

Closing the loop: NICE's role in building a learning healthcare system

NICE National Institute for
Health and Care Excellence

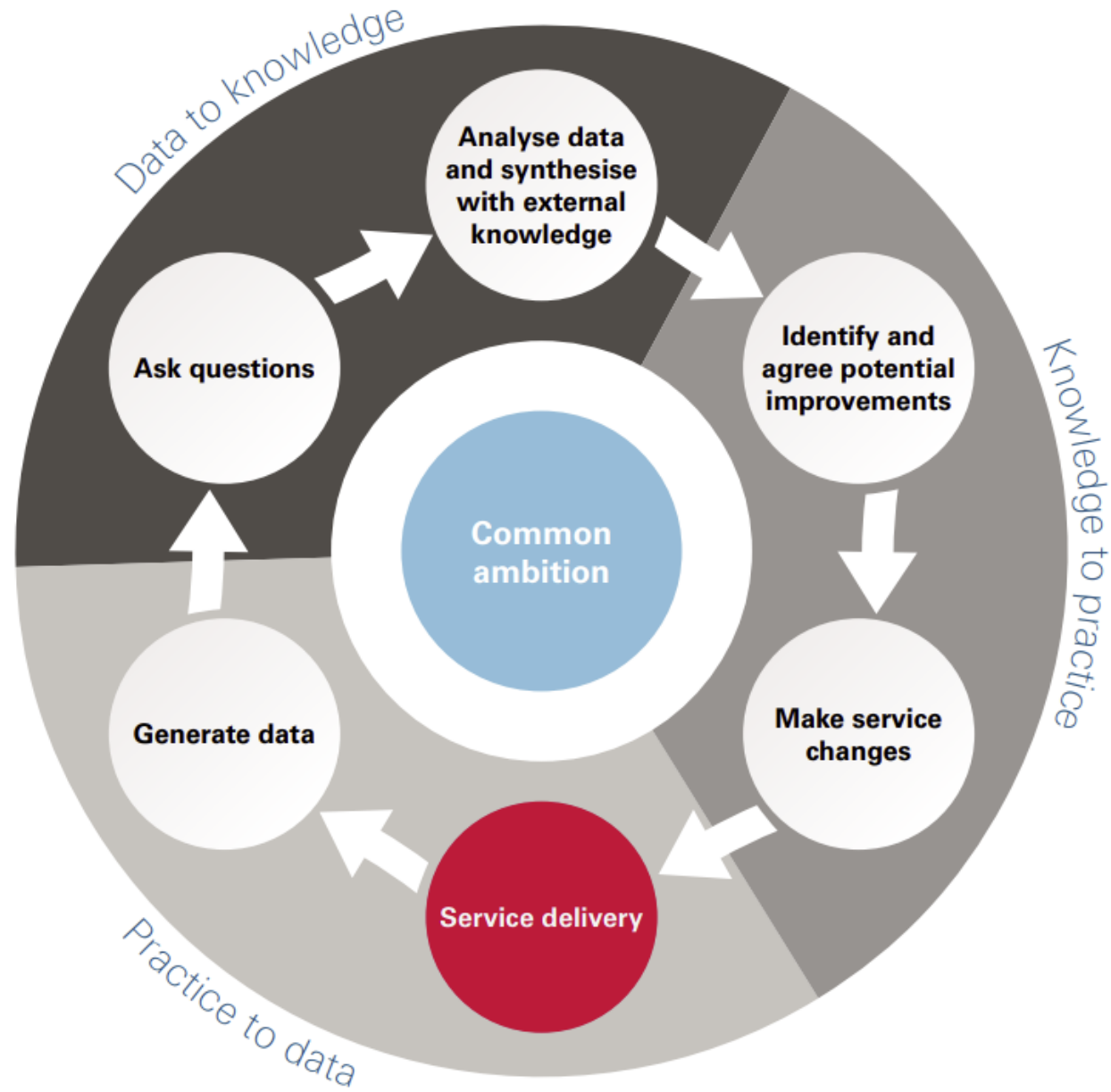


Learning healthcare system (LHS)

An LHS is a way of describing a systematic approach to iterative, data-driven improvement (regardless of whether those involved label it as an LHS). Learning and improvement are already happening in most providers and, in many cases, LHS approaches will offer a way to pull this existing work together in a more systematic way and organise it more effectively. In this sense, some see LHSs as the next stage in the evolution of traditional quality improvement approaches.

Hardie T, Horton T, Thornton-Lee N, Home J, Pereira P.
Developing learning health systems in the UK: Priorities for
action. 2022

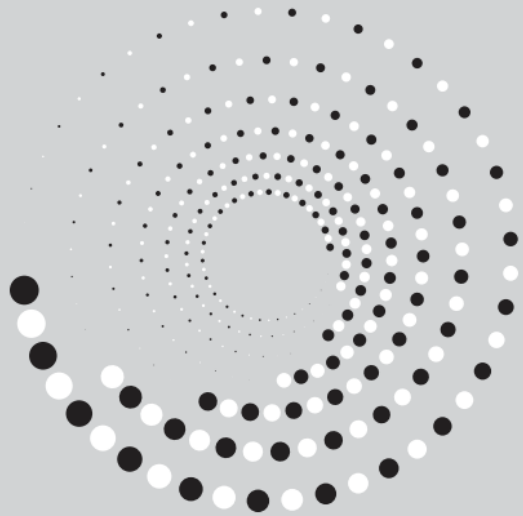
Common stages of the learning and improvement cycle



NICE

Developing learning health systems in the UK: Priorities for action

Tom Hardie, Tim Horton, Nell Thornton-Lee, Joe Home, Penny Pereira



Box 1: Eight priority areas for action

This report highlights eight areas where action by policymakers (government ministers, civil servants and national leaders) and organisational and system leaders (those in leadership roles in providers and local and regional health care systems) could support the development of LHSs, as shown in Table 1. Further details can be found in Chapter 3.

Table 1: Eight priority areas for action and recommendations for each

	Area for action	Recommendations
For policymakers	1. Clear narrative	<ul style="list-style-type: none">• Build on this report to set out a clear vision and set of principles for developing LHSs• Build the evidence base – on both the impact of LHSs and overcoming barriers to adopting LHS approaches• Align related policy areas to support LHS approaches• Support the sharing of expertise and learning across LHSs
	2. Digital maturity	<ul style="list-style-type: none">• Provide longer term funding to help the least mature organisations and systems• Spread best practice for procuring and implementing digital tools• Embed digital skills and knowledge in maturity assessments• Support the development of new analytics and data tools
	3. Data analytical expertise	<ul style="list-style-type: none">• Support the professionalisation of the data analytics workforce• Promote open-source data tools for all analysts to use• Develop digital skills across the wider health care workforce
	4. System interoperability	<ul style="list-style-type: none">• Further develop interoperability standards and support services to meet them• Provide guidance on where interoperability can add most value• Make sure that lessons from previous efforts to achieve interoperability are learned
	5. Implementation and improvement capability	<ul style="list-style-type: none">• Develop a system-readiness framework for applying LHS approaches• Provide funding to help organisations build their improvement capability• Consider implementation support within centrally led transformation initiatives• Develop training for implementing and using LHSs• Collate and promote helpful tools, such as the LHS Toolkit
For organisational and system leaders	6. Learning culture	<ul style="list-style-type: none">• Create responsibility for LHSs at board level• Embed improvement in organisational strategy• Develop wider organisational leadership
	7. Front-line implementation capability	<ul style="list-style-type: none">• Protect staff time for LHS work• Provide access to training and coaching
	8. Organisational improvement capability	<ul style="list-style-type: none">• Develop in-house expertise• Support the convening of learning communities

<https://www.health.org.uk/reports-and-analysis/reports/developing-learning-health-systems-in-the-uk-priorities-for-action>

Key enablers are within reach!

Routine data collection and analytics

Interoperability of data systems

Outcomes measurement

Systematic behaviour change theory and techniques



Policy recommendations reinforcing the potential of NHS health data

Independent report

Better, broader, safer: using health data for research and analysis

Published 7 April 2022

Applies to England

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Review team
Senior stakeholder group
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Foreword
Executive summary
Summary recommendations
Modernising NHS service analytics
Modern, open working methods for NHS data analysis
The challenge of privacy in health data
Trusted Research Environments

Review team

Professor Ben Goldacre, Goldacre review chair

Director, Bennett Institute for Applied Data Science; Professorial Fellow, Jesus College; Bennett Professor of Evidence-Based Medicine, Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford OX2 6GG

Ben Goldacre is a clinical researcher at the University of Oxford where he is Director of the [Bennett Institute](#) for Applied Data Science, and Bennett Professor of Evidence-Based Medicine in the Nuffield Department of Primary Care Health Sciences. He advises government on better uses of data and leads an academic team that uses large health datasets to deliver research papers and tools including [OpenSAFELY.org](#) (a new model of secure analytics platform that runs across unprecedented volumes of linked

Policy paper

Data saves lives: reshaping health and social care with data

Updated 15 June 2022

Applies to England

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Ministerial foreword
NHS England Transformation Director foreword
1. Improving trust in the health and care system's use of data
2. Giving health and care professionals the information they need to provide the best possible care
3. Improving data for adult social care
4. Supporting local and national decision-makers with data

Ministerial foreword

The use of NHS data was at the forefront of this country's fight against coronavirus (COVID-19), helping us to remove restrictions and return on the path to normal life.

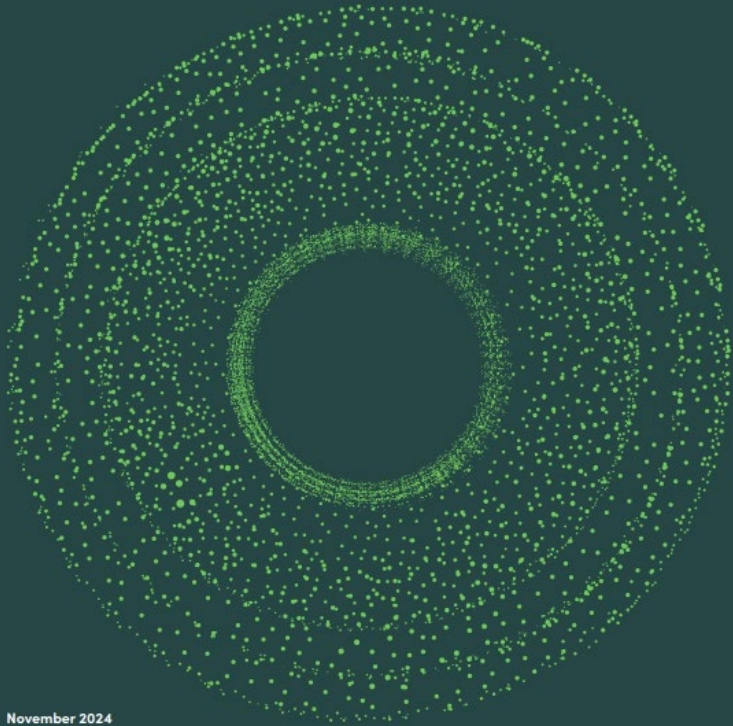
Now that we are living with COVID-19, we must keep this momentum going, and apply it to the long-term challenges ahead of us, including tackling the COVID backlog and making the reforms that are vital to the future of health and care.

Earlier this year, I made a [speech setting out my 4 priorities for reform in health](#):

1. Prevention.
2. Personalisation.
3. Performance.
4. People.

Uniting the UK's Health Data: A Huge Opportunity for Society

A review of the UK health data landscape commissioned by the Chief Medical Officer for England, the UK National Statistician and NHS England's National Director for Transformation



November 2024

The Sudlow Review 2024

Recommendation One

Major national public bodies with responsibility for or interest in health data should agree a coordinated joint strategy to make England's health data a critical national infrastructure

Recommendation Two

Leading government health and research bodies should establish a national health data service for England with accountable senior leadership

Recommendation Three

The Department for Health and Social Care should oversee and commission a strategy for ongoing, coordinated engagement with patients, public, health professionals, policymakers and politicians

Recommendation Four

The health and social care departments in the four UK nations should set a UK-wide approach for data access processes and proportionate data governance

Recommendation Five

National organisations in the four UK nations should develop a UK-wide system for standards and accreditation of SDEs holding data from the health and care system

Our panellists

Closing the loop: NICE's role in building a learning healthcare system

Most people agree the concept of a continually learning healthcare system is desirable, but the concept hasn't really taken off yet. What is NICE's role in bringing about this step change? How can it lead the way in learning from data and implementation?



Prof Reecha Sofat

Breckenridge chair in clinical pharmacology and therapeutics, University of Liverpool



Hilary Fanning

Senior responsible officer, data for research and development programme, NHS England



Shaun Rowark

Associate director – data access and analysis, NICE



Dr Pall Jonsson

Programme director, data and real-world evidence, NICE