4. NHS Providers. *The NHS at 70*. 2018. <https://nhsproviders.org/media/518417/infographic-references.pdf>
5. NHS England. *The NHS Long Term Plan*. 2019. <https://www.england.nhs.uk/Long-Term-plan/>
6. *Health and Social Care Act 2012*. <https://www.legislation.gov.uk/ukpga/2012/7/contents/enacted>
7. Blaine, C. What does Evidence-based actually mean? *BMJ Best Practice* n.d. <https://bestpractice.bmj.com/info/toolkit/discuss-ebm/what-does-evidence-based-actually-mean/>
8. National Institute for Health Research. *New Evidence on Management and Leadership*. 2013. <https://www.journalslibrary.nihr.ac.uk/downloads/research-programmes/HSDR/New-Evidence-on-Management-and-Leadership.pdf>
9. NHS England. *The NHS Interim People Plan*. 2019. https://www.longtermplan.nhs.uk/wp-content/uploads/2019/05/Interim-NHS-People-Plan_June2019.pdf
10. The Department of Health and Social Care mandate to Health Education England: April 2019 to March 2020, DHSC, July 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815411/hee-mandate-2019-to-2020.pdf
11. NHS. *We Are The NHS: People Plan 2020/21 - action for us all*. 2020. https://www.england.nhs.uk/wp-content/uploads/2020/07/We_Are_The_NHS_Action_For_All_Of_Us_FINAL_24_08_20.pdf
12. Health Education England. *The Topol Review: Preparing the Healthcare Workforce to deliver the digital future*. 2019. <https://topol.hee.nhs.uk/>
13. CIBER Research. *Health Education England (HEE) Audit of Library and Knowledge Services*. 2016. [Internal Report]
14. Economics by Design. *NHS funded Library and Knowledge Services in England Value Proposition: The Gift of Time A Report to Health Education England*. 2020 <https://www.hee.nhs.uk/our-work/library-knowledge-services/value-proposition-gift-time>
15. Health Education England *NHS Library and Knowledge Services in England: Recommendations to improve the staff ratio for the number of qualified library and knowledge specialists per member of NHS workforce*. 2020 <https://www.hee.nhs.uk/sites/default/files/documents/HEE%20LKS%20Staff%20Ratio%20Policy%20January%202020.pdf>
16. Health Education England. *Diversity and Inclusion - Our Strategic Framework 2018-2022*. June 2018. <https://www.hee.nhs.uk/sites/default/files/documents/Diversity%20and%20Inclusion%20-%20Our%20Strategic%20Framework.pdf>
17. CILIP & KPMG. *Information as an Asset: Today's Board Agenda*. CILIP/KPMG Position Paper. 2019. https://cdn.ymaws.com/www.cilip.org.uk/resource/resmgr/cilip_new_website/research/knowledge_management/info_as_an_asset/cilip_kpmg_report_2019_web.pdf

18. International Standards Organisation. ISO 30401:2018. *Knowledge management systems - Requirements*. Switzerland: International Standards Organisation.; 2018.
19. Day, A. and Goswami, L. Driving change with evidence and knowledge: transforming knowledge services for the NHS across England. *Business Information Review*. 2020;37(1):10-18. doi.org/10.1177/0266382120909240
20. Health Education England. *Quality and Improvement Outcomes Framework for NHS Funded Library and Knowledge Services in England*. 2019. <https://www.hee.nhs.uk/sites/default/files/documents/HEE%20Quality%20and%20Improvement%20Outcomes%20Framework.pdf>
21. International Organization for Standardization. ISO 16439:2014 (en). *Information and documentation — Methods and procedures for assessing the impact of libraries*. Geneva: ISO; 2014.
22. Health Education England. *Value and Impact Toolkit*. 2016. <https://kfh.libraryservices.nhs.uk/value-and-impact-toolkit/>
23. Health Education England. *Knowledge for Healthcare: Learning Space within NHS Knowledge and Library Services in England*. 2020. <https://www.hee.nhs.uk/sites/default/files/documents/HEE%20Policy%20for%20NHS%20Library%20Learning%20Space.pdf>
24. Stewart D, Lacey Bryant S, Edwards C, Gilroy D. Introduction: Good practice in NHS-funded library and knowledge services. *Library and Information Research*. 2020; 43(127). <https://doi.org/10.29173/lirg822>
25. Rowlands G. A mismatch between population health literacy and the complexity of health information: an observational study. *British Journal of General Practice*. 2015; 65(635): e379–e386. <http://10.0.13.71/bjgp15X685285>
26. NHS England. *Accessible Information Standard*. 2017. <https://www.england.nhs.uk/ourwork/accessibleinfo/>
27. NHS Library and Quality Assurance Framework data 2018.
28. University of Southampton. Estimated prevalence of low health literacy. <http://healthliteracy.geodata.uk/>
29. Bridgen, R. *Moving to regional library management systems: the journey begins* September 2020. <https://kfh.libraryservices.nhs.uk/moving-to-regional-library-management-systems-the-journey-begins>
30. Johnson, R., Watkinson, A., and Mabe, M. *The STM report: an overview of scientific and scholarly publishing*. October 2018. https://www.stm-assoc.org/2018_10_04_STM_Report_2018.pdf
31. National Institute of Health Research. NIHR open access policy. 2019
32. CILIP The library and information association. The Professional Knowledge and Skills base. [Online Member Login] <https://www.cilip.org.uk/general/custom.asp?page=PKSB>
33. CILIP The library and information association *CILIP response to the Topol Review of Technology in the Healthcare Sector 2019*. <https://www.cilip.org.uk/page/TopolReview?&hsearchterms=%22tech+and+review%22>
34. Cheney, A. *A Glimpse of the Future – Iris.ai in Mersey Care Evidence Service*. June 2020. <https://kfh.libraryservices.nhs.uk/a-glimpse-of-the-future-iris-ai-in-mersey-care-evidence-service/>
35. Streatfield, D. and Markless, S. What is impact assessment and why is it important? *Performance Measurement and Metrics*. 2009; 10(2): 134-141. <https://doi.org/10.1108/14678040911005473>
36. NHS England Greener NHS campaign to tackle climate 'health emergency'. 2020. Weblog. <https://www.england.nhs.uk/2020/01/greener-nhs-campaign-to-tackle-climate-health-emergency/>
37. Health Education England. *Sustainable Development Management Plan 2017-2020*. 2017

Contact Information

 www.hee.nhs.uk

 [@NHS_HealthEdEng](https://twitter.com/NHS_HealthEdEng)

 [Health Education England NHS](https://www.facebook.com/HealthEducationEnglandNHS)

 [HEE Innovation and Transformation](https://www.linkedin.com/company/HEE-Innovation-and-Transformation)

Published by Health Education England, January 2021

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

If you need information about this service in **a different format**
please contact comms@hee.nhs.uk