Introduction and background

The journey to optimise diabetes care across the eight clinical commissioning groups (CCGs) that make up the North West London Health and Care Partnership footprint began as early as 2011 with the two-year North West London Integrated Care Pilot (NWL ICP). This was an ambitious and large-scale programme designed to integrate care across primary care, and acute and community teams for people living with diabetes and/or those aged ≥75. While the evaluation detected a marginally significant (p=0.0472) increase in the percentage (from 80% to 83%) of those achieving target cholesterol levels (≤5mmol/L), there was no significant change in the proportion achieving the blood pressure target (≤140/80mmHg) prior to and after being on a care plan for at least three months, and no improvement in numbers achieving target HbA1c values (<59mmol/mol). In addition, there was no improvement in achievement of HbA1c targets in people with diabetes either in the pilot’s practices over the longer term or in patients exposed to the pilot for three months. Furthermore, the intervention group did not exhibit any significant changes in emergency admission (p=0.056), accident and emergency attendances (p=0.195), costs of emergency admission (p=0.101) or total inpatient costs (p=0.871). As a result, funding was withdrawn at the end of the second year due to lack of adequate evidence for timely improvements in key outcomes.

Meanwhile, presentations from other UK regions at the 2013 Diabetes UK Professional Conference in Manchester highlighted inspirational examples of initiatives aimed at tackling quality
issues and improving outcomes for people with diabetes, and sparked an ambition to drive clinically significant change across a wider population and integrate services to improve patient experience and outcomes. While this concept of greater integration across providers was not new, in 2013, with the demise of the NWL ICP, there lacked a systematic approach in North West London to drive the necessary required changes. These included buy-in from the many North West London providers, the third sector, and patient groups, and enhanced IT systems to allow accessible patient data flow across the different care sectors and to be shared with the patients themselves.

Recently, a number of groups internationally have demonstrated that improvements in diabetes quality of care alongside reductions in complications, hospital admissions and mortality are achievable through large-scale integrated population-based approaches.2,3

Method
The five CCGs comprising the CWHHE (Central London, West London, Hammersmith and Fulham, Hounslow and Ealing CCGs) CCG Collaborative, which already shared some finance and management personnel in common, began a consultation process with GP practices in 2012 to consider migration to a common web-based GP clinical IT system. The potential benefits for improving population level outcomes and improving the consistency of patient and health care professional experience were clear, particularly for patients with long-term conditions such as diabetes, and formed a part of the case for change.

The need for working differently was compelling in terms of both the human and monetary costs currently being borne by North West London. Data from the Quality and Outcomes Framework (QOF) for the CWHHE CCG Collaborative indicated that diabetes care was poor, with significant unwarranted variability in achieving the three National Diabetes Audit targets even between practices serving similar populations of patients and with levels of QOF exception reporting up to 30–40% in some practices. In addition, there was no consistent approach to proactive care for people at high risk of diabetes – no consistent register and no process for regular review or intervention.

At this point, 108 189 (2012/13 QOF data) of the 1.9 million North West London population were known to have diabetes, with another 30 000 adults estimated to have yet undiagnosed diabetes and a further 191 903 (approximately 8% of the total population) to have non-diabetic hyperglycaemia (NDH). Total health care spend on diabetes was estimated to be 10% of the budget based on extrapolation of national modelling.

It was in late 2013 that the North West London diabetes journey truly began, initially with some informal meetings between primary care diabetes clinical leads from across the CWHHE CCGs. From December 2013, the clinical leads across the CWHHE CCGs of North West London representing 22 different GP networks (minimum population per network 30 000) began to meet and work regularly together. The CCGs involved included some of the most socially deprived economic wards in London and, indeed, the country. The decision to work collaboratively was driven by a number of factors:

• Some shared CWHHE CCG management and finance structures.
• A shared appetite to improve diabetes care with an appreciation that the barriers to better care were common to all CCGs.
• Migration to a primary care system in common (SystmOne) following the primary care clinical system consultation.

From these initial meetings, a CWHHE Diabetes Strategy group

Figure 1. Screenshot of the clinical diabetes online dashboard locally designed to enable individual practices to review their GP network’s achievements against the agreed diabetes-related key performance indicators, and to enable comparisons between networks
was formed, consisting of a range of stakeholders including GP clinical leads, commissioning managers, diabetes consultants, medicines management, public health, Diabetes UK, patient representatives and NHS England, and representatives from the London Diabetes Strategic Clinical Network. In response to the priorities of this group, a new primary care service specification contract was commissioned replacing all existing locally enhanced services. The contract was designed to drive consistent improvements in the treatment and care of diabetes across the five CCGs. Key performance indicators (KPIs) included: the NICE nine key diabetes care processes; individual care plans; the three National Diabetes Audit treatment targets; developing and maintaining a register of people with NDH (and reviewing these patients annually); and access to patient education.

By 2015, 98% of CWHHE practices were using SystmOne as their clinical operating system. A single SystmOne reporting module provided clinical templates (with links to updated diabetes management guidelines), automated protocols, invitation letters and printable care plans. A clinical diabetes dashboard was designed locally to enable individual practices to review their GP network’s achievements against the agreed diabetes-related KPIs, and to enable comparisons between networks; see Figure 1. A separate patient-level dashboard which could be run by individual practices also allowed easy identification of patients within a practice requiring targeted clinical intervention; see Figure 2. The ‘High Risk of Diabetes’ specification and associated dashboards greatly helped practices within North West London in 2016 to bid successfully to be part of Wave 1 of the National Diabetes Prevention Programme (NDPP), to identify potential individuals and refer patients into the programme once launched in September 2016, and to bid successfully in 2016 to be part of the Diabetes Digital Prevention Programme pilot which commenced in autumn 2017.

By 2016/17, greater engagement with the local community diabetes teams led to more multidisciplinary working across the different care providers and the setting up of virtual clinics held within GP surgeries. The GPs’ diabetes dashboards were used to identify appropriate patients who would benefit from community or secondary care diabetes specialist input. The use of the virtual clinics enabled discussion of up to 20 individual patients per clinic and provided an opportunity to up-skill the primary care diabetes team.

In November 2016, the North West London Diabetes Transformation Programme (NWL-DTP) was formed through the amalgamation of the quality improvement programmes of the three outer North West London CCGs (Brent, Hillingdon and Harrow CCGs) with the five CCGs within CWHHE. Once formed, the NWL-DTP was able to apply for, and was awarded, £2.35m in 2017/18 by NHS England. This income and the transformation money awarded from the North West London successful 2017 bids allowed the NWL-DTP to expand and to recruit both clinical and administrative members to the team. Eight diabetes nurse consultants and one to four GP leads for diabetes for each of the eight North West London CCGs were appointed to drive the programme forward locally. A permanent administrative team led by a programme director – and comprising implementation managers, operational clinical lead, workforce lead and project support officers – underpinned the whole clinical team, enabling real change on the ground.

Findings

Three-year data from January 2015 to February 2018 were available for the CWHHE inner five CCGs some of which are presented below; by 2019 data from all eight North West London CCGs will be available. Significant improvements in seven key diabetic metrics have occurred over this three-year period. Data were available on over 77 000
CWHHE patients with diabetes looked after by 229 different GP practices. These have shown overall improvements in care, as summarised in Table 1.

These improvements are more striking in the context of a deterioration in National Diabetes Audit data nationally. Those data showed that eight key care processes (excluding retinal screening) achievement reduced from 58.7% to 47.6% over the two-year period from 2014/15 to 2016/17, and treatment target achievement (HbA1c ≤58mmol/mol, BP ≤140/80mmHg, cholesterol ≤5mmol/L) remained unchanged for people with type 1 diabetes at 18.9% and displayed a marginal reduction for people with type 2 diabetes from 41% to 40.8% over the same two-year period.

The use of the ‘High Risk of Diabetes’ register across North West London has enabled the high level of recruitment to the NDPP: among the CWHHE CCGs, 31 652 patients have been offered referral to the NDPP and a total of 11 837 referrals have been accepted to the programme – 6159 individuals having attended their initial assessment.

The three-year CWHHE data also highlight how the introduction of virtual clinics, GP network education and regular network meetings driven by local clinical leadership has brought improvements in practices in some of the most socially challenging areas of London, as illustrated by the four case study examples below.

**Case study 1**
This is a West London practice rated the 120th most deprived ward in the UK, with 69% of patients from black and minority ethnic backgrounds and 352 patients with diabetes.

A virtual clinic with the GP, practice nurse and a community diabetes consultant focused on patients with HbA1c over 100mmol/mol. Individually-agreed management plans were formed for each, with subsequent face-to-face consultation with the GP which resulted in a mean HbA1c reduction after eight months of 36.5mmol/mol. This was achieved through use of the patient-level dashboard (Figure 2) to support the virtual clinics, and a combination of insulin optimisation and use of newer medications such as SGLT2 inhibitors to improve HbA1c achievement.

**Case study 2**
This example relates to 15 North Kensington practices, including practices in the most deprived ward in London, with a large North African population and an overall 12-year life expectancy gap between the north and south of the borough.

Discussions around the 4087 patients during clinical network meetings, with data reviewed on the diabetes dashboard, resulted in the three treatment target KPIs being increased by 16.7%. Practices initially focused on those patients whose key metrics were off target or had not been seen for some time, using clinical system searches or dashboard data to support a targeted approach.

**Case study 3**
There are 22 GP practices in Southall, historically many single-handed and nearing retirement, with a large South Asian population (48% Asian, 49% born outside the UK). Diabetes prevalence is very high (10.2%), with 12 590 people living with diabetes.

Changes included additional administrative support from the GP federation, education, joint clinics and mentoring from the community diabetes team. Overall, the two GP networks attained a 4.8% improvement in National Diabetes Audit three treatment targets achievement over a nine-month period. (See Figure 3.)
Case study 4

Hounslow has 43 practices, including a total of 20,531 people with diabetes, 48.6% from black and minority ethnic backgrounds.

Improvements across the whole CCG were seen following the introduction of the diabetes patient-level dashboard, locality network meetings and whole CCG education events. Practices in the CCG demonstrated a 3 mmol/mol mean reduction in HbA1c and a 9.1% increase in patients with HbA1c ≤58 mmol/mol (50.7% to 59.8%) over the three years. Many practices made use of the patient-level dashboard (Figure 2) to support data-driven quality improvement.

Discussion

The NWL-DTP is driving change across North West London and as a result diabetes care is improving. The critical ingredients for the improvements we have achieved are multiple and have required listening to, working with and achieving buy-in from patients, colleagues across the many care providers, commissioners and finance teams, as well as funding, time and a dedicated clinical and administrative support team.

Key enablers for the programme’s success to date have included the following drivers for change:

- Patient empowerment and collaborative care planning – the person with diabetes or NDH is the one who is living with the condition 24/7, and enabling the patient to feel more in control and empowered to make the right choices has been essential.
- Contracting – the commissioning of contracts for diabetes care across North West London based on these KPIs have helped drive up care.
- Clinician education:
  - Accredited group education programmes such as MERIT and TOPICAL (with over 370 attendees at PITstop and pre-PITstop courses over the past year).
  - Accredited online education: over 370 users of the Cambridge Diabetes Education Programme (CDEP) in the past three months.
  - Less formalised clinician to clinician training and mentoring through joint clinics and virtual clinics.
- Multidisciplinary team (MDT) working – networks and MDT meetings to skill up primary care to have the necessary competencies and confidence to manage diabetes have also been major drivers for change.
- Digital innovation – clinical systems optimisation across North West London has been essential to allow practices to access the clinical dashboards and clinical guidelines, and to perform regular audits and clinically risk-stratify patients for virtual clinics and MDT working.

We see each of these components as crucial in delivering the transformation.

The journey to optimise diabetes care across the eight North West London CCGs remains a journey – and like all journeys requires a working vehicle, passengers and a defined destination point, and the money to run it. The road map may need to change if barriers en route occur. However, like all journeys, it really helps if the driver has a clear sense of direction, all passengers aboard want to arrive at the final destination and there isn’t too much back-seat driving and squabbling.

There is no doubt the changes in delivering the North West London Diabetes Health and Care Partnership have required a culture change among primary, community and secondary care health care workers, as well as the patients as they have seen their care delivered differently. It is also true to say that in some areas this change has been slower than in others, and going forward for true sustainability will require us to build on what we have already achieved and encourage all across North West London.
London to work with us to optimise diabetes care within the North West London region.

Our next steps include:
- Implementation of an integrated outcomes-based service specification across all providers in North West London.
- Refinement of diabetes dashboards – we have already taken significant steps on this journey using the North West London Whole Systems Integrated Care platform in order to show primary care clinical data and secondary care outcomes data alongside each other, as well as visualising other calculated information such as diabetes risk scores.
- Acute care transformation in order to improve secondary care safety and reduce the risk of hospital-acquired complications.

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Declaration of interests
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References