Sandwell pioneers primary care implementation of diabetes tech to improve community wellbeing

The Black Country Integrated Care Board (ICB) serves 1.26m people¹ living in Dudley, Sandwell, Wolverhampton and Walsall.

Life expectancy in the Black Country is significantly lower² in all four of these areas compared to the national average in England. The region has a higher recorded prevalence of diabetes, with more than 108,000³ people currently living with the condition, of which 94% are living with type 2 diabetes.

NHS GP practice data shows that 9.9% of the Sandwell population have diabetes, which is higher than the national average of 7.1% and the West Midlands average of 8%.⁴

Sandwell is also one of the most deprived local authorities in the country, ranking as the 12th most deprived in England, out of 317⁵ local authorities. It reflects a diverse demographic, with more than 25% of the local population identifying as Asian or Asian British. The most common languages spoken in Sandwell other than English are Punjabi (6.4%), Polish (1.7%), Bengali (1.0%) and Urdu (1.0%).

ENGAGING PATHWAYS FOR IMPROVED HEALTH OUTCOMES

Local Diabetes Specialist Nurse working in GP practice Lynn Broomfield (RN Queen's Nurse), and Commissioning Pharmacist Gurpreet Kaur, support the Your Health Partnership in Sandwell, covering seven GP practices and providing services for over 53,000 individuals across the West Midlands. With a specialist interest in diabetes care, the local team wanted to support people living with diabetes who were waiting for a specialist appointment to access continuous glucose monitoring (CGM) during the COVID pandemic.

Lynn Broomfield said:

"I was keen to embrace the knowledge and skill to implement this in primary care – 'why are they missing out on this valuable piece of technology?"



"The FreeStyle Libre pilot project enabled me to collaborate with the secondary care diabetes team, aiming to bring a service that was previously only available to patients living with diabetes attending the consultant-led service in the hospital setting. There were groups of people who were eligible but would never have had the opportunity to benefit due to being lost to follow-up appointments or not engaging with this pathway.

"The outcome of the pilot project was presented to the NHS Sandwell & West Birmingham Hospital Trust Board, demonstrating improved diabetes control, increased equity of access and positive feedback from individuals."

A person living with Type 1 diabetes who took part in the pilot said: "Since having the FreeStyle Libre 2 device, I have felt so much less constrained by diabetes. Having access to real-time tracking of glucose has been revolutionary." Despite having Type 1 diabetes for 38 years, my HbA1c is back in normal range. The benefits are beyond the obvious health improvements, for example, my fingertips no longer hurt. For the first time in years, I have felt normal. The benefit of having the FreeStyle Libre 2 system has been life-changing for me⁸."

Images are for illustrative purposes only. Not real patient.

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VARIATION IN ACCESS

Historically, there has been longstanding inequality for patients who need access to diabetes technology, with data on variation highlighted in 2019. However, this variation was further exacerbated by the COVID-19 pandemic, and recognising these issues, Lynn and Gurpreet initiated a safe pathway for the implementation of continuous glucose monitoring (CGM) within the GP practices. The practices were integrated with the Trust, and they used Blueteq in primary care to seek approval and ensure that LibreView could be used as a platform.

As part of the pathway plan to reduce variation in access to the FreeStyle Libre technology, the practice worked closely with Abbott's market access specialist support team to identify eligible patients and implement pathway process mapping. Individuals identified were with agreement of the practice nurse and within their area of competence. This included multiple stakeholders including specialist consultants, commissioners, finance, as well as the medicines management leads in Sandwell.

A pilot scheme was implemented from January 2021 to October 2021 with ten patients, and by April 2021, LibreView⁹, the data management software, was used by healthcare professionals to review and analyse historical glucose data.

The monitoring process showed patients who were scanning more frequently had better control of their glucose levels, lower HbA1c, and lower rates of variability. They also spent less time over the hyper threshold and were more likely to spend time in their individualised target range. After six months, the average Glucose Monitor Indicator (GMI) for patients was 54.6mmol/mol, which meant the group average was achieving the 58mmol/mol treatment target.

REDUCING BARRIERS AND IMPROVING PATIENT ENGAGEMENT

As a result of this pilot, in October 2021 the policy for Flash removed the requirement for prior Blueteq approval, enabling trained healthcare professionals in primary care settings to offer and initiate the FreeStyle Libre 2 system. This change in process had a lasting impact by improving health outcomes for people living with diabetes by streamlining the administrative hurdles faced by local clinicians, which was in line with barriers faced by other areas of the Black Country at the time.

Abbott's specialist territory manager worked closely with healthcare professionals to help them initiate the FreeStyle Libre 2 system and support their patients; this meant providing a range of translated videos including in Punjabi and Urdu, enabling healthcare professionals to better engage with patients from different ethnic backgrounds.

The primary care territory manager also initiated the offering for patients to use telephone translators, and trained healthcare professionals to get the best from how data sharing can increase access from different pathways.

PARTNERSHIP WORKING

Healthcare professionals leading diabetes management in primary care settings are well placed to identify patients for interventions such as isCGM¹⁰, and can understand some of the barriers facing the local population when it comes to accessing diabetes technology. Often, barriers within areas of high deprivation can present in various ways for patients, including being unable to take time off work, care duties, transport costs and accompanying social factors.

As a result of this pilot, data was shared with the diabetes clinical learning networks within the Black Country ICB. The medicines management team continued to develop guidance to support wider implementation with a view to ensuring that primary care services employees are trained and supported to use the FreeStyle Libre 2 system in eligible patients.

It is likely that anticipatory care, combined with the known efficacy of CGM for improved self-management, will produce clinically significant improvements including a reduction in waiting times for secondary care initiations, reduced hypos, improved HbA1c due to Time in Range, leading to a reduction of long-term complications and use of secondary care and emergency services.

Gurpreet Kaur said:

"I was familiar with the FreeStyle Libre technology and its emerging evidence, based on improving diabetes control. At the time, we were facing unprecedented pressures within our specialist services and were particularly concerned about the effects of COVID-19. My initial focus was to develop a governance framework to enable competent healthcare professionals to initiate the FreeStyle Libre 2 system in primary care and improve access to those who would benefit the most.

"I was supported by my colleague who shared my passion for delivering the best health outcomes for the communities we serve. This pursuit of identifying and resolving barriers to equitable access was supported by the organisation, enabling this pilot to quickly transition from idea to implementation.

"I'd like to thank the local Abbott team for the time and support they have provided throughout this journey – ranging from availability to deliver in-person training, understanding local needs in resource provisions, to simply being a central touchpoint in connecting the necessary stakeholders together."

RAISING AWARENESS – WORLD DIABETES DAY 2022

Gurpreet Kaur and Diabetes Specialist Nurse Amelia Cook organised an event to coincide with World Diabetes Day in November 2022. This involved a partnership with one of the local Primary Care Networks – Citrus PCN. The purpose of the event was to raise awareness of diabetes in an area where there are high levels of deprivation and inequalities. Individuals with a known diagnosis of type 1 or type 2 diabetes were invited as well as those identified as being at high risk of developing type 2 diabetes.

Gurpreet Kaur said:

"We had the opportunity to conduct a patient-facing event with a Sandwell PCN, where we conducted HbA1c point-of-care testing and health checks. A fundamental element was to raise awareness of health technologies, which was supported by a Diabetes UK Lab Project fund, and eligible patients were invited to learn more about CGM and discuss any concerns. The multiple language resources within our community were fundamental to aid dialogue and support uptake.

"It is vitally important to engage locally with our communities and provide awareness in a constructive and proactive way. People living with diabetes, or those who are unaware that they have it, are all around us with a significantly higher risk in ethnic populations."

The event took place in a large leisure complex, Portway Lifestyle Centre next door to Portway Family Practice. The primary objective was to highlight the "Know Your Numbers" campaign and raise awareness of the signs of diabetes, to help known patients living with diabetes to reduce the risk of life-changing complications and to identify early diagnosis of pre-diabetic patients and promote healthier lifestyles. Other local service providers were in attendance and provided information and support on the broader aspects of diabetes care.

Information and health checks were available on the day, and included:

- Assessing an individual's risk of type 2 diabetes
- Providing healthy lifestyle advice, resources and signposting
- Providing information regarding glucose monitoring, including new technology such as the FreeStyle Libre 2 system, ketone testing, blood pressure and cholesterol testing
- Providing free HbA1c diabetes testing on the day administered by clinical staff
- Providing weight management and foot care support, together with information on diabetes eye screening

The results were shared with the participant, and with their consent, results were also uploaded onto the relevant clinical systems for those registered with Citrus PCN.

Local healthcare professionals utilised equipment on board the 'Abbott Bus', with support from Abbott's Diabetes Care and Cadiometabolic Rapid Diagnostics teams. The fully equipped bus was split into two halves. The first section enabled immediate initiation and training of individuals identified as eligible for the FreeStyle Libre 2 system, with half a dozen people with type 1 diabetes gaining access to the technology and wider resources on the day. The second area provided a diabetes screening service, using the Abbott Afinion analyser to perform HbA1c point-of-care testing. Over 90 HbA1c tests were performed over a 3-hour period, identifying a high proportion of individuals as pre-diabetic, with onward referral to the National Diabetes Prevention Programme and signposting information for local support.

The feedback was highly positive from local stakeholders and those who attended, highlighting the value of undertaking this targeted outreach.



Gurpreet Kaur concluded:

"The testing bus was very popular and the engagement and interactions were extremely valuable for us to learn the best and most appropriate ways to gain trust from and inform our communities. The use of literature in different languages and the offer of ethnically appropriate written materials both enhance the patient experience and allow us to provide a better service to patients. Attending places of worship and local community centres where patients feel more at ease to talk freely about their experiences helps us to provide better care, and the patients to feel heard.

"The additional offer of tech for patients in the form of FreeStyle Libre 2 and other devices offered a new dimension of reach to those with type 1 diabetes; this had a legacy effect with several FreeStyle Libre 2 starts post-event for people living with type 1, enriching and improving their quality of life."

Amelia Cook added:

"Technology can be a daunting prospect and the initial training conducted during The Portway awareness day proved challenging, each patient requiring time and explanation. CGM can be particularly revolutionary for non-English speaking patients/those with renal

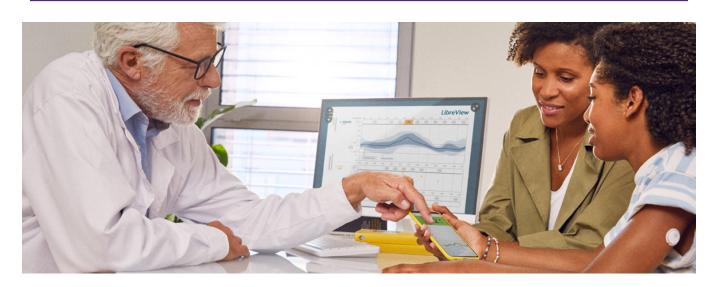
impairment and communication difficulties. It enhances, enriches, and changes outcomes, and most importantly the patient with diabetes feels more in control of their health.

"I am very interested and passionate about access for all; we know from evidence that those from different ethnic groups and those in areas of deprivation are less likely to access technology. We need to find new ways of engaging patients and raising awareness, we also want to break down the barriers that exist, such as the myths around CGM e.g. 'I won't be able to use it as I'm not tech savvy'; the answer is yes you can!

"I have never seen any intervention that has impacted patients in such a short time. Improved Time in Range resulted in HbA1c reductions, and the use of interpreters alongside diabetes technology have closed the gap between clinician and patient and most definitely increased the quality of the consultations."

Gurpreet Kaur said:

"With increased use of technology and advances in CGM in the community, there is a need to upskill and support both staff and people with diabetes in the use of these technologies."



Images are for illustrative purposes only. Not real patient.

1. https://blackcountry.icb.nhs.uk/about-us#:~:text=We%20are%20a%20statutory%20NHS,people%20in%20the%20Black%20Country. 2. https://blackcountryics.org.uk/application/files/3016/8804/5390/NHS_Black_Country_JointForwardPlan.pdf. 3. https://blackcountry.icb.nhs.uk/news-and-events/latest-news/know-your-risk-diabetes#:~:text=In%20the%20Black%20Country%2C%20more,lifestyle%20and%20managing%20your%20weight. 4. https://www.healthwatchsandwell.co.uk/key-projects#:~:text=9.9%25%20of%20the%20Sandwell%20population,indicates%20an%20overall%20upward%20trend. 5. https://www.sandwelltrends.info/deprivation_west_midlands_context/#:~:text=The%20Indices%20of%20Multiple%20Deprivation,to%20other%20districts%20in%20England. 6. https://www.sandwelltrends.info/dethnicity-religion-country-of-birth/. 7. Glucose readings are automatically displayed in the FreeStyle LibreLink app only when the user's smartphone and sensor are connected and in range. The FreeStyle LibreLink app is only compatible with certain mobile devices and operating systems. Please check the website for more information about device compatibility before using the app. Use of FreeStyle LibreLink may require registration with LibreView. 8. Finger pricks are required when readings and alarms do not match symptoms or expectations. 9. The LibreView data management software is intended for use by both patients and healthcare professionals to assist people with diabetes and their healthcare professionals in the review, analysis and evaluation of historical glucose device data to support effective diabetes management. The LibreView software is not intended to provide treatment decisions or to be used as a substitute for professional healthcare advice. 10. Intermittent scanning Continuous Glucose Monitoring, such as the FreeStyle Libre 2 system.

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