The National Diabetes Audit: Healthcare Improvement Plan

Introduction

The National Diabetes Audit (NDA) provides a comprehensive picture of diabetes care and outcomes for adults in England and Wales. The NDA supports improvements in the quality of diabetes care enabling participating NHS services and organisations to:

- Assess local practice against NICE guidelines
- Compare their care and outcomes with similar services and organisations
- Identify gaps or shortfalls that are priorities for improvement
- Identify and share best practice

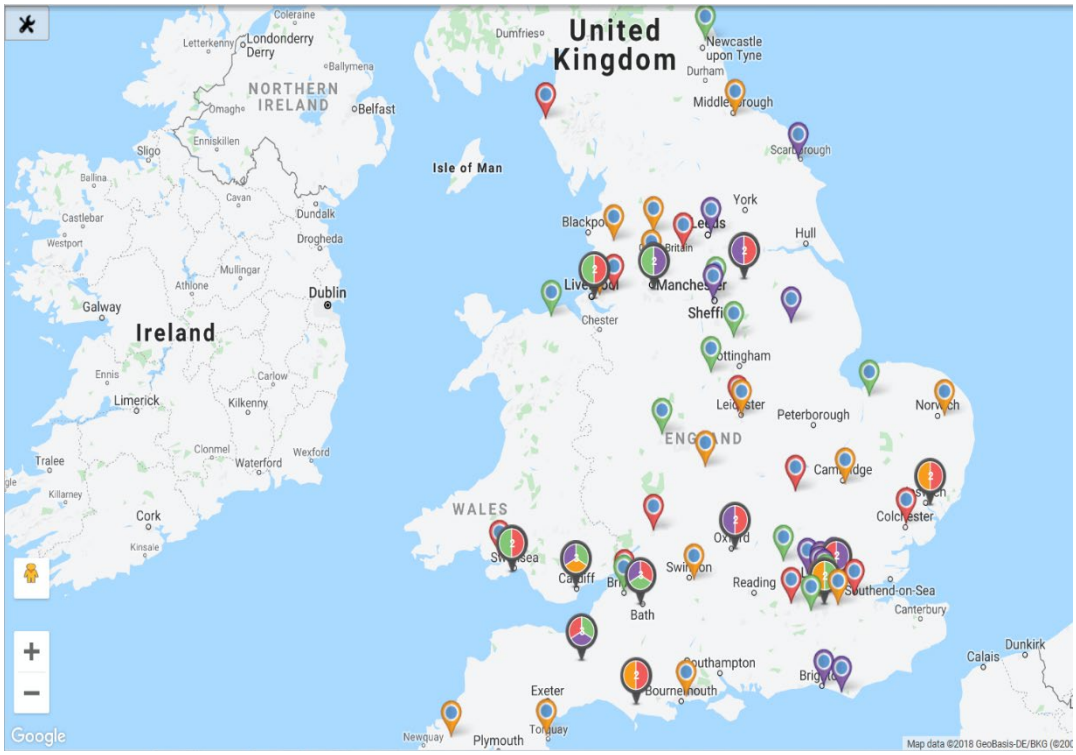
This includes core diabetes care in primary care and specialist services, transition from paediatric care, inpatient care of people with diabetes, care of women who have diabetes during pregnancy, care of people with diabetic foot disease and care of people with non-diabetic hyperglycaemia. Reports are produced at individual provider (General Practice, Specialist Service), Integrated Care Board (ICB), Primary Care Network (PCN) and national levels.

Until the contract starting in June 2017, the NDA was entirely reliant on commissioners and providers noting results and taking action to address identified variation. Guidance documents on recommended improvement methodologies were produced for reference by both primary and specialist care (hyperlinks below).

Since 2017, the NDA has been commissioned to provide more direct support to providers and stakeholders, including many of those described below in Table 1. This support has focused on helping teams: to specify measurable improvement goals (drawing upon national and local priorities for improvement); to explore influences upon performance; to develop local improvement capabilities and take actions to improve and; to share learning and peer support. This has been delivered as a series of Quality Improvement Collaboratives, towards the goal of supporting improvement demonstrable through NDA metrics, as described below in Table 2.

2017-2019

- National Diabetes Inpatient Audit (NaDIA) (19 teams)
- National Pregnancy in Diabetes audit (NPID) (19 teams)
- National Diabetes Foot Care Audit (NDFA) (20 teams)
- Transition (jointly with National Paediatric Diabetes Audit) (20 teams)



National Diabetes Inpatient Audit (NaDIA)

National Diabetes in Pregnancy Audit (NPID)

National Diabetes Foot Care Audit (NDFA)

National Diabetes Transition Audit (NDTA)

NATIONAL DIABETES AUDIT

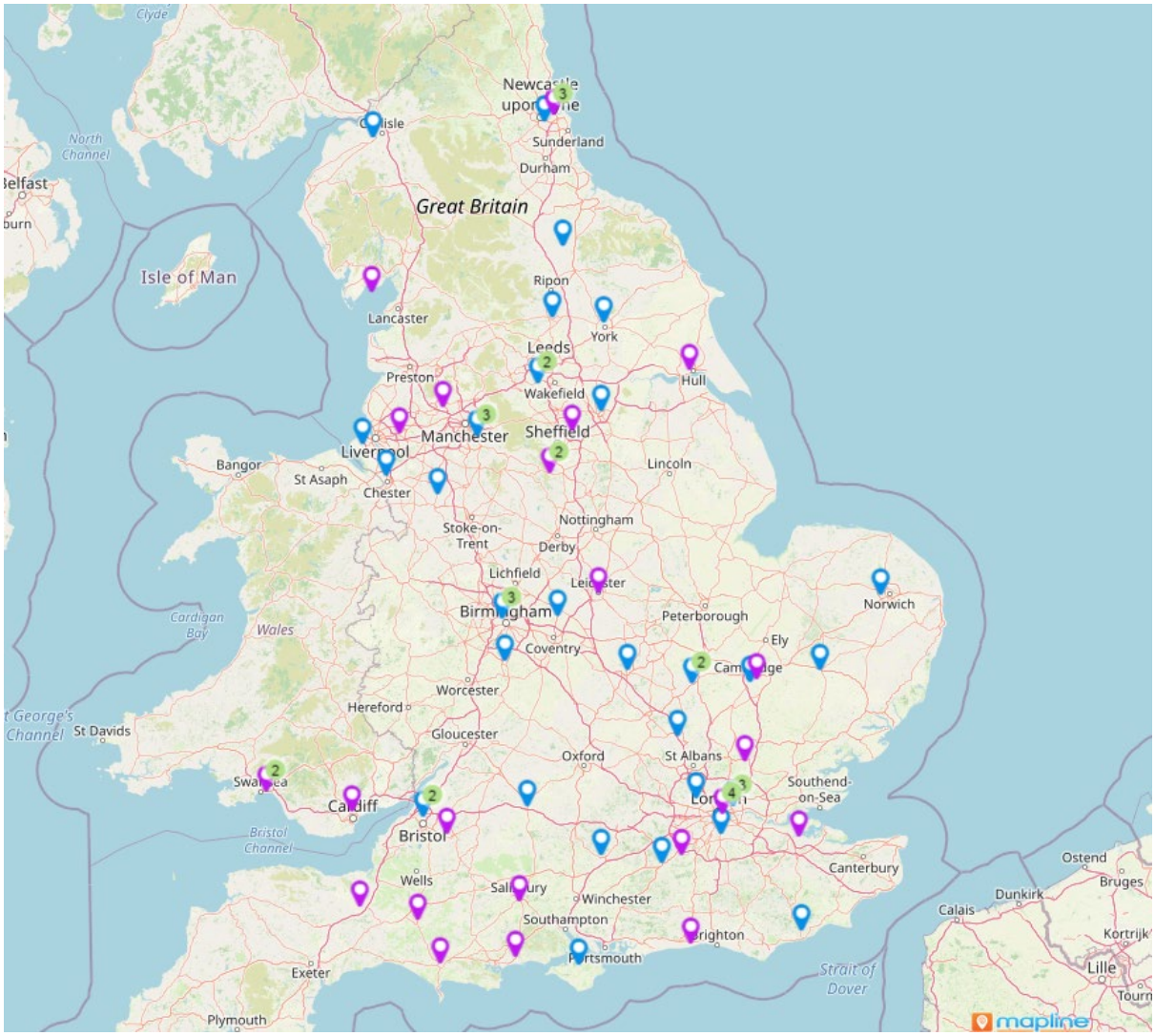
2020-22

- Type 1 diabetes: Reducing HbA1c (14 teams)
- Type 2 diabetes: Reducing cardiovascular risk (12 teams)

Alongside the Collaboratives, we have worked with two clinical networks to describe and enhance their use of NDA data.

2023-2025

- Implementing NICE insulin pump guidance (83 Teams to date)



In addition to people with diabetes and the wider public, there are service stakeholders in the NDA and organisations/clinical teams that use NDA outputs:

National	Regional	Local
Diabetes UK NHS England Care Quality Commission (CQC) Getting It Right First Time (GIRFT) Right Care Welsh Government Association of British Clinical Diabetologists (ABCD) Primary Care Diabetes Society (PCDS) Royal College of Physicians (RCP) Royal College of General Practitioners (RCGP) Royal College of Obstetricians and Gynaecologists (RCOG) Royal College of Paediatrics and Child Health (RCPCH)	Regional diabetes teams, ICSs and their forebears; associated clinical leads. Clinical networks e.g. SE England Clinical Network – structured education Regional Diabetes UK teams Regional projects e.g. East of England pregnancy preparation, SW/NE England foot care	Primary care services Secondary care and other specialist diabetes services Acute hospitals

Table 1: National, Regional and Local Stakeholders

Improvement aims

Each audit identifies, by type of diabetes, variation in care processes treatment outcomes by age, sex, duration of diabetes, ethnicity and deprivation between services and geographies.

The priority for improvement across the NDA is to:

- Improve mean/median achievement, demonstrating continuous improvement over time towards the goal of perfect care
- Narrow variation between services, so that patients experience high-quality care regardless of geographic location
- Clarify extent of variation that is due to service level factors rather than patient level differences, by exploring the impact of case-mix upon service performance

The improvement objectives for the Quality Improvement Collaboratives were determined through stakeholder engagement. This stakeholder engagement asked those involved to draw upon the National Diabetes Audit findings and their experience. This engagement took place through the membership of the Partnership Board, Executive Board and the Experts by Experience groups linked to each of the NDA audits, and through the networks of people who take part in these forums.

Using the chosen national improvement priorities, each participating service was asked to set its own specific improvement goals; what they would improve, by how much, by when. This engendered ownership and ensured plans were relevant to local baseline performance and service configurations. Each service then developed a local goal oriented driver diagram.

QIC cohort	Audit	National improvement priority	Evaluation report
2017-20	NaDIA	To reduce episodes of inpatient hypoglycaemia and DKA, specifically by reducing: A. Medication errors on wards B. Insulin errors on wards C. Hypoglycaemia due to the timing/choice of meals	FINAL report of the NaDIA Quality Improvement Collaboratives v3.pdf (diabetes.org.uk)
	NPID	To improve pre-conception care through increasing the proportion of women: A. Using of 5mg folic acid supplements B. Keeping HbA1c below 48 mmol/mol where safely achievable C. Stopping / substituting oral glucose-lowering medications	FINAL report of the NPID Quality Improvement Collaboratives.pdf (diabetes.org.uk)

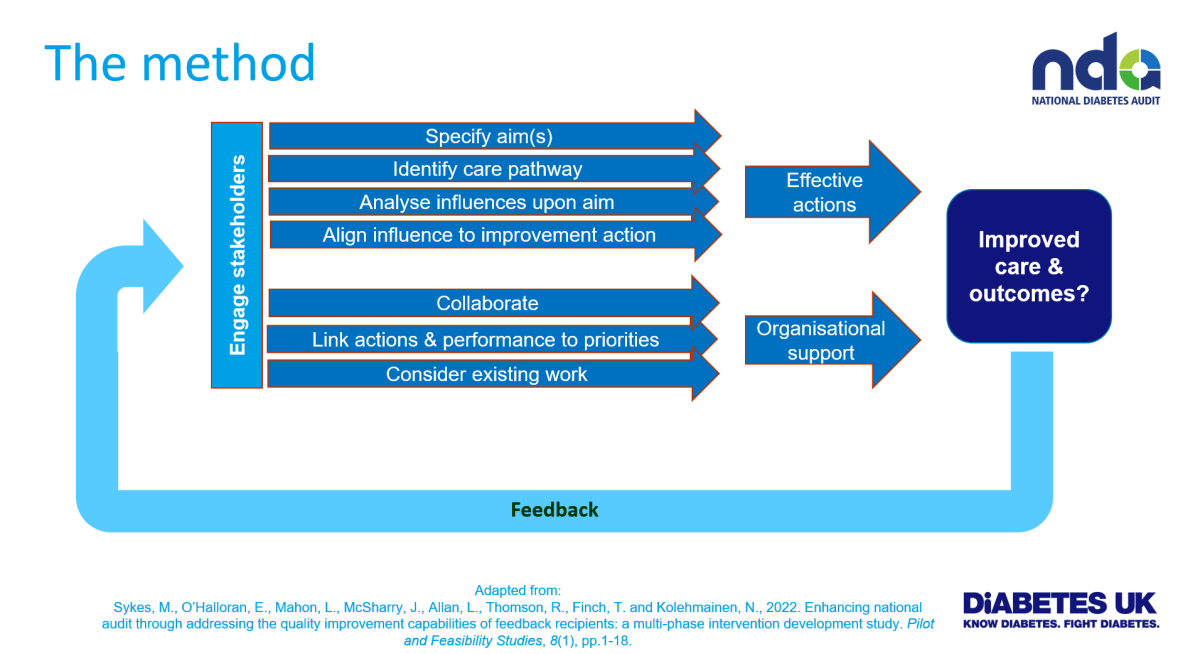
		apart from metformin D. Stopping statins and ACE inhibitors/ARBs	
	NDFA	To reduce time between first presentation to a health care professional and specialist assessment (NDFA has shown that this NICE guidance correlates with outcomes)	FINAL report of the NDFA Quality Improvement Collaboratives.pdf (diabetes.org.uk)
	Transition	To improve glucose control, as measured by HbA1c, during the transition between paediatric and adult services (Transition audit has shown deterioration on average)	Report of the NDTA Quality Improvement Collaboratives FINAL.pdf (diabetes.org.uk)
2020-22	Type 1	To increase the percentage achieving HbA1c within target	Summary report of the NDA Quality Improvement T1&2 28Sept22.pdf (amazonaws.com)
	Type 2	To reduce cardiovascular risk	
	Clinical networks	To enhance the use of NDA data	NDA Networks report_28Sept22.pdf (amazonaws.com)
2023-25	Insulin pump	Increasing the use of insulin pumps in those eligible with HbA1c >69mmol/mol.	Due 2025
2023-25		To enable NHS organisations to: • compare their outcomes of care with similar NHS organisations; • identify and share best practice; • identify gaps or shortfalls in commissioning services; • assess local practice against NICE guidelines and drive service improvement; and	Continuous
2023-25		To work across the NDISA, NPID, NDFA, and Core audit workstreams in conjunction with the advisory groups	Due 2025

		and be responsible for guiding the audit-defined priorities of QI activities related to each audit.	
2023-25		To communicate and engage with stakeholders (Commissioners; diabetes clinical teams; general practice services; community services; strategic clinical networks; and people with diabetes) to increase clinical audit participation and to promote the use of outputs of the work streams to inform local quality improvement programmes and service organisational improvement. We will monitor improvement by reviewing audit participation data.	Due 2025
2023-25		To organise regional and national activities and events, the objectives of which will be to encourage data submissions/participation to the work streams, and encourage the use of the outputs of the clinical audits. These webinars will be planned in line with key moments in NHS E policy or NDA reporting e.g. a new dashboard release. Plans and outcomes for the improvement webinars will be reported to the Executive Board.	Due 2025
2023-25		To identify, and attend, relevant diabetes meetings and conferences (local and national) with the objectives of raising awareness of the NDA programme amongst attendees to ultimately lead to increased clinical audit participation, and use of the clinical audit results to make improvements to health services.	
2023-2025		To support identification of the future focus for improvement and develop resources to support quality improvement beyond 2025.	

Table 2: Improvement metrics and priorities

Improvement methods

The content of the Quality Improvement Collaboratives has evolved to reflect learning (e.g. Sykes et al, 2022) and has been refined to reflect the specific diabetes topics. Collaboratives use the model summarized below to support assessment of priorities for improvement from NDA data to help develop local commitment for change:



Dr Michael Sykes, the NDA QI lead heads this work. Support for teams participating in the Quality Improvement Collaboratives incudes: two 1-1 calls; two virtual workshops; and then monthly calls between teams. The aim is to support the local teams to engage stakeholders, to analyse service performance, to investigate influences upon this performance, to select actions and to use different techniques that can increase organisational commitment for change.

Improvement tools

Support is provided to those who take part in the Quality Improvement Collaboratives (QIC), and those who do not. QICs can be an effective intervention to improve care (Schouten et al, 2013).

QIC participants are supported to specify a measurable aim, to identify the intended and actual care towards this aim. The QIC then supports tailoring, that is identifying what might influence this care and which actions might address these influences. To help teams to undertake this work, we provide education about the Theoretical Domains Framework

(Atkins et al, 2017), the opportunity to undertake this analysis as a team and to share perspectives with their peers.

In line with best practice for developing complex interventions (Craig et al, 2008), each team is asked to develop a logic model that illustrates their care pathway, identifying influences upon each step and then deducing actions to address these influences.

It is important to get multiple perspectives, including patient perspectives, for this tailoring work. It builds commitment for change. Appropriate and effective actions are selected and teams are supported to use a stakeholder analysis tool and to share lessons from engaging stakeholders.

All teams, that is whether or not they take part in the QICs, can access NDA dashboards that provide comparison against national averages, regional peers and selected comparators. They also have access to reports describing the improvement actions taken by selected peers, the outcome of those actions and lessons learnt (see above). The Quality Improvement Lead has published guidance to support others leading and taking part in quality improvement HERE.

Patient involvement

Patients are involved in determining the foci for improvement and designing the Quality Improvement Collaborative. They also provide patient stories within the workshops and teams are encouraged to engage patients in their improvement 'home teams'. The provision of improved patient information and the gathering and responding to patient feedback is part of teams' improvement plans. Patient and public involvement is reviewed by the NDA patient representatives' group. Following the publication of each audit report, a patient-focused summary and an at-a-glance one-page report are co-produced with the patient representative group. In addition to informing people of the results of the audit, Diabetes UK provides recommendations for people living with diabetes and help to facilitate them seeking care in line with national standards. The reports can be found here: https://www.diabetes.org.uk/professionals/resources/national-diabetes-audit/nda-reports

Communications

For each QIC, a report is created at the end of the collaborative. The reports detail participating teams' aims, interventions used, data collected and lessons learnt. We are also working with other organisations to ensure the findings of the QIC are shared with clinicians, service managers, ICBs and other relevant stakeholders. For example, we will be holding an NPID QIC workshop before the annual Pregnancy in Diabetes Conference organized by Diabetes UK.

Evaluation

The contract requires a report for each QIC including case studies. In addition, we have successfully sought NIHR funding independently to evaluate the Quality Improvement Collaborative model. This NIHR funded study will report on the effectiveness and cost-effectiveness of the QICs, and describe the implementation, engagement, fidelity and tailoring work undertaken. We anticipate that this will provide valuable lessons for the commissioning and delivery of quality improvement – including whether to deliver support in this way in future. It will also provide a description of what teams identify as influencing care and actions that can address these influences.

References

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