Collaborative working project between Dudley Integrated Health and Care NHS Trust (Dudley IHCT) & Sanofi to review and improve the management of patients with diabetes in Dudley.

End of Project Evaluation Report

1.0 Project Aim

The aim of the project is to ensure the Dudley diabetes pathway and service is fit for the current health requirements of the diabetic population that it serves. To ensure this overarching aim is met, the project will focus on reviewing three key areas:

- The current diabetic pathway and population need
- DNA of specialist diabetic appointments
- Diabetic foot amputations

2.0 Project Objectives

The specific objectives of the project were:

Workstream 1: The current diabetic pathway and population need

- Complete a population health analysis to identify subgroups of type 1 and type 2 diabetic patients that are experiencing variations in care and health inequalities when utilising the current diabetes pathway and service.
- Map and review the current diabetes pathway and service across the Dudley region (Tier 1, Tier 2, Community and specialist) to identify how they compare to national and local standards and guidance. Identify 'pinch points' in the service including gaps, duplication, unhelpful variation, and service access problems.
- Produce a static infographic Dashboard at PCN and ICB level to collate key information to inform the population health management of patients with diabetes.

Workstream 2: DNA of specialist diabetic appointments

- Interview clinical and administrative staff of the specialist diabetes service to understand the reasons for patients that do not attend (DNA) their appointments.
- Undertake a population health analysis of the patients that DNA, to better understand the needs of the population and to identify any health inequalities that contribute to DNA.

Workstream 3: Diabetic foot amputations

- Analyse the diabetic foot amputation data to highlight trends of health inequality in foot amputations to identify the drivers of increased foot amputations.
- Map and review the current footcare pathway and service across the Dudley region to identify how they compare to national and local standards and guidance. Identify

'pinch points' in the service including gaps, duplication, unhelpful variation, and patient access problems.
- Facilitate an independent diabetic foot care peer review of the diabetic foot care pathway and services.

3.0 Project Outcomes & Benefits

The collaborative working project aimed to deliver the following benefits for Patients, the NHS and Sanofi:

Patients

- Improve the pathway for patients with diabetes to ensure equity of access, provision, and experience for patients with diabetes in Dudley ensuring the right patients receive the right care in the right place at the right time.
- Quicker and more equitable access to care for patients with diabetes
- Better access to treatment options for patients with diabetes as well as a clear pathway of care with an improved patient experience

NHS

- Reduction in unwarranted variations in care for patients with diabetes through targeting the programme at areas of high deprivation and health inequality
- Learning from the implementation of a population health management approach for patients with diabetes that can inform the implementation of population health management in other disease areas/population groups
- By specifically targeting areas of high deprivation the approach in diabetes could potentially be transposed to other disease areas.

Sanofi

- Greater clarity of the diabetes service, pathways and needs of the clinical team will allow us to tailor our support and offerings in the future.
- Improved corporate reputation with Dudley IHCT and partner organisations
- Insight to how a population health management approach can be used to improve patient care
- As a result of pathway changes some appropriate patients may be prescribed Sanofi products in line with local guidance

4.0 Project Implementation

To ensure the project and it's three workstreams were kept on track, a project steering Group was formed that included Associate Director of Pharmacy and Population Heath, ICS Strategy & Transformation Lead, Diabetes GP Lead, Clinical Lead and Pharmaceutical Consultant and three Sanofi representatives. The Group aimed to meet once a month to review progress of the project.

In addition to this, NHS and Sanofi leads were assigned to each workstream to ensure accountability, where the leads would aim to meet every 2 weeks.

For each workstream, it is important to note the following:

- Workstream 1: The current diabetic pathway and population need

  Alongside the Sanofi representative, the NHS lead for this workstream was the Pharmaceutical Consultant. Both leads took responsibility for agreeing a methodology to complete the health population analysis of the diabetes service. The agreed methodology included analysis of the quality outcomes framework (QOF), national diabetes audit data (NDA) and hospital episodic statistic data (HES) to build a picture to identify variation in standards across Dudley PCNs. In doing so, the analysis then homed in on practices of the identified PCNs that showcased greatest variability. A slide deck with commentary of this quantitative analysis was produced, where upon review from the committee, practices were identified to interview. The interviews then focused on the entirety of the pathway and localised practice issues, to provide a full and qualitative analysis – including solutions proposed by the interviewees. During this process, various expertise's were utilised from Sanofi representatives to co-ordinate this analysis.

- Workstream 2: DNA of specialist diabetic appointments

  Limited progress was made on this element of the project due to capacity constraints impacting on stakeholder participation. Consequently, the Project Steering Group decided to halt progress with this workstream at the beginning of January 2024.

- Workstream 3: Diabetic foot amputations

  Alongside the Sanofi representative, both the Diabetes GP Lead and ICS Strategy & Transformation Lead took joint responsibility as the NHS Leads for this workstream. The Leads pulled together an initial analysis of the Dudley diabetes footcare pathway to identify trends and variation. These outputs were then reviewed by the Project Steering Group. As a result, Sanofi and Dudley sub ICB collaborated with the Midlands Diabetic Clinical Network within NHS England (NHSE) to conduct an independent peer review of the diabetic foot care pathway within Dudley. The independent review resulted in a formalised report with recommendations for action for the broader Black Country ICB stakeholders, including Dudley.

Workstream 1 and 3 resulted in several insights where, with the support from Sanofi, the Project Group spent time aggregating and assessing which insights proved most valuable to add to an action plan.

The Collaborative Working Project commenced June 2023, and the key milestones delivered were:

Month	Workstream 1	Workstream 2	Workstream 3
June 23	▪ NHS & Sanofi Leads identified. ▪ Health population analysis sub-group established	▪ Sanofi Lead identified. ▪ Difficulty identifying / engaging appropriate NHS Lead.	▪ NHS & Sanofi Leads identified. ▪ NHS Lead reached out to Programme Manager of NHSE Midlands Diabetes Clinical Network
July 23	▪ Planned health population analysis methodology ▪ Began pulling data sources to build an initial picture.		▪ Produced initial diabetes foot amputations data analysis ▪ Liaised with key NHS stakeholders on pathway to gain initial understanding
Aug 23	▪ Re-iterated the data pulling to refine data sets.		▪ Analysed datasets to identify trends and shared with project steering committee
Sept 23	▪ Completed HES, NDA, QOF data analysis		▪ Leads reached out to NHSE Midlands Diabetes Clinical Network to conduct independent peer review of diabetes foot care pathway
Oct 23	▪ Finalised health population analysis report, highlighting trends.		
Nov 23	▪ Report reviewed by Project steering committee	▪ Difficulty identifying / engaging appropriate NHS Lead.	▪ Independent foot care peer review undertaken by NHSE Midlands Diabetes Clinical Network
Jan 24	▪ Health population report shared with wider sub ICS ▪ 6 Practices selected to interview	▪ Workstream 2 closed	▪ Results of independent peer review of diabetic footcare pathway shared with Project Steering Group
March 24	▪ Conducted 5/6 interviewed with selected practices ▪ Production of options appraisal		▪ Recommendations fed into final document in line with options appraisal
April 24	▪ Project Steering Group consensus of options appraisal		
May 24	▪ Project End report produced ▪ Project Close		

5.0 Outcomes and Benefits Achieved

The table below outlines the key objectives and outcomes the project set out to achieve and provides a summary of how the project has performed against these:

Key

Workstream 1

Workstream 3

Objectives	Outcomes and benefits achieved
Complete a population health analysis to identify subgroups of type 1 and type 2 diabetic patients that are experiencing variations in care and health inequalities when utilising the current diabetes pathway and service.	▪ A complete analysis was completed on the different data sets including: QOF, NDA, HES. ▪ This was compared to Dudley, Black Country ICB, and England averages. ▪ Both type 1 and type 2 diabetes subgroups were analysed. The project group decided to focus the analysis on type 2. ▪ A brief analysis was conducted on patient demographic (including age bands, index of multiple deprivation, ethnicity) for both sub types. ▪ Gaps, duplication, unhelpful variation were then further explored through an interview process. ▪ A condensed slide deck presenting the analysis has been produced. ▪ This is further supported by a comprehensive analysis looking at other QOF/NDA/HES parameters to support peripheral understanding of Dudley sub -ICB (i.e. ethnicity for type 1 in the various PCNs). ▪ A 'collated findings and considerations' document was also produced.
Map and review the current diabetes pathway and service across the Dudley region (Tier 1, Tier 2, Community and specialist) to identify how they compare to national and local standards and guidance. Identify 'pinch points' in the service including gaps, duplication, unhelpful variation, and service access problems.	
Produce a static infographic Dashboard at PCN and ICB level to collate key information to inform the population health management of patients with diabetes.	
Analyse the diabetic foot amputation data to highlight trends of health inequality in foot amputations to identify the drivers of increased foot amputations.	▪ An analysis of diabetic foot amputations was undertaken comparing amputation rates in Dudley to Black Country ICB and England averages. This analysis validated the requirement for an independent peer review of the diabetic foot care pathway. ▪ Collaborated with NHSE Midlands Diabetes Clinical Network to complete an independent peer review of the diabetic footcare pathway in Dudley. ▪ A formalised report was produced from the diabetic footcare review with recommendations for action to improve the pathway.
Map and review the current footcare pathway and service across the Dudley region to identify how they compare to national and local standards and guidance. Identify 'pinch points' in the service including gaps, duplication, unhelpful variation, and patient access problems.	
Facilitate an independent diabetic foot care peer review of the diabetic foot care pathway and services.	

6.0 Results and Key Achievements

Workstream 1: Population Health Analysis Findings:

QOF

- National QOF data not representative of Dudley performance as Dudley clinicians capture QOF scores via the Dudley QOF (DQOF).
- Dudley PCNs appeared to achieve below the Black Country ICB and England averages for **Non-Diabetic Hyperglycaemia annual reviews**. This finding enabled the team to identify a coding error.

HES: Outpatients Data

- PCNs spend a **combined total £577,062 and £1,011,345** on first and follow-up outpatient service appointments, respectively.
- **Greater usage of face-to-face appointments vs. telephone appointments** for both first and follow up attendance appointments (approximate average costs **£140 vs £23** per appointment respectively).
- **1:3 ratio** for first appointments vs follow-up appointments within the service
- **Significantly higher first face-to-face attendance appointments** seen within **2 PCNs** vs their respective diabetes population sizes.
- **5 surgeries** spent more per 1000 patients on outpatient appointments than the average Dudley practice, where a **total spend** was **> £86,000**.
- **3 surgeries** had **> 22%** (Dudley practice average) of its patients within the outpatients setting.

NDA

- **3 PCNs**, and therefore **9 subsequent practices**, achieved below the England average for patient screening for Glycated haemoglobin (Hb1Ac), blood pressure and cholesterol checks, for type 2 diabetes.
- **4 PCNs**, and therefore **11 subsequent practices**, achieved below the England average for three treatment target scores.
- When cross referencing the above two points, the same **3 PCNs,** and therefore the same **5 practices,** achieved below the England average on the above screening and treatment parameters.

It's important to note, the above points are summaries and further detail, and context can be found within the analysis.

Workstream 1: Interviews & Collated Findings

As a result of the above analysis, the Project Steering Group selected **6 practices** that were recurrent outliers within the analysis, to be interviewed to provide further information on the above findings.

The interviews focused questions on the above findings and the diabetes service in general. The responses for each question resulted in **7 common themes** at a GP practice level and and **3 common themes** at a broader service level. The overall themes are highlighted in the figure below, and a detailed analysis was shared at the Project Steering Group.

GP Practice common themes	Service Common Themes

1. **GP1:** Low staff numbers / no staff capacity to complete QOF 2. **GP2:** Upskilling allied healthcare professionals (Nurse, HCA, PA, Pharmacist) in diabetes management, insulin & GLP-1 initiation and management 3. **GP3:** QOF template difficult to navigate as there are many options. Also applicable to the DQOF 4. **GP4:** GPs felt they had only '1 shot' to speak to patients about diabetes (due to low patient engagement, reduced attendance over multiple touchpoints, increased workload) and therefore they felt patients had limited understanding of diabetes and did not understand the severity of the condition. 5. **GP5:** Urine albumin to creatinine ratio (ACRs), diabetes footcare (DF), retinal screening difficult to deliver and record considering the '1 shot' concept, as mentioned above. 6. **GP6:** Block payment vs. payment per insulin start (DQOF). Healthcare professionals felt block payment did not incentivise the right practice behaviours (can start 1 patient vs. multiple and the payment would be the same) 7. **GP7:** Inefficient practice processes. Variation across surgeries.	1. **WS1:** Gap in diabetes management, particularly around the concept of 'total diabetes care including mitigation of associated conditions' due to untrained staff, reduced patient trust to utilise the system. 2. **WS2:** Conversely a fear of commissioning services outside of primary care and therefore loss of expertise. 3. **WS3:** Long referral times. Practices felt referring into secondary care / specialist services took up 3-4 weeks, losing patient engagement.

Based on the above findings, the project Steering Group agreed to explore the following actions correlated to the above GP/WS codes:

Code	Explorative Action
GP2	▪ Expand the PCN model where 2/3 pharmacists of each PCN are trained in diabetes management. ▪ Re-route funding to support the above delivery of model of care in 24/25. ▪ Possibly consider nurse rotation from each practice to cover PCN model.
GP3	▪ Write out to the practice managers, to see if staff need further training on the QOF template. Then organise virtual session (for all long-term conditions presented within QOF).
GP4	▪ Run searches for targeted practices for Healthwatch group to then contact patients on behalf of the practices.
GP7	▪ Provide dashboard data to practices to share diabetes performance to support peer to peer comparison and drive to be better. ▪ Provide practice action plans in place for those practices underperforming.
WS1	▪ Review practices that have poor outcomes for patients and therefore review the frequency of CPTs / MDTs meetings within those subgroups. ▪ Review PCN model vs CPT/MDT.

Workstream 3: Diabetes Footcare Review

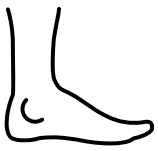
The independent review highlighted the following key summary points:

- Dudley demonstrated good practice through networked digital imagining technology and better integration could be achieved by further rolling it out to the community service.
- Patient safety incident response frameworks (PSIRFs) of major amputations is highly recommended and this is something that can be supported by the Clinical Network through a facilitated training session, if required.
- Provision of clinical space is good however provision of orthotics is variable with a long wait time, and this poses a potential risk for recurrence in ulcerations.
- The review panel acknowledged the work undertaken by the ICB Clinical Lead for Diabetes and the amount of work being done to improve HCP knowledge and raise awareness of pathways.
- Additional work however is required to raise awareness around screening, referral to the appropriate pathway to ensure clarity for primary care colleagues. This will also allow community podiatry to manage workload at a time of significant vacancies. There is a need to look at the skill mix in community podiatry given the high number of vacancies.
- **Recommendation:** Regular and ongoing virtual meetings that allow acute, community and ICB colleagues to collaborate and collectively look at PSIRFs will help unpick issues across the pathway.

Specific actions can be found in a separate document for both Dudley and the broader Black Country ICB.

Key Achievements


Workstream 1: The current diabetic pathway and population need
	▪ **5 practices** identified as recurrently achieving below Black Country ICB and / or England average on several parameters.
	▪ Identified **2 PCNs** that had a disproportionate spend on diabetes outpatient appointments vs. their diabetic population list size.
	▪ **3 practices** having greater than 22% of its diabetic population within an outpatient setting.
	▪ **5 practices** spending over £86,000 on outpatient appointments per year, higher than the average Dudley practice when adjusted for list size.
	▪ **10** common themes at GP practice and service level identified during the interview process, with solution generation for ***5*** common themes.
	▪ **Proposed actions**:
	  ▪ Expand the PCN model where 2/3 pharmacists of each PCN are trained in diabetes management.
	  ▪ Re-route funding to support the above delivery of model of care in 24/25.
	  ▪ Possibly consider nurse rotation from each practice to cover PCN model
	  ▪ Increase frequency of CPT/MDT or Review PCN model vs CPT/MDT
	▪ Through project management support enable Dudley sub-ICB the bandwidth to validate core assumptions of their service.


Workstream 3: Diabetic foot amputations
	▪ Independent peer footcare review conducted in November 2023.
	▪ Key **positive** findings:
	  ▪ Good practice through networked digital imagining technology
	  ▪ Provision of clinical space is good
	  ▪ ICB Clinical Lead for Diabetes driving large amounts of work to raise HCP awareness of the pathways.
	▪ **11** assigned actions to the wider Black Country ICB and Dudley sub ICB.
	▪ Key **recommendations** for improvement:
	  ▪ Further integrate networked digital imagining technology into the community setting
	  ▪ Complete PSIRFs for major amputations via Clinical Network
	  ▪ Further raise awareness of pathways within the community
	  ▪ Increase skill mix for podiatry in the community
	  ▪ Aim to have regular and ongoing virtual meetings that allow acute, community and ICB colleagues to collaborate and collectively assess PSIRFs

7.0 Challenges and Issues

- Project suffered from large scope, with the intention to complete 3 different workstreams within 6 months.
- Difficulty engaging certain key NHS stakeholders to lead on workstream 2, and practices selected to interview, thus extending the timeframe to deliver the project.
- Given the nature of the objectives of this project (i.e. diabetes service review), a wider ICB buy-in is required from NHS stakeholders, as they contribute to service delivery.
- As this project was an innovative idea, it took time for both Sanofi and Dudley IHCT to craft the process and to achieve project outcomes. However, this project now provides a template for future diabetes projects.

8.0 Lessons Learnt

A number of key lessons were learned that would be valuable for other similar projects looking at reviewing services and pathway transformation:

- The importance of having dedicated Project Management time devoted to co-ordinating the implementation of the project.
- The benefit of having a Project Steering Group to oversee and monitor implementation of the project as this has helped to keep the project mostly on track and has supported the management of issues and risks in a timely manner. Monthly meetings worked well in co-ordinating the project.
- The importance of assigning NHS Leads to sub-groups as it enabled easier access to other key NHS stakeholders and guide the project given their expertise and local knowledge.
- The importance of setting out at the start of the project the outcomes to be achieved and the outcome measures to be used to evaluate the benefits of the project.
- Although this project suffered from a ‘large scope’ and thus three different workstreams, ensuring the scope is further focused within future projects, with appropriate timeframes.
- When discussing pathway review and development, ensuring wider key NHS stakeholders are bought in and updated regularly on the project, outside of the project group, to ensure maximum efficiency.

9.0 Next Steps

The project has delivered mostly on the aims and objectives of the collaborative working project. However, workstream 2 on DNAs was omitted due to inability to identify an appropriate NHS lead for this workstream. The collaborative working project has identified a number of proposed actions for Dudley sub-ICB to consider. These will be considered by the Diabetes Clinical Network and taken forward as part of the Diabetes Strategic Plan.