‘Don’t tell us off’: Examining Ways to Improve the Health Care of People Experiencing Homelessness with Diabetes

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This project has been a partnership delivered by the following individuals, and could not have taken place without them:

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Nurses presenting QI projects / case studies of good practice work

Specialist diabetes nurses:

Lynne Wooff - Diabetes Specialist Nurse, Bolton NHS Foundation Trust; **Juliette Palmer** - Diabetes Specialist Nurse. Brownlow Health; **Laura Walmsley** - Diabetes Specialist Nurse, Mersey and West Lancashire Teaching Hospitals; **Becky Smith** - Diabetes Specialist Nurse, Mersey and West Lancashire Teaching Hospitals; **Susie Goodwin** - Diabetes Specialist Nurse, Salford Royal NHS Foundation Trust; **Emma Green** - Advanced Diabetes Specialist Nurse, University Hospitals, Plymouth; **Andrea Biddulph -** Clinical Service Manager, Diabetes and DESMOND, Nutrition and Dietetics – Adults and Paediatric, Homeless Health, Nottingham CityCare Partnership CIC.

Inclusion health nurses:

Mickey Pitcher-Cooke - Practice / Physical Health Nurse, North Norfolk Primary Care / Vulnerable Adult Service / Criminal Justice CGL; **Rebekah Besford** - Clinical lead for Homeless and Health Inclusion Team, Leeds Community Healthcare Trust; **Angelique Denys** - Homeless Outreach Nurse / Non-Medical Prescriber, York Street Health Practice, Leeds; **Pauline Finlay** - Specialist Nurse Practitioner for the Homeless, St Werburghs Medical Practice for the Homeless; **Inger McGowan** - Practice Nurse Homelessness and Inclusion Health, Edinburgh Access Practice; **Kirsten Roberts** - Homelessness and Harm Reduction Specialist Nurse Prescriber, Bristol Drugs Project; **Suzey Joseph** - Homeless Health Clinical Lead, Nottingham City Care Partnership CIC; **Hannah Green -** Community Hepatology CNS, Barts health and Kings College Hospital; **Moira Thresher** - Clinical Nurse Specialist, Rough Sleepers Team, Addiction Recovery Community Hillingdon (ARCH), Central and North West London NHS Foundation Trust (CNWL).

Occupational therapy participants:

Nicole Searle - Occupational Therapist, Rough Sleepers and Mental Health Programme (RAMHP), North West London NHS Trust; **Nina Friis** – Occupational Therapist, York Street Health Practice, Leeds; **Nasiba Chowdhury -** Homelessness Occupational Therapist, Swansea NPT 360 Project.

Experts by Experience at workshops / meetings

Anthony Jablonski; Joanne; Sahar; Cecilia.

Experts by Experience involved in detailed interviews and video / drawings and audio

Kellie Hart – video content / drawings; **Lee Nelson** – audio content.

Additional Contributors

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Additional resources available as stand-alone documents alongside this report:

Quality Improvement Audit tools:

- Inclusion health nurses audit tool
- Patient conversation starter
- Excel spreadsheet for data collection
- Specialist diabetes nurses audit tool

Groundswell diabetes leaflets

Diabetic eye care leaflet

Executive Summary

This report was produced at the end of a 15-month (April 2023 – June 2024) Burdett Trust for Nursing funded collaborative project which examined ways to improve the nursing and allied health care of people experiencing homelessness with diabetes across the UK.

The report is accompanied by a Fairhealth e-learning and Queens Nursing Institute Homeless and Inclusion Health Programme guidance document that were also produced as a result of the project.

The project was conceived in response to the high risks and poor outcomes known to be experienced by many people experiencing homelessness with diabetes and prompted by the innovative work of Specialist Diabetes Nurse Lynne Wooff (nee Bromley) in Bolton.

The very active steering group for the project involved inclusion health and specialist diabetes nurses, a Diabetes Consultant, a Specialist Inclusion Health GP, a Dietician, an Optometrist, a Podiatrist, an Occupational Therapist and Experts by Experience.

It is important to note the huge role that Experts by Experience played in shaping the project and focusing our attention not just on access to care issues, but also the need for sensitive, skilful care delivery, that does not cause disengagement.

Thirteen nurses undertook local Quality Improvement projects as part of the wider programme. As a result, a huge amount of knowledge about best practice was shared through the collaborative network. This type of networking has been shown to be a great model for national quality improvement and could be applied to other areas of practice e.g. epilepsy, or respiratory.

The project comprised a literature review, a review of safeguarding adult reviews, two open access on-line workshops, patient interviews, a survey, visits to areas of good practice, the nurse led QI projects, and a final in-person workshop sharing nursing best practice in this area.

The main findings from the project are summarised below:

Literature review findings

34 studies were considered in the literature review, and a summary of the findings of all the papers is provided in the report.

The themes identified were:

- The prevalence of diabetes in homelessness populations is unclear (it has been shown to be both higher and lower than in the general population in differing studies).
- Homelessness poses numerous barriers to managing diabetes.
- Poor blood sugar control and serious complications are common.
- Many approaches to trying to improve diabetes care are documented but innovative, multi-disciplinary, multi-agency approaches are needed.

- Gaps in practitioner knowledge are known to exist.
- Experts by Experience provide powerful insights on what is needed.
- Peer support can be successful and positive.

Safeguarding Adult Reviews (SARs)

5 SARs were analysed to understand any themes behind failures in care for people experiencing homelessness with diabetes.

The themes identified were:

- High clinical risks related to diabetes and trimorbidity.
- Multiple A&E attendances / admissions not resulting in a coordinated plan of care.
- A lack of understanding of self-neglect and related failures in safeguarding.
- A lack of clear identification of communication and cognition difficulties.
- A lack of referral for Section 42 (Care Act, 2014) safeguarding reviews.
- Evidence of a lack of ability to effectively assess mental capacity in complex scenarios.
- A need for more robust multidisciplinary team processes, with robust risk management and identified leadership.
- A lack of connection between services.
- A lack of understanding of the risks of homelessness in hospital staff (including a lack of recognition of homelessness, and knowledge of the Homelessness Reduction Act 2017).
- A need for 'easy read' materials.
- A need for trauma informed care.
- A failure or lack of transition services for care leavers, and also when young people are required to move to adult diabetes services.
- Specific risks e.g. overdoses of insulin and co-concurrent eating disorder.

Open access workshops

2 open access online workshops were attended by over 50 participants each. They focused on:

- Challenges associated with diabetes and homelessness in the UK (53 attendees).
- Innovation, solutions and ideas from across the UK for improving the quality of care for people experiencing homelessness with diabetes (54 participants).

Workshop 1 identified multiple significant barriers to good care, including personal and psychological issues, practical issues for patients, system and service delivery issues, and condition and condition management related issues. Experts by Experience talked about how difficult experiences in health care were causing people to disengage.

Key quotes from practitioners included:

'People experiencing homelessness haven't got uncomplicated diabetes…. They have complicated diabetes. Sometimes it's even difficult for us to understand what kind of diabetes they have, and what treatment they need'.

'He was supposed to be proper recording, and doing this two or three times a day. He just couldn't do it. He doesn't even have the concept of 'time' in his mind. Is it day, is it night? It's all quite the same for him'

'Poor dietary choices are not choices; they are the only option to survive.'

'Basic education is definitely lacking. Lots of patients don't understand the basics, not just these patients.'

'They were moving from place to place, they were not settled. It was very difficult for them.'

'Sometimes it's the addiction that's stopping them engaging, but more often this is the symptom. People have given up, it's a slow death, and they have accepted this.'

Overall, the experience of a patient experiencing homelessness with diabetes was described to be *'challenging, frightening and isolating with multiple barriers.'* Many individual stories of challenges were presented.

Workshop 2 commenced with a Mentimeter poll which asked for practitioner perceptions of how well people experiencing homelessness with diabetes are cared for. 20 out of 25 people (80%) who were able to give a response said either 'not very well' or 'very badly'.

Nonetheless, lots of innovative practice was shared in the workshop, and multiple ideas were exchanged on how to improve care in inclusion health services, specialist diabetes services, screening, nutrition and within the asylum system. These formed a basis on which the recommendations for this project were built.

At the end of the Workshop Two 31 out of 33 (93.4%) respondents who were able to access Mentimeter said they felt they could either definitely or maybe play a role in improving care in their local system, demonstrating the impact of coming together to discuss these issues.

Patient interviews

Following these workshops three patients currently experiencing homelessness with diabetes were interviewed to further understand some of the Expert by Experience themes from the workshops. Two interviewees were in hospital on first contact, one was in a hostel. The two in hospital were interviewed on more than one occasion. Both participants went on to provide specific learning content for the Fairhealth E Learning and Queens Nursing Institute guidance. Transcripts of some of the interviews are provided in the report with their consent, due to the incredible insights gained.

The themes that came up from the patient interviews were:

- Patients can feel told off and looked down on when being given a diagnosis of diabetes. This can also happen when they are being asked about their own concordance e.g. to a healthy diet. This can turn them away from care.
- Patients are aware how serious diabetes is, and this can scare them. This can also turn them away from care.
- Diabetes is very complicated to understand. Leaflets don't help very much. Simple language is important.
- Managing diabetes when you are homeless is very difficult due to practical issues like medication storage, food preparation etc
- Opportunities for health education and support are sometimes missed by health care practitioners.
- Nurse explanations, support and case management make a massive difference.
- Support in hostels is also vital, and can contribute massively, and can be lifesaving - although people experiencing homelessness with complex diabetes are hard to place in appropriate accommodation with the right level of support.

Some key overarching messages from these interviews were:

- 'Don't tell me off' – Language, and a sensitive approach and delivery really matter in terms of how a patient is able to engage with their diabetes.
- 'Don't tell me to do something I can't do' – Eating healthily, storing medication safely, and maintaining records can be very challenging for someone who lives in one room and is destitute. Unrealistic targets are off-putting.
- 'Don't just give me a leaflet' – Diabetes really isn't that simple. Repeated explanations may be needed, taking account of language, literacy, and information processing issues.

These specific messages were developed in film footage and drawings later undertaken with one of the interviewees.

University of Plymouth hosted survey

A 20-minute practitioner survey was undertaken to inform the programme, with ethics approval obtained from the University of Plymouth. 104 responses were collected and analysed from three main respondent groups: specialist homeless / inclusion health services (38% of responses), specialist diabetes services (31%) and other professionals who support people experiencing homelessness with diabetes (32%). The most common professions were Nurse (42%) and Doctor (22%), with respondents being distributed across the UK.

Respondents from all three groups had worked frequently with people experiencing homelessness with diabetes over the previous year, and 27% had worked with 6 or more in the previous 3 months. Respondents indicated they thought that Type 2 / 3 diabetes was more common than Type 1, although the estimated level of Type 1 was higher than what is typically found in the general population.

Overall, diabetes care outcomes for people experiencing homelessness were perceived to be very poor, and diabetes-related complications were perceived to be much more common in this group than in the general population, with cardiovascular issues and dental issues being thought to be the most common complications.

The survey identified numerous important issues related to care provision for this group, including patients not receiving referrals for specialist review and / or not being able to access specialist diabetes services despite needing their support. Whist 48% of patients were judged to need specialist support, 25% were said to be receiving it. There was also limited outreach, a lack of routine diabetes screening as part of inclusion health assessments, a lack of assessment of housing status in diabetes services, challenges for patients accessing annual checks including foot and eye screening, and difficulties accessing certain health care practitioners (e.g. dietician support, mental health support). Interestingly 69% of respondents from specialist diabetes services said that they were aware of specialist homeless / inclusion health services in their local area, but 46% said that they 'rarely' or 'never' contacted these services for support.

Multiple barriers were thought to exist for both patients and clinicians when accessing specialist review, with service inaccessibility, patients' complex needs, and difficulty contacting patients for follow-up, standing out as the most challenging issues. 73% of respondents said that they found managing diabetes for patients experiencing homelessness to be 'very challenging' or 'challenging'. However, respondents also identified several effective strategies for improving care, with outreach, flexible appointment times and accessible information being highlighted as the most effective.

Finally, the survey identified significant gaps in training and education, with just 9% of respondents having received specialised training on providing diabetes care to people experiencing homelessness. In terms of specific training topics, training on mental health

and addictions considerations in diabetes care, and ways to outreach / improve access stood out.

Visits to areas of best practice

5 visits to areas of best practice were undertaken, and the detail of service provision in these areas is provided.

The collective insights gained, led to a consensus on the key elements of practice that have improved care:

- Strong partnership working between specialist and inclusion health and homelessness services.
- Outreach from specialists to settings where vulnerable patients are
- Audits of care and effective gathering of data.
- Training of homeless hostel, day centre and outreach staff.
- Proactive use of Continuous Glucose Monitoring technology.
- Partnership working with eye screening and podiatry services.
- A clear focus on prevention and screening.
- A personalised case management approach for complex individuals.

Clinical insights

A huge number of clinical insights were gained from the collaboration of all the clinicians on the project regarding the delivery of safe, pragmatic, proactive, and preventative care in this group. These are presented in the report and also form the core basis of the Fairhealth E Learning and Queen's Nursing Institute guidance.

The insights relate to:

- Potential benefits of using of Continuous Glucose Monitoring in this group.
- Identification and clinical management of Type 3c diabetes.
- Adaptions of insulin and management regimes for people with addictions.
- Identification and responses to mental health issues associated with diabetes e.g. eating disorders and overdose risks.
- The need for nutritional and food security screening, vitamin and mineral supplementation, and possible supervised supplementation of nutrition supplements.
- Commonality of missed eye screening and responses to this
- The need to promote undertaking of foot checks in primary care and on admission to hospital.

Safeguarding insights

Three safeguarding studies are presented in the report, which represent good practice responses to safeguarding risk that were identified during the project.

Insights from these case studies include:

- The value that non-safeguarding nurses add in identifying vulnerability and self-neglect, and supporting a robust safeguarding response.
- The time and tenacity needed to deliver high quality safeguarding responses.
- The complexity of these issues and the absolute need for a joined up multidisciplinary response.
- The need for longitudinal mental capacity assessment.
- The value of getting help from mental capacity specialists.

One of the patient interviewees was held under a Deprivation of Liberty Safeguards (DoLs) procedure for diabetes treatment after multiple attendances at Accident and Emergency, due to concerns about his executive capacity. His response being held in retrospect was:

> *'I'm glad that happened. I needed someone to take control.'*

Whilst totally recognising the individual nature of patients' lives, this patient kindly consented to undertaking a recorded interview to share with others to aid practitioner reflection.

Training materials on responding to self-neglect, undertaking mental capacity assessments, and the potential use of Deprivation of Liberty Safeguards (DoLS) are included in the E Learning, and Queen's Nursing Institute guidance.

Quality Improvement (QI) projects

13 local projects were undertaken during the 15 months. Four representative QI projects that were undertaken by our nurse participants are presented in the report. They used the QI resources developed by the project, and are now freely available.

Learning from the projects included:

- Undertaking these audits resulted in care improvements.
- Undertaking even small parts of audits made a big difference - even just identifying an understanding of the makeup of the cohort led to changes.
- Getting baseline data was very useful in helping to define the problem locally.

- All project leads were successful in bringing others members of their service along with them - and this made a massive difference.
- All the project leads valued the chance to share their findings with other people doing similar work, and all the participants acknowledged the value of clinical networking.

At the end of the project all nurse participants were given a certificate acknowledging their time and a Burdett Trust for Nursing medal by our Expert by Experience lead Tony Jablonski.

Huge thanks are due to everyone involved in this project, who are all named in the credits for this report. Everyone played a part. A huge amount of knowledge has been gained which has then been translated into learning resources to support others. Undoubtably the many clinical participants on this programme will go on to continue to deliver even more excellent care because of their involvement on the programme, and hopefully the resources produced at the end of this project will also inspire others to follow suit.

Project introduction

This document is a report of a 15-month Pathway-led project to examine ways to improve the nursing and allied health care of people experiencing homelessness with diabetes. The project ran from April 2023 to July 2024.

Pathway is the UK's leading homeless and inclusion health charity and exists to improve health care for people experiencing homelessness and other inclusion health groups. For the purposes of clarity 'homelessness' in this case includes all forms of homelessness including rough sleeping, living in homelessness hostels and asylum hostels, sofa surfing and living in Local Authority funded temporary accommodation.

The project was funded by the Burdett Trust for Nursing under their 'High Impact Type 2 Diabetes Interventions grant programme' that closed for applications in November 2022. 16 projects were funded under this grant programme in total. £70,345 was granted for the project.

The specific title of the Pathway bid was:

'To share knowledge and experiences of specialist diabetes nurses and inclusion health nurses in better supporting homeless patients who live with Type 2 diabetes.'

Although the project specified Type 2 diabetes, this was due to the naming of the grant programme, and the project actually focused on all types of diabetes. In addition, although the project primarily focused on bringing specialist diabetes nurses and inclusion health nurses together, and improving nursing care, in fact there was considerable involvement in the project from doctors and the many other allied health care professionals involved in diabetes care.

The project was initially inspired by the work of Bolton based Diabetes Specialist Nurse and Queen's Nurse Lynne Wooff. Project lead Sam Dorney-Smith first met Lynne when she was the lead for the Queen's Nursing Institute (QNI) Homeless and Inclusion Health Programme. In this role she had heard about Lynne's work supporting the Homeless and Vulnerable Adults Team in Bolton to improve care for people experiencing homelessness with diabetes. Sam initially suggested that Lynne write a best practice case study for the QNI titled Partnership Working around the Identification and Management of People with Diabetes in 2021. This later led on to a bid to the Burdett Trust for Nursing with a view to spreading and sharing this best practice and other best practice in this area.

The project methods were:

- Regular meetings of the expert multi-disciplinary steering group.
- A Literature review.
- A review of Safeguarding Adult Reviews featuring diabetes and homelessness.
- 2 open access online workshops with breakout groups run by steering group members for nurses, homelessness support workers and allied professionals in contact with people experiencing homelessness with diabetes;
    - 1 on the challenges of living with and treating diabetes in people experiencing homelessness – 28 September 2023, 53 participants, 29 of which were nurses, 5 break out groups.
    - 1 on innovations, service developments, and ideas for better care for people experiencing homelessness with diabetes – 25 January 2024, 54 participants, 26 of which were nurses, 5 break out groups.
- A Diabetes and inclusion health survey (led by the University of Plymouth) open between January and March 2024 – 104 analysed respondents.
- Visits to areas of good practice to get case studies between October 2023 and January 2024 – 5 visits to Bolton, Bournemouth, Liverpool, St Helens, and Plymouth.
- 3 patient interviews, and then detailed follow up interviews and development of video / audio content with 2 of these participants.
- 13 practice-based nurse led quality improvement projects in a variety of localities across England and Scotland. 4 are presented in this report.
- 1 face to face event in London presenting many of the nurse led improvement projects – 26 April 2024.
- Review of Groundswell patient leaflets.
- Involvement of 4 Experts by Experience (people with a lived experience of homelessness who use their experience to help steer health projects).

The proposed outputs of the project were:

1. Local improvements in care around the country.
2. A project report with case studies.
3. The creation two resources to easily share learning with others namely:
    a. An e-learning module for nurses, allied workers, health support workers and hostel staff on the Fairhealth website.
    b. A Queens Nursing Institute Homeless and Inclusion Health Programme clinical guidance resource for inclusion health nurses and diabetes specialist nurses and allied workers.
4. An update to existing Groundswell leaflets on diabetes for people experiencing homelessness.
5. An update to Diabetes UK webpages about homelessness.
6. Journal articles profiling the University of Plymouth survey results and other findings.
7. A Diabetes APPG (All Party Parliamentary Group) presentation.

When this report is published, objectives 1-4 will have been fulfilled. It is anticipated that objectives 5 and 6 will have been fulfilled by the end of 2024. Unfortunately, the Diabetes APPG is no longer currently operating. As such a presentation to the Ending Homelessness APPG will be requested as an alternative.

It is important to acknowledge the fantastic level of engagement and enthusiasm from all throughout the project. Special thanks go out to all the Expert by Experience participants, and in particular to Kellie Hart and Lee Nelson. The whole focus and philosophy of the project totally shifted in perspective as a result of all the Expert by Experience input and focused much more on the patient's experience of healthcare, not just gaining access to it.

Literature review

A literature review was conducted to support this project.

MEDLINE, CINAHL and Google searches were undertaken using a Boolean search method.

34 papers were found looking at homelessness and diabetes, with the majority coming from Canada and the United States, some from the UK, and one from China covering the period from 2000-2024. Papers included systematic reviews, prevalence assessments, experimental interventions, case reports, discussion papers and CPD articles.

A key focus of all the articles was the inherent health inequalities attached to the treatment of diabetes for someone in a homelessness situation.

The following themes were identified:

- **The prevalence of diabetes in homelessness populations is unclear:** The reported prevalence of diabetes in people experiencing homelessness is variable. Some articles report a higher prevalence than the general population, up to 22% (Benz, 2023; Diabetes Times, 2021; Arnaud et al, 2010), some about the same (Bernstein et al, 2015; Scott et al, 2013), and one lower (Lewer et al, 2019).

- **Homelessness poses numerous barriers to managing diabetes:** Challenges include poverty, accessing appointments, medication storage and management, but consistently the greatest of these is the challenge of getting healthy food (Burki, 2022; Campbell DJT et al, 2020; Campbell RB et al, 2021; Grewal et al 2021; White et al, 2016; Bellary, 2011; Hwang & Bugeja, 2000).

- **Homeless adults with diabetes report that management is difficult:** Most homeless adults with diabetes report difficulties managing their disease. This is due to practical barriers above, but also due to co-occurring mental health, and addictions challenges (Wiens et al, 2022; Grewal et al, 2021; Asgary et al, 2022).

- **Poor blood sugar control and serious complications are common:** Poor glycaemic (blood sugar) control is common, and people are at a much higher risk of serious complications such as amputations (Asgary et al, 2022; Diabetes Times, 2021; Constance and Lusher, 2020; Campbell et al, 2020; White et al, 2016; To et al, 2016; Arnaud et al, 2010; Hwang et al, 2000).

- **Many areas are trying to improve diabetes care:** Practitioners & services have tried or are trying to improve diabetes care for people experiencing homelessness and other hard to reach groups. This is mainly through tailored education and support programmes (Vickery et al, 2024; Vickery et al, 2023; Harte et al, 2022; Chan et al, 2022; Marsh et al, 2022; Savage et al, 2014; Thompson et al, 2014). There has been success, but challenges still remain, and there is evidence that programmes need a

lot of tailoring to be successful (Vickery et al, 2024; Vickery et al, 2023; Savage et al, 2014; Thompson et al, 2014).

- **Innovative, multi-disciplinary, multi-agency approaches are needed:** Effective strategies for addressing the challenges need targeted innovative, multi-sectored, multi-disciplinary approaches with flexible and well-coordinated models of care (Benz, 2023; Vickery et al, 2023; Wooff, 2021; Mancini et al, 2021; National Health Care for the Homeless Council, 2020; Constance & Lusher, 2020; Campbell et al, 2020; Jones and Gable, 2014; Davachi and Ferrari, 2013; Baty et al, 2010; O'Toole et al, 2010).

- **Gaps in practitioner knowledge are known to exist:** Some Continuing Professional Development (CPD) articles have already attempted to address this (National Health Care for the Homeless Council, 2020; Gilani, 2017; Jones and Gable, 2014; Kalinowski et al, 2013), but knowledge gaps still exist.

- **Experts by Experience provide important insights on what is needed:** Experts by Experience have been involved in research and provide differing perspectives to professionals (Campbell RB et al, 2021; Campbell DJT et al, 2021; Grewal et al, 2021).

- **Peer support can be successful and positive:** Peer support is noted as a successful and positive intervention in two papers (Chan et al, 2022; Campbell RB et al, 2020).

References for all the articles, with brief summaries of their findings can be found in Appendix 1.

Safeguarding Adult Reviews (SARs) after death: diabetes and homelessness

Given the high risks known to be involved for people experiencing homelessness with diabetes, a search was undertaken on the National Network for Chairs of Adult Safeguarding Boards website in their Safeguarding Adult Review (SAR) library to look for SARs involving diabetes and homelessness. The purpose of the exercise was to aggregate the recommendations to promote learning.

5 cases were identified:

- Josh - Teeswide, 2019.
- Jasmine - Richmond and Wandsworth, 2020.
- Jonathan - Northamptonshire, 2021.
- Sophie - Enfield, 2023.
- James - Teeswide, 2023.

The themes aggregated from the analysis were:

- High clinical risks related to diabetes and alcohol / substance misuse and mental health.
- Multiple A&E attendances / admissions and self-discharges with a lack of coordinated responses.
- A lack of understanding of self-neglect, and related failures in safeguarding.
- A lack of clear identification of communication and cognition difficulties.
- A lack of referral for Section 42 (Care Act 2014) reviews.
- A lack of ability of practitioners to assess mental capacity effectively in complex scenarios – particularly in cases where there are issues with executive function.
- A need for more robust multidisciplinary team processes, with robust risk management and identified leadership.
- A lack of coordination and collaboration between services.
- A lack of understanding of the risks of homelessness within hospital staff.
- A need for 'easy read' materials on diabetes.
- A need for trauma informed care.
- A failure or lack of transition services for young people leaving care.
- Specific risks related to diabetes – e.g. overdoses of insulin and co-concurrent eating disorder.

A summary of the reviews can be found in Appendix 2.

Workshops

Two open access online 2-hour workshops were delivered focusing on:

- Workshop 1: The challenges associated with diabetes and homelessness – 28th September 2023.
- Workshop 2: Innovation, solutions and ideas for improving the quality of care – 25th January 2024.

The overall purpose of the workshops was to understand and share best practice, and thus the workshops were open to enable anyone who wanted to get involved.

Workshop 1: The challenges associated with diabetes and homelessness

Workshop 1 was advertised widely and attended by 53 individuals.

29 participants were nurses. The others were made up of steering group members, allied professionals from a variety of backgrounds (podiatry, dietetics and GPs), homelessness support workers from hostels and outreach settings, and Experts by Experience. All had some form of contact with people experiencing homelessness with diabetes.

Within the workshop presentations were given about the project. In addition, some specific context regarding the nursing care management of people experiencing homelessness was given by steering group members Specialist Diabetes Nurse Lynne Wooff and Inclusion Health Nurse Consultant Anne McBrearty.

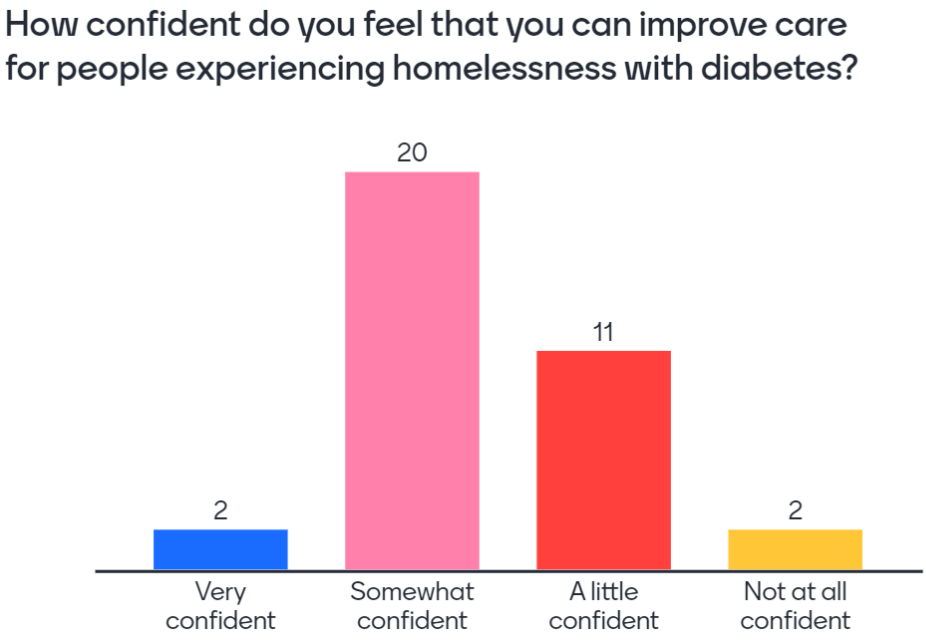
As an initial exercise, participants were asked to engage with Mentimeter regarding their feelings about the experience of a person with diabetes who is currently homeless, and how confident they felt that they, personally, could make a difference.

Results for the first question revealed that participants thought the experience of having diabetes when homeless was **challenging, frightening and isolating with multiple barriers.**

Figure 1: *Mentimeter response: the experience of having diabetes whilst homeless*

We also asked those present what difference they thought they could make to the patient experience. Results for this question revealed that 22 out 35 (62.8%) respondents were either somewhat confident (20) or very confident (2) they could make a difference. This suggested a motivated set of participants with relatively high levels of knowledge and skills and was encouraging.

Figure 2*: Mentimeter response: the confidence of participants to improve the care of people experiencing homelessness with diabetes*



Participants were then separated into 5 break out groups to discuss the challenges.

The groups were facilitated by steering group members, and each had an Expert by Experience within them. **All** participants were encouraged to input and share their perspectives, regardless of their level of knowledge, expertise or experience. Notes were taken in these groups, and groups were also recorded. Participants were also asked to share anonymous case studies of challenges if this was possible.

Participants were informed that anonymous quotes of their verbal input might be used. The project lead aggregated the information from all the groups to develop themes within the perceived challenges, and these are outlined in detail below.

The four themes were:

1. Personal / psychological issues for patients.
2. Practical issues for patients.
3. System and service delivery issues.
4. Condition and condition management related issues.

Relevant quotes from participants are added at the end of each section.

Challenges / barriers to good care that were identified:

Personal / psychological issues for patients

- **Engagement issues with health services** - these were felt to be common due to multiple competing priorities (often related to day-to-day survival). It was felt that patients often find it hard to understand what is important when they are dealing with multiple practical issues e.g. where to sleep, how to eat etc.
- **Mental health / addictions issues** - exacerbating these engagement issues.
- **Brain injury / executive function / self-neglect issues** also worsening these issues.
- **Complex psychological trauma causing fear / a lack of trust in services** – this was often because of bad experiences of health care, e.g. experiences of being stigmatised, judged, being spoken down to, not being understood, or simply being forced to wait for long periods in a stressful environment, on a background of past trauma.
- **A feeling of not wanting to be lectured** – Experts by Experience spoke eloquently about the challenges of being asked to do things e.g. eat healthily, that were simply not possible to do, and anticipating being spoken to 'like a schoolchild' about this.
- **Impact of the diabetes diagnosis** – it was felt that the diabetes diagnosis itself could make people feel depressed, and like they had a 'life sentence' hanging over them.
- **It was felt difficult for some people to believe they could get better and to accept help** – fatalistic attitudes i.e 'I'm going to die anyway' were perceived to be common.
- **Change is very difficult for people** – it was perceived that sometimes the chaos associated with a homelessness lifestyle was quite entrenched for many people, and hard to walk away from, and that structured services required quite a shift in thinking.

- **Friends, acquaintances and family can have a strong influence** – it was felt that others could have on these patients, and that many of these people would not prioritise health issues.
- **Boredom** – this was discussed as a real issue for patients leaving addiction, and a key block to recovery – structured activities to replace the chaos of addiction are not always there.

'Patients just don't understand how serious it is - a lot of them do realise eventually, but by then they are not in a position to make it a priority.'

'There's a lot of stigma with Type 2. They feel they are being told "You've done this to yourself."'

'With all the things they have going on, finding food, alcohol, drugs, somewhere to stay… diabetes only becomes a priority when they actually have symptoms'.

'He's managed to stay alive against all odds. He knows, and he says he's going to take action, but he just can't seem to follow through.'

'It is very difficult for them to accept help…'

'If someone has to choose between feeding their habits or managing their diabetes, the addictions will win.'

'Sometimes people go to their friends, hear from their friends, and then they feel they don't need to go to the GP. There are many influences.'

'Sometimes it's the addiction, but more often this is the symptom. People have given up, it's a slow death, they have accepted this. That's what we need to think about.'

Practical issues for patients

Accommodation related

- **Lack of or inappropriate accommodation** – rough sleeping sites, homeless hostels, asylum hostels, temporary accommodation and sofa surfing locations were all identified to present issues for a person experiencing homelessness with diabetes e.g. a lack of storage, a lack of cleanliness, and a lack of appropriate support.

- **Lack of place to store medication** – was brought up repeatedly as a specific issue. Storing and keeping all medications was a challenge, but especially problematic when a fridge was needed for insulin.

Nutrition related

- **No cooking or food storage facilities** – kitchens for personal use were noted to be rarely available in many hostel and temporary accommodation environments.
- **Some inappropriate meal provision** – when hostels are catered this doesn't always result in what is needed – 'I was given a salad only diet'.
- **Food donations were frequently described as unhealthy** – and were also described to be sporadically available and accessed.
- **Lack of understanding of healthy eating and a lack of cooking skills** – a lack of knowledge and skills was perceived to be common. Particularly in the context of poverty and a lack of cooking facilities which needs quite adaptive skills to eat healthily anyway.

Access to care related

- **Language / literacy issues / information processing issues** – this was perceived to be common, causing difficulty understanding all aspects of treatment / leaflets / letters etc.
- **Lack of adequate support for language / literacy issues / understanding** – where people needed support - over the phone, at receptions, and in clinics – this was often not offered or available.
- **Lack of phone / digital access or e.g. having a constantly changing phone number, no place to charge phone, and/or a lack of data** – this means that many attempted forms of communication from clinics e.g. texts, email often do not work.
- **Lack of address to receive letters** – this creates difficulties getting invite letters for follow up / screening.
- **Transience** – multiple moves were noted to be common, causing barriers to accessing care e.g. particularly in the asylum system.
- **Difficulties getting to appointments** – due to costs, mobility, organisation, nowhere to leave dogs, no support for dependent significant others etc.
- **Time keeping / organisation** - difficulties with organising the timing of medications and recording results were noted - diabetes requires patients to be quite organised.
- **A lack of general support / floating support** - for patients in the community to get support e.g. to attend and understand appointments.
- **High emergency care use** – patients were felt to be more likely to turn up in chaos which mitigated against getting good advice and care.

Disease monitoring / management difficulties

- **Dexterity** – was felt to be a problem in the case of blood glucose monitoring, drawing up insulin etc.
- **Patients not offered or put on continuous blood glucose monitoring** – meaning that patients have to manually monitor, and are not reaping the possible benefits of modern technology to themselves.

- **Overall diabetes management is different is in different places** – it was noted that it is hard for patients to understand and navigate this. People coming from different countries may also be used to different management plans, and can struggle to adjust to new plans.
- **Lack of clear NHS guidelines available to patients** - about what should be available in terms of diabetes care to enable patients to ask for this.
- **Lack of health education / health promotion given to patients** – this generates a patient lack of understanding of the condition.

Impact of lifestyle change

- **Weight loss / gain** – causing a need for different clothes (this was mentioned by an Expert by Experience who had witnessed this issue).

'Poor dietary choices are not choices; they are the only option to survive.'

'He was supposed to be proper recording, and doing these two or three times a day. He just couldn't do it. He doesn't even have the concept of time in his mind. Is it day, is it night, it's quite the same for him'

'They were moving from place to place; they were not settled. It was very difficult for them.'

'They are more likely to attend a hospital with a hypo, in a crisis, than they are to attend an appointment.'

System and service delivery issues

Registration / reception / appointment issues

- **Current address not updated on system** – creating difficulties inviting people for follow up / screening. Many people were described to be highly transient – e.g. people moved within the asylum system without notice.
- **Lack of contact details available including for carers / support workers** - limits other forms of potential ways to follow someone up.
- **Missed appointments generates automatic discharges** - across many settings, GP practice, district nursing, specialist appointments, screening etc. Often practitioners themselves have no control over this.
- **'Did Not Attend' DNA letters** – then often leave patients feeling rejected, closed off to services, and not encouraged to re-engage.
- **Lack of adequate support for language / literacy issues / understanding** - at receptions, and in clinics, and over the phone.

Lack of ability to and/or failure of outreach to vulnerable communities

- **Lack of connection between specialist diabetes services and inclusion health services** - which could support better care in complex cases.
- **Lack of specialist advice phone numbers / email contacts** - so that expert advice can be given to inclusion health services.
- **Lack of ability to outreach** – within specialist diabetes services and even some inclusion health services.
- **Timing and location of specialist clinics / screening when they are provided**- which are not always appropriate for needs of patients.
- **Lack of one stop shops for complex needs patients** – where people have multiple issues - addictions / mental health support / diabetes care / other health support – and these are not done in the same place at the same time, this is challenging for patients.

Training issues

- **Stigma / staff attitudes / lack of training –** can affect the quality of services. The motivation to go the extra mile to make reasonable adjustments for people from inclusion health backgrounds, can be low.
- **Opportunities to deliver health education / promotion are sometimes missed** - practitioners and patient concentrate on immediate needs and do not always take the opportunity to provide education. This can be for a variety of reasons including high patient loads, but training is an issue.
- **Lack of trauma informed care** – due to a lack of training, time and staff burn out
- **Lack of adequate safeguarding / understanding of self-neglect** – generating a lack of active intervention when this is needed.
- **Concerns from diabetes practitioners about asking potentially intrusive questions** – concerns about what language to use and what it is appropriate to ask mean that some important questions may not be asked.

Postcode lottery of provision

- **Provision of services and/or outreach from partner Multi-Disciplinary Team professionals that could support the management of complex patients e.g. dieticians, podiatrists, optometry, psychology, Occupational Therapy is variable** – This was found in discussions to be a postcode lottery.
- **Peer support provision is also very variable** – some areas provide peer support, others do not.

Wider NHS challenges

- **Current NHS context** – everyone is spread so thinly; it is hard for practitioners to do targeted work with very complex patients who struggle to engage, when diaries are completely full. Similarly undertaking service Quality Improvement work can be very difficult.
- **Lack of continuity in practitioners** – due to staff turnover etc, limiting ability to deliver personalised care.

'If someone's homeless and got diabetes, they shouldn't be taken off any list really, should they, no matter how many times they haven't attended?'

'How do we get people through the door with so many challenges, that's the question.'

'Everyone is so overwhelmed; everyone is so stretched. The District Nurses for example, they can't keep attending to be met by DNAs. But then the person just gets re-referred, it's a revolving door. There almost needs to be a middle team.'

'One of the issues from the Health Care Practitioner perspective is time and being spread too thinly. We come away from days like this planning so many things and ideas then go to work tomorrow and get swamped.'

'Basic education is definitely lacking. Lots of patients don't understand the basics, not just these patients.'

'We are not allowed to talk about getting extra funding, the reality is we probably won't get it!'

Condition and condition management related issues

Complexity

- **Diabetes is a complex condition** - It requires complicated treatment, and this is hard to marry with complex lives
- **Type 3 diabetes (mainly related to pancreatic failure) is relatively common in this group** – However it is often poorly understood and can need differing treatment.
- **Annual checks are multifaceted and often delivered across multiple providers** - This requires engagement with multiple separate activities – eye checks, foot checks etc
- **Overdoses of insulin and other self-harm behaviours related to diabetes are a risk** – Several examples of overdose and self-harm were described by practitioners in this population, and this is perhaps unsurprising given the high levels of mental illness in the population.
- **Eating disorders** – Some people with diabetes can have or develop a difficult relationship with food – either overeating or undereating or fixating on food. However, eating disorders are also common, and were identified as common in this population.

Training

- **Lack of targeted training** - is available for professionals and support / hostel workers to understand how to manage people with diabetes with these additional comorbidities
- **Education around appropriate health promotion is limited, and not given in the context of people's circumstances. -** This generates a lack of understanding of how to treat the condition in more challenging circumstances.
- **Lack of routine nutrition screening and active management** – this was cited in the Burdett project as a specific training issue in assessment, although it was acknowledged that this probably sits alongside a lack of other relevant screening in this population e.g. frailty and brain injury screening.

Screening

- **Screening rules mean that many areas cannot routinely screen for diabetes** – screening is currently not recommended nationally, despite being felt to be appropriate for this group
- **Screening methods** – some areas that were able to screen, were only able to screen using urine tests or random blood sugars. It was felt that screening should always be done via an HbA1c blood test.

'People experiencing homelessness haven't got uncomplicated diabetes, they have complex diabetes, and that takes a lot of explaining and getting your head around. Sometimes it's even difficult for us to understand what kind of diabetes they have, and what treatment they need'.

'I don't find they know too much about it really and they get quite confused. Low sugars, high sugars they don't understand – I get asked questions like "should I just drink more water to bring my sugars down?" But it is so complicated isn't it?'

Example of individual challenges that were discussed on the day included:

Case 1: Personal / Psychological issues

- A young man who was sofa surfing, and was new diagnosed with diabetes came in after a hypo.
- He engaged well during the admission initially, but the next day his friends turned up and he was found by security drinking a bottle of vodka in the car park.
- He left the hospital shortly afterwards, after being told off by security
- The nurse tried to follow him up through his family, but no contact was not achieved.
- He was not seen again.

Case 2: Personal / psychological issues

- A man with Type 2 or 3 diabetes, and mental health issues, was self-medicating with alcohol and drugs to deal with anxiety.
- He was blind in one eye and had limited vision in the other.
- He needed a lot of support to manage his health conditions.
- He had a very chaotic life over 3 years with short periods of stability during which the nurse was able to engage around his diabetes and other issues.
- Not long after he was placed in accommodation, relationships always seem to break down suddenly, and he would abandon or get evicted, and the relationship was lost.
- The nurse had breaks in contact of 3-4 months until he reappeared on the street.
- It was a huge challenge to maintain continued and consistent engagement with the patient to enable care and safeguarding interventions.

Case 3: Practical issues

- A migrant family were living in new hotel (temporary accommodation for asylum seekers), with a young boy of 7 with Type 1 diabetes (who had been diagnosed on arrival in UK).
- They had just been moved from another hotel.
- There was no health support on site, and they had to quickly find a GP locally to register with, which they needed support to achieve.
- The new hotel was in Scotland, and the England – the Scotland health record transfer was very slow – so the new GP couldn't see the old records.
- There was no personalised access to a fridge – they had to use hotel kitchen fridge.

- It was difficult to understand medical language and a new healthcare system, and how to get all the education / support they could access, and checks they should attend.
- They knew they were likely to be moved on again - 'People can be moved tomorrow, and you don't know where they are going' 'You are not given time, you just have to go'. With this lack of stability, the added stress made it harder to focus on diabetes management.
- Keeping records for blood sugars, insulin etc was difficult as it was a lot to deal with and take in and getting prescriptions was challenging.
- There was very little choice on foods.
- Overall getting the kids to school, with clothes and shoes, and dressed for the weather was the priority.
- On top of this the parents were anxious and suffering from PTSD and fearful to go anywhere.

Case 4: System issues

- A gentleman was street homeless, from Eastern Europe, in his mid 30s.
- He was recently diagnosed with Type 2 diabetes in his own country.
- He tried to go for an on-the-spot eye check as his eyesight had deteriorated. No interpreter and no Language Line were available at the opticians. In addition, he used a different alphabet – and only basic alphabet eye test cards were available. (Some clinics do have alternative alphabets / or using generic signs, although there is no standard guidelines or guidance on how to approach this problem).
- Inclusion health nurse support was needed to help him present for a successful booked screening.

Case 5: Medical complexities

- A patient with Type 1 or 3 patient, multiple drug use issues, and a highly chaotic lifestyle was living in a homeless hostel.
- There has been evidence of opiate and crack interactions making his blood sugar monitoring unreliable.
- He had an unstable mood, and impulsive behaviour. Sometimes he would take all the food he could find in the hostel and gorge it all. This seemed to be some form of

eating disorder. He would then go into Diabetic Ketoacidosis, into hospital and often into ITU – almost as a form of self-harm.

- He got tooth decay, wounds, recurrent infections, kidney problems, and progressed recently to have a limb amputation.
- He had nowhere to store his medication, or prepare and store food in the hostel
- He would sometimes disappear, and he wouldn't be found for months on end, but would then reappear in the homelessness pathway.

In the workshop practitioners were also asked to mention examples of diabetes complications they had seen. Nearly the full range of side effects were mentioned (see Table 1). It was interesting to note, however that the only common side effects no one mentioned issues were sexual dysfunction or recurrent vaginal thrush.

***Table 1**: Side effects of diabetes seen by workshop participants*

Thirst, tiredness	Sight issues
Increased urination	Abscesses
Leg ulcers	Sepsis
Necrotic toes	Incontinence
Neuropathy (a lack of feeling in the extremities)	Teeth decay
	Diabetic Ketoacidosis
Problems with feet	Renal function issues
Mobility issues	Hypoglycaemic attacks
Limb amputations	Diabetic Ketoacidosis

Overall, the workshop 1 findings presented a picture of significant barriers to optimal care.

Feedback on Workshop 1 is available in Appendix 3.

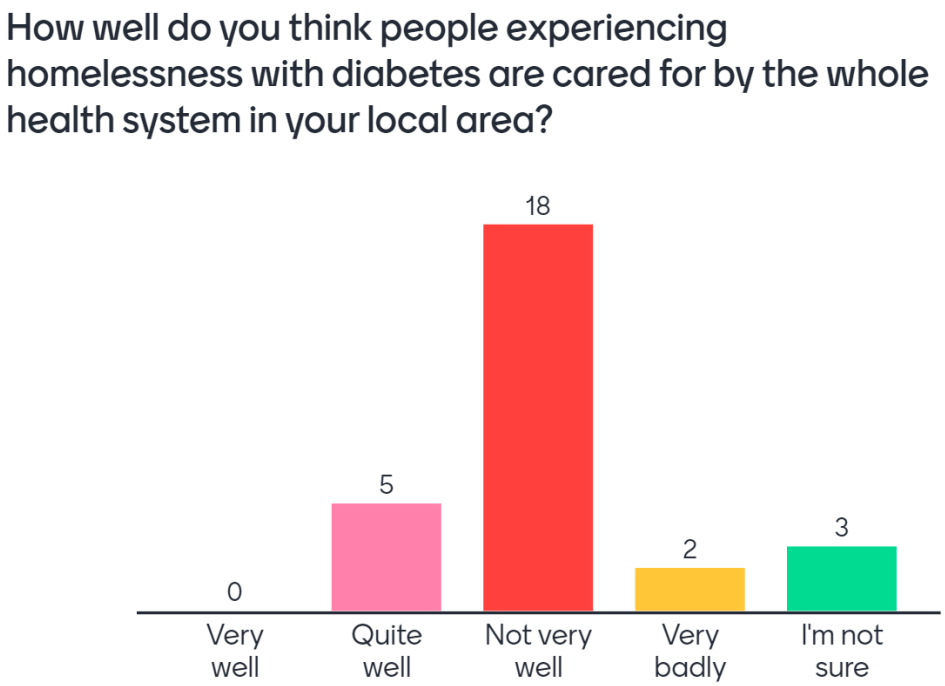
***Figure 3**: Visual minutes from Workshop 1*

Workshop 2: Innovation, solutions and ideas for improving the quality of care

Workshop 2 was attended by 54 individuals. 26 participants were nurses. Other participants were made up of steering group members, other allied professionals from a variety of backgrounds (podiatry, dietetics and GPs), homelessness support workers from hostels and outreach settings, and Experts by Experience. All had some form of contact with people experiencing homelessness with diabetes.

The workshop started with a Mentimeter poll regarding perceptions of how well people experiencing homelessness with diabetes are cared for. 20 out of 25 people (80%) who were able to give a response said either 'not very well' or 'very badly'.

***Figure 5**: Mentimeter response regarding perceptions of how people experiencing homelessness with diabetes are cared for.*



The workshop then had 2 streams of four 10 minutes presentations from practitioners undertaking innovative work in diabetes care for people experiencing homelessness.

These practitioners are outlined in Table 2.

Work from all these practitioners is referenced later in the report:

Table 2: Presenters in Workshop 2 (note references to their work in other parts of the report)

STREAM 1	STREAM 2
Juliette Palmer - Diabetes Specialist Nurse. Brownlow Health, Liverpool	**Hannah Green** - Community Hepatology CNS, Barts health and Kings College Hospital
Emma Green - Advanced Diabetes Specialist Nurse, University Hospitals, Plymouth	**Laura Walmsley / Becky Smith** - Diabetes Specialist Nurses, Mersey and West Lancashire Teaching Hospitals, St Helens
Kirsten Roberts - Homelessness and Harm Reduction Specialist Nurse Prescriber, Bristol Drugs Project	**Ghislane Swinburn** - Primary Care Network Specialist Community Dietitian, Bristol
Hannah Style - Professional Development Lead Dietitian, East London Foundation Trust	**Lynne Wooff** - Diabetes Specialist Nurse, Bolton NHS Foundation Trust

Following this, participants were split into 5 groups to focus on the following question.

'What are the core quality improvement actions we could be recommending in this area?'

The groups were facilitated by steering group members, and each had an Expert by Experience within them. Participants were pre-allocated to one of 5 topic areas to concentrate on based on their role / job title and/or likely area of interest. Groups had between 9 and 12 participants.

Groups:

1. *Homeless and inclusion health services working with people with diabetes.*
2. *Specialist diabetes services.*
3. *Screening services (including podiatry, optometry, diabetes screening etc).*
4. *Nutrition.*
5. *Diabetes within migrant populations.*

All participants were encouraged to input and share their perspectives, regardless of their level of knowledge, expertise or experience. Notes were taken in these groups, and groups were also recorded.

Participants were informed that anonymous quotes of their verbal input might be used. The project lead aggregated the information from all the groups to aggregate the ideas for improving the quality of care presented below.

What are the core quality improvement actions we could be recommending in this area?

Homeless and inclusion health services working with people with diabetes

Screening for diabetes

- Routine screening for diabetes of **all** people experiencing homelessness should take place using HbA1c and kidney tests if possible - random Blood Sugar Level blood spot tests were not advised. It was recognised that the ability to do this was service capacity related. Screening options that were suggested:
    - for every new patient.
    - annual screening.
    - either ad hoc, or as a specific event alongside other screening on hostel and street outreach.
- For over patients over 40 it was felt this could be linked in with NHS Health Checks, and there could be a role for partnership working. (The Redbridge inclusion health service reported getting money for delivering NHS Health Checks in partnership with the mainstream service and undertaking HbA1c tests as part of this.)

Management of diabetes

- Everybody who regularly sees people experiencing homelessness with diabetes should undertake an annual clinical audit to understand the numbers of clients and their management. Clinical audits were viewed to be a game changer in terms of providing the basis from which to improve quality of care.
- Specialist diabetes nurses / services should link in with inclusion health nurses and vice versa.
- Records should be shared with other relevant services wherever possible – inadequate data sharing was viewed to be a primary driver of poor care.
- Services should try to tackle 'fatalism' in patients – participants felt that this was a key driver of non-engagement *'They say… what's the point. I'm going to die anyway'.*
- All people experiencing homeless with diabetes should be asked core screening questions around their mental health.
- Peer advocacy services / support should be routinely available for people experiencing homelessness with diabetes.

Getting access to accommodation

- An insulin dependent diabetes diagnosis should automatically make someone 'priority need' for housing because of the risks. ['Priority need' is a when you have a particular reason why the council must give you more help if you are homeless or facing homelessness. Examples of priority need include if a person is: pregnant or has children, is homeless because of domestic abuse, or is or aged 18 to 20 and was in care. However, a person can also be in priority need if they are vulnerable due to illness or disability. However, insulin dependent diabetes does not automatically put you in priority need currently.]
- People with diabetes with No Recourse to Public Funds should be referred for a Care Act assessment.

Specialist diabetes services

Assessment

- Patients should be asked about housing status, and their home circumstances in diabetes assessments.

Diagnosis and management

- Practitioners should be clear about the diagnosis – Type 1, 2 or 3c – and should receive training on Type 3c if needed. Type 3c diabetes is often caused by chronic pancreatis, which is often related to excessive drinking.
- Diabetes services should link in with gastroenterology services regarding malabsorption syndromes.
- Potentially there needs to be more use of pancreatic exocrine replacement medication, and possibly linking in with pharmacy reps for education to ensure diabetes services can enable this.
- Specialist services should refer to dieticians and psychologists proactively for these clients.

Patient education

- Diabetes education for patients should be simple and repeated, meet information accessibility standards, and break down cultural myths, but also use culturally appropriate language.
- Diabetes education should also avoid 'telling people off'. Specialist diabetes staff should all receive training in the language they use to ensure people are not alienated. Resources are available at Language Matters Diabetes.
- Diabetes education for patients should include sensible practical advice for people experiencing homelessness with diabetes – e.g. re nutrition (e.g. recipes, food banks, affordable healthy foods) and medication storage.
- Weight management also needs to be considered in terms of clothing issues for clients.

Outreach

- Specialist diabetes nurses should be able to outreach to vulnerable groups, and work across boundaries (i.e. be able to see patients in clinics, hospital and home).
- Holistic multi agency working should take place. Specialist diabetes should link in with primary care inclusion health services, as well as other services. simultaneously e.g. dentistry, and gastro. There should be active attempts to break down primary / secondary care barriers.
- Service could look for funding opportunities in quality improvement - *'I've just been granted NHS England funding to give me 1 day a week with the homeless and vulnerable adults team which is giving me protected time… That will give me 12 months to build up a business case for this work longer term.'*

Education for support workers

- Hostels / support workers should receive education on medication management storage and how to support with nutrition *'I've seen people being offered Kinder eggs as their lunch'.*

- Food banks need education on the types of food needed by people experiencing homelessness.
- There should be consideration of much more use of diabetes champions projects.

Supporting engagement

- Patients should be provided with phones if they don't have one.
- There should be good provision for language issues in diabetes clinics / appointments.

Screening services (including podiatry, optometry, diabetes screening etc)

Screening for diabetes

- Routine screening for diabetes of all people experiencing homelessness should take place (using venous HbA1c and kidney tests if possible).
- If only able to use finger prick blood glucose monitors for screening, need to consider calibration processes on outreach. *'Because it was believed that staff were not regularly checking the blood glucose monitors, they just got rid of them, and now it can't be done at all. I thought that was a bit of a silly idea.'* Also get people to wash their hands and take account of recent behaviour that could affect a random blood sugar etc *'One man used to have about 8-10 sugars in his tea when he came in – not an ideal time to test!'.* It was discussed that there may also be some recent evidence that certain types of drug taking (e.g. opiates) affect random blood sugar levels.

Invites to national screening programmes

- Appointment systems for screening services should be made as flexible as possible for people experiencing homelessness.
- Services should be offered with in a *'try, try, try again'* way. Screening needs to be offered repeatedly.
- DNAs (Did Not Attends) to annual checks and screening (foot screening / eye screening) should be audited to identify if they are coming from specific areas / specific groups.
- Good quality information on screening should be available in multiple languages, meet accessibility standards, and try to combat feelings of fatalism as well as giving basic information *'Well I'm doomed anyway, why should I go and find out I've got something else'.*
- Longer appointment times for screening should be used if possible.
- Invite letters should make it clear who to call regarding 'reasonable adjustments' to support someone to attend. [Reasonable adjustments are the changes the NHS has to make it easy for disabled people to use health services. This includes people with mental health and communication disabilities.]
- Clients need to be educated regarding asking for 'reasonable adjustments' and the benefits of being recognised as having a disability.
- Better provision of translation services is needed. Staff often put language requirements on the referral form saying that they need a translator, but very often they do not get it.

- Peer navigators / health navigators should be funded to support access to screening for retinopathy and foot screening and other treatment *'If you book an appointment alongside someone today, tomorrow often doesn't happen. They need help'.*
- Peers / health navigators should also have access to Language Line.
- Social prescribers could also be used to support access to screening.
- Waiting rooms need to be more trauma informed with welcoming posters, things to read etc to support waiting.
- Transport / transport costs should ideally be provided to access appointments in the initial stages.

Outreach screening

- All types of screening relevant to diabetes (HbA1c screening, weight screening, foot tests, eye tests, nutritional screening) should be available on outreach if possible, e.g. in day centres and hostels. Ideally at breakfast or at mealtimes for maximum success. There may also need to be more relationship building and preparatory work to improve uptake.
- Podiatry and retinopathy screening should link in with inclusion health services, and other services representing vulnerable groups to achieve this.

Education and training

- Hostel staff / support staff should be educated re all national screening programmes.
- Education should be provided for mainstream screening staff on the difficulties vulnerable groups might have in accessing services.

Nutrition

Screening

- Routine nutritional screening should take place in hostels – malnutrition of all types is very common in this population.
- Ideally this would not be with the use of MUST tool. SANSI screening tool probably more appropriate.
- Also consider routine use of hand grip dynamometer.
- Food security screening needs to be encouraged.
- Be aware of baseline screening tools for eating disorders and body dysmorphia / body dysmorphic disorder (BDD). Both are psychological disorders which can intersect with diabetes, and create very high risks.

Clinical interventions

- Patients should be referred to a dietician wherever possible, but this often isn't happening.
- Linking between dieticians and inclusion health services is needed.
- Overlap between diabetes and eating disorder services is generally quite good. However, there needs to be links between diabetes and mental health services.
- There should be consideration of routine use of micronutrient cover – vitamin and mineral supplements. *'Surely it makes sense to make sure someone has some basic vitamins and minerals'.*

- Simple nutritional improvement interventions e.g. boiled egg campaign could potentially be rolled out. This is the idea of having boiled eggs available at reception, freshly boiled every day, suggested by Dietician Ghislaine Swinburn. *'I tried the boiled egg idea and it was really well appreciated. People could put the warm hard-boiled egg in their pocket in the morning as a hand warmer, and then eat it later as a snack and source of protein.'*
- Routine use of B1, B12 vitamin supplements to be prescribed for people with cooccurring alcohol issues.
- Potential use of supervised nutritional supplements in people with addictions alongside opiate substitution therapy (OST).
- Need to encourage importance of asking questions about bowels – there is lots of constipation, diarrhoea, malabsorption in this client group e.g. there is a need to assess the impact of opiates, antipsychotics, antibiotics, which also effect appetite.
- Think about use of probiotics with antibiotics – microbiome is likely to be quite poor.
- There should be more routine use of pancreatic enzyme replacement therapy in Type 3c diabetes – This could be a good Quality Improvement project in many areas. Evidence suggests people are undertreated particularly in patients with alcohol issues who are smokers.
    - Windsor J A (2017) Pancreatic enzyme replacement therapy in chronic pancreatitis: a long way to go. Gut.66: 1354-1355. https://doi.org/10.1136/gutjnl-2016-313455
    - Erchinger F, Tjora E, Nordaas IK, Dimcevski G, Olesen SS, Jensen N, et al. (2022) Pancreatic enzyme treatment in chronic pancreatitis: Quality of management and adherence to guidelines – A cross-sectional observational study. United European Gastroenterol J. 10(8): 844–53. https://doi.org/10.1002/ueg2.12276
- There is also a need to recognise the lack of engagement of mainstream health care professionals with diet. *'I don't think GPs really talk about nutrition.'*

Supporting patients to eat healthily

- People need to be given support to manage with limited cooking facilities, storage facilities etc. Resources available include:
    - Cooking without a Cooker
    - How to Cook Without a Kitchen: Easy, healthy and low-cost meals you can make almost anywhere

Supporting hostel staff

- There should be routine education around diabetes in hostels – possibly using a 'diabetes champions' model. *'Someone decided to ask him the questions that nobody else had asked him… It made such a difference… He became a champion himself after that'.*
- Hostel staff need to be better educated on diet *'The staff there had no training whatsoever.'*

Diabetes within migrant populations

Access to care

- There should be routine distribution of NHS Low income scheme HC1 forms within inclusion health services, and better knowledge in outpatient care.
- A diabetic support pack / checklist could be given to the patient including:
    - how the health system works.
    - rights to GP registration.
    - diabetes health education.
    - hypo treatment.
    - advice on medication.
    - HC1 application form for HC2 certificate.
    - advice on storage / sharps.
    - signposting for local support services i.e. foodbanks.
    - conversion charts for HbA1c results from other countries.

  All would need to be available in different languages.
- Teach people about their rights to access healthcare, when a diagnosis is made. Need to acknowledge genuine fears and support campaigns such as e.g. Safe Surgeries, Patients not Passports etc.

Accommodation

- People experiencing homelessness with diabetes should ideally only be put in hostels with own kitchen facilities.

Health promotion for patients

- 'Eat well plates' for different cultures need to be utilised e.g. Enfield Council's 'Culturally Adapted Eatwell guides'.
- Certain populations have lower health literacy and health education – they need to have simple education e.g. around carbohydrates and 'hidden carbohydrates' and health beliefs.
- Need to understand that there are different cultural understandings e.g. diabetes as 'sugar' (avoid spoons of sugar and everything will be fine).
- A very useful cultural teaching resource is: Carbs and Cals World Food from Diabetes UK.

Training of hotel / hostel staff

- Asylum hotel staff need to have knowledge of local food banks, soup kitchens, food redistribution charities.
- Training to hostel staff – *'In one Initial Accommodation when a diabetic diet was requested, the person was essentially given a 'salad only' diet'.*
- Advice needs to be personalised – not everyone needs the same diet, and staff need to know this.
- Need to partner with charity organisations.

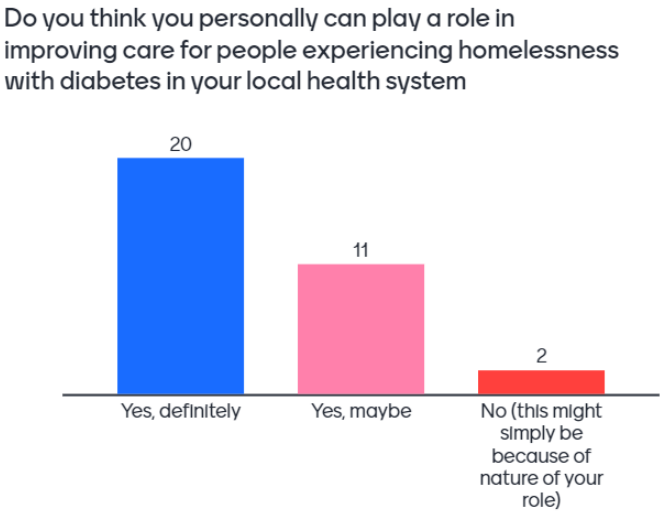
Training of professionals

- Training to mainstream healthcare staff regarding what is actually available in asylum accommodation.
- Training to inclusion health staff regarding culturally competent nutritional advice.
- There is a need to understand links between mental health and diabetes, and ensure that this is assessed sensitively.
- Staff need to be able to deliver care in a trauma informed way and undertake training in this e.g. ELfH Trauma Informed Care training.
- Need to think about what can be achieved in a brief intervention – using the Making Every Contact Count approach.

Overall, these groups produced a significant number of ideas in a short space of time, and the enthusiasm was palpable.

At the end of the Workshop 2 31 out of 33 (93.4%) respondents who were able to access Mentimeter said they felt they could either definitely (20) or maybe (11) play a role in improving care in their local system, and most participants were able to specific concrete actions that they planned to take as a result of attending the workshop (see Appendix 4).

***Figure 7**: Mentimeter response regarding whether participants thought they could play a role in improving diabetes care for people experiencing homelessness within the system*



Further feedback from Workshop 2 is presented in Appendix 4.

Impact of the workshops

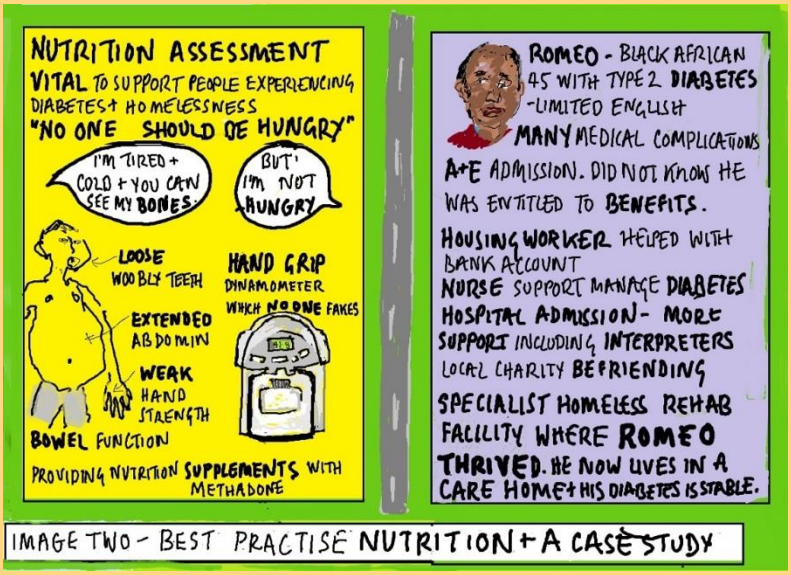
It is important to note that as well as gaining insights to inform the wider project, the workshops benefited all the participants - as they were each able to learn from each other in an informal way.

One overarching comment summed up the mood at the end of Workshop 2:

'I'm heartened by what I see today. There's such a move to improve education and care here.'

Overall, both workshops created a wealth of data to both understand the problems, but also build a basis for recommendations for quality improvement.

Figure 6: *Visual minutes from Workshop 2*



University of Plymouth Diabetes and Homelessness Survey

Study Background

The aim of the survey was to investigate the challenges and opportunities faced by healthcare professionals and patients in managing diabetes amongst people experiencing homelessness (called PEH in this section).

The 5 primary objectives were;

Objectives

1. To evaluate healthcare professionals' perceptions regarding the prevalence of diabetes among homeless populations.
2. To investigate healthcare providers' specific obstacles when delivering diabetes care to homeless individuals.
3. To gather data on successful approaches to managing diabetes among people experiencing homelessness.
4. To identify and collate methods for effectively empowering nurses, hostel workers, and other stakeholders to support homeless individuals with diabetes.
5. To evaluate the most effective avenues for widely sharing results, including developing guidelines accessible to individuals outside the project's scope.

Method

We designed an observational, cross-sectional survey, to explore healthcare professionals' experiences and perceptions of managing diabetes for the population in question. The survey included quantitative and qualitative questions, allowing us to use a mixed-methods approach in our investigation.

Participants were recruited by email, via a range of networks and organizations, including the Faculty for Homeless and Inclusion Health, the Queen's Nursing Institute Homeless and Inclusion Health Network, Diabetes UK and the Diabetes Specialist Nurse Forum UK.

We targeted three main respondent groups: people working in specialist homeless health/inclusion health services, people working in specialist diabetes services, and other professionals (healthcare and non-healthcare) whose work involves supporting people experiencing homelessness who have diabetes.

Survey Structure

The survey covered the following topics;

(1) Background information.
(2) Perceived prevalence of diabetes amongst people experiencing homelessness.
(3) Diabetes care and health outcomes.
(4) Screening and assessment.

(5) Training and education.
(6) Accessibility, outreach, & engagement.
(7) Improving services.

Overview

- 104 responses were collected and analysed from specialist homeless/inclusion health services (38%), specialist diabetes services (31%) and other homelessness professionals (32%).
- Respondents had frequently worked with people experiencing homelessness who have diabetes over the past year, and over a quarter had worked with between 6 and 20 people from this group over the past three months.
- Among PEH who have diabetes, respondents estimated a higher prevalence of Type 2/3 diabetes, compared to Type 1, although the estimated prevalence of Type 1 was higher than seen in the general population.
- Diabetes care outcomes were perceived to be very poor, and diabetes-related complications perceived to be more common amongst PEH than in the general population.
- Being referred to / accessing support from specialist diabetes services was perceived to be very challenging for PEH, with multiple barriers highlighted.
- Standard diabetes screenings were felt to be very challenging for patients to access, particularly eye examinations and Oral Glucose Tolerance Tests.
- Patients and practitioners were both felt to face multiple barriers to accessing / providing diabetes care, with patients' complex needs being highlighted as the most challenging for both groups.
- Outreach, improved service collaboration, and service flexibility (e.g. appointment times) were perceived to be particularly effective in improving diabetes care and support for PEH. However, results also showed gaps in outreach support from diabetes services, and collaborative working between homeless services and diabetes services.
- There are significant gaps in training around providing diabetes care and support for PEH, with just 9% having received training on this topic. Other key training gaps were mental health considerations in diabetes care, outreach for PEH, and improving service accessibility.

Results

Respondent Background Information

104 complete responses were included in the analysis, with a roughly equal split of responses from the three respondent groups (Table 1). Respondents came from a range of professional backgrounds with Nurses (42%) and Doctors (22%) being the most common. Other backgrounds included social workers, dieticians, healthcare assistants and occupational therapists. 33% of respondents worked in community health teams, 22% in Primary Care/GP services and 22% in Acute Hospital Trusts.

Table 1: *"Please indicate which type of service you work in"*

	Total responses	% of responses
Specialist Inclusion Health Service	39	38%
Specialist Diabetes Service	32	31%
Other Professionals	33	32%

Respondents were geographically distributed across the UK, with London (40.2%) and North West (18.6%) being the most common areas, while 90.5% of respondents worked in urban areas. Respondents were generally very experienced, with an average of 18 years' experience in their profession, and an average of 10 years' experience working with homeless populations.

Perceived prevalence of diabetes amongst people experiencing homelessness

Overall, respondents had frequently worked with PEH who have diabetes over the past year (Table 2), with 27% working with 6 or more over the preceding three months (Table 3).

Respondents were also asked to estimate, amongst PEH who have diabetes, the distribution between Type 1 and Type 2/3 diabetes. Respondents estimated a higher prevalence of Type 2/3 diabetes compared to Type 1 (Table 4). While figures for the general population also show a higher prevalence of Type 2 diabetes, the distribution is starker, with around 90% thought to have Type 2 and 8% to have Type 1 in the general population (Diabetes UK).

Overall, 79% of respondents said that they had worked with PEH who required insulin therapy over the previous 12 months, and across respondents 33% were felt to be Type 1.

Note: It is probable that some of the people perceived to be Type 1, are patients with Type 3, without this specific diagnosis. See later discussion in best practice case studies, and clinical insights sections of this report for more detail on this.

***Table 2**: "Over the past year, how often have you worked with people experiencing homelessness who have diabetes"*

	Homeless Service/Other Services	Specialist Diabetes Services
All the time	22%	3%
Often	**36%**	13%
Sometimes	28%	**50%**
Rarely	13%	25%
Never	1%	3%
Don't Know		6%

***Table 3**: "Over the past three months, how many people experiencing homelessness with diabetes have you worked with?"*

	% of responses
0	10%
1-5	**58%**
6-10	17%
11-15	5%
16-20	3%
20+	2%
Don't Know	6%

***Table 4**: "Amongst your patients experiencing homelessness with diabetes, what is your estimated distribution of Type 1 vs Type 2/3 diabetes"*

	Type 1 Diabetes	Type 2/3 Diabetes
Mean (%)	33%	59%
Std Deviation (%)	31.5	35.6

Key comments:

The survey then asked for any free text comments regarding the types of diabetes being managed. Answers focused mostly on the challenges of insulin administration.

"Managing insulin administration when you are experiencing homelessness is immensely difficult. Challenges are particularly experienced when starting on insulin and a lot of support is required to ensure safe administration"

"There is lots of education needed to help clients learn to administer insulin. We have had clients that have had loads of input and some with

less. Lots of insulin dependent clients are inconsistent with taking their meds and have more hospital admissions."

"From a homelessness standpoint, I prefer it when a client has been prescribed insulin over metformin. This is because local authorities do not consider those on metformin to be in priority need, and thus don't provide temporary accommodation. This is because metformin can be stored under any circumstances, so there is no urgent need to access facilities that aren't available on the streets."

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*[**Note**: Not all areas do automatically consider someone with diabetes requiring insulin to be in 'priority need' as is suggested here. The project came across many examples of people prescribed insulin, not being seen to be in priority need. Decisions like these are made locally and may be dependent on a variety of factors. However, everyone taking part in this project believes this should be true.]*

Perceptions of health outcomes

Overall, respondents felt that diabetes care outcomes for PEH were poor (Table 5), and that diabetes related complications occur at a higher rate in homeless populations than the general population (66% significantly or slightly more often, Table 6).

***Table 5**: "Based on your professional experience, how would you rate diabetes care outcomes for individuals experiencing homelessness who have diabetes?"*

	% of responses
Excellent	1%
Good	10%
Average	20%
Poor	**39%**
Very Poor	**18%**
Unsure	12%

***Table 6**: "Based on your professional experience, how frequently do you encounter diabetes-related complications amongst those experiencing homelessness with diabetes, compared to those in the general population?"*

	% of responses
Significantly more often	**46%**
Slightly more often	**20%**
About the same	7%
Slightly less often	5%
Significantly less often	3%
Unsure	19%

Respondents were also asked to rate how commonly they saw specific diabetes-related complications amongst their patients who are experiencing homelessness.

Responses highlighted cardiovascular issues and dental issues as being particularly common, while almost half of respondents responded 'unsure' for sexual problems (Table 7). This suggests that sexual problems may not often be checked or assessed amongst this patient group.

***Table 7**: "Among people experiencing homelessness with diabetes, how often do you encounter the following complications"*

	Commonly	Infrequently	Unsure
Cardiovascular issues	67%	14%	18%
Dental issues	66%	12%	21%
Kidney disease or damage	61%	17%	19%
Vision problems or loss	60%	19%	18%
Leg or foot amputations	52%	31%	14%
Sexual problems (e.g. impotence)	33%	16%	48%

Key comments

Respondents were then asked to provide context to their answer. in this case the answers give further insight to the perceived finding that diabetes complications are perceived to be common, and more common than in the general population.

"Staff are trying very hard, but the wider context is difficult – challenges with other staff, challenges with accommodation, and personal challenges [for patients] with addictions etc"

"Patients struggle to access care due to chaotic lifestyles and lack of flexibility in the system. Professionals lack understanding of the challenges they face in the community and cannot adequately advocate for them or tailor their management to the patient's needs."

"Avoidable amputations have resulted from poor management, and frequent hospitals admissions due to poorly controlled diabetes"

"The diabetes team do work hard to make it accessible for our client group, but they are very limited in what they can do."

"Chronically homeless complex needs are predominantly disengaged from health services due to a lack of trust in services"

"It's easy to 'blame' hospitals for all this and certainly primary care can probably do more. Some of it is the changeable, transient and precarious nature of patients' lives. It is sometimes very frustrating, and I think reflects the nature of the work but also, the hard lives of those experiencing homelessness"

Access to support from specialist diabetes services

Responses indicate there may be significant gaps around the support that PEH can access from specialist diabetes services. While 48% of respondents said that 'all' or 'most' people require support from specialist diabetes services, only 40% said that 'all' or 'most' received referrals to such services, and just 25% said that 'all' or 'most' actually accessed the services and received support (Table 8).

***Table 8**: "Of the patients experiencing homelessness who have diabetes you worked with, how many do you estimate require support from specialist diabetes services/have received a referral to such services/have accessing care and support from such services"*

	Require support from diabetes service	Received referral to diabetes service	Accessed care and support from diabetes service
All	**24%**	**22%**	**7%**
Most	**24%**	**18%**	**18%**
Some	23%	15%	13%
A few	17%	17%	26%
None	4%	7%	10%
Unsure	8%	21%	25%

Key comments:

Reasons for this were seen to be related to service inflexibility and patient priorities.

"Chaotic lifestyles can lead to missed appointments and lack of engagement with such services. There can also be trust issues from those experiencing rough sleeping so engagement with professional's can be challenging."

"Services have a non-flexible approach; patients are discharged for non-attendance"

"Unable to manage appointments, feelings of mistrust of mainstream services, inflexibility of services."

"Patients have difficulty prioritizing their health, for example due to alcohol dependency or learning difficulties"

"I think it comes down to the approach of staff, and whether the person has had positive experiences before. If they have addictions, diabetes comes a long second in life"

"People get lost in the system, have no postal address, can't receive letters, GPs aren't keeping on top of where the client is or how to contact them."

Screening, assessment and health support

Effective screening and assessment processes are essential to identifying patients in need of diabetes care and support, as well as additional forms of health support that are relevant to the management of diabetes.

For people working in specialist inclusion health services, 58% said that they screened patients for diabetes as part of their standard assessment processes.

For specialist diabetes services, just 28% of respondents said that they assess housing status as part of their assessment process, and similarly 28% said that they received housing status information as part of standard referrals. These points indicate gaps in the identification of homelessness for people who have diabetes, limiting the ability of services to provide targeted and flexible support to this population.

Responses also show that accessing standard annual diabetes tests can be challenging for patients who are experiencing homelessness. Of the different screenings asked about, eye examinations, Oral Glucose Tolerance tests, Fasting Blood Sugar tests and nutritional screening were perceived as the most challenging to access (Table 9).

***Table 9**: "For people experiencing homelessness with diabetes, how easy do you think the following diabetes screenings are to access?"*

	% responding difficult to access
Eye examination	44%
Oral Glucose Tolerance Test	40%
Fasting Blood Sugar Test	37%
Nutritional screening	34%

Foot examination	31%
Kidney Function Test	24%
Hemoglobin A1c Test	19%
Random Blood Sugar Test	17%
Blood Pressure Check	14%

Respondents were also asked to rate how easy it is for patients experiencing homelessness to access different forms of health support that are relevant to diabetes care (Table 10). Of those asked about, dietician support, mental health support and exercise on prescription were seen as the most challenging to access, while alcohol and drug misuse support was seen as relatively easy to access.

***Table 10**: "For people experiencing homelessness with diabetes, how easy do you think the following forms of health support are to access?"*

	% responding difficult to access
Dietician support	55%
Mental health support	43%
Exercise on prescription	41%
Smoking cessation support	22%
Alcohol & Drug misuse support	16%

Key comments:

Patients were asked to explain reasons for their answers. Again, answers focused on both access challenges in combination with perceived patient priorities, but inflexibility around appointment timings came through strongly.

"Most screening is done by appointment. Being able to keep an appointment is far more difficult for anyone who is homeless."

"People may have a nutrition test, but it can be hard to implement depending on their accommodation/income. If it can be done through a blood test it can be accessed but some of the hospital-based appointments are harder to meet."

"When people are no fixed abode and have no telephone numbers it is so very difficult to get appointment timings across to remind people that they need to attend. [Patients] often miss their appointments and the trust policy is to just discharge them."

"All care processes will be difficult to access and maintain for someone who has not got a fixed address or GP."

"Diabetes is not a priority, in the wider context of their life. More immediate and symptomatic health issues are more likely to result in access to care eg dental pain."

"Having consistent means of communication with the patient is usually the main barrier."

Barriers/challenges to care for practitioners and patients

To further understand the challenges that exist in providing diabetes care to people experiencing homelessness, respondents were asked to rate the perceived frequency of different pre-defined barriers for both patients (Table 11) and practitioners (Table 12).

Interestingly, the most significant barrier was perceived to be alcohol / drug misuse / other complex needs, rather than access barriers. (This was not necessarily borne out by our later patient interviews.) This was followed by financial constraints, patient fear or mistrust of healthcare providers and inflexible appointment times. However importantly, all barriers asked about were seen as common by over half of all respondents (Table 11).

Table 11: *"For people experiencing homelessness with diabetes, how often do you think the following act as barriers to accessing care?"*

	% responding commonly a barrier
Patients' complex needs (e.g. mental health)	76%
Financial constraints	74%
Patient fear/mistrust of providers	63%
Inflexible appointment times	63%
Patients' lack of diabetes understanding	59%
Patients' lack of diabetes awareness	56%

A follow up question asked practitioners how challenging they felt it was to provide diabetes care and support to PEH. 73% of respondents said that they found managing diabetes for patients experiencing homelessness to be 'very challenging' or 'challenging'.

In ranking specific challenges, the complex needs of patients, difficulty contacting patients for follow-up, and limited-service resources such as funding and supplies were highlighted as

the most common challenges. As with the barriers for patients, most of the challenges were indicated to be common (Table 12).

***Table 12**: "How often have the following acted as a barrier to providing effective care and support for people experiencing homelessness who have diabetes?"*

	% responding commonly a barrier
Patients' complex needs	85%
Difficulty contacting patients for follow-up	77%
Limited-service resources	65%
Difficulty providing / securing diabetes screenings	56%
Insufficient training on providing diabetes care for PEH	49%
Difficulty working collaboratively with other relevant services	48%

Key comments:

Free text comments in this area included:

"The main barriers hindering homeless people are not having a fixed address or GP. With an address or GP accessing support services including follow-up appointments and obtaining repeat medications is extremely challenging if not impossible."

"Diabetes management may not be a priority for patients if they have other needs that are more important to them"

"Communication between secondary and primary care is an ongoing issue, but more so for someone experiencing homelessness. Communication between healthcare providers should be best practice and is critical for consistent quality care"

How to overcome the barriers and challenges - improvement and effectiveness strategies

As well as gaining insights into the barriers and challenges, the survey also asked respondents questions on the effectiveness of various service improvements strategies.

The first question asked respondents to rate certain specific strategies in terms of helpfulness. Responses (Table 13) showed that collaboration between different specialists, mainstream and community organizations, improved service accessibility and additional service resources were seen as helpful, and all the improvements listed had over two thirds of respondents rating them as 'helpful' or 'very helpful'.

***Table 13**: "Please indicate how helpful you think the following improvements would be, with regards to providing diabetes care and support for people experiencing homelessness"*

	1	2	3	4	5	DK
Enhanced collaboration between healthcare and community organizations	**75%**	17%	3%	2%	0%	3%
Enhanced collaboration between specialist and mainstream healthcare	**70%**	17%	5%	3%	0%	5%
Improved accessibility for healthcare appointment (e.g. flexible times)	**64%**	20%	9%	2%	0%	6%
Additional resources for services (funding, staff, equipment etc)	**61%**	28%	3%	1%	1%	7%
Improved data sharing between relevant organizations	**60%**	19%	12%	2%	0%	7%
Training/education for healthcare staff on providing diabetes care for PEH	**57%**	28%	6%	4%	0%	5%
Greater availability of educational materials on diabetes for patients	**44%**	25%	21%	3%	2%	5%

1= very helpful 5=not helpful at all

Respondents were also asked to indicate which interventions were being used in their local area and rate their effectiveness.

The strategies being used the most were flexible appointment times, adapted/translated information, Multi-Disciplinary Team meetings, care coordination and health promotion / education (Table 14).

The strategies perceived as most effective were outreach, flexible appointment times and adapted / translated information, while health promotion and education and remote monitoring / telemedicine were perceived to be the least effective (Table 14).

This agreed with the answers to the prior question where the greater availability of educational materials for patients was rated the least helpful improvement. Again, this is interesting as later patient interviews suggest patients want and need more education. It is likely that respondents feel that educational materials are of little utility unless appropriately adapted, and that supporting patients to engage with services / proactively engaging patients through outreach is more important in terms of improving care.

***Table 14**: "For each of the following strategies to improve care, please indicate whether you use this strategy and how effective you think this strategy is"*

Strategy	% of respondents using this strategy	% using this strategy who rated it 'effective' or 'highly effective'
Outreach	61%	**74%**
Flexible appointment times	**69%**	71%
Adapted/translated information	68%	71%
Mobile health services	47%	64%
MDTs and care coordination	68%	62%
Peer support	45%	62%
Health promotion and education	68%	41%
Remote monitoring and telemedicine	47%	38%

Key comments:

"I find having services available within hostel settings (such as podiatry, dietician, GP, Addiction services) improves outcomes and access to services for those within hostel settings."

"As a team, we have had great success in our outreach work by holding outreach clinics at homeless centers and centers where vulnerable services users attend."

"We have good sharing agreements in the city between primary, community and hospital care...this has led to increased awareness of barriers our cohort face and better communications between service."

"Some local fresh food initiatives would be great but need to take into account cooking facilities. A 'Hello Fresh' initiative for those [experiencing homelessness] would be great."

Outreach and Collaborative Working

The results above highlight the perceived importance of outreach services and effective collaborative working between services in meeting the needs of PEH who have diabetes. However, the survey results show there may be gaps in these areas, particularly around integrated working between specialist diabetes and specialist homeless/inclusion health services.

34% of people working in specialist diabetes services said that their service does engage with outreach to support PEH, with 41% saying it didn't and 25% being unsure.

Only 19% of respondents from other services said that specialist diabetes services engage in outreach to support PEH in their local area, although 29% said that they didn't have this information.

In terms of collaboration between services, 69% of respondents from specialist diabetes services said that they were aware of specialist homeless/inclusion health services in their local area, although 46% said that they 'rarely' or 'never' contact these services with regards to supporting PEH (Table 15).

***Table 15**: "How often you contact homeless/inclusion health services with regards to providing diabetes care/support for people who are experiencing homelessness."*

	% of respondents in specialist diabetes services
All the time	9%
Often	14%
Sometimes	32%
Rarely	23%
Never	23%

Key comments:

"I feel very frustrated by the lack of a pathway to follow when I come across such cases. I have very little training in how best to support a patient experiencing homelessness with diabetes."

"We are probably not seeing many people because they cannot access our service as it is dependent on referral from their GP" - Specialist diabetes service staff

"There appear to be better outreach opportunities for people with Type 1"

Training and Education

Because people experiencing homelessness often have multiple, complex and overlapping care and support needs, training and education around these needs and how they might

interact with diabetes and diabetes care is essential to providing high quality care and support to this population.

However, despite frequently working with people experiencing homelessness who have diabetes, 91% of respondents said that they had never received specialised training on providing diabetes care and support for people with complex needs, and just 14% of respondents said that there were clear policies at their organisation for providing diabetes care and support for this population. In terms of specific topics, mental health considerations, cultural competence and outreach for PEH with diabetes stood out as the biggest training gaps amongst respondents. The results show a clear need for targeted training programmes to improve the quality of care received by people experiencing homelessness who have diabetes.

***Table 16**: "Please indicate whether you have completed training for the following topics"*

	Completed	Undergoing	Not completed	Not completed – not relevant
Mental health considerations in diabetes care	8%	1%	**83%**	9%
Cultural competence in care for PEH	14%	1%	**76%**	10%
Outreach and access to care for PEH with diabetes	14%	2%	**73%**	11%
Interaction between diabetes and drugs/alcohol	26%	1%	**68%**	5%
Nutrition screening and counselling	25%	2%	**57%**	17%
9 diabetes processes of care	36%	2%	**51%**	11%
Smoking cessation and diabetes care	37%	3%	**44%**	17%
Type 1, 2, 3 diabetes differences	48%	5%	**40%**	8%

Key comments:

"Supporting those with mental wellbeing difficulties would be a complimentary need that is currently outstripped by demand, for people to get the most of their diabetes care."

"Despite having excellent diabetes knowledge, I need more training on how to apply this specifically for our patients who are without a home"

Discussion

The results of the survey complement and support the other outputs of this project, including the workshops, patient interviews and project audits. The survey indicates that diabetes is a significant health concern for people experiencing homelessness, both in terms of its prevalence and in terms of the serious impact on health and frequency of diabetes-related complications.

The survey highlights important gaps in diabetes care for people experiencing homelessness, being caused by a range of related factors. While personal factors such as substance misuse / mental health problems can make engaging with services challenging, there is a clear need for services to improve their accessibility by maintaining flexible approaches (e.g. appointments), engaging in proactive outreach efforts and working collaboratively across specialist diabetes, specialist homeless and other services to coordinate care for patients.

Effective education and training on providing diabetes care and support for people experiencing homelessness is a clear need, enabling practitioners from across a range of services to effectively support this patient groups, and work together effectively to provide care

Patient interviews

Although the original remit of the project did not include interviews with patients, the Expert by Experience panel in workshop 1 indicated very clearly that we needed to interview some current patients to understand their experience and use this to steer the project.

3 initial interviews were conducted. Quotes from all three interviews are provided here with consent.

Complete transcripts of 2 of the interviews are reproduced in Appendix 5 with full consent and permission of the two interviewees who are happy to be identified in this report. These two interviewees have also gone on to work closely with the project and steer the work.

All the interviews give considerable insights into experience of living with diabetes when you are homeless.

Themes that came up from the interviews:

- Patients can feel told off and looked down on when being given a diagnosis of diabetes. This can also happen when they are being asked about their own concordance e.g. to a healthy diet. This can turn them away from care.
- Opportunities for health education and support are sometimes missed by health care practitioners.
- Patients are aware of how serious diabetes is, and this can scare them. This can also turn them away from care.
- Diabetes is very complicated to understand. Leaflets don't help very much. Simple language is important.
- Managing diabetes when you are homeless is very difficult due to practical issues like medication storage, food preparation etc.
- Nurse explanations, support and case management make a massive difference.
- Support in hostels is also vital, can contribute massively to helping someone manage, and can be lifesaving - although people experiencing homelessness with complex diabetes are hard to place in appropriate accommodation with the right level of support.
- One interviewee underwent a Deprivation of Liberty Safeguards (DoLS) procedure and suggested that this may have saved his life.

The title of this report comes from the end of the first interview.

Quotes from Interview 1: Kellie Hart (40s)

'I completely blanked it out, I rebelled. Everything they told me I couldn't eat I would purposefully go out and eat. I didn't really take it in, how serious it was'

'Yes. It was as though I was being told off – You shouldn't have eaten that. You shouldn't have done this or that. It felt like I was being told off like a school child. It was like I'd set out to do it on purpose, there was no sympathy at all.

'It doesn't matter how long you are diabetic. If you are not spoken to on a level that they would like to be spoken to it's not going to work.'

'They are always there when I'm in hospital, talking about increasing and decreasing. But they never actually involve me in the conversation. They are talking around you. They don't tell me what I can do to help myself.'

'Sometimes you feel that when they think it is your fault, that you brought it on yourself, and that as a result they are not giving you the full attention.'

[In the hostels]... 'They haven't got a clue. Some of them would look at my sugar, see it was high, and ask me if I needed a fizzy drink or something. They just didn't have the training.'

'When I was living in a hostel, you had nowhere to store your insulin, except with everyone else's stuff in the kitchen… If you needed it at night you'd have to go downstairs at night to the kitchen, and this sometimes gets locked. So, in the end it was a matter of having to keep it out. And sometimes it was out on boiling hot days. I don't know how much this matters.'

'I think they should give out pen cool bags in hostels. I've seen these before. When you are homeless it would be good to have this.'

'When you are at home, if you have all the necessary things – the machine, the sticks, the alarm – it can be ok. As long as it's explained to you. But you need that stable environment.'

'It's 8 years now and I'm still only just really getting to grips with it.'

'I just feel – it's a bit late for me now, my pancreas and my sight, ... but I wouldn't want anyone else to go through this.'

The key things that Kellie thought could be improved…

- Don't tell us off!
- Cold bags could be given out.
- Clients need to be more in their care.
- Carers should be trained properly.

Quotes from interview 2: Lee Nelson (20s)

'The help and support, like I said, I just refused it all the time because I just totally refused to admit I was diabetic.'

'I just feel with diabetes, man, I'm just worthless…. People think you're sounding pathetic, well yeah. It might be pathetic, but until their luxuries in life gets stripped away from them in a heartbeat, and you can't have sweets and all that, they won't understand.'

'I went to the mental health unit and was given a diagnosis of an adjustment disorder all around diabetes. But there is no treatment, no medication, nothing. Just deal with it or you die, that's how I feel to be honest.'

'Even if I wanted to, I can't handle my own medication, especially insulin because it can kill you like that in a heartbeat. It's a dangerous illness for someone like me, with my mental health and my head.'

'It'll kill you one day, one way or another. Even if you're on top of it. I think it was a diabetic coma (that word might not be right) … Then I had kidney and liver failure through that. And then I had this mini short delirium thing.'

'It's hard to do the right thing in hospital even… All they have in that fridge to eat right now is custard, chocolate custard, biscuits, no sandwiches or nothing, sauce, cereal. Sugar, sugar, carbs, carbs, carbs.'

'Lynne [the nurse] *is the only one who didn't give up on me, to be honest. I'm only here because of Lynne. If Lynne hadn't brought me into the hospital, to be honest, I don't think any of the rest of them were comfortable in doing so. It was only when Lynne instructed them to that brought me in, and I've been in ever since. Lynne's proved them wrong.'*

'If someone doesn't want to take the medication, and they know it's going to kill them, that doesn't make sense. That's not someone that has got capacity. I needed someone to take control.'

Male 50s

'At first it was a complete mystery; I didn't ask for it. I've got a lot of help from nurses to understand though. I understand a bit better now'

'The nurse comes to talk to me, I am thankful. It helps me with my meds… I have a Dossett box, the meds go in there. I'm lucky because I don't have to do insulin.'

'The nurse saved my big toe, and helped me with footwear and socks.'

'If I were not here [in an Emmaus led hostel], *I would fall by the wayside, but they help me pay attention all the time. I need that encouragement. They give me a couple of sandwiches at night if I need it.'*

'It helps to be in a structured environment – if I was on the street I couldn't do it. I was 8 years on the street. I imagine it's so easy to just give up.'

Visits to areas of good practice

Areas of good practice revealed themselves when the project was advertised. Practitioners were generally very keen to engage and share their good practice. Some extraordinary outcomes were seen in these areas.

5 visits were undertaken. The areas were:

- Bolton.
- Bournemouth.
- Plymouth.
- Liverpool.
- St Helens.

The similarities between these projects that were noted were:

- Strong partnership working between specialist and inclusion health and homelessness services.
- Outreach from specialists to settings where vulnerable patients are.
- Audits of care and understanding of data.
- Training of homeless hostel and staff.
- Use of Continuous Glucose Monitoring technology.
- Partnership working with eye screening and podiatry services.
- A clear focus on prevention.
- A personalised case management approach for complex individuals.

These similarities will be seen in the service write ups.

Several of the nurses wrote their own text for this report, and this is acknowledged in the text.

Bolton

Lynne Wooff, Diabetes Specialist Nurse, with Joanne Dickson, Advanced Clinical Practitioner and Team Lead, Rebecca Lace, Advanced Clinical Practitioner and Dr Harni Bharaj, Diabetes Consultant

Email: lynne.wooff@boltonft.nhs.uk

Lynne in her own words:

The concept of the Bolton diabetes and homelessness program started in Autumn 2020. The first Multi-Disciplinary Team (MDT) meeting was on 1/4/2021, but due to COVID Restrictions the initial progress of the program was affected. As such the length of the program has so far been 3 years and 2 months.

Patients seen so far on the programme = 45

Of those:

Complex patients on insulin - Type 1 or Type 3c = 23 (51%)

The Multi-Disciplinary Team meets 8 weekly and comprises:

- Myself (a Diabetes Specialist Nurse).
- Diabetes Consultant.
- Homeless and Vulnerable Adult (HVAT) team lead.
- Health Improvement Practitioner (HIP) / Diabetes Community Champion co-ordinator.
- Diabetes Community Champion.
- Retinal and specialist foot screeners.
- Hostel Manager x2.
- 'Homeless friendly' representative.
- Healthwatch representative.

ANP Joanne Dickinson, SN Amanda Rainford, ANP Rebecca Lace, Lynne Wooff, Nursing Associate Annaliese Cavenay, HCA Cheryl Ramsden, Sr Ava Tinsley

Lynne Wooff, and Homeless and Vulnerable Adults Team Lead Joanne Dickinson

KEY ELEMENTS OF THE PROGRAMME

The close working relationship with HVAT has been key to the progress of the program.

The programme elements have been:

- Diabetes Community Champions / Health Improvement Practitioners delivering diabetes awareness sessions quarterly at all the 3 homeless hostels and Emmaus in Bolton.
- Routine screening via HbA1c at homeless hostels and dressings clinics, which was enabled by the provision of a Point of Care Cobas B 101 meter testing machine. An algorithm for the management of the blood test results was put in place.
- All patients found to have diabetes and homelessness are offered a full assessment covering all 9 diabetes care processes, and the results are managed accordingly.
- Annual screening checks are undertaken / organised as needed. All data obtained is added to the running database. The information is used for audit purposes and follow-up planning.
- The patients GPs receive letters covering all results and action plans.
- GP surgeries are informed of all addresses that people experiencing homelessness may reside in and asked to put an alert on their records.
- Homeless hostel admission sheets have been amended to include questions about diabetes.
- Referrals to Diabetes Specialist Team are encouraged directly from the hostel staff.
- Rolling training program for Hostel staff across all 4 sites to complete the Sanofi Eden Program has been put in place. The Sanofi sponsored Eden Program has provided access to diabetes awareness learning modules for all the hostel staff.
- Links made with Emergency Department (ED) clinical lead to improve referral to HVAT in-reach team.
- Homeless hostel addresses supplied to ED for alerts to be put on.
- The development of a No Fixed Abode (NFA) blood order set (HbA1c / Lipids) for opportunistic screening of any person found to be homeless, attending ED and requiring a blood test, has also been enabled.
- Due to the collaboration with Healthwatch, pop up cervical screening and bowel screening information sessions have also been run alongside the diabetes community champion diabetes awareness sessions at the hostels.

Diabetes Champion Faisa Abdi

Lynne Wooff, Sam Dorney-Smith and Podiatrist Joanne Grimes

Sanofi: Hostel/ Care Home Support training

In a recent review of 28 patients:

- **23 patients (82%) had completed the 9 diabetes care processes.**
- 5 patients either have moved on to another area or prison before completing all their 9 diabetes care processes.
- 12 patients (43%) insulin treated.
- 9 patients (32%) commenced on cardiovascular / renovascular protective medications.

- 6 pts (21%) have been provided with Continuous Glucose Monitoring technology or were already using technology this and have maintained this e.g. FSL 2 / FGM / CGM] Dexcom [CGM].
- 1 patient pregnant using Dexcom.
- 1 patient has had discussions about an insulin pump.
- 14 patients (50%) appropriately provided with blood glucose monitors to improve management.
- Working closely with our cardiovascular research specialist nurse to identify people who may need genetic testing for familial hypercholesterolaemia and intensification of lipid management. 3 patients referred so far for more intensive lipid treatment, 2 of these needed referrals to the specialist endocrine lipid clinic, and 1 has needed referring for genetic screening.

KEY OUTCOMES/ SUCESSES

- Positive outcome data, both glycaemic and cardiovascular.
- Certain knowledge that the collaborative work has helped to save at least 2 lives, probably more.
- National recognition for the work, prompting the development of the QNI Burdett funded QI program and requests for information regarding the program from other diabetes services.
- QNI quality improvement case study: Partnership Working around the Identification and Management of People with Diabetes.
- Centre for Homelessness Impact guidance: Integrating health and social care for people experiencing homelessness: A step-by-step resource for implementing the joint guideline November 2022.
- Asked to present at the Diabetes Specialist Nurse forum national conference and the Primary Care Diabetes Society conference in October 2024.
- Attainment of NHSE funding to fund a Diabetes Specialist Nurse attachment to Homeless and Vulnerable Adults Team 1 day per week for 18 months. QI methodology will be used to assess the running outcome data against the agreed aims / targets of the project. The outcome data will hopefully form the business case for ongoing funding.

CHALLENGES

It is important to acknowledge that the work isn't always easy.

Issues have been:

- Many patients have chaotic lives, competing priorities, and poor access to food on a background of complex Type 1 / Type 3c diabetes. As such the work is very time consuming and high risk.
- Being flexible enough to review at a time when the patient is able to engage with this is difficult.
- Rapid turnover of hostel staff needing diabetes awareness training.
- Overall time to dedicate to the program. At the beginning QI was not really part of my substantive role, and a lot of work for the project was done in my own time.
- The need to provide technology to enable screening and better blood glucose monitoring (and the need to sometimes replace this).

ULTIMATE AIM

For the care of the homeless and vulnerable with diabetes to become part of the substantive work of the Bolton Diabetes Service.

TOP TIPS

- Making a connection with the local homeless / inclusion team is essential, as well as having someone senior in your diabetes team understanding why this service is needed.
- Have a clear idea what you would like to achieve with the time and funds and staffing available to you. Small steps / interventions can still make big improvements.
- You need to be assertive and be able to challenge. You will also need to be able to advocate to service managers about what can be achieved, and the difference this work can make to the outcomes of this high-risk group (as well as, in the long-term reducing the pressure on the acute services).

Bournemouth

Sam Whittle, Diabetes Specialist Nurse, and Dr Helen Partridge, Consultant in Diabetes, University Hospitals Dorset, with Dr Maggie Kirk, Inclusion Health GP and Chrissie Croucher, Inclusion Health Nurse, Bournemouth HealthBus and the Dorset Diabetic Eye Screening Programme

Email: samantha.whittle@uhd.nhs.uk

In October 2023 a meeting was held between Diabetes specialist services and the Bournemouth HealthBus - an award-winning health outreach charity based in Bournemouth which operates a mobile, GP-led outreach service to people experiencing homelessness with a multidisciplinary team.

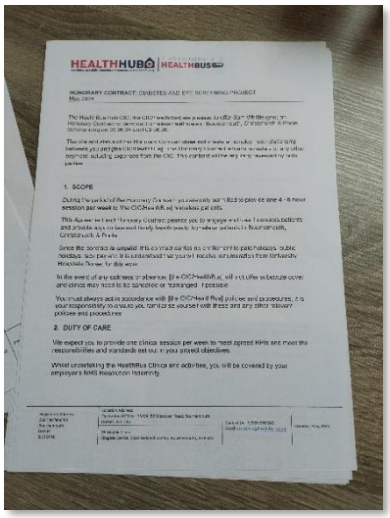
The purpose of the meeting was to look at ways to improve the diabetes health care offer to people experiencing homelessness in Bournemouth. Bournemouth, Christchurch and Poole (BCP) council have the highest number of rough sleepers outside of London. Government figures showed 64 people were sleeping rough in the BCP area in Autumn 2022 which was double the previous year.

At the start of the process, it was identified that routine screening for diabetes was not taking place, and that there was no option for routine HbA1c screening. Also, relatively few people experiencing homelessness with diabetes were accessing specialist care, and the numbers of patients known to have diabetes seemed low.

As such it was decided to put forward a bid for a 1-year pilot. The bid was accepted, and the pilot started in July 2024.

Working with the Healthbus the University Hospitals Dorset Diabetes centre is seconding a 0.1 whole time equivalent (4 hours a week) band 7 DSN (Sam Whittle) to develop and test a diabetes drop-in one stop shop for people with diabetes living with homelessness. Funding is being provided by UHD for the 1-year pilot project.

Dr Maggie Kirk, Chrissie Croucher and Kate Hibbert from the HealthBus with Sam Whittle and Sam Dorney-Smith



Contract signed between Bournemouth HealthBus and University Hospitals Dorset Diabetes centre

Aims:

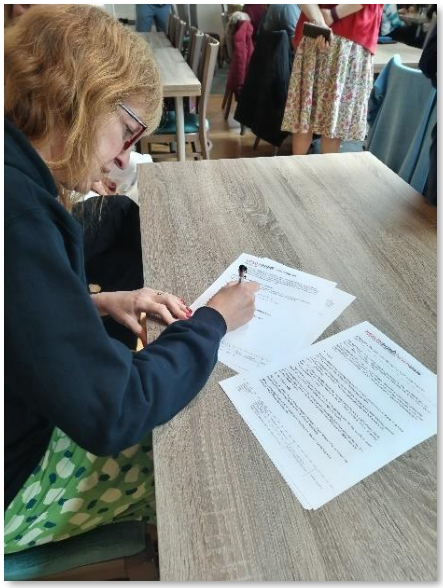
1. To identify people who are already known to have diabetes and who are living with homelessness and support them to access services.
2. To screen those people with homelessness (not known to have diabetes) who attend the Healthbus for diabetes.
3. To work to identify the specific type of diabetes that someone has where this has not yet been clearly identified - as the management of type 1, type 2 or type 3c are very different.
4. To improve management of diabetes in this group, aiming to introduce and meet the 9 diabetes care processes:
    - Blood pressure.
    - Cholesterol, lipid profile.
    - HbA1c.
    - Renal function.
    - ACR.
    - Retinal screening.
    - Foot checks.
    - Smoking.
    - BMI.
5. To offer education to all those with diabetes in an appropriate format.
6. To offer lifestyle advice to people who do not have diabetes but are either found to have pre-diabetes or who are at risk of developing it.
7. To offer an opportunity for drop-in retinal screening by engagement with NEC Care Dorset Diabetic Eye screening service.

The team are also looking into the possibility of engaging with dental care services, podiatry and nutrition teams to expand the multidisciplinary team offer to people living with homelessness.

Outcomes:

1. To record the number of people accessing screening.
2. To record the number of people accessing care and treatment.
3. To understand the prevalence of Type 1, 2, and 3 and ensure people are receiving appropriate medical care.
4. To quantify the frequency with which the 9 diabetes care processes for people experiencing homelessness with diabetes have been met **pre and post** intervention.

This is a great local partnership Quality Improvement project which is likely to improve outcomes significantly. Results will be shared locally and regionally and published in peer reviewed journals and at national conferences at the end of the pilot with a potential proposal to introduce the role as part of the UHD diabetes team to cover a wider area.



Sam Whittle signs the collaboration agreement

Chrissie Croucher on outreach with the HealthBus car

Outreach retinal screening

To achieve this Dorset DESP are providing a screener, camera, and screening equipment to support 1 session of screening per month. The DESP are also providing an engagement officer to promote diabetic eye screening at events, and healthcare bus sessions.

A free eye test and ophthalmic review will be offered to everyone with diabetes.

Slit lamp examination will be available where possible with a senior screener who will be able to give results in real time to the patients to prevent the need for letters and follow up results. They will also be able to discuss the implications of the results and arrange any necessary follow up or onward referral.

The screening team need:

- A room at least 3 metres in length to undertake visual acuity measurements.
- 2 chairs (one for the screener, and one for the patient).
- Space for the camera and a clear table (i.e. to place screening equipment on).
- Electricity to power the camera/table.

The administration team require:

- A list of people with diabetes registered with the healthcare bus.
- Healthcare bus patients to be registered with a GP.

For more information please contact: Charlotte Wallis, Diabetic Retinal Screener Grader charlottewallis@nhs.net

Liverpool

Juliette Palmer, Diabetes Specialist Nurse, and Dr Ryan Young, Brownlow Group, Liverpool

Email: juliette.palmer@livgp.nhs.uk

Juliette in her own words:

I have been working with and supporting people experiencing homelessness with diabetes for around 10 years now. This includes 8 years working in the local community diabetes team, and now for the last 18 months in my current role as a Diabetes Specialist Nurse in Primary Care in a large city centre GP practice.

Not long after joining the surgery, I was successful in winning the poster award at the Primary Care Diabetes Society conference on the work I have done to support people experiencing

homelessness with diabetes. I have tried to build on the success of this by adapting according to the needs of the service.

I work very closely with the GP practice homeless team, which consists of GPs (including Dr Ryan Young who I work with specifically on the diabetes project), homeless outreach nurses, a clinical support worker and admin team. My role also enables me to work closely with the secondary care team, the Young Adults with Diabetes team, Consultants, other Diabetic Specialist Nurse's, Dietitians and Psychologists.

I have some clinic-based appointments, but a major part of my role is delivered through assertive outreach with other members of the team. I have encouraged and supported the homeless team in developing their skills and knowledge in the management of diabetes. I deliver diabetes awareness training sessions to hostel staff as required to help them support service users and one of the hostels has now appointed Diabetes Champions.

Juliette Palmer

Dr Ryan Young with Melanie Johnson (Homeless Outreach Nurse), Jenny Bond (Homeless Outreach HCSW), Georgia Moore (Primary Care Alcohol Nurse).

Overall, the service comprises:

- Open access weekly clinic with GPs, homeless team and all supporting services.
- Clinic appointments with a Diabetes Specialist Nurse in primary care.
- Nurse assertive outreach to visit patients - hostel visits etc.
- Diabetes awareness /support training for hostel staff (certificate of attendance).
- Regular IT searches for People Living with Diabetes to review 9 KCPs (Key Care Processes).

Certificate Of Attendance

This is to certify that:

Has attended a Diabetes Awareness Session.

On:

By
Juliette Palmer
Diabetes Specialist Nurse
Brownlow Health

Teaching sessions include:

- What is diabetes?
- Types of diabetes
- Diet & lifestyle– carbohydrates
- Hypoglycaemia
- Hyperglycaemia – sick day rules/ DKA
- Medications including insulin if appropriate
- Case studies

Initially we had approximately 25 people with diabetes experiencing homelessness. The numbers have grown to 40 plus now with ever increasing complexities and challenges.

The use of flash glucose monitoring technology has impacted on care very positively, helping to improve HbA1c's, when living in difficult conditions, and reducing reliance on support staff. It has allowed safe titration of medications for better outcomes.

2023 – 2024 QOF

Definition of homelessness used: rough sleeping, homeless hostels temporary accommodation, sofa surfing, unsuitable / dangerous accommodation – car, garage etc

TOTAL = 37 Patients

- Type 1 – 8 patients – 22%.
- Type 2 - 25 patients – 67%.
- Type 3c – 3 patients – 8%.
- X1 patient unknown – 3%.

13 out of 37 patients currently have all 9KCPs (35%), 78% have had 8KCPs (not including retinopathy screening)

- Body Mass Index – 100%.
- Blood Pressure – 97%.
- HbA1c - 89%.
- Cholesterol – 83%.
- Smoking – 97%.
- Foot checks - 83%.
- ACR – 78%.
- eGFR – 92%.
- Retinal screening – 31%.

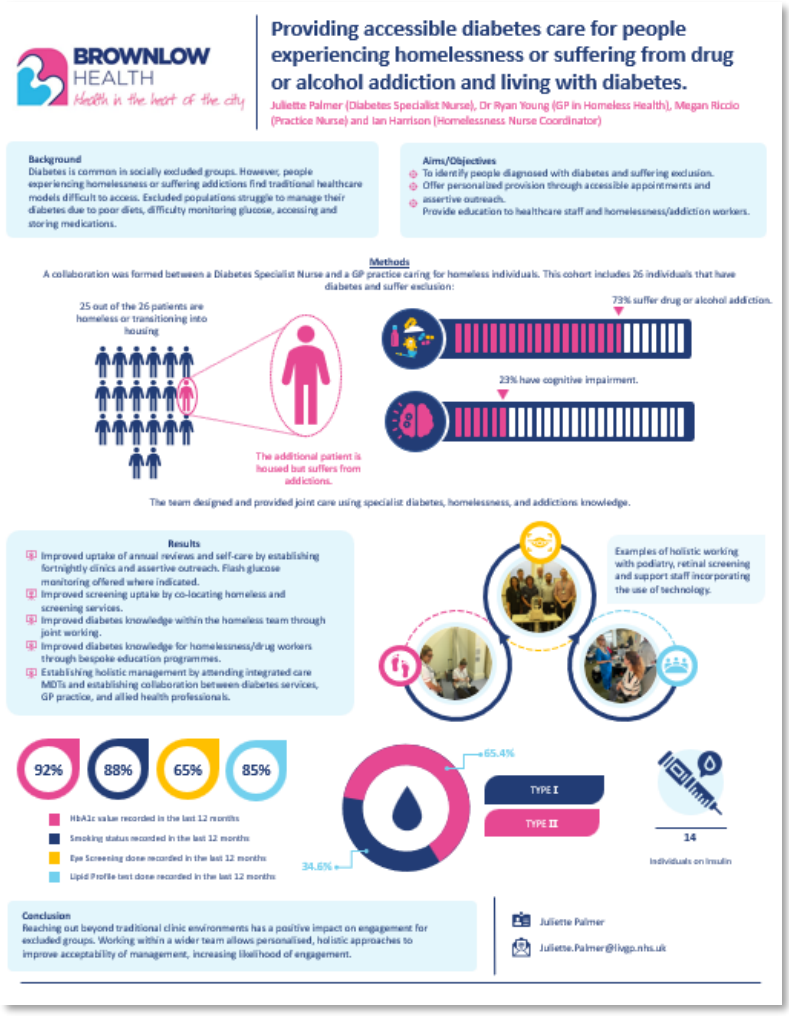
This year, recognising that many of our patients are not attending their retinal screening appointments, we are working more closely with the retinal screening team and key workers

to support engagement in sessions at the surgery or at nominated clinics making it more accessible to improving uptake.

This is one of the most rewarding areas of my role, although some of the challenges are very difficult to overcome and sometimes, I feel the problems are too big to solve.

My biggest tips would be:

- To keep trying and don't give up.
- To keep looking at different ways to approach situations and use all the different teams and services available to support.
- Small things can often mean and achieve so much.



WORK WON POSTER COMPETITION AT THE PRIMARY CARE DIABETES SOCIETY 2022

Juliette Palmer and Dr Ryan Young

Dr Ryan Young holds up the Primary Care Diabetes Society Award!

Plymouth

Emma Green, Diabetes Specialist Nurse, with Catharine Dawson, Diabetes Specialist Nurse and Dr Daniel Flanagan, Diabetes Consultant, University Hospitals, Derriford, Plymouth

Email: emma.green8@nhs.net

Emma and her team's work has focused on diabetes and health inequalities, not just people experiencing homelessness. This was enabled under the banner of prevention of emergency department admissions of people with diabetes in DKA (diabetic ketoacidosis).

Background provided by Emma:

- 1 in 6 beds is occupied by someone with diabetes and the cost of treating diabetes and complications equates to 10% of NHS budget Diabetes in the UK: 2019.
- Average cost of Diabetic Ketoacidosis (DKA) admission is £2064 / patient The cost of treating diabetic ketoacidosis in the UK: a national survey of hospital resource use.
- In Plymouth: 200 patients in hospital at any one time with diabetes. Specialist team is actively managing 50.
- The majority of people who DNA specialist appointments have a hospital admission within 6 months.

An audit of attendances was undertaken as a baseline. This reviewed all patients from the community coming in with DKA over the prior 10 months.

The project was supported by Consultant Endocrine Physician Dr Daniel Flanagan who helped drive forward the argument for funding for the outreach intervention.

Audit results:

- First 24 patients reviewed had 107 DKA admissions over 10 months.
- Many were not known to specialist services (often they had been referred, but had DNA'd).
- Most were female, under 30, and had social issues.
- The common social issues were:
    - Living in certain postcodes / areas of deprivation.
    - Experiencing homelessness or housing issues.
    - Mental health issues.
    - Alcohol / substance misuse issues.
    - A history of being in care previously.
    - A history of being out of care for other conditions.

Interventions that Emma and Catharine undertook:

- Seeing people where they are – 'home' visits - over breakfast at a day centre, whilst walking in the park, at a Job Centre.
- Providing clinic appointments at their own GP when helpful.
- Direct text reminders of appointments / meet ups, and direct text medication reminders.
- Promotion of NHS apps to help with medication reminders.
- All patients put on CGM (continuous glucose monitoring) to enable support .
- Persistence 'someone texted me back today for the first time after 6 months'.
- Support with other issues: Filling in housing forms, enabling access to food banks.
- Service has also just employed a psychologist to support.
- A Trauma informed approach and not telling people off.

Catharine Dawson and Emma Green, Diabetes Specialist Nurses, University Hospitals Plymouth. Catharine supported Emma with patient visits throughout the project.

Results:

The impact on Emergency Department (ED) attendance has been significant.

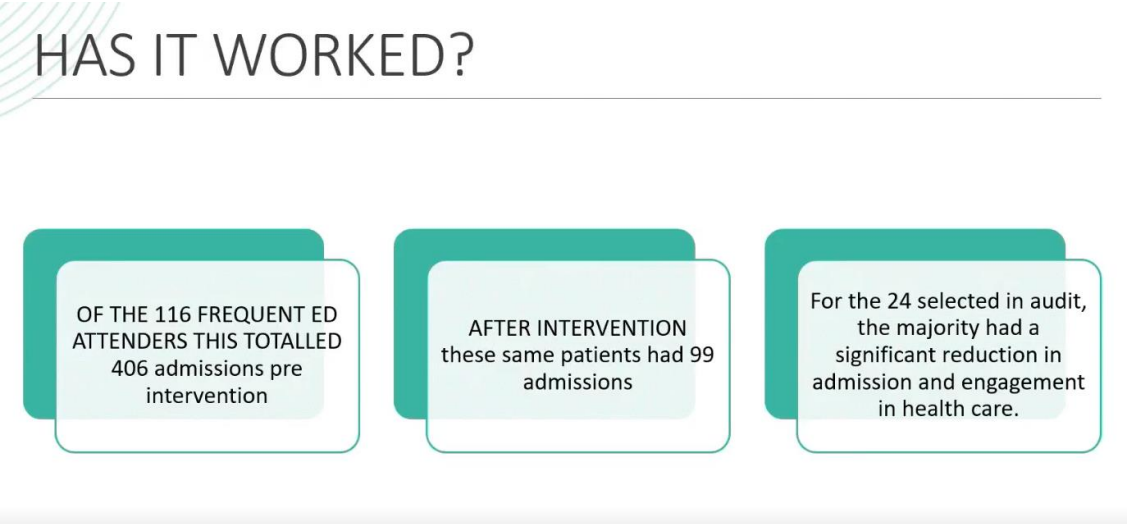
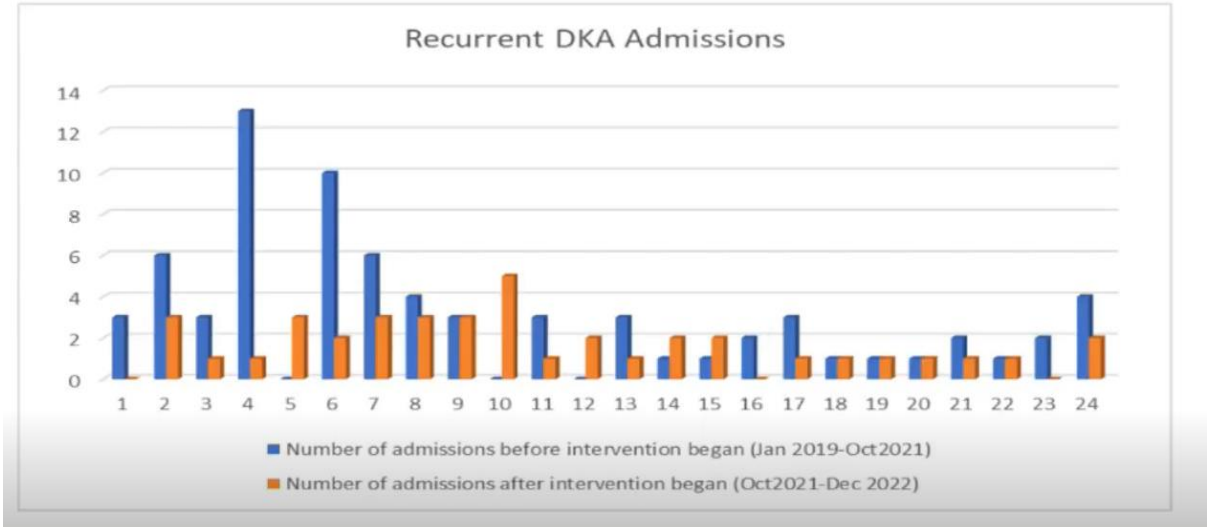


Figure 1 shows the number of admissions per individual before and after establishment of the outreach service. This small group of 24 young people accumulated 107 admissions during the study period. The intervention reduced the frequency of admissions but also improved adherence to treatment, reducing the risk of diabetes complications in the future.



This project was extremely successful at identifying and working with a very high-risk cohort and improving their outcomes.

St Helens

Becky Smith and Laura Walmsley, Diabetes Specialist Nurses, Diabetes Specialist Outreach Team, St Helens Diabetes Specialist Outreach Team

Email: diabetesspecialistoutreachteam@sthk.nhs.uk

Becky in her own words:

St Helens has some of the most deprived wards in England where life expectancy is poor and wellbeing worse. Obesity, diabetes, cardiovascular disease, poor mental health, teenage suicide, and premature death are greatly increased in a local population, scourged by low educational attainment, high unemployment, and poverty. Less than 50% of local people with T1DM & T2DM achieve treatment targets

Following an extensive consultation, and analysis of which members of our local community were receiving suboptimal diabetes care, the St Helens Diabetes Specialist Outreach team was established by Mersey & West Lancashire Teaching Hospitals NHS Trust to help tackle local inequalities, to improve wellbeing and quality of life. Key groups for support, included people experiencing homelessness and those with drug and alcohol problems.

The St Helens Diabetes Specialist Outreach Team:

- Supports other teams to manage diabetes better.
- Doesn't carry a caseload.
- Works across:
  - Primary care (educating GPs, Practice Nurses, Physician Associates, Pharmacists…), joint review clinics, case note reviews and ad hoc advice and support.
  - Inpatient mental health units.
  - Care homes (staff education and joint reviews).
  - Outreach clinics in homeless centres and other venues with vulnerable service users.

In terms of the homelessness offer there are monthly diabetes clinics at the Salvation Army, YMCA, Teardrops and Hope House (homeless charities) and Change Grow Live (drug and alcohol misuse charity), where local people can access diabetes assessment and support, including point of care blood testing.

Outreach clinics provide:

- point of care HbA1c to diagnose / assess diabetes.

- proactive identification of anyone with impaired glucose regulation (IGR) /'pre diabetes' and the provision of relevant advice.
- education to help reduce the risk of diabetes and to better understand signs/symptoms.
- medication management support to GPs and nurses.
- support and signpost for people with diabetes, as required, such as annual reviews, mental health support, smoking and drinking.
- the provision of supplies if needed to people with diabetes including Blood Glucose meters, glucose gel and information leaflets.

We have had some great success stories, including a gentleman with a learning disability and poorly controlled diabetes who struggled to access his food and medications because he was being exploited by criminals using his flat. The specialist diabetes outreach team saw him and worked with local services to get him the help and support. He now lives in safe sheltered accommodation; he is able to access his food and medication regularly and his diabetes is exemplary. Indeed, he even volunteers at the venue!

We also educate staff caring for the homeless and those in drug and alcohol recovery venues and have identified 'diabetes champions'. Recently, we piloted our first 'Diabetes Drive Week' as part of Diabetes Week 2024 and facilitated dietitian support, podiatrist-led footcare and diabetes eye checks. Feedback from the 44 people seen and their support staff was excellent *"the team was amazing they saw many clients and they worked straight through. Their dedication and commitment today were second to none. You have a fantastic team".*

Looking ahead, we aim to build supportive relationships with other services in the homeless health sector and to identify ways we can provide support to other groups such as asylum seekers.

Diabetes Week 2024: L-R Miu (Diabetic Eye Screening Programme), Helen (Principal Podiatrist), Olivia (Diabetes Dietitian), Laura and Becky (Diabetes Specialist Nurses)

Lesley Mitchell (Diabetes Integrated Care Lead), Laura Warmsley and Becky Smith

Laura Warmsley with Teardrops manager Nick Dyer

Clinical insights

As a result of the collaboration on the project several clinical insights were collected which relate to the care of people experiencing homelessness with diabetes.

These are outlined below.

Prevalence

In the general population the prevalence of doctor-diagnosed diabetes is higher among men (7%) than women (5%). Prevalence increases with age, from 1% of adults aged under 35 to 16% of adults aged 75 and over.

The prevalence in the populations served by nurses involved in this project varied quite significantly. Unsurprisingly areas with routine screening had a higher prevalence, and one area which recently commenced routine HbA1c screening for this project (Edinburgh) almost doubled the number of known cases as a result. Homeless and inclusion health populations are younger than the general population however, which could account for some of the lower findings.

Estimated prevalence:

- Bolton 28/220 = 12.7% (routine screening in place).
- Liverpool 37/900 = 4.1% (routine screening not in place, but high awareness locally).
- Leeds 47/2303 = 2.0% (routine screening not in place).
- Edinburgh 21/900 = 2.3% (routine screening now in place).

Breakdown of type of diabetes in the homelessness population

The breakdown of diabetes in the mainstream population is approximately:

- Type 2 - 90%.
- Type 1 - 8%.
- Others e.g. gestational diabetes and Type 3 – 2%.

However, in the three areas profiled the prevalence of Type 1 and/or Type 3 on insulin seems higher:

Bolton

- Patients seen so far = 45.
- Complex patients on insulin - Type 1 or Type 3c = 23 (51%).

Liverpool

- Type 1 – 8 patients – 22%.
- Type 2 - 25 patients – 67%.
- Type 3c – 3 patients – 8%.
- X1 patient unknown – 3%.

Edinburgh

- Type 1 – 4 patients – 23.5%.
- Type 2 – 17 patients – 76.5% (no data on how many on insulin).
- No Type 3 on register.

Leeds

- Type 1 – 4 – 8.5%.
- Type 2 – 43 – 91.5% (no data on how many on insulin).
- No Type 3 on register.

More data would be needed to understand this further, and many areas will be following this up.

Management of Type 3 diabetes

Type 3 diabetes came up as a common issue in this project. This type of diabetes occurs because of an illness or condition that affects the pancreas. Examples of the conditions that can lead to Type 3 diabetes include:

- acute pancreatitis
- chronic pancreatitis
- pancreatic cancer
- cystic fibrosis
- haemochromatosis

In this type of diabetes people have a combination of both high sugars and malabsorption. This type of diabetes is also called 'pancreatogenic diabetes mellitus'.

People who drink too much alcohol are very susceptible to pancreatis, and this is the main reason who Type 3 diabetes may be more common in people experiencing homelessness than in the general population.

Specific issues related to Type 3 diabetes

As well as insulin the pancreas also produces enzymes which break down food we eat. Therefore, in some cases of Type 3c diabetes, people may not be able to digest their food. This is called pancreatic exocrine insufficiency (PEI), which essentially means that the pancreas isn't working properly to digest food.

Type 3 is generally diagnosed initially through clinical history. The malabsorption symptoms of Type 3c diabetes include the usual symptoms of diabetes (weight loss, passing urine more than normal, tiredness, recurrent infections, slowing health wounds) AND:

- losing weight without trying to.
- stomach pain.
- frequently passing wind.

- Diarrhoea.
- Steatorrhoea (fatty poo) can look bulky, oily, pale orange/yellow, be foul-smelling and runny.
- Poo can also float and be difficult to flush away and may stain the toilet bowl.
- low blood sugar.

The steering group felt that some people would get a wrong diagnosis of Type 2 diabetes, because Type 3c isn't as well known about, and indeed the term 3c isn't always used.

The treatment needed for Type 3c diabetes is variable depending on the level of damage to the pancreas. For some, people will be treated like people with Type 2 diabetes, and the first line treatment will Metformin. Metformin works by helping the insulin that is naturally produced to work better. For others they will be treated like people with Type 1 diabetes and be started on insulin immediately.

The specialists on our steering group felt that many people with Type 3c diabetes require insulin at an earlier stage compared to people with Type 2 diabetes to help manage their blood sugar levels.

Other treatments needed:

Pancreatic enzyme replacement therapy

If a person with Type 3 diabetes has pancreatic exocrine insufficiency, they will also need medications to help them digest food. These medications replace the enzymes normally produced by the pancreas. Such medications are called Pancreatic Enzyme Replacement Therapy (PERT). PERT needs to be given as a part of a nutrition plan developed and managed by a specialist dietitian. There are four different types of enzyme medicine available:

Creon® Pancrease® Nutrizym® Pancrex®

These are extracted from pork products, but vegetarian alternatives are available.

Vitamin and mineral supplements

Patients with Type 3c diabetes also have trouble absorbing vitamins and minerals. In particular, fat-soluble vitamins (vitamins A, D, E and K) are found in foods containing fat and may be particularly poorly absorbed. This can cause problems with:

- Sight problems (particularly in the dark).
- Bone problems – osteoporosis.
- Increased infections.
- Bruising.
- Poor wound healing.
- Neurological (nerve) symptoms.
- Muscle weakness and fatigue.

The NICE guideline for pancreatitis recommends that people with chronic pancreatitis are offered monitoring of their nutritional status every 12 months with clinical assessment and blood tests. Vitamin and mineral deficiencies should be treated.
NICE guideline 104: Pancreatitis

Overall, the steering group felt that there was likely to be undiagnosed Type 3 diabetes in this population, and thus patients with under treated malabsorption issues, and this needed highlighting.

Continuous Glucose Monitoring (GGM)

Many people in the homelessness population struggle to take daily blood sugars if their diabetes means that they would ideally be required to do this. A person needs the dexterity to be able to do this, and the organisational skills to record, and act on the results. Whilst this is achievable for many people, it is not be realistic for some. Obviously in some cases, support workers may be able to help with reminders, storing equipment, and recording.

It was felt however that the alternative - Continuous Glucose monitoring - may be being overlooked as a possible solution due to assumptions being made about people's understanding and capabilities. Yet it was being used successfully in many areas in this project, and has huge benefits for people with complex lives.

Continuous Glucose Monitoring (CGM) devices monitor diabetes without the need for finger prick blood tests. The devices measure the amount of sugar in the fluid surrounding the cells on the surface of the skin. There are two main devices available which work in slightly different ways: Libre and Dexcom

NICE guidance NG17: Type 1 diabetes in adults: diagnosis and management recommends that **all** adults with Type 1 Diabetes are offered real-time Continuous Glucose Monitoring (CGM). CGMs can help individuals with less stable lifestyles to self-manage their diabetes. In some areas patients with other types of diabetes can also be offered CGM. Patients are generally reviewed on an individual basis, to assess the clinical benefit. Each device comes with information and company support. The sensors are available on prescription. Healthcare professionals may require some training on how to review the data.

If an individual gives permission their glucose monitoring data can be shared with a relevant health care professional and can be accessed remotely. A sensor is attached to the skin and lasts 14 days. The data can be accessed via the patient's mobile phone, or the company can provide a handset for monitoring. A CGM helps people identify changes in their glucose levels, when levels are going up and down. However, by sharing data with healthcare professionals, a shared care approach to help a person identify their own needs, whilst also providing safe clinical advice and support for emergencies can be provided. The sensors provide alerts to high and low glucose levels therefore warning someone that they need to take urgent action to correct problems and prevent emergencies. CGM date can also be shared with families / carers.

It was felt that people experiencing homelessness should not be discriminated against and should be given every opportunity to access CGM to help prevent diabetes related complications.

It was felt that if a patient experiencing homelessness with Type 1 or other insulin dependent diabetes was not on a CGM, practitioners should be encouraged to talk to their local Diabetes Specialist team to see if a device could be provided for the individual.

9 key care processes

One of the key insights from the project was that it is clearly possible to meet the 9 Key Care processes for people experiencing homelessness with specialist input.

Achievements against this in:

- Bolton: 82%.
- Liverpool: 37% (but 78% for 8, if retinal screening taken out).

As such it seems sensible for the group to promote the 9 Key Care process as the way forward for better care.

One specific insight was the lack of knowledge in inclusion health staff members regarding urinary albumin tests. Urinary albumin tests may feel difficult to obtain if a person is experiencing homelessness, particularly as it is recommended for this to be an Early Morning Urine. **However, it was felt the ACR test is often an early sign of kidney disease, it was felt this should be highlighted to be prioritised if possible.**

Mental health

Practitioners, Experts by Experience and staff talked about the considerable toll that diabetes can take on the mental health of patients. Examples of depression and anxiety, adjustment disorders, eating disorders and suicide were all shared.

People with diabetes can be more at risk of developing depression. This is because diabetes can feel like a major life change, be difficult to manage and can feel overwhelming. Diabetes UK suggests that 40% of people with diabetes struggle with their psychological wellbeing **after** being diagnosed because of the diagnosis, and overall people with diabetes are twice as likely to experience depression.

Other mental health concerns related to diabetes:

Diabetes distress and burn out. Diabetes distress occurs when a person feels frustrated, defeated or overwhelmed by diabetes. This can lead to 'burn out' - when people struggle to engage with all the many daily diabetes tasks they are asked to perform. This may include not checking their sugars, not taking medication correctly, not looking after themselves and not concentrating on their own wellbeing and nutrition.

Suicide and self-harm. One of the main risk issues for people with diabetes and severe mental health problems is that people on insulin have a readily available mechanism to end their life.

People with diabetes have double the risk of suicide or intentional self-injury compared with the general population, but this may be higher. It is thought many attempts at suicide may be mistaken for an accidental 'hypo' or Diabetic Ketoacidosis (DKA). A historical study of 160 cases of insulin overdose leading to severe hypo found that 90% were either suicidal or parasuicidal and only 5% were actually accidental (Russell et al, 2009). This is an important risk to be aware of given that suicide rates in homelessness populations are known to be high anyway. The ONS recorded 13.4% of all deaths of people experiencing homelessness as related to suicide in 2021 (ONS, 2021).

Disordered eating – People with diabetes are asked to think about their diet a lot, and in many cases, this will lead to positive health gains. It is important however to recognise that some people can spend quite a lot of time thinking about the need to manage their diet, and this can be tiring for them, and can lead obsessive thinking.

Separate from this, there is a high prevalence of formal eating disorders in people with diabetes. In one US study of women and girls with Type 1 diabetes 32.4% met the criteria for an eating disorder (Colton et al, 2015), and between 2.5% and 25.6% of people living with type 2 diabetes are estimated to have a binge eating disorder (Yahya et al, 2022). The Burdett project and SARS revealed such disorders are also common in homelessness populations with diabetes.

Type 1 diabetes and disordered eating (T1DE) – People with Type 1 diabetes have generally lost weight when they are first diagnosed. This is because without insulin the breakdown products of food stay in the blood, and do not get transferred to the tissues where they are needed. Some people with diabetes reduce the amount of insulin they take to try to deliberately control their weight. This can cause acutely high blood sugars and lead to a Diabetic Ketoacidosis. In 2024, a Parliamentary Inquiry report highlighted the risks associated with this condition, and called for essential changes to be made to provide effective care.

Binge eating – Binge eating is when someone, as part of a mental health condition, struggles to manage their eating behaviour. They may end up eating a large quantity of food in a short space of time, with little control over this. In diabetes this can make the blood sugar go high. Some people make themselves sick afterwards. Such behaviour may have started before the diagnosis of diabetes or after but needs attention and support.

The group decided that all these mental health risks needed to be highlighted with the following messages:

What can practitioners do to support the mental health of a person experiencing homelessness with diabetes?

- Always ask about mental health during diabetes reviews.
- If you think a person with diabetes is struggling with depression they should be further assessed by a suitably qualified person. The PHQ-9 tool can be used by professionals to judge the level of depression.
- Proactively refer patients with difficulties to a Psychologist where this is available.
- Undertake a multidisciplinary assessment of risk if a person with insulin dependent diabetes with mental health problems has independent access to their insulin (which is true in most cases).
- If you think someone potentially has an eating disorder use the Diabetes UK Eating Disorders and Diabetes webpage to learn about potential screening questions and responses.
- Recognise the negative impact your language can have on someone's perception of themselves are try to adjust this.

Language matters – the use of sensitive and accessible language

The language used by healthcare professionals has a known impact on people living with diabetes. Good use of language can lower anxiety, build confidence, and educate. Bad use of language can be stigmatising, hurtful and leave people feeling 'told off', as we saw earlier.

This was also definitely highlighted by Experts by Experience during this project.

NHS England has produced guidance: Language matters: language and diabetes to support learning in this area. The guidance gives many specific examples of collaborative and encouraging communication, and how this differs from the types of communication people are often faced with. Examples are presented in the table below.

Recommended	Not recommended
'It sounds as though your diabetes is really hard to manage at the moment'	*'It's being so overweight that is causing you to have all these problems'*
'What thoughts have you had yourself about your recent glucose levels?'	*'You must take your medications properly in future'*
'Diabetes brings lots of ups and downs, but it is manageable and there are lots of ways you can deal with it'	*'Before you come to see me, you need to check your blood sugar 4 times a day for 3 days, so I can check what's going wrong'*
'Let me talk you through the different medications and then see what you think would suit you best'	*'If you don't improve your control you will end up on insulin.'*

The guidance also emphasises the need for cultural competence whilst also not making assumptions about people based on their culture, ethnicity or background, and recommends that the use of sensitive language needs to extend to the provision of education, and any educational materials. **It was felt that the Language Matters campaign needed to be promoted to all.**

In addition, there was repeated references to the need for Easy Read resources throughout the project.

Time was spent with Experts by Experience to produce two leaflets on diabetes using wording they were happy with and understood and felt collaborative to them. Other Easy Read resources were found for teaching.

The group felt it would also be useful to direct practitioners to the NHS Information Accessibility standards, as well as this video on the accessible information standard.

Addiction

Some specific clinical considerations related to the management of diabetes in addiction were highlighted during the project.

Use of long-acting insulin in people with addiction

If people have diabetes requiring insulin also have an addiction, they are more likely to forget to take their insulin doses or eat erratically. This puts them at greater risk of high or low blood sugar levels and Diabetic Ketoacidosis.

People with diabetes who require insulin therapy will be prescribed long-acting insulin to be taken daily, and may also be prescribed rapid or short acting insulin to be taken with meals. However, it is sometimes suggested that people with an addiction who need insulin are only prescribed the Long Acting insulin which is given once or twice a day, does not need to be given with meals, and stays in the body for longer. There are obviously some risks of a hypo if people do not eat at all.

Such long-acting insulin typically lasts 24 hours. There are also some very long-lasting insulin preparations available which can last up to 72 hours e.g. (Triseba/Toujeo). Using ultra-long insulin means people will have insulin in their system even if they miss a dose of insulin or take their next dose late.

Having some insulin in the blood significantly reduces the risk of DKA. Diabetes specialists need to ultimately make the decisions on the type of insulin needed, but it was felt that the issue of alternative insulin regimes could be highlighted.

Running HbA1c higher in addiction

In the case of people with addictions it may be that specialists are happier with a higher HbA1c that might normally be aimed for. Targets for HbA1c levels are already individualised by doctors or nurses to take account of all the many factors that contribute to managing diabetes – including home circumstances, educational levels, emotional and psychological disturbance, and access to healthcare professionals and medication. Targets may change as circumstances change.

Approaches to management need to focus on sustaining adequate insulin levels to avoid DKA, but also being cautious to avoid levels that risk hypos. This is given the understanding that food sources may be limited, insulin may be difficult to store and administer, and people may live lives without the usual safety nets in place or ways to cope in emergencies.

Monitoring of blood sugars in people with opiate addiction

There is some evidence that opiates can have a short- and long-term effect on blood sugars (Koekkoek al, 2022). This may need to be taken into consideration in this population when screening for diabetes and managing diabetes. In this case it may be appropriate to take HcA1c measures more often.

Management of people who rough sleep

Consideration of housing is obviously a key first consideration for some people who rough sleep. In some cases, a clinical practitioner might be able to advocate for appropriate independent housing via a letter or email to the Local Authority to say that a patient is in priority need for housing. However, this may not work if someone has moved away from the local area they have a connection to, or have no recourse to public funds. Similarly, a practitioner will be able to refer for a Care Act (2014) assessment someone has care and support needs related to their diabetes, but no recourse to public funds.

Self-neglect is also an important consideration and featured heavily in the SARs findings. An emphasis on how to respond to this was felt to be needed in any guidance. The concept of self-neglect is clearly highly subjective on one level, and thus can be open to misunderstanding.

Patients who are self-neglecting need to be referred to safeguarding requesting a Section 42 enquiry, and the commencement of the Team around the Person process. This should be happening regardless of whether someone has an addiction, recourse to public funds or mental capacity to make decisions. Deprivation of Liberty Safeguards procedures should be considered for repeat attenders at A&E where it is not possible to assess mental capacity effectively or there are concerns regarding executive capacity.

It was felt that people practitioners could be signposted to the London Network of Nurses and Midwives Homelessness Group (LNNM) guidance: Identifying and working with Self-Neglect in people experiencing homelessness for support.

Several practitioners noted that pharmacists could be very helpful partners when supporting someone with diabetes who is rough sleeping. Pharmacies can hold extra insulin pens for people and contact case managers when a patient turns up for medication – particularly if a person is also on supervised consumption of opiate substitution.

Cool bags for insulin pens were also noted to be available to help people on the move maintain a steady temperature for their insulin, although these are not funded by the NHS e.g. FRIO packs can be purchased online. Freezer packs in cool bags **should not be used** as they will freeze the insulin. If the insulin has just come out of a fridge, it could be carried in a standard cool bag without freezer packs. However, insulin is normally ok in a standard bag kept away from extremes of temperature for short periods.

Vitamin status screening

On the basis of practitioner experiences, it was suggested that routine screening for Vitamin D, Vitamin B12 and folate may also be appropriate for this client group.

Issues with insulin injection sites

Injection Sites can develop lipohypertrophy (fatty lumps). If these are present and are injected into, they will affect the insulin absorption, and therefore blood sugar control. They can (and often do) increase hypo risk. It was felt that the risks of this needed to be highlighted to non-specialists.

Screening for diabetes

Screening for diabetes is not currently recommended in the general population. However, this recommendation is due for review, and there is evidence that there is plenty of undiagnosed diabetes in the general population (ONS, 2021), so this could change. There is also evidence of inequalities in diabetes care with people living in deprived locations being less like to receive their annual checks (NHS Digital, 2023), so this is likely to be also true with screening.

A Learning Disabilities Mortality Review (Leder) diabetes briefing has suggested that it may be relevant for Learning Disability settings as people are less able to articulate their symptoms. NHS guidance also states that all people with severe and enduring mental health issues should have an annual health check including HbA1c. A 4-month study of screening undertaken in London severe and enduring mental health clinic also found 9 new cases to add to their existing 45 taking the prevalence in the screened population to 13% in the screened population of 460 (Lorenz and Roberts, 2014).

The steering group agreed that screening should take place, and that any screening that takes place should be via HbA1c, not random glucose measures (particularly in view of concerns regarding the lack of accuracy of blood sugar readings in opiate addiction).

Further training for non-clinical and non-specialist staff

A key recommendation from all sides was the need to upskill hostel and day centre staff and/or non specialist clinical staff who work with people experiencing homelessness with diabetes. Although many practitioners had created their own content to deliver, it was felt that another option to suggest was that people undertake the following courses that are available online:

For hostel and day centre workers and informal carers:

Sanofi Cares - National Diabetes Care Home Training Programme

Cambridge Diabetes Education Programme Diabetes 10 Point Training - Adult Social Care Workers – Suitable for staff working in care homes, nursing homes or as home care workers have access to basic diabetes training that is relevant to their role

For non-specialist clinical staff:

Diabetes UK CPD for non-specialist health care professionals

Cambridge Diabetes Education Programme Diabetes 10 Point Training - Community Nursing Teams

Safeguarding insights

A theme that came up repeatedly in the workshops, patient interviews and visits to areas of good practice was the challenge of responding to self-neglect.

As previously documented the SAR reviews identified the following challenges related to safeguarding:

- A lack of understanding of self-neglect and related failures in safeguarding.
- A lack of referral for Section 42 (Care Act 2014) safeguarding reviews.
- A need for more robust multidisciplinary team process with robust risk management and identified leadership.
- Evidence of a lack of ability to assess mental capacity effectively in complex scenarios – particularly in cases where there are issues with executive function.
- A lack of clear identification of communication and cognition difficulties.
- Multiple A&E attendances / admissions not resulting in a coordinated plan.
- A lack of understanding of the risks of homelessness within hospital staff (including a lack of recognition of homelessness, and knowledge of the Homelessness Reduction Act 2017).

It was felt that a key intention of the E Learning and guidance, would be to address some of these knowledge gaps in this area. As part of this some best practice safeguarding case studies were obtained.

Insights from these case studies included:

- The value that non-safeguarding nurses add in identifying vulnerability and self-neglect, and pushing for a robust safeguarding response.
- The time and tenacity needed to deliver high quality safeguarding responses.
- The complexity of these issues and the absolute need for a joined up multidisciplinary response.
- The need for longitudinal mental capacity assessment.
- The value of getting help of mental capacity specialists involved.

These case studies have been provided in the practitioners' own words.

Safeguarding case studies

Bristol

Kirsten Roberts, Homelessness and Harm Reduction Specialist Nurse Prescriber, Bristol Drugs Project & BrisDoc Healthcare Services

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Kirsten in her own words:

This is a case study of a holistic approach to managing diabetes and homelessness in a complex client in Bristol. The client has been named Sam (not his real name).

Background:

Sam, is a 41-year-old gentleman with Type 1 diabetes who resides in Bristol and previously worked in door security at local pubs. Due to disputes with neighbours, Sam has spent years sleeping on the streets with his dog and close friend Tom. Sam is an intravenous drug user and is Hepatitis C positive. He has had numerous emergency admissions for diabetic ketoacidosis and hypoglycaemia.

Current Situation:

Sam uses basal-bolus insulin but does not regularly test his blood sugar levels despite having access to continuous glucose monitors and traditional blood sugar monitors. Occasionally, he runs out of insulin. His lifestyle is chaotic, and he spends much of his time seeking money and drugs, often in a rush to "be somewhere."

Support System:

Sam attends a drug project for clean needles and support from clinicians and workers, with whom he has built a good relationship. A multidisciplinary 'team around the person' meets regularly following a safeguarding referral. This team includes clinicians from the drug project, a social worker, housing representatives, a rough sleeping navigator, and secondary care clinicians. Initially, team members who had assessed Sam felt he had mental capacity and was capable of retaining information and weighing up risks and benefits. However, this consensus was challenged, and further assessments were initiated, including a psychiatric referral and a brain scan.

Specialist Interventions:

Specialist nurses in secondary care devised a comprehensive assessment to evaluate Sam's understanding of his diabetes, and his executive function. During his hospital admissions, concerns about his capacity were communicated, and the possibility of Deprivation of

Liberty Safeguards (DoLS) was considered. Ongoing capacity assessments are conducted by all professionals working with Sam. This case underscored the importance of a thorough and persistent approach in assessing capacity in complex clients who may self-neglect.

Risk Reduction Plan:

A plan was put in place to reduce the risks associated with Sam's condition:

- Sam's friend received education about diabetes, its complications, first aid, and medication management.
- Local pharmacists near Sam's sleeping spots were asked to keep his medication in stock and dispense it as an emergency prescription when needed. They were given the lead clinicians' contact details.
- Staff at the needle exchange were given training about Sam's diabetes, including access to a blood sugar machine, and advice on sick day rules to provide appropriate care and signposting.
- Staff at the local food hub were given similar training.
- The rough sleeping navigator was given similar training, and now works within their organisation to support others. The team visited Sam's sleeping spots to check on his medication and could contact clinicians with any concerns, enabling outreach when necessary.

Progress and Outcomes:

Following his last admission, Sam returned to his flat and is taking his insulin regularly. He is working with his rough sleeping navigator to move to an area where he feels he will be happier. It is felt this has happened because of the trust that was built.

Lessons Learned:

Working with Sam highlighted the importance of:

- Collaborating closely with clients and understanding their priorities.
- Identifying and managing risks effectively.
- Working as part of a multidisciplinary team.
- Questioning and reflecting on practice to ensure the best care is delivered.
- Recognising that progress takes time, perseverance, and patience.
- Providing trauma-informed care.
- Supporting and training informal carers and support workers, who are often best placed to assist clients with chronic illnesses.

Future Developments:

This experience led me to apply for the Queen's Nursing scholarship. I am now developing training for informal care providers and support workers who assist diabetic clients experiencing homelessness, with the aim of improving access to appropriate care.

Kirsten Roberts

Kirsten Roberts

Leeds

Mary Kadzirange, Mental Capacity Act Lead, Safeguarding Business Unit, Leeds Health and Care Partnership and Angelique Denys Homeless Outreach Nurse and Non-Medical Prescriber, York Street Practice, Leeds and Nicola Worrell, Highly Specialist Speech & Language Therapist and Clinical Team Leader, Leeds

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This case study profiles the processes involved in a complex Mental Capacity Assessment that took place for a patient experiencing homelessness with diabetes.

The client was male, in his 50s, living in temporary accommodation, with a past medical history of diabetes, mental health issues and addictions.

Concerns were:

- He was not taking his diabetes medication
    - He was difficult to locate at times
    - He was also often unwilling to take medication when located
- His HbA1c was constantly very high and he had multiple diabetes complications

- There was little improvement in his concordance despite quite a personalised package of care involving daily visits from community nurses and the inclusion health team
- He appeared to have fluctuating mental capacity, and executive functioning issues during informal conversations focused on improving concordance

Action

The inclusion health nurse Angelique Denys contacted Mary Kadzirange for advice regarding the use of the Mental Capacity Act. Mary Kadzirange is the Mental Capacity Act Lead in her area. She is an RMN with a degree in mental health law, and 24 years of experience in a variety of mental health settings. As well as providing teaching and training, Mary gives direct advice on around 100 cases a year - with between 10-20 of these involving clients experiencing homelessness or living in insecure housing.

Mary says: *'Although robust mental capacity processes won't wave a magic wand, when you start working in a manner that is informed by the principles of the MCA, professionals often become more collaborative and person centred, and some barriers to creative and innovative good care can drop away'*

First action: **Professionals meeting**. A meeting was suggested to bring key individuals together. Mary says professionals' inputs are vital, but not being able to find a meeting time should not delay further action. It is ok to consult those not able to make a meeting and consider their views in this way. Some meetings had already taken place, but a further meeting was convened. The patient was invited to attend, but did not arrive.

Second action: **Action was taken to ensure all efforts had been taken to support decision making regarding taking diabetes treatment.**

A highly specialist speech and language therapist was involved to provide essential, relevant and understandable information on diabetes, diabetes treatments, and the risks of not treating.

Speech and Language therapist Nicola Worrall talks about her involvement

'The patient doesn't have a diagnosed communication impairment as such, but does appear to have difficulties with memory and cognitive processing. He has now been referred to Learning Disabilities for a cognitive assessment, and eligibility for LD services.

Initially I gathered Easy Read information from The Foundation for People with Learning Disabilities, via the easyhealth.org.uk website. However, although this breaks the information down quite clearly, there's a lot to cover in this case, as the patient has quite advanced diabetes. Some of the concepts are quite difficult to present easily or in pictures. He also has quite poor eyesight, so we didn't ultimately end up using visual resources. The materials were helpful though to help think about how to construct simple sentences to explain things verbally.

I talked to him about his personal journey with diabetes. The conversation did help us and the patient to identify that he didn't believe that he actually has diabetes. He did understand the links clinicians were making between diabetes and his progressive difficulties, but didn't appear to believe them himself. He did understand the side effects of his diabetes medication, and this was a concern for him.

It was unclear whether the patient fully understood diabetes, or the consequences of it's impact on him. I left the session feeling that more education was needed, but any information needed to be very clearly structured and explained to him at every stage of his diabetes journey, and that understanding would take repetition, and time.

Possibly the development of a personal health history or timeline, would be the way to support this patient's engagement, although his memory makes discussion based on events in the past very difficult.

We did manage to establish one simple agreed goal to be shared by both healthcare professionals and the patient – to gain weight. It was we felt that focussing on treatment from this angle may support his engagement.'

Result: No tangible change in behaviour. Professionals were of the view that despite taking person-centred steps to support decision making the patient was unable to make the decision in question.

Third action: **Repeat mental capacity assessment.** Mary advised for this to be **longitudinal, on more than one day, and involve collateral information from a variety of sources** in view of concerns regarding executive function, and to also involve the speech and language therapist in this process.

Two separate assessments took place, and documentation of past discussions were considered.

5 key areas were covered:

- What diabetes is, and what are the long-term effects.
- What are the benefits of treatment /medications
- What treatments are available (types, times etc).
- What are the side effects of treatment.
- What are the consequences of not being treated.

Decision: On a balance of probabilities balance the inclusion health nurse and speech and language therapist felt the patient did not appear to have the mental capacity to understand the consequences of not taking his diabetes medication.

In total, the whole process from the advice to the decision took about 4 months.

Next steps:

Best interests meeting

A best interests meeting considered the following options bearing in mind the need for the 'least restrictive options'

Medication management:

- Adaption of medication / treatment regime to something which was more sub-optimal (e.g. alternative medications, different or less times) but conveyed at least some benefit.
- Covert medication if this was possible (Section 5 and 6 of the Mental Capacity Act and common law allow for this type of restrictive action to take place as long as the law is followed).

Housing and support:

- A move to a housing option with greater support.

It was felt likely that this would be most successful option, as it was known that this would be acceptable to the client. It had been hard to secure appropriate housing support prior, but with discussion of this need in a best interests meeting is was felt this was likely to make a difference.

Court of protection

This could have been an option, but is not the solution for every case. Mary says she is involved in 2-3 Court of Protection cases a year. In practice, she says most disputes and variance of opinion between professionals or between professionals and the individual or family are addressed through inclusive and meaningful dialogue.

When taking a case to the court it is important to be clear on what it is we are asking of the court. Options of clear possible plans of action, preferably enforceable in practice, are useful. Mary says, 'We can't be realistically asking for an order that authorises staff to restrain him every day to administer insulin'.

Mary said 'If the individual has other needs such as care and social needs necessitating 24-hour support as in this case, consideration should be given to the option of residential

placement where his holistic needs would be met. Health and social care need to work collaboratively to consider his health and care needs in a holistic person-centred manner.

If he was in such a setting covet administration of oral diabetic medication could be considered if the pharmaceutical nature of the medication allowed. This would be viable especially if there is an opportunity to develop insight and to work towards ending the covert medication at some point. Significant weight would be placed on his wishes about the supported living or care home setting as part of the best interest's decision. Where the individual is opposed to living in care or supported living settings this option would not be desirable.

Mary Kadzirange

North London

Hannah Green, Lead Nurse, Homerton Pathway Team

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'We all need to be hopeful, in order for these clients to have any sense of hope'

Romeo (not his real name) was a Black African male in his late 40s. He was originally born in Africa, but had European citizenship, somewhat limited English. He thought he was not entitled to benefits (despite having settled status)

He had:

- Poorly controlled Type 2 diabetes, on insulin.
- Multiple medical complications (including a toe amputation, kidney issues, severe sight issues, cognitive issues, wounds, mobility issues / falls and urology issues requiring catheterisation).
- Multiple A&E attendances and admissions.

He was admitted to hospital, and then through the Homerton Pathway team was admitted to the Pathway / Peabody 'step down' for respite, monitoring and ongoing support. During this time, it was noted that his repeated attendances were due to his support needs, and an inability to keep himself safe without support.

Interventions from the team in hospital and in the step down included:

- Referred to Social Care for a Care Act assessment and safeguarding
- He was also referred to Local Authority under the Duty to Refer although, the team were clear that independent housing was very unlikely to be appropriate.
- It was noted that Romeo had cognitive and communication issues that were not being assessed or evidenced effectively. The team Occupational Therapist undertook cognitive assessments with an interpreter, which evidenced his cognitive deficits. After this the team went on to demonstrate a lack of executive capacity e.g. around his own ability to manage his diabetes – thus evidencing his need for support further support.
- During admission to step down (which has stairs) Romeo was also noted to have multiple falls, and the team Occupational Therapist then did a Falls Assessment and installed a microenvironment.
- The nurse (Hannah) supported him to understand his diabetes as much as possible with translated information and leaflets.
- The nurse also did regular checks on his diabetes and general health, and taught him how to monitor his blood sugars, how to understand hypos etc, and gave him a hypo box for emergencies.
- Hannah also worked on his beliefs – he was religious and believed he would be 'healed' without medication if he was devout.
- Housing worker supported him to apply for and obtain a bank account and benefits.
- Interpreters were used to build rapport, and develop a better relationship. His English was okay, it was not adequate for the types of conversations needed.
- A local charitable organisation was contacted to provide befriending and ongoing support whilst future housing options were considered.

Eventually he went to a specialist homeless health rehabilitation facility in London where he thrived, his mobility improved, and he progressed to being able to document his own needs and communicate well.

He was then given a Libre 2 diabetes monitoring system which Hannah taught the Mildmay staff about, so that they could support Romeo in getting familiar with this. Romeo was then placed in a care home and hasn't required hospital admission or been back since.

Hannah Green receiving a Daisy award for excellence in nursing care in the Homerton Pathway Team role

Allied professional insights on better care

In addition to medical and nursing insights, input from dieticians, optometry and podiatry has been very important to this project.

In terms of insights for clinical practice, the key ones are presented here.

Dietician input

Supporting people experiencing homelessness with diabetes to access adequate nutrition was viewed to be very challenging.

Insights gained through the project were:

Nutritional status screening was not always taking place

Nutritional screening was felt to be vital in this case, and needed to be promoted. Nutritional screening is commonly undertaken using the Malnutrition Universal Screening Tool (MUST, BAPEN 2003). However, this can fail to pick up malnutrition e.g. in people who drink alcohol and have ascites who therefore have a normal weight. The St Andrews Nutrition Screening Instrument (SANSI, Rowell et al 2012) was felt to be a better tool as it was developed for mental health settings.

Dieticians indicated that practitioners may also want to consider testing for grip strength (which is a measure of sarcopenia, and a useful marker of nutritional status) cheaply and easily using a handgrip dynamometer (Sousa-Santos and Amaral 2017). This was shown to be useful tool for people experiencing homelessness.

Food security screening

Food security screening was rarely taking place. Simple food security screening was recommended by dieticians using the following questions.

In the past month, how often have you…

	Question	Often	Sometimes	Never	Don't Know / Refused
1	Reduced the size of your meals or skipped meals				
2	Not eaten for a whole day				
3	Not eaten despite feeling hungry				

…because you couldn't afford or access food?

Dieticians noted that screening needed to result in the identification of the support needed.

Overall, it was felt that the main ways to support a person experiencing homelessness with diabetes to improve their nutritional status included:

- Referring them to a dietician for support.
- Encouraging them to take up any healthy eating / cooking programmes that are available locally. These can be available through NHS diabetes or other health services or may be charitably provided.
- Giving them written resources which might help them to eat healthily in their current circumstances (see below).
- Providing healthy snacks when patients are seen for them to take away (Dietician Ghislaine Swinburn noted that hard boiled eggs, prepared fresh in the morning can be a healthy, easy to take away snack).
- Providing a daily vitamin and mineral supplement.
- Providing nutritional supplements (Dietician Ghislaine Swinburn noted that these can be provided at pharmacies on supervised consumption if someone is already on supervised opiate substitution).
- Getting Occupational Therapists involved to support understanding and behaviour change (see Appendix 6 for details of an associated project that has been started looking at how Occupational Therapy can be utilised in this area).
- Supporting a patient's application to access housing with separate kitchen facilities, emphasising the need for someone with diabetes to be able to eat healthily to avoid the complications of their illness.
- Providing nutritional advice to reduce the risks of hypos for people taking insulin.

These two downloadable online resources which can support someone to cook healthily with limited kitchen facilities and limited finances were felt to be important to promote:

- Diabetes UK: Dietary Guides for People with Diabetes who are Homeless or in Temporary Living.
- University of Edinburgh students: Cooking without a Cooker.

How to Cook without a Kitchen is also available online and may be useful.

Two charitable organisations leading the way in supporting people experiencing homelessness to gain cooking skills were:
Cyrenians
Feast with us

Optometry

Dr Daniela Oehring, Associate Professor and Research Scientist at the University of Plymouth

Diabetes brings with it a risk of eye disease in all patients. The risks are greater if a patient has uncontrolled high blood sugar, high blood pressure, high cholesterol or is a smoker.

Eye issues include diabetic retinopathy, glaucoma, and cataracts. The nature of diabetic eye disease lies in the fact that it is often asymptomatic early stages.

Diabetic retinopathy poses a severe health threat to the already vulnerable homeless population. It is the most prevalent diabetic eye condition and affects up to 80% of those who have had diabetes for 20 years or more.

NHS guidance states diabetic eye screening should take place every year, or every 2 years if the last 2 tests were clear.

People experiencing homelessness have significantly lower rates of diabetic eye exams compared to their housed counterparts (Davis et al, 2017). This was demonstrated clearly in this project, as well as in the literature. As such people experiencing homelessness need to be given support to access eye screening.

Effective Screening Methods

- **Retinal Screening:** Dilated eye exams with retinal photography allow for detailed retina evaluation. To increase accessibility for homeless individuals, these can be done in mobile clinics or portable devices. An example of retinal outreach screening is outlined in the earlier Bournemouth case study.
- **Visual acuity tests can be undertaken in primary care, including by inclusion health nurses:** Advice and guidance on how to undertake a Snellen test in primary care is readily available e.g Specsavers guidance.
- **Telemedicine:** Innovative use of telemedicine can bridge gaps in access to eye specialists. Remote consultations and image analysis provide a promising avenue for screening.
- **Mobile Clinics and Outreach Programs:** Bringing eye care services directly to homeless communities through mobile clinics and partnerships with shelters can significantly improve access to retinal screening and/or visual acuity tests. This reduces transportation barriers and fosters trust. Examples of outreach services include:

  Vision care is a nationwide charity providing outreach eye care to people experiencing homelessness.

  Specsavers also works in partnership with Crisis at Christmas, the Big Issue and the Simon Community in Northern Ireland.

In addition, it was felt there is a need for:

- **Education and Empowerment:** Targeted educational initiatives to raise awareness about diabetic eye disease and the long-term benefits of preventative screenings can empower homeless individuals to prioritise their eye health.
- **Financial Assistance and Resource Navigation:** Inclusion health nurses can also connect individuals with grants, and potentially negotiate reduced fees with providers.
- **Harm reduction** Harm reduction approaches provide practical strategies to minimise risks and improve health outcomes even within challenging circumstances. All practitioners can make a difference by spending time with patients to help them understand risk. A simple leaflet has been developed to help discuss the risks with patients for this project, and can be found online within the Pathway diabetes resources.

Podiatry

Understanding Diabetes related foot disease

Based on United Kingdom population surveys, diabetic foot problems are a common complication of diabetes with prevalences of;

- 23-42% for neuropathy (damage and lack of feeling to the nerves).
- 9-23% for vascular disease (damage to the blood vessels restricting blood flow).
- 5-7% for foot ulceration (ongoing wounds).

Boulton AJ, Vileikyte L, Ragnarson-Tennvall G, Apelqvist J. The global burden of diabetic foot disease. Lancet. 2005 Nov 12. 366(9498):1719-24.

Amputation rates are higher in patients with diabetes than patients without diabetes and these rates are further increased within the homeless population. There is a direct link between poor glycaemic control (High HbA1c) and risk of diabetic foot ulceration and foot, limb or amputation.

Risks in the homelessness population include poor a diet, smoking, alcohol and substance misuse issues, mental health and self-neglect issues.

However, there are also a number 'lifestyle' related factors:

- Walking long distances, often carrying heavy bags can cause blisters, and create increased pressures in the foot which can lead to blisters, heavy callus and eventual ulceration.
- Sleeping on buses / trains / benches and thus sleeping sitting up may cause peripheral dependent oedema which increases the risk of foot damage.
- Not removing shoes / socks at night, due to fear of theft, self-neglect, or the need to move quickly and being constantly 'on the go', can result in fungal infections like Athletes foot, severe maceration (soaked skin on feet), trench foot and blisters.
- Exposure to cold can cause chilblains, and frost bite.

- Difficulty in maintaining good skin hygiene may be very difficult to maintain due to lack of access to facilities and self-neglect. Scabies, infections (fungal, bacterial and viral) can result.

Diabetic foot screening is a quick, simple, evidence-based way to assess risk. Screening assesses circulation (via the location of the dorsalis pedis and posterior tibial foot pulses) and sensation using a 10g monofilament on 7 sites. If a patient has struggled to access specialist care a screen can be undertaken by any primary care professional. A screen usually takes around 10 mins and is not painful or invasive.

Two short training videos on how to undertake foot screening are available:

- Royal College of Podiatry: Diabetes Foot Screening (3 mins 38 secs).
- Northamptonshire Healthcare NHS Trust: How to carry out a Diabetic Foot Check and an Annual Diabetic Foot Screen (12 mins 45 secs).

It was felt these should be promoted as part of this project.

Patients should also be provided with clean socks, well-fitting shoes, and be given advice on the risks of not looking after their feet.

NOTE: *If a person with diabetes is admitted to hospital, they should have their feet assessed within 24 hours by a suitable clinician regardless of the reason for which they have been admitted. NG19: Diabetic foot problems: prevention and management. This was not well known by the practitioners on the project and felt to be an area in which care could be improve.*

Some areas have outreach podiatry. This can be provided by charities in some cases, and by statutory services. Examples of homelessness foot health charities in the UK include:

Forgotten Feet

Foot Works

Hope for the Homeless

The One Love Project

One example of a recent statutorily provided project:

"Now I can walk for miles!": Improving Access to Podiatry for Homeless People in Tower Hamlets

Development of two new Groundswell leaflets

This project was a partnership project, and as part of the project we updated a diabetes leaflet on the Groundswell website, aimed at people experiencing homelessness with diabetes.

As part of the review process a meeting was held which was attended by Groundswell staff, 2 Experts by Experience, 2 academics from Birmingham University and several steering group members.

Issues that came across very strongly were:

- Diabetes is very complicated, and there are lots of medical words that need to be explained very clearly – for example hypoglycaemia, glucose, pancreas etc. Leaflets should use common language like 'sugar' to back up medical words.
- Some seemingly simpler statements e.g. ‘eat healthily’ are understood differently by different people depending on their culture, background, education, and also need further explanation.
- Leaflets should be friendly and acknowledge the inherent challenges involved in managing diabetes when you are homeless.
- Conversely it was thought that the impact of the interaction between alcohol dependence and/or substance misuse dependence and diabetes should be emphasised.
- Ideally large fonts should be used.
- Leaflets should have pictures wherever possible.
- Leaflets should allow space to signpost local services.
- Leaflets should not be too big and deliver information in bite-size chunks.
- Information about all the types of diabetes, including type 3c, screening, practical management, health rights, and information on food choices were all suggested as key areas to cover.

The pre-existing leaflets were edited and iterated as part of this project.

They were launched by Groundswell during diabetes week alongside a video featuring actor, Gethin Anthony, chatting to a Groundswell Homeless Health Peer Advocate Mark about his experiences of having diabetes and experiencing homelessness. https://bit.ly/4aQOnmy

Access the leaflets online here:

What is diabetes

https://groundswell.org.uk/wpdm-package/diabetes-health-guide-2/

Managing diabetes

https://groundswell.org.uk/wpdm-package/managing-diabetes-health-guide/

Learning from QI projects initiated through this project

The final 'insight' section of this report focuses on some of the small, focused, quality improvement projects that were delivered as part of this programme.

The project tools used were developed for this project in partnership with nurses, allied professionals and Experts by Experience. They are now freely available to use, and will be made accessible to all. They can be edited or adapted for local use in any way staff choose. They were utilised in full in two of the projects below and adapted in another two cases.

Homeless and inclusion health nurse QI project

This project includes a short clinical audit, and a small number of patient discussions. Instructions for the audit, and Excel sheet for data collection, and a form to support the patient discussions are all provided alongside this report.

For the clinical audit the practitioner was asked to review the clinical records of a small selection of the patients they had with diabetes (suggested 10 maximum). This could either be delivered by one person, or all the team could get involved e.g. they could take 2 or 3 each. A prepared Excel spreadsheet was made available to easily record the relevant clinical care markers for each patient.

In addition, a tool was designed for staff to undertake some structured conversations regarding clinical care with up to 5 with people experiencing homeless with diabetes during consultations. This structured patient discussion was developed in partnership with Experts by Experience.

Specialist diabetes nurse QI project

This project is a series of structured questions which supports specialist diabetes practitioners to try to identify barriers to accessing their service for people experiencing homelessness and other vulnerable groups. It also helps them to identify areas for potential change. Again, this could be done by one person, or a team.

Leeds - Diabetes and Homelessness Quality Improvement Project

Rebekah Besford, Clinical Lead Nurse Homeless Health Inclusion Team (HHIT), Leeds Community Healthcare Trust

Email: rbesford@nhs.net

In her own words:

8 patient records were audited, and 3 patients were asked for their views on treatment using the 'Conversation starter' form. The record audit took approximately 4 hours to complete and was relatively straightforward. Having said that I did find that some of the blood test results were difficult to find or not done in our area. Doing all records in one sitting was easier, as you quickly got used to where to look for information.

The audit identified that:

- although we don't have many diabetic patients, those that we do have struggle to manage their diabetes due to the extra complexity of not having a home, access to nutritious food and addiction issues.
- there were gaps in knowledge of diabetes from the team regarding ongoing screening and management for people with diabetes. The audit helped us to identify some quick wins to improve the care those with diabetes experiencing homelessness.
- Type 3c diabetes is not being identified in the city. We have met with the specialist diabetes team subsequently, and they confirmed that it is not coded in Leeds. The focus has been on treating symptoms not finding diagnosis. However, given the differing nature of Type 3c diabetes this may mean that some clients are not receiving the optimal treatment.

The patient conversations were also enlightening as their views did not match how professionals observed the patient's understanding and management of diabetes.

Following the audit a meeting was then held to bring together all the people involved in improving diabetes care in Leeds

Diabetes Nurse, Pathway Team Lead Rebekah Besford, Outreach Nurse Angelique Denys, Inclusion Health Integration Lead Liz Keat, Advanced Podiatrist Nina Davies, and Specialist Podiatrist Lynda Dexter

Next steps for the HHIT team:

- To use SystmOne templates to develop a coherent approach to ensure that the 9 key processes in diabetes care are known by all the clinical members of team, and that any missed screening is identified during our holistic assessments and acted upon.
- Clinical members of the team will receive training on completing diabetic foot checks, as this an element of NICE guidance that the team can contribute to.
- To research a nutritional screening tool that is appropriate for our cohort of patients and then provide training for the team and hostels on improving nutrition for those experiencing homelessness.

Salford - Diabetes and Homelessness Quality Improvement Project

Susie Goodwin, Diabetes Specialist Nurse, Salford Royal NHS Foundation Trust

Email: susan.goodwin@nca.nhs.uk

In her own words:

We are a large team of 23 staff, covering the city of Salford with 2 Diabetes Consultants, 1 Lead Diabetes Nurse, 1 Advanced Nurse Practitioner, 10 Diabetes Specialist Nurses, 5 Diabetes Specialist Dieticians, 4 Diabetes Health Advisors

We provide full diabetes cover within the hospital 5 days a week. We also have a community service, offering several specialist clinics across Salford – seeing >70 patients a week in community clinics e.g. T1DM clinics – newly diagnosed, young person clinic (T1DM), pump clinic, pre-pregnancy clinic. our service.

However, we currently have a 12 week wait for clinic appointments this gives an idea of the number of patients we currently have.

People experiencing homelessness

With recent reports suggesting 1 in 74 people are homeless within Greater Manchester / Salford and reported cases of T2DM rising 40% across Greater Manchester / Salford we can only assume the number of homeless people living undiagnosed with diabetes in Salford is significant. I have not been able to quantify the precise number of homeless people within our service, but each DSN has reported between 4-9 known cases within their clinics – suggesting a minimum of around 40 patients.

Quality improvement project

I chose to look at how our service currently adapts to patients experiencing homelessness, including those with complex needs.

Recording and identifying homelessness

The audit revealed that:

- Homelessness is not routinely recorded on our clinical system. In fact, there is no routine route to allow us to record if a patient is homeless – it is currently the responsibility of the clinical practitioner to record housing status, and this is generally under significant events or free texted.
- I have only ever seen 2 patients with 'no fixed abode' written on their records. Temporary housing, hotels, hostels and people living with family / friends are registered at their actual address, but this will not flag up as homelessness (unless the practitioner is already aware e.g. of hostel addresses).
- Rough sleepers are often lost to follow up as we have no way of making contact.
- Due to homelessness not being recorded on the patient's clinical records this often leads to discharge from our service as DNA x 2 results in an automatic discharge. This leads to sub-optimal treatment and failed follow up.
- We do have a named GP in our area who has a caseload of homeless patients (mostly rough sleepers) who we can liaise with, but not all people experiencing homelessness are registered there.
- We identify most patients as homeless while they are admitted to hospital. This is usually when they are in crisis with DKA (diabetic ketoacidosis).

Supporting patients with complex needs

The audit showed that have various ways in which we offer support to people with complex needs, but there are still some barriers:

- We send appointment letters also text reminders a week prior and the night before. Obviously, the person needs to have a working phone.
- We offer individualised appointments within our community clinics – if a patient requires longer appointments this can be arranged, and a double slot (1) is booked. This is highlighted on the DSN's clinic list with other considerations such as interpreters, larger clinic room. However, we need to know the person needs this.
- As DSN's we have our own clinic caseloads, and each DSN will work slightly differently under the current protocol. For example, I will offer flexible contact with patients I am happy to telephone patients at hours to suit them (time allowing). However not all DSNs are able to do this.
- We can offer flexible "drop in" appointments at one of the Gateways. These time slots are for urgent reviews – however they can be utilised for more complex patients who struggle to keep to arranged appointments etc, but this may not be widely known.

- We offer a comprehensive education programme to patients and their support network, but people experiencing homelessness with complex needs are not accessing this.

- We have access to refer to Pychology if required with a structured programme provide by the Six Degrees Social Enterprise. This offers support in living with diabetes and other chronic conditions – patients have been referred but often appointment letters have failed to reach them.

- We offer additional support to patients who are struggling to manage their diabetes. This is often in the form of telephone calls, online consultations, email/text correspondence, social media and occasional home visits or to a specified venue.

- We encourage family, friends to attend appointments with the patients to offer additional support.

- Follow up appointments are made and given to patients for the Community Diabetes Team and contact details checked. We liaise with social workers if patients are known to them and often work closely with the team to enable diabetes treatment to be delivered.

- Sending and collecting prescriptions is challenging however, 90% of the DSN's in our team are nurse prescribers so we can provide prescriptions to patients.

Overall impression from audit

The service has an extensive range of offers to support people with complex needs, but it may be that people experiencing homelessness are still struggling to access these.

Proposed actions going forward:

- It has been decided that housing status needs to be recorded routinely within the clinical notes. We have approached the IT department to suggest incorporating a housing status section on EPR under the patient information details to easily identify current housing status. This will ensure we are aware so we can adjust care if required, but all health care practitioners will benefit from this knowledge, and it allows for a holistic approach to care.

- This project has kick started a roll out of education sessions directed towards hostel staff / shelter staff. The 30-minute sessions will aim to deliver a basic overview of diabetes. The intention is to equip staff with the knowledge and skills to ask the right questions when filling out their own health related documentation which identifies support needs, and to empower staff to know what to do if a resident becomes unwell. The sessions will explore diabetes, how we treat diabetes, medications often prescribed for diabetes, hypo awareness, blood sugar testing and diet and lifestyle.

- Set up a monthly pop-up clinic – offering point of care HbA1c testing, blood glucose monitoring equipment, advice and education.

- The get the whole team involved and engaged in this project to make of everyone's expertise.

- With technology moving forwards we must be able to offer this to the homeless community to ensure quality care for all.

Creating new and innovative ways to deliver care must be a priority going forwards to best support our homeless population.

Salford Diabetes Team Contact details:

- Phone: (0161) 206-8802
- Email: salford.diabetescare@nhs.uk

Susie presents the results of her work at the Diabetes Day

Edinburgh

Inger McGowan, Practice Nurse Homelessness and Inclusion Health, Edinburgh Access Practice

Email: inger.mcgowan@nhs.scot

In her own words:

The Access Place is a 'one stop shop' that offers a multi-disciplinary service to people aged 18 and over experiencing homelessness who have complex needs. The service is based in Edinburgh and offers primary healthcare, temporary accommodation, social work support and third sector organisations input.

The homeless population in Edinburgh is transient; approx. 300 patients are booked in yearly for a new patient health assessment, but the total number of patients registered at the Access Place at any given time is approximately 900.

When I joined the project, I started by undertaking a search for the number of patients we had with diabetes. The numbers were quite low (28 including 13 pre-diabetes), so the prevalence of diagnosed diabetes was only 1.6%. Having said that most of the patients are under 60, so this was a possible explanation.

I did a clinical audit of all 28 patients (3 Type 1 diabetes, 12 Type 2, 13 pre-diabetes) alongside one of the GPs, and created an action plan for all of them ensuring patients had been offered a GP or nurse appointment for a diabetes review or the need for this was flagged up in their notes for those patients that have no fixed abode and no phone. Weight loss management, and Type 2 Diabetes health education are offered to patients with a raised Hba1c.

For some of our patients' outcomes were ok, for others managing their diabetes and attending appointments prove difficult. DNA's to appointment are common which means that we must take a more opportunistic and proactive approach to healthcare in general including diabetes care.

An exciting current development is that a Diabetes Consultant has recently linked in with our practice and plans to set up a tailored clinic twice a year at our practice that we can book our complex patients into. We also have a visiting Podiatrist once a month who can help with diabetic foot checks.

To try increase early diagnosis of diabetes in our population group, our Practice Nurse team decided to focus on undertaking a screening project as a QI project. We agreed to include an Hba1c to baseline bloods offered to new patient who attend their New Patient Health Assessment conducted by 3 Practice Nurses over a period of 6 months.

Results:

Between 08/01/2024 and 05/07/2024 114 patients were seen for a New Patient Health Assessment with one of the Practice Nurses:

- 82 patients were screened for diabetes using an Hba1c blood test (some patients refused bloods, or it was not possible to get bloods).
- Of the 82 who were screened, 21% had abnormal results (Hba1c > 41).
- 12 patients were diagnosed prediabetic (Hba1c between 41-47).
- 5 patients were newly diagnosed with Type 2 diabetes (Hba1c > 47).
- 1 new patient was already known to have Type 1 diabetes when the Hba1c was taken.

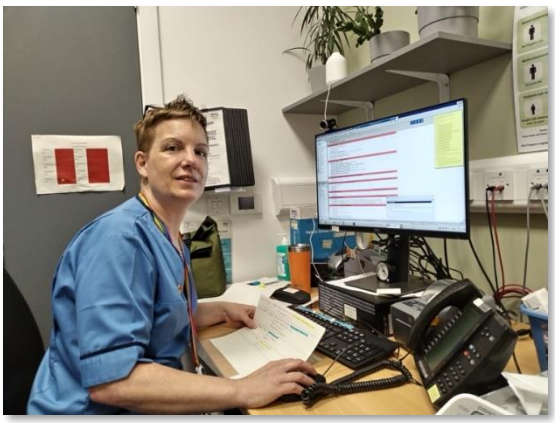
As such during a period of six months, 17 patients were diagnosed with prediabetes or diabetes because of screening during New Patient Health Assessments.

This increased the prevalence of diagnosed diabetes to 2.6% (an 43.75% increase)

Actions:

- A poster was created to publicise results to the rest of the team and further afield.
- All patients with pre-diabetes have been offered access to a Diabetes Prevention programme and weight management support.
- All patients diagnosed with diabetes who have been seen by one of our GP's are receiving treatment or treatment options have been discussed.
- The team at the Access Place will continue to offer screening to new patients.

Inger stands in the Access Practice garden



Inger going through the results of her audit

Leeds

Angelique Denys, Homeless Outreach Nurse, York Street Practice, Bevan Healthcare, Leeds

In her own words:

I am an outreach nurse from the York Street practice in Leeds. I provide nursing care for people who are living in emergency or temporary accommodations. My background was A&E. My role encompasses providing minor illness and injury management, immunisation and vaccination, chronic disease management including diabetes, COPD, asthma and wound care and support to access mental health and addictions services.

We currently have 2303 patients registered the practice:

- 1632 are <40 years old.
- 617 are >40 years old.
- 47 patients have been diagnosed with Diabetes which is only 2% of the practice population.
- 4 are diagnosed with Type 1 diabetes.

- 43 are diagnosed with Type 2 diabetes.
- None have a Type 3 diagnosis.

I have worked collaboratively with our practice nurse who is the lead for diabetes to create a list of patients with uncontrolled diabetes (either 1 or 2) and / or poor appointment attendance. It was felt that these were patients who needed a more assertive targeted approach with multidisciplinary team. Currently there are 9 people on this caseload. I now have a formal weekly meeting with the diabetes nurse in practice to discuss complex cases.

As a result of this targeted work, I have an action plan:

Action plan:

- Improve understanding of and management of patients with Type 3c.
- Work with Occupational Therapists to support patients e.g. buying and cooking food.
- Explore options for extra psychological support for patients with diabetes. I have decided to undertake training around transactional analysis and basic motivational interviewing – in order to optimise consultation with patients and explore barriers with medication concordance.
- Explore how screening can be delivered in order to understand whether our 2% prevalence is real.
- Further develop our new working relationship with community diabetes team in order to support complex patients going forward.
- Build a
- working relationship with community dietician to provide more individualised support for patients with poor access to food due to homelessness and financial barriers.

To get in touch with Angelique email: angelique.denys@nhs.net

Angelique presents the results of her work at the Diabetes Day

Summary Learning and Insights

This project has produced a huge volume of data and insights, and an attempt is made to summarise below.

After this, summary top tips for the three areas of;

- Inclusion health services;
- Specialist diabetes services;
- Homelessness support services;

are presented.

HIGH RISKS

- **The cooccurrence of diabetes, homelessness, and addictions is very high risk.** There are some clinical ways to attempt to mitigate these risks that are presented in this document, but overall, the triad of diabetes, homelessness and adductions should be seen as a serious and immediate safeguarding issue.
- **Several safeguarding adult reviews after death involving diabetes and addictions involve failed safeguarding.** Practitioners need to understand their role in responding to non-engagement / concordance issues, and whether these constitute 'self-neglect' safeguarding challenges. In certain circumstances there may be a role for DOLS.
- **Some mental health clinical risks related specifically to diabetes are not well known about in the homeless and inclusion health sector** e.g. eating disorders, suicide risk are not well known about outside the specialist diabetes sector and need to be highlighted to homeless and inclusion health services. Diabetes can be used a form of self-harm – some people are deliberately not engaging with their diabetes as part of a fatalistic agenda or as a form of semi-intentional self-harm. Exploring the interaction between and non-concordance and mental health, should be an essential part of assessments.
- **Limb and eye problems are common in this population and screening can be missed** – more attention needs to be paid to this. Access to annual checks could be improved - inclusion health nurses can be trained in foot and visual acuity screening. Outreach eye screening should be considered for all ages.
- **Every attempt should be made to house people with diabetes –** practitioners should know how to support a 'priority need' application to the local authority. They should also refer patients with care and support needs for a Care Act assessment regardless of their eligibility issues.
- **Attention to the 9 Key Care processes reduces risk and needs to be promoted.**

BARRIERS TO DIAGNOSIS

- **Screening for diabetes in inclusion health populations is a postcode lottery** – some areas are not able to screen routinely. It is felt because of the significant risks in this population, all people experiencing homeless should be able to be screened like Learning Disabilities and Mental Health populations. This could be approached in a variety of ways.

BARRIERS TO ENGAGEMENT

- **Patients feel told off / scared / disenfranchised when they are given their diagnosis, and this sets off reduced engagement** – Patients feel that have been told their diabetes is their fault. They also they are told to put in place lifestyle changes that are not possible (i.e. they feel doomed to fail). They can also often feel their diabetes is a life sentence and another way in which they have been disadvantaged. There is a role for training on language, trauma informed care, and a real focus on first contacts / initial messaging are really important in terms of relationship building. There is also a key role for psychological input.
- **Similarly, there is a stigma related to addictions and homelessness.** Patients often feel they are being judged and this mitigates against good engagement on both sides.
- **People experiencing homelessness commonly DNA specialist appointments due to a variety of issues –** not getting the letter / text, not understanding the letter / text, fear, competing priorities etc. Homelessness should be flagged in records, DNAs from people known to experience homelessness should be followed up, and outreach from diabetes specialists should be considered.
- **Sometimes practitioners do not know that someone is homeless or understand the challenge of their circumstances in relation to diabetes. Patients may feel embarrassed to offer this information** – Diabetes specialists need to be encouraged to ask about housing status, and understand people's circumstances, and to actively and sensitively ask about what support is needed. There is a key role for people with lived experience in training of diabetes specialists.

BARRIERS TO ENGAGING WITH TREATMENT 'AT HOME'

- **Appropriate accommodation / resources are vital to meet needs** – people should be 'priority need' for housing, and should be given accommodation with fridge / own facilities if insulin dependent.
- **Lack of access to food / lack of cooking skills** – obtaining, storing and cooking healthy food when homelessness is almost impossible. Practical solutions include hostel level interventions, support with shopping / cooking. There is role for community Occupational Therapists to work with this group intensively to build skills and confidence. It is unlikely to be good enough just to give recipes and advice on healthy eating – people are going to need more support than this. More dietician involvement is needed.

- **Homeless hostel and support staff need more training** – support staff often want to help and support clients and good training is already out there. However this needs better signposting, and a key message that training needs to be revisited when patients come on to caseload as diabetes is so complicated.

ISSUES WITH PATIENT EDUCATION

- **Leaflets aren't good enough to explain difficult concepts** – leaflets need to be accessible in terms of language, fonts, images, culture (naming diabetes e.g. as sugar), and also need to work through / explain complex concepts.
- **Intersectionality / diversity / culture** – lots of our populations are at greater risk of developing diabetes through their background, and need specific targeted resources to support them – e.g. Healthy Plates for different ethnic groups.

ISSUES WITH PRACTITIONER EDUCATION

- **Type 3c quite common in this group, and knowledge is lacking** – training is need in this area, as it is likely that some patients are not receiving all relevant treatments.
- **The interaction of diabetes and alcohol / substance misuse is complex -** specialist training is needed for clinical practitioners.

EFFECTIVE IMPROVEMENT INTERVENTIONS

- **Outreach from specialist diabetes nurses and/or partnership between specialist / inclusion health services significantly improves practice** – all cases where this has been delivered has resulted in better care.
- **Audits of the care of people experiencing homelessness with diabetes –** audits consistently result in improved practice.
- **People with lived experience of diabetes and homelessness need to be directly asked about their experiences.**

Final Top Tips for Improving Care

Diabetes services

Service development

- Undertake an 'access to care' audit for your service like the one in this report, and create a plan to improve accessibility of your service.
- Record (and code) housing status in hospital core information (try to enable this, if this is not currently possible).
- Make contact with and visit other specialist diabetes nurses undertaking outreach work to gain tips for your own work.

Patient Assessment

- Ask about and record information about housing circumstances and access to food during assessments – e.g. kitchen facilities, food and medication storage, access to free food provision etc.
- Ask about storage of medication.

Patient Management

- Brush up on Type 3c diabetes.
- Consider whether there is enough use of pancreatic enzyme replacement therapy – this could be a good Quality Improvement Project in multiple areas.
- Offer use of CGM monitoring technology wherever possible.
- Use longer acting insulins and work with higher HbA1c levels for people with more complex lives.
- With patient consent, include a patient's support worker in their care.
- Proactively offer referral to healthy eating / cooking skills groups for people experiencing homelessness if these are available.
- Stock cooking guides that are relevant to people with limited access to a kitchen.
- Proactively offer referral to dietician support.
- Screen for mental health difficulties and diabetes distress, and proactively refer to Psychologists / mental health support. Consider overdose risks and eating disorder risks within screening.
- Take time to educate patients about diabetes, the treatment of diabetes, healthy eating, eye health and foot care.
- Stock easy read materials regarding diabetes, the treatment of diabetes, and healthy eating, and know where to access information in other languages.

Linking in with homelessness services

- Make contact with your local community inclusion health service. If you do not know who there are many are listed here. Visit them if possible. Investigate whether outreach to particular populations could be useful and possible.
- Make contact with any homeless day centres and hostels you have in your area. If you do not know who they are try a postcode search on 'Find a Service' on the Homeless Link website. Ask whether they need any training or support. Consider building relationships at these sites by training diabetes champions. In exchange ask them to train you regarding homelessness issues in your area.

Other links

- Link in with your local addictions team / undertake training in this area.
- Link in with your hospital based homeless team if you have one locally e.g. those supported by the Pathway Partnership Programme.

Training

- Undertake NHS trauma informed care training.
- Undertake Language Matters Diabetes training.

Inclusion health services

Service development

- Undertake an 'clinical care' audit for your service like the one in this report.
- Make contact with your local specialist diabetes service and invite them to visit. Explore how you can work in partnership together.
- Make contact with local optometry and podiatry screening services to see how screening can be improved.
- If community dietician support is not available to individuals you care for make record the number of referrals you would have made and take this to commissioners.

Screening

- Routinely screen for diabetes annually using an HbA1c test if possible.
- Undertake routine nutritional screening using a validated tool, and ask about access to food / food security during assessments.

Patient management

- Refer to specialist diabetes services even if you think a patient will not go.
- Refer to dieticians.

- Find out about healthy eating / cooking skills groups in your area, and refer clients to these wherever possible.
- Consider also referring to Occupational Therapy to support individuals to improve their skills around healthy eating (including shopping and cooking).
- Upskill to be able to undertake opportunistic basic eye screening and foot screening for patients who are finding repeated engagement difficult.
- If you think your client is self-neglecting, refer to safeguarding and proactively call case conferences including both primary and secondary care colleagues as well as other relevant partners.
- If your client is regularly attending A&E see this as a 'red flag'. Make contact with A&E and secondary care services to develop a plan.
- Use social prescribers to investigate options for increasing activity levels e.g. exercise on prescription, gardening groups.
- Offer smoking cessation support.
- Take time to educate patients about diabetes, the treatment of diabetes, healthy eating, eye health and foot care.
- Stock easy read materials regarding diabetes, the treatment of diabetes, and healthy eating, and know where to access information in other languages.
- Consider introducing routine use of micronutrient cover (vitamin and mineral supplement).
- Work with pharmacists to explore options for better supporting rough sleepers, and consider purchase of cool bags.
- Ask about use of CGM monitoring technology if this will benefit the client.
- Suggest use of longer acting insulins for people with more complex lives.
- Consider whether your patient could have Type 3 diabetes and whether pancreatic enzyme replacement therapy is needed.

Supporting patients to access housing

- Consider whether you can support access to housing by demonstrating your client is 'priority need'.
- Consider a Care Act referral for a client with No Recourse to Public Funds with diabetes.

Training

- Learn about Type 3c diabetes.
- Update about self-neglect as a safeguarding issue.
- Read about 'diabetes distress'. Consider what mental health effects diabetes is having on your client, and refer appropriately. Learn about overdose risks and the links between diabetes and eating disorders.
- Undertake NHS trauma informed care training.

- Undertake Language Matters Diabetes training.

Support for hostels and day centres

- Support hostels and day centres to have a diabetes champion (in partnership with specialist diabetes services if they are willing).
- Review any food provision available at day centres / hostels, and offer to support a review.

Hostel workers and support workers

Assessment of patients

- Ask about whether clients have a past history of diabetes.
- Ask clients with diabetes about how they are coping with their illness. You could use the Diabetes Discussion form in this report to do this.
- Consider the medication storage needs of your client and ensure storage options are safe – shared, public fridges should not be considered for insulin.

Supporting management

- Consider attending appointments with diabetes team/inclusion health services to support service users and gain understanding of their management. You can also provide extra information to healthcare teams on how they are managing their diabetes to support better clinical management.
- Encourage patients with diabetes to attend their annual checks and screening appointments.
- Store glucose gel and ensure emergency training includes dealing with hypoglycaemia.
- Review any food provision available to clients where you work, and ask health care professionals to support a review. Consider whether any changes can be made.
- Find out about healthy eating / cooking skills groups in your area, and refer clients to these wherever possible.
- Stock cooking guides and dietary advice sheets that are relevant to people with limited access to a kitchen.
- If you think your client is self-neglecting, refer to safeguarding and ask colleagues to support to arrange case conferences that include all relevant partners.
- If your client is regularly attending A&E see this as a 'red flag'. Alert relevant health care professionals, and try to make contact with A&E and secondary care services to develop a plan.

Training

- Undertake one of the online diabetes training courses available if you currently have clients with diabetes.
- Consider whether your service would benefit from a diabetes champion and who would be best placed to receive undertake this role. If appropriate lobby for someone to undertake this role and undertake core training and updates, and link in with appropriate health care professionals.
- Learn about self-neglect as a safeguarding issue.
- Find out about all NHS national screening programmes and support clients to access these.

Proposed journal articles and dissemination

The intention for this piece of work is that summary journal articles will be submitted for publication.

The likely submissions will include:

1. Diabetes medical journal submission - focused on more detailed analysis of the survey data.
2. Diabetes nursing journal (possibly an international journal) - focused on nursing best practice in this area, and the quality improvement process.
3. Health service management journal article - focused on the benefits of bringing together condition specialists and inclusion health professionals - touching on this project, a similar recent project focused on epilepsy care in Dublin, and the ECHO clinical network in homeless palliative care.
4. Psychology journal - focused on the 'don't tell me off' and 'don't tell me to do things I just can't do' findings of this piece of work, and what we have learned from it.
5. Nutrition and Homelessness article – a later article which will look at the wider issues of nutrition screening, food insecurity and supporting health eating in homelessness populations.

The results of the project will also be presented at the DSN Forum in October. Two other conference submissions are currently processed and the final project webinar will take place on 17 September 2024.

Other opportunities to present this work are welcomed.

Research Opportunities going forward

A number of future research opportunities have been identified as a result of undertaking this project.

These include:

- Understanding the prevalence and effectiveness of management of Type 3 diabetes in homelessness populations.
- Formally evaluating the benefits of specialist outreach in meeting the needs of vulnerable populations.
- Understanding what works to support health eating for single homeless individuals.
- Understanding whether Occupational Therapists specifically could support vulnerable individuals to eat better.
- Further research with patients focused on responses to self-neglect safeguarding challenges.

Conclusion

This project has underlined the significant health concerns and risks that are associated with diabetes in people experiencing homelessness, but has also enabled a huge amount of knowledge about best practice to be shared across a collaborative network in order to improve care.

It is hoped that this report will be useful to practitioners, commissioners and researchers who are aiming to improve care for people experiencing homelessness with diabetes by documenting in detail all the learning from the programme.

The report is accompanied by the Fairhealth E Learning, QNI guidance, and Groundswell leaflets and audit tools that will hopefully support practitioners and commissioners to future deliver frontline improvements in care, and researchers to develop further research priorities.

Huge thanks go to the Burdett Trust for Nursing for supporting this important piece of work.

Hopefully the project model as a whole can go on to be applied to other clinical conditions with a high prevalence in people experiencing homelessness e.g. epilepsy, or respiratory.

If you would like to connect with the authors regarding your own project we would love to hear from you.

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APPENDIX 1: Literature review references

1. **Arnaud A, Fagot-Campagna A, Reach G, Basin C, Laporte A. (2010)** Prevalence and characteristics of diabetes among homeless people attending shelters in Paris, France, 2006. Eur J Public Health. Oct;20(5):601-3. doi: 10.1093/eurpub/ckp197. Epub 2009 Dec 16. PMID: 20015964. Found at: https://pubmed.ncbi.nlm.nih.gov/20015964/ 03/06/2024
SUMMARY: Diabetes screening in Paris night shelters in 2006. They found a high prevalence of diabetes comparable with those of the general population, and a high frequency of major complications, in spite of a relatively young age, short duration since diabetes diagnosis and moderate glycaemic control.

2. **Asgary R, Beideck E, Naderi R (2022)** Diabetes care and its predictors among persons experiencing homelessness compared with domiciled adults with diabetes in New York City; An observational study. E Clinical Medicine, The Lancet. Vol 48. Found at: https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(22)00148-1/fulltext 03/06/2024
SUMMARY: Type 2 diabetes-related measurements, sociodemographic, and clinical indicators were collected on adults with diabetes (n = 418; homeless: 356 and domiciled: 58) seen in shelter-clinics in New York City in 2019. Analysis showed that patients experiencing homelessness (63% Black; 32% Hispanic) 134/304 (43·9%) were more likely than domiciled patients 13/57 (22·8%) to have inadequately managed diabetes (OR 2·67, CI 1·38–5·16, p = 0·003). The average HbA1c among homeless (8·4%, SD± 2·6) was higher than that of domiciled persons (7·3%, SD± 1·8, p = 0·002). In logistic regression, domiciled status (OR 0· 42, CI 0·21 – 0·84, p = 0·013), older age (OR 0·97, CI 0·95 – 0·99, p = 0·004), and non-Hispanic/Latino ethnicity were associated with well-managed diabetes. Among persons experiencing homelessness, non-Hispanic/Latino (OR 0·61, CI 0·37–0·99, p = 0·047) and older age (0·96, CI 0·94–0·99, p = 0·003) were associated with well-managed diabetes. In linear regression, mental illness (-0·11, p = 0·048) and older age (-0·15, p = 0·010) were associated with lower HbA1c, suggesting better support in respective shelters.

3. **Baty PJ, Viviano SK, Rosita Schiller M, Wendling AL (2010)** A systematic approach to diabetes mellitus care in underserved populations: improving care of minority and homeless persons. Found at https://pubmed.ncbi.nlm.nih.gov/20927670/ 03/06/2024
SUMMARY: Diabetes care measures including HbA1C, LDL, microalbumin testing, and testing for retinopathy were compared for suburban practices and Community Health Centre practices within the same health system in America. Following implementation of a diabetes registry and system-based disease management process, the percent of Community Health Centre patients meeting guidelines improved significantly in all quality measures except the percentage of patients with HbA1C>9%. Despite this improvement, there remained a statistically significant discrepancy in performance between the Community Health Clinics and the suburban practices in most measures including percentage of patients with HbA1C<7%, HbA1C>9%, LDL<130, LDL<100, and percentage of patients with retinopathy screen or microalbumin test within the past year, with the Community

Health Centres lagging behind in all comparisons. As such a structured systems-based approach to care of minority and at-risk populations utilizing diabetes registries resulted in significant improvement in clinical outcomes and helped to reduce but not eliminate disparities in diabetes outcome measurements between vulnerable and Caucasian populations.

4. **Bellary S (2011)** Delivering diabetes care to people in hard-to-reach groups. Diabetes Primary Care 13(6):1–9. Found at https://diabetesonthenet.com/diabetes-primary-care/delivering-diabetes-care-to-people-in-hard-to-reach-groups/ 03/06/2024
SUMMARY: Comment piece / literature review on at risk groups with diabetes including homelessness, prisoners. While the needs of each of these groups are unique, a lack of consistent specialist input, influence of socioeconomic factors and the paucity of research are some of the common themes that emerge about these groups.

5. **Benz F (2023)** Type 2 diabetes management in the homeless population: health inequality and the Housing First approach. British Journal of Diabetes. Vol. 23 No. 2: https://doi.org/10.15277/bjd.2023.421
SUMMARY: Type 2 diabetes (T2DM) is notably more prevalent among homeless individuals compared to the general population, leading to higher rates of diabetes-related emergency department visits and hospitalisations. This article explores the health inequalities experienced by homeless individuals in relation to T2DM management, and evaluates the Housing First approach as a potential intervention. The available evidence suggests that Housing First programmes may improve diabetes-related outcomes, including HbA1c testing and medication adherence, and may lead to fewer hospitalisations.

6. **Rebecca S. Bernstein, Linda N. Meurer, Ellen J. Plumb, and Jeffrey L. Jackson, (2015)** Diabetes and Hypertension Prevalence in Homeless Adults in the United States: A Systematic Review and Meta-Analysis. American Journal of Public Health 105. Found at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4318300/ 03/06/2024
SUMMARY: We included data from 97 366 homeless adults. The pooled prevalence of self-reported hypertension was 27.0% (95% confidence interval = 23.8%, 29.9%; n = 43 studies) and of diabetes was 8.0% (95% confidence interval = 6.8%, 9.2%; n = 39 studies). We found no difference in hypertension or diabetes prevalence between the homeless and general population.

7. **Burki T. (2022)** Managing Diabetes and Homelessness. Lancet Diabetes Endocrinol. 2022 Mar;10(3):164-165.
SUMMARY: A survey undertaken by the American Diabetes Association in June 2021 concluded that people with diabetes were 48 times more likely to become homeless over the course of the pandemic than the general population. Article discusses difficulty accessing appointments, storing and administering medications, and accessing healthy foods.

8. **Campbell DJT, Campbell RB, Booth GL, Hwang SW, McBrien KA.** (2020) Innovations in Providing Diabetes Care for Individuals Experiencing Homelessness: An Environmental Scan. Can J Diabetes. Oct;44(7):643-650. Found at: https://pubmed.ncbi.nlm.nih.gov/32312657/ 03/06/2024
SUMMARY: Interviews of 96 providers in 38 organisations in Canadian cities. They identified 5 unique and innovative approaches to providing diabetes care to individuals experiencing homelessness. These include: 1) provision of in-shelter care, 2) peer outreach/support workers, 3) diabetes specialty outreach clinics, 4) diabetes group care specific for this population and 5) community-based pharmacy interventions.

9. **Campbell RB, Larsen M, DiGiandomenico A, Davidson MA, Booth GL, Hwang SW, McBrien KA, Campbell DJT. (2021)** The challenges of managing diabetes while homeless: a qualitative study using photovoice methodology. CMAJ. Jul 12;193(27) Found at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8342021/ 03/06/2024.
SUMMARY: The study focused on 8 coresearchers with type 2 diabetes (diagnosed 18 months to 23 years previously) and had experienced homelessness for periods ranging from 8 months to 12 years. We identified 4 themes from the 17 photos and narratives they produced. Homelessness imposed major demands on emotional and mental health, impairing the ability of those affected to focus on diabetes self-management. Foods provided in shelters were often nutritionally poor or unpalatable. Obtaining housing facilitated diabetes management through stability and autonomy, but cost and lack of knowledge posed challenges to healthy food preparation. Homelessness also presented challenges to accessing diabetes care professionals and prescription medications.

10. **Campbell DJT, Campbell RB, DiGiandomenico A, Larsen M, Davidson MA, McBrien K, Booth GL, Hwang SW. (2021)** Using a community-based participatory research approach to meaningfully engage those with lived experience of diabetes and homelessness. BMJ Open Diabetes Res Care. Sep;9(1) Found at: https://pubmed.ncbi.nlm.nih.gov/34493497/ 03/06/2024
SUMMARY: 8 people with a lived experience of homelessness had an average attendance of 82% over 21 meetings-despite this success, we encountered a number of challenges of conducting this research: funding, ethics approval and recruitment were particularly difficult. Group members reported that participation improved their ability to self-advocate in their diabetes care and provided them with tangible skills and social benefits. Group members stated that they valued being involved in all aspects of the research, in particular knowledge translation activities, including advocating for nutritious food at shelters; presenting to stakeholders; and meeting with policymakers.

11. **Chan CY, Hoi BP, Wong E (2022)** Lay health worker intervention in pre-diabetes management: Study protocol of a pragmatic randomized controlled trial for Chinese families living in inadequate houses. Frontiers in Public Health: Family Medicine and Primary Care. Oct. Found at: https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2022.957754/full 03/06/2024

SUMMARY: Report of the start of a trial in China. Participants will be randomized to receive a 6-months lay health worker intervention of 5 components, including (1) lay health worker training and support; (2) health professional training; (3) formulation of a targeted care plan for the health and nutritional needs of the families; (4) case management approach; and (5) financial subsidy for lay health workers to sustain the practice. The control group will receive usual care and health information on diabetes risk management. Glycated haemoglobin (HbA1c) and fasting blood glucose will be taken at the entry and exit assessment of this trial as primary outcomes.

12. **Constance J, Lusher JM. (2020)** Diabetes management interventions for homeless adults: a systematic review. Int J Public Health. Dec;65(9):1773-1783. Found at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7716851/ 03/06/2024
SUMMARY: 26 articles retrieved for detailed evaluation, and 6 met the inclusion criteria. Effective strategies for addressing the challenges and obstacles that the homeless population face, requires innovative, multi-sectored, flexible and well-coordinated models of care. Without appropriate support, these groups of people are prone to experience poor control of their diabetes; resulting in an increased risk of developing major health complications.

13. **Davachi S, Ferrari I (2013)** Homelessness and Diabetes: Reducing Disparities in Diabetes Care Through Innovations and Partnerships. Canadian Journal of Diabetes. August 33(3):200–201 Found at: https://www.researchgate.net/publication/257605012_Homelessness_and_Diabetes_Reducing_Disparities_in_Diabetes_Care_Through_Innovations_and_Partnerships 03/06/2024
SUMMARY: Description of programme to engage the homeless community, and identify barriers and effective approaches for improving access of the homeless to diabetes programs.

14. **Diabetes Times (2021**) Diabetes among homeless up by 22 per cent. Found at: https://diabetestimes.co.uk/diabetes-among-homeless-up-by-22-per-cent/. 03/06/2024
SUMMARY: Report of a systematic review (1990-2020) led by Dr Catherine Russel 1990-2020 presented at the Diabetes UK Professional Conference (DUKPC) 2021. Across the articles up to 22 per cent of homeless people around the world have diabetes, and many of them struggle to control their condition, new research has shown. The research that people experiencing homelessness who had diabetes had poorer blood sugar control compared to the housed population. Two separate studies reported that more than 40 per cent of those with diabetes had a HbA1c of 64ol/mol – significantly higher than the 48ol/mol target for people with diabetes. In addition, homelessness was also associated with higher rates of recurrent diabetic ketoacidosis (DKA) and higher rates of lower limb amputation. However, diabetic retinopathy was no more prevalent in homeless people than housed people with diabetes. Barriers identified which prevent effective diabetes self-management among the homeless population were found to be limited food options and difficulty accessing medications and medical care. People who moved into stable housing were more likely to have HbA1c tests, suggesting better access to diabetes care.

Community-based interventions were found to improve overall medication adherence, blood pressure, cholesterol and blood sugar levels.

15. **Gilani A (2017)** Unit 3 – Special care groups: The challenges of managing diabetes in hard-to-reach groups. Diabetes on the net. Oct Vol 19, No 5 Found at https://diabetesonthenet.com/wp-content/uploads/pdf/dotn7d33e81648d8dccb05b392b3.pdf 03/06/2024
SUMMARY: CPD article written by a pharmacist focused on managing diabetes in hard to groups including people experiencing homelessness and Gypsy, Roma, Traveller groups, with comment on the need for increased education and training to support engagement.

16. **Grewal, E.K., Campbell, R.B., Booth, G.L. et al. (2021)** Using concept mapping to prioritize barriers to diabetes care and self-management for those who experience homelessness. Int J Equity Health 20, 158 (2021). Found at: https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-021-01494-3 03/06/2024
SUMMARY: 32 individuals were recruited and interviewed re barriers to diabetes management when homeless. Experiencing homelessness poses numerous barriers to managing diabetes, the greatest of which according to clients, is challenges to getting healthy food. This study showed that the way clients and providers perceive these barriers differs considerably, which highlights the importance of including clients' insights when assessing needs and designing effective solutions.

17. **Harte R, Norton L, Whitehouse C et al (2022)** Design of a randomized controlled trial of digital health and community health worker support for diabetes management among low-income patients. Contemporary Clinical Trials Communications. Volume 25, February 2022, 100878. Found out: https://www.sciencedirect.com/science/article/pii/S2451865421001782 03/06/2024
SUMMARY: This protocol paper describes the rationale and design of a trial that measures the combined effect of digital health and community health worker support on glucose self-monitoring and glycosylated haemoglobin.

18. **Hwang SW, Bugeja AL (2000)** Barriers to appropriate diabetes management among homeless people in Toronto. Can Med Assoc J 163(2):161–165 Found at: https://pubmed.ncbi.nlm.nih.gov/10934977/ 03/06/2024
SUMMARY: 50 patient interviews in homeless shelters in Toronto: Fifty people completed the survey (response rate 83%). Of the respondents 82% were male and 64% were white. Type 2 diabetes had been diagnosed in 86%, with 62% of all participants taking oral agents alone and 28% taking insulin alone. Overall, 72% of the participants reported experiencing difficulties managing their diabetes: the most common were related to diet (type of food at shelters and inability to make dietary choices, reported by 64%) and scheduling and logistics (inability to get insulin and diabetic supplies when needed and inability to coordinate medications with meals, reported by 18%). Although alcohol use, cocaine use and mental health problems were common, few respondents cited these issues as barriers to diabetes

management. According to Canadian Diabetes Association guidelines, glycaemic control was inadequate in 44% of the people tested.

19. **Jones M, Gable D (2014)** Practicalities of working with homeless people with diabetes in an inner-London borough. J Diabetes Nurs 18(10):414–419 Found at: https://diabetesonthenet.com/wp-content/uploads/jdn18-10-414-9-1.pdf 03/06/2024
SUMMARY: Case study of practice by dietician in London in the UK, plus CPD questions.

20. **Kalinowski A, Tinker T, Wismer B, Meinbresse M (2013)** Adapting your practice: treatment and recommendations for people who are homeless with diabetes mellitus. Health Care for the Homeless Clinicians Network, Nashville. Found at: https://nhchc.org/wp-content/uploads/2019/08/2013DiabetesGuidelines_FINAL_20130612.pdf 03/06/2024
SUMMARY: Guidance produced by Health Care for the Homeless Clinicians Network – an inclusion health clinical network in the USA.

21. **Lewer D, Aldridge RW et al (2019)** Health-related quality of life and prevalence of six chronic diseases in homeless and housed people: a cross-sectional study in London and Birmingham, England. BMJ Open. 2019 Apr 24;9(4). Found at: https://pubmed.ncbi.nlm.nih.gov/31023754/ 03/06/2024
SUMMARY: Study to compare health-related quality of life and prevalence of chronic diseases in housed and homeless populations. Housed participants in more deprived neighbourhoods were more likely to report disease. Homeless participants were substantially more likely than housed participants in the most deprived quintile to report all diseases except diabetes (which had similar prevalence in homeless participants and the most deprived housed group). The study included 1336 homeless and 13 360 housed participants.

22. **Mancini, N., Campbell, R., Yaphe, H., Tibebu, T., Grewal, E., Saunders-Smith, Campbell, D. (2021).** Identifying Challenges and Solutions to Providing Diabetes Care for Those Experiencing Homelessness. International Journal on Homelessness, 2(1), 48–67. Found at: https://ojs.lib.uwo.ca/index.php/ijoh/article/view/13643 03/06/2024
SUMMARY: Semi-structured interviews with 96 providers who care for patients who have diabetes and/or who experience homelessness. Suggested interventions included service provision in a convenient location involving social and health services, incorporating allied health care providers in care to a greater extent, and updating policies to reflect the social complexity of the population can improve diabetes care.

23. **Marsh, Zyrene, Teegala, Yamini, Cotter, Valerie (2022)** Improving diabetes care of community-dwelling underserved older adults. Journal of the American Association of Nurse Practitioners 34(10):p 1156-1166, October Found at:

https://journals.lww.com/jaanp/abstract/2022/10000/improving_diabetes_care_of_community_dwelling.9.aspx 03/06/2024
SUMMARY: Although not about homelessness this study involved biweekly community health worker home visits and diabetes self-management education for 12 weeks for older people unable to access clinics. The workers, with supervision from a nurse practitioner, conducted assessments and basic education, and facilitated same-day telemedicine appointments to reinforce disease management. The HbA1C levels and diabetes knowledge of older adults significantly improved after three months. However, there were no statistically significant changes in diabetes self-care activities. The patients and HCPs were highly satisfied with the project interventions.

24. **National Health Care for the Homeless Council (2020)** Lessons Learned in Diabetes Care for Homeless Populations. Found at: https://www.csh.org/wp-content/uploads/2020/01/CSH_NHCHCLessons-Learned-in-Diabetes-Care_Final.pdf 03/06/2024 03/06/2024
SUMMARY: This publication summarizes key barriers and promising practices in the field identified by collaborative participants related to diabetes care for individuals experiencing homelessness or formerly homeless in supportive housing.

25. **O'Toole TP, Buckel L, Bourgault C, Blumen J, Redihan SG, Jiang L, Friedmann P (2010)** Applying the chronic care model to homeless veterans: effect of a population approach to primary care on utilization and clinical outcomes. Am J Public Health 100(12):2493–2499 Found at: https://pubmed.ncbi.nlm.nih.gov/20966377/ 03/06/2024
SUMMARY: They conducted a retrospective cohort study of homeless veterans comparing inclusion health provision to general medicine clinics. 177 patients - 79 in the Homeless-Oriented Primary Care Clinic and 98 in general internal medicine primary care. Homeless-oriented primary care-enrolled patients had greater improvements in hypertension, diabetes, and lipid control, and primary care use was higher during the first 6 months (5.96 visits per person vs 1.63 for general internal medicine). Excluding substance abuse and mental health admissions, hospitalizations were also reduced. The conclusion was that providing specialist primary care to homeless veterans can decrease unnecessary ED use and medical admissions and improve chronic disease management.

26. **Savage C, Xu Y, Richmond MM, Corbin A, Falciglia M, Gillespie G (2014**) A pilot study: retention of adults experiencing homelessness and feasibility of a CDSM diabetes program. J Community Health Nurs 31(4):238–248. Found at: https://pubmed.ncbi.nlm.nih.gov/25356993/ 03/06/2024
SUMMARY: The study purpose was to evaluate the feasibility of a chronic disease self-management/case management intervention for adults experiencing homelessness and diabetes and the ability to retain subjects. Participants with type 2 diabetes were recruited at a homeless clinic and a subset received the intervention. Of nine participants, five were retained for 12 weeks and two out of three intervention participants completed the full intervention. Study concluded there was

potential in this approach, but further refinement was needed on content and re time constraints.

27. **Scott J, Gavin J, Egan AM, et al (2013)** The prevalence of diabetes, pre-diabetes and the metabolic syndrome in an Irish regional homeless population. QJM 2013; 106:547–53. https://doi.org/10.1093/qjmed/hct063
SUMMARY: We aimed to assess the prevalence of diabetes, pre-diabetes and the metabolic syndrome (MetS) in an Irish regional homeless population. Of the 252 participants, 8% (n = 20), 10% (n = 24) and 21% (n = 54) were diagnosed with type 2 diabetes, pre-diabetes and MetS, respectively. Obesity (body mass index >30) was present in 22%, while 90% displayed abdominal obesity. Participants who screened positive for diabetes, pre-diabetes and MetS demonstrated an inferior cardiovascular risk profile.

28. **Thompson C, Meeuwisse I, Dahlke R, Drummond N (2014)** Group medical visits in primary care for patients with diabetes and low socioeconomic status: users' perspectives and lessons for practitioners. Can J Diabetes 38(3):198–204. Found at: https://pubmed.ncbi.nlm.nih.gov/24909090/ 03/06/2024
SUMMARY: Semi structured interviews were conducted with 9 patients who took part in a group program that was offered to patients of an inner-city community health centre that serves individuals with low income or homelessness in Canada. The interviews addressed barriers to and incentives for attending the program, the program's influence on diabetes-related knowledge and attitudes, and the patients' experience of health and quality of life. Important insights focused on the qualities of a good facilitator, the degree of change required to manage diabetes, and the role of group members in supporting the change process.

29. **To MJ, Brothers TD, Van Zoost C. (2016)** Foot Conditions among Homeless Persons: A Systematic Review. PLoS One. 2016 Dec 9;11(12) Found at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5147925/ 03/06/2024
SUMMARY: International systematic review. 17 articles met criteria and were included in the study. Foot pathologies related to chronic diseases such as diabetes were identified. Compared to housed individuals across studies, homeless individuals were more likely to have foot problems including tinea pedis, foot pain, functional limitations with walking, and improperly-fitting shoes.

30. **Vickery KD, Ford, BR et al (2023)** The development and initial feasibility testing of D-HOMES: a behavioural activation-based intervention for diabetes medication adherence and psychological wellness among people experiencing homelessness. Frontiers in Psychology. Vol 14. Found at: https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2023.1225777/full 03/06/2024
SUMMARY: A new lifestyle intervention was produced for people experiencing homelessness with type 2 diabetes based on an existing model. 69% of the cohort had PTSD symptoms. Trial participants (N = 10) overall found the program acceptable, however, they saw better program satisfaction and treatment engagement among more stably housed people, and concluded that more work and

different approaches are needed to address the needs of participants with the least stable housing.

31. **Vickery KD, Gelberg L, Hyson AR, et al (2024)** Pilot trial results of D-HOMES: a behavioural-activation based intervention for diabetes medication adherence and psychological wellness among people who have been homeless. Front Psychiatry. Feb.
SUMMARY: We used community engaged research and incremental behavioral treatment development to design the Diabetes HOmeless MEdication Support (D-HOMES) program, a one-on-one, 3-month, coaching intervention to improve medication adherence and psychological wellness for DH. Participants were English-speaking adults with type 2 diabetes, current/recent (<24 mo.) homelessness, and an HbA1c_7.5%. Thirty-six eligible participants enrolled, 18 in each arm. We retained 100% of participants at 3-months, and 94% at 6-months. Participants reported high satisfaction (mean CSQ-8 scores=28.64 [SD 3.94] of 32). HbA1c reduced to clinically significant levels in both groups, but we found no between group differences. Mean blood pressure improved more in D-HOMES than EUC between baseline and 6 mo. with between group mean differences of systolic -19.5 mmHg (p=0.030) and diastolic blood pressure -11.1 mmHg (p=0.049). We found no significant between group differences in other secondary outcomes.

32. **Wiens K, Bai L , Austin P et al (2022)** Characteristics of People with Type I or Type II Diabetes with and without a History of Homelessness: A Population-based Cohort Study. medRxiv Aug 12 Found at: https://www.medrxiv.org/content/10.1101/2022.08.11.22278127v1 03/06/2024
SUMMARY: Of the 1,455,567 patients with diabetes in Ontario who used hospital services, 0.7% (n=8,599) had a history of homelessness. Patients with a history of homelessness were younger (mean: 54 vs 66 years), more likely to be male (66% vs 51%) and more likely to live in a large urban centre (25% vs 7%). Notably, they were also more likely to be diagnosed with mental illness (49% vs 2%) and be admitted to a designated inpatient mental health bed (37% versus 1%). A suitable match was found for 5219 (75%) people with documented homelessness. The derived matched cohort was balanced on important demographic and clinical characteristics.

33. **Wooff (nee Bromley) L (2021)** Partnership Working around the Identification and Management of People with Diabetes. QNI. Found at: https://qni.org.uk/resources/partnership-working-around-the-identification-and-management-of-people-with-diabetes/ 03/06/2024
SUMMARY: Account of a quality improvement intervention in Bolton, England for people experiencing homelessness led by nurse Lynne Bromley.

34. **White BM, Logan A, Magwood GS. (2016)** Access to Diabetes Care for Populations Experiencing Homelessness: an Integrated Review. (2016) Curr Diab Rep. Nov;16(11):112. Found at: https://pubmed.ncbi.nlm.nih.gov/27665302/ 03/06/2024
SUMMARY: Literature review of the barriers and facilitators to accessing diabetes care and managing diabetes for homeless populations using the Equity of Access to

Medical Care Framework in the US. Barriers included competing priorities, limited access to healthy food, and inadequate healthcare resources.

APPENDIX 2: Analysis of SARs

Josh 2019	Jasmine 2020	Jonathan 2021	James 2023	Sophie 2023
Male in his 20s • History of being in care • Intravenous drug use, heroin on Methadone • Type 1 diabetes • Multiple insulin overdoses causing seizures and a brain injury • Mental health affective disorder • Multiple A&E attendances hospitalisations due to overdoses • Self-neglect • Challenging behaviour and criminal justice • Difficulties engaging with services • **Died in hospital following a insulin overdose induced fit** • Had contact with family although history of abuse	**20-year-old female** • Care leaver • Multiple adverse childhood experiences • Type 1 diabetes • Diabetic retinopathy • Irritable bowel syndrome, • Emotionally unstable personality disorder • History of hospitalisation for diabetic ketoacidosis • Depression • Eating disorder • Autism • Self-neglect • **Died in supported accommodation of 'natural causes' related to diabetes** • Had contact with family although history of abuse	**46-year-old male** • Bipolar • Personality disorder • Type 2 diabetes • Stroke • Carotid artery stenosis • Cellulitis • Diabetic foot ulcer • Alcohol issues • Substance misuse • Frequent episodes of rough sleeping • Self-neglect • Multiple A&E attendances and self-discharges • Challenging behaviour and criminal justice • Difficulties engaging with services • **Died in hotel from coronary disease which was advanced for his age** • Had contact with family	**34-year-old male** • Dyslexia • ADHD • Borderline learning disabilities (diagnosed at 33 years old) • Partial deafness • Type 2 diabetes • Alcohol dependence • Cannabis use • Homelessness and cuckooing in past history • Self-neglect • Multiple A&E attendances and self-discharges • Difficulties engaging with services • **Died at home from alcoholic ketoacidosis** • Had contact with family	**18-year-old female** • Type 1 diabetes • Arterial thrombosis • Heart problems • Alcohol problems • Substance misuse issues • Multiple admissions with diabetic ketoacidosis • Family breakdown • Brief history of care and moved to multiple occupancy temporary accommodation • Living with unknown male aged 24 to 26 years old • Self-neglect • Difficulties engaging with services • Possible exploitation • **Died in hospital from diabetic ketoacidosis**
• Multi-disciplinary processes could be improved by the use of shared risk protocols	• More joined up working between mental health and physical health services	• Multi-disciplinary team processes need to be more robust • Use of Section 42	• Multi-disciplinary team processes need to be more robust • Use of Section 42	• Review how agencies work together on risk • Lack of transition plans

• Safeguarding processes should improve /Care Act processes should improve • Lack of understanding of self-neglect vs lifestyle choice • Lack of understanding of capacity • • Homelessness not understood. Clinicians need to understand housing status / homelessness law. Lack of use of the Duty to Refer • Need to pay attention to frequent attenders • Information sharing is vital • Insulin can be used as a form of self-harm	• Self-neglect not understood • Limited understanding of the Care Act in this context • Lack of transition service • The impact of trauma on cognitive abilities and executive decision making is poorly understood • Risks of an eating disorder with diabetes are huge	• Improvement in hospital safeguarding • Lack of understanding of capacity • Homelessness not understood • Training for everyone on: ○ Care Act ○ Mental Capacity Act ○ Homelessness Reduction Act – Duty to Refer	• Executive capacity • Named keyworker • Trauma informed care • Would benefit from specialist Social Worker • Need to involvement family • Easy read resources	• Need to improve safeguarding of people at risk of self-neglect • Understanding Mental Capacity/Executive Capacity and Self-Neglect/Deliberate Self Harm to be included in future training programme

APPENDIX 3: Feedback on Workshop 1

Feedback was gained at the workshops to attempt to understand their potential impact on practice.

Comments on Mentimeter from attendees to the workshop in response to the question

'Can you tell if you have learned or gained anything by attending today?'

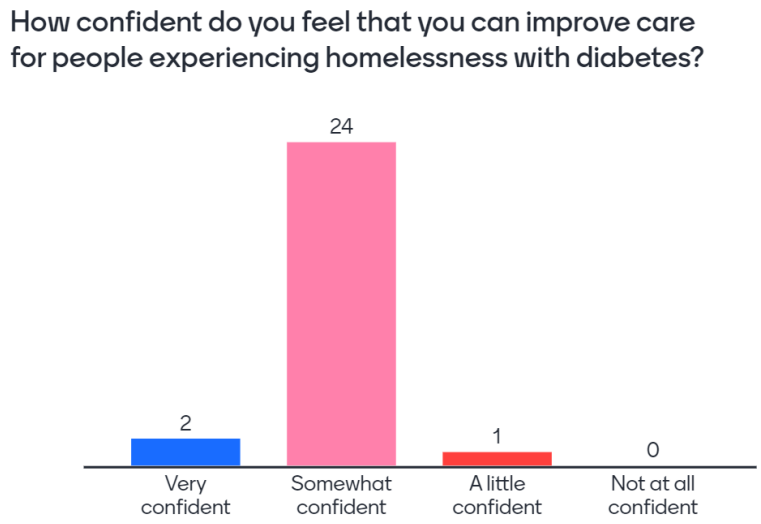
included:

- *Great to hear that others are finding the same challenges*
- *Listening to others with similar worries and concerns – slightly reassuring*
- *The problem seems to become much bigger with in the homelessness population – but there are already problems with care outside this*
- *Gained a greater understanding of the challenges, particularly from the voice of lived experience*
- *Good to hear an Optometrist perspective*
- *I was made aware of challenges I had not considered*
- *I will improve my practice in regard to screening*
- *Routine nutritional screening seems sensible*
- *Listening to the diabetes nurse reminded me that there are difficulties managing diabetes / taking diabetes seriously across the whole population*
- *I will plan to introduce point of case testing to our homeless breakfast club*
- *We should be doing nutritional assessments with these patients*
- *So impressed by some of the work that is underway already*
- *Great to hear the experience of experts*
- *Outreach seems the way forward*
- *It was great to hear the service user perspectives*
- *Knowing you are not alone with issues e.g. food, cooking skills, inadequate resources is great*
- *Lots of problems, but barely any evidence about the solutions, and this needs to change*
- *We need to change the mind set from overwhelm to positivity*

Multiple commitments were made to return to Workshop 2.

At the end of the workshop 26 out of 27 (96.3%) respondents were either somewhat confident (24) or very confident (2) they could make a difference. Although there was a drop off in the number of respondents overall it was felt that the increase in percentage was probably a real effect.

***Figure 4**: Mentimeter response regarding the confidence of participants to improve the care of people experiencing homelessness with diabetes at the end of the workshop*



APPENDIX 4: Feedback on Workshop 2

Feedback was gained at the workshops to attempt to understand their potential impact on practice.

Comments on Mentimeter from attendees to the workshop in response to the question

'Tell us something you plan to do as a result of attending today?'

included:

- *Tell everyone I see what needs to change*
- *telephone homeless team*
- *Tell charities about boiled eggs campaign!*
- *going to go to public health library to find the eat well plates that were developed for different cultures with their food.*
- *Consider micronutrient supplements blanket policy*
- *Take note of all of your priorities as a group, and ensure these are within the curriculum of our new programme!*
- *Continue to advocate for the best health and care for people experiencing homelessness*
- *Meet with the community pharmacy leads to see how we can look at ONS and vitamins with methadone supply and to motivate the GPs to take this seriously*
- *As a social worker I will now have a chat with both the outreach GP & Nurse and the diabetic team at our local hospital about screening opportunities*
- *Already planning on reaching out to GP's with my CGL pts and finding anyone with Diabetes*
- *I am going to chase up links with local hostels so i can gauge interest in diabetes education for staff and client education around diabetes/food*
- *Keep trying to engage with people with diabetes in any way possible*
- *look into St Andrews nutritional screening tool to be used in our assessments*
- *Check locally what is available for those who are homeless and have diabetes, particular Type 1*
- *Ask about bowels*
- *look at buying a hand strength thingy*
- *suggest multivitamin tablets for all patients :-) Advocating for more outreach, preferably with the community diabetic nursing team and make better links*
- *Tell our clinical staff to link into the community to support the hard to reach*
- *Ask about weight changes and how people feel about it*
- *Contact the Diabetes Specialist team and discuss possibility of outreach and screening, what we would need to do to be able to start screening and work with my Trust to make this happen*
- *Share with our wider diabetes team how we can encourage those experiencing homelessness to engage with us so we can build trust and more supportive relationships*
- *Check in with Dieticians and Diabetes team in hospital to develop better multi-disciplinary working, screening and pathways for patients experiencing homelessness*

- *Look up the culturally-specific Eat Well Plate*
- *Use the SANSI nutrition screen*
- *speak to public health who commission the DAAT and ask why they aren't prescribing supplements and whether the spec can be changed*
- *Encourage all services to work collaboratively*

APPENDIX 5: REDACTED PATIENT INTERVIEWS

Kellie, 40s

When were you diagnosed?

Diagnosed 8 years ago

How did you feel when you were given the diagnosis?

I completely blanked it out, I rebelled

Everything they told me I couldn't eat I would purposefully go out and eat

I didn't really take it in, how serious it was

I thought… It's just something everyone gets. It's just another illness

Did you feel in any way that you were told it was your fault?

Yes. It was as though I was being told off – you'd shouldn't have eaten that. You shouldn't have done this or that. It felt like I was being told off like a school child.

It was like I'd set out to do it on purpose, there was no sympathy at all.

I felt they were saying you've done it to yourself, you deserve it now.

It made me back away. Not go to appointments.

I thought blow that. I'm not going back to be spoken to like a fool

Even in here, in the TA unit, they spoke to me like I was absolutely pathetic, like I was a naughty school child, I felt like I should be standing in the corner or something. As a result, I actually swore at one of them, and said don't bother making me any appointments, I'm not coming back.

People used to say to me – you should know well enough by now. But it's scary, it's new to some of us, and we don't understand.

I was ignorant to it, but that is the way I was made to feel about it.

It doesn't matter how long you are diabetic. If you are not spoken to on a level that they would like to be spoken to it's not going to work.

Did you understand your diabetes then?

No. It was not explained to me. Exactly what it was.

Do you understand it now?

No. They are always there when I'm in hospital, talking about increasing and decreasing.

But they never actually involve me in the conversation.

They are talking around you. They don't tell me what I can do to help myself.

This is what I think I know…

If I eat too much sugary stuff, my sugars go high.

If I don't eat enough sugary stuff, they go low.

But there have been days when I've been very unwell, and I haven't eaten anything, and my sugars have been higher than ever – I don't understand that.

SHORT TEACHING GIVEN

Diabetes

What it is – Insulin, high / low blood sugars, side effects

Causes – genetics, obesity, pancreatic failure

I also said that this project has taught me - it's such a massive diagnosis, and it's for life, I can understand what a massive impact it might have. I don't think it's your fault

It's really nice to hear – that it's not something that you think is my fault.

Sometimes you feel that when they think it is your fault, that you brought it on yourself, and that as a result they are not giving you the full attention.

Have you had a specialist diabetes nurse?

No. I've had people come up to me in hospital.

But it's literally to read a meter, give me a leaflet. Here's a leaflet on what to eat, that sort of thing.

I don't think anyone has ever sat down and asked me if there is anything I would like to know.

Have leaflets helped?

Not really, because they say I have different problems.

They say I have to eat foods high in sugar. They say I can eat what I want because I am so small. The advice that the stoma and diabetes team are different you see.

You are being told one thing by one person, and another thing by another.

Where do you live currently?

I was in a place called CL.

I have been here (in hospital) 18 weeks, and they gave up my bed space.

But it didn't meet my requirements, they are looking for a care home for me now.

Have you had any problems related to where you live?

They haven't got a clue. They honestly haven't got a scooby do.

I was supposed to go there for my diabetes. But re my sugars – some of them would say to check my sugar 3 times a day, some of them once a day, some none. Some of them would look at my sugar, see it was high, and ask me if I needed a fizzy drink or something. They just didn't have the training.

This is something that should be definitely flagged. If you are going somewhere and need support around your diabetes there should be a trained nurse, or at least someone with training. I thought I was going somewhere where they could help.

I didn't have a clue, but I had more clue than they did.

When I was offered the Lucozade I was thinking – is this woman actually trying to kill me – but I now realise she just didn't understand.

I mentioned the training programme by SANOFI that hostel staff can undertake

I think that is a fantastic idea. The carers need to be able to help people properly.

What sort of help have you had with your diet?

Nothing.

In them sort of places there are people there to help you, they are supposed to help you cook. But they cooked dinner once. I lived off microwave meals.

They are doing your shopping but they don't understand – they come back with the wrong things. They don't have a clue about your dietary needs, or what is junk food.

Any problems with medication storage?

Yes, when I was living in a hostel, you had nowhere to store your insulin, except with everyone else's stuff in the kitchen…

If you needed in at night you'd have to go downstairs at night to the kitchen, and this sometimes gets locked. So in the end it was a matter of having to keep it out.

And sometimes it was out on boiling hot days. I don't know how much this matters.

I've felt the pen to be boiling hot, but I've still had to take it.

I think they should give out pen cool bags in hostels. I've seen these before. When you are homeless it would be good to have this. When you are homeless the last think you are thinking about is how to access a fridge, but then they don't realise how important it is.

In the hostel, no one is helping you, you are on your own, it's your responsibility. That's why I went to the home (CL), but as I said, that didn't help.

Have you had any side effects of your diabetes?

- I've lost the sight in my left eye, and now my right eye is going.
- My pancreas has failed.
- I'm losing the feelings in my feet, I think I won't be able in the next few years.
- I'm in pain in my feet too.
- I'm so, so dehydrated all the time, and this effects my sleep.
- I'm always peeing.
- Constant headaches.

I blame myself, but then again, I wasn't told the real effects of it. I can't take the full blame for it.

I've always said I'd rather lose a limb than my sight, but now it's happening. I look back and think, why did I eat those things. But I also think – how could I have known. I'm trying not to be so harsh on myself.

How has your experience on the wards been?

The nurses on the wards, they should tell you what your sugar levels are.

They don't, you have to ask them. They test you, then they walk off, and they come back to jab you.

In my case, if my sugar levels are 14 and below, I'm not to take my insulin. My sugars drop very quickly. But they won't tell you what they are. And there is no discussion. And within half an hour I am having a hypo. There's different nurses every day, they are not familiar with what you are like.

Once upon a time I was ignorant to it, and I didn't want to know. But I'm not now, and I do want to know. I have to ask them before they tell me.

It's a good job I know when I am having a hypo. My Dad, he doesn't know. 90% of people don't know. If I didn't know I'd be dead now.

The ward staff, I know they are busy, but they don't have time to sit down and talk to you about it. I do believe diabetes isn't taken seriously enough.

How easy is it to take your diabetes medication?

It can be ok, so long as you've got a roof over your head.

Trying to do it when you are homeless is pretty hard, You are thinking about where you are going to get food to eat, not what to eat. The last thing on your mind is finding somewhere to prick your finger.

When you are at home, if you have all the necessary things – the machine, the sticks, the alarm – to can be ok. As long as it's explained to you. But you need that stable environment.

You need to get into a routine.

But… it's 8 years now and I'm still only just really getting to grips with it.

Has anyone kept an eye on your diabetes in the community?

No, not really.

I go to the GP when I need to.

What could be improved?

- No telling off!
- Cold bags to be given out.
- Involving us more in our care.
- Carers being trained properly.

I just feel – it's a bit late for me now, my pancreas and my sight, but I wouldn't want anyone else to go through this.

LM – Diabetes interview

When were you diagnosed?

2019. It happened because I went through my yearly blood test. He just said you've got no pancreas. You're fully insulin-dependent for the rest of your life. I just said to him, what's happening?

How did you feel when you were given the diagnosis?

Very surprised. At the time, it didn't really hit me because I didn't know anything about it

Did you understand your diabetes when you were diagnosed?

It's understandable, but it's so un-understandable.

There was some help and support to understand… but they expected a lot. The help and support, like I said, I just refused it all the time because I just refused to admit I was totally diabetic.

I didn't like it. I didn't like the life-changing pattern and shopping times and looking at things and caring for things. It was just a such a life change, just completely. I don't think people understand.

I just feel with diabetes, man, I'm just worthless…. People think you're sounding pathetic, well yeah. It might be pathetic, but until their luxuries in life gets stripped away from them in a heartbeat, and you can't have sweets and all that, they won't understand. I can't walk in shops anymore.

I went to the mental health unit and was given a diagnosis of an adjustment disorder all around diabetes. But there is no treatment, no medication, nothing. Just deal with it or you die, that's how I feel to be honest.

Do you understand it now?

I do know a lot more. I understand about diabetes, but I don't want to adapt to it, even if I can.

Even if I wanted to, I can't handle my own medication, especially insulin because it can kill you like that in a heartbeat. It's a dangerous illness for someone like me, with my mental health and my head.

My main problem with diabetes is I've got gastroparesis. My blood sugar can drop like that because my food can go straight through me or start being sick, things like that, or it can get stuck and not digest and then my blood can just stay high. There's no enjoyment in being type 1 diabetic. There's not one day where you can't not think about it no matter what you're doing. Medication, food, sugar this, sugar that.

The main thing I don't like about it is everything. It's hard to adapt, even though you can know everything about it, and it's just too much for one person to do, and this is why I need help with it.

It'll kill you one day, one way or another. Even if you're on top of it. I think it was a diabetic coma (that word might not be right) … Then I had kidney and liver failure through that. And then I had this mini short delirium thing.

It’s hard to do the right thing in hospital even… All they have in that fridge to eat right now is custard, chocolate custard, biscuits, no sandwiches or nothing, sauce, cereal. Sugar, sugar, carbs, carbs, carbs. I want to see a dietician, but there isn’t a diabetes dietician here.

Have you had a specialist diabetes nurse?

Lynne is the only one who didn't give up on me, to be honest.

I'm only here because of Lynne. If Lynne hadn't brought me into the hospital, to be honest, I don't think any of the rest of them were comfortable in doing so. It was only when Lynne instructed them to that brought me in, and I've been in ever since. Lynne's proved them wrong.

The only thing what keeps me alive is the help and support from Lynne and the nurses and everybody else. It's going to take a big chunk out of me leaving here…. They make me feel happy. They actually do make me feel like I am worth something, like I am a person, because I gave up on myself. Lynne and numerous other people didn't do that. That's where you realise that you are worthy of life. But then next breath, you're back to square one…

Has homelessness had an effect on your diabetes?
Massively, yeah. No money to eat, nowhere to sleep... it's all affecting your mental health. It's all mixing in a pot together.

Your insulin has to be stored in the fridge. I asked for the help. I was left me on the street for three months. I went to a food bank.

I've worked through diabetic seizures at various places, because I had them all the time. Or sometimes I could feel a hypo coming on. That's what brought me into hospital. I've had 156 attendances in all this process, by the way.

They are finding me somewhere, assisted living. They're not actually trained into diabetes, but they're willing to get trained into it just to help me out, so then there's not people coming around from outside. I've been declined off nine places before. Too much help, not enough help, too complex, not complex enough.

You've been in hospital a long time now, where previously you used to self-discharge. What is the difference to your previous admissions?

That DOLS thing. I tried leaving numerous times at the beginning, but they brought me back.

If someone doesn't want to take the medication, and they know it's going to kill them, that doesn't make sense. That's not someone that has got capacity. I needed someone to take control.

When someone who chooses a poor diet over the one, they should have just because they don't want to adapt to it. Maybe that might be someone with capacity, but they need help with that.

Male 50s

When were you diagnosed?

About 2 years ago

How did you feel when you were given the diagnosis?

I didn't know what it was, I'd never come across it. At first it was a complete mystery; I didn't ask for it

I've got a lot of help from nurses to understand though. I understand a bit better now

Do you understand your diabetes now?

I know it's got to be managed…

The nurse comes to talk to me, I am thankful. It helps me with my meds… I have a Dossett box, the meds go in there. I'm lucky because I don't have to do insulin. The nurse saved my big toe, and helped me with footwear and socks.

I try to reduce the sugar in my tea and have diet lemonade but it's a mindset. It's hard to give it all up.

Where do you live currently?

Hostel

Have you had any problems related to where you live?

No good food is provided.

If I were not here, I would fall by the wayside, but they help me pay attention all the time. I need that encouragement. They give me a couple of sandwiches at night if I need it.

It helps to be in a structured environment – if I was on the street I couldn't do it. I was 8 years on the street. I imagine it's so easy to just give up.

Have you had a specialist diabetes nurse?

Yes. She comes here. If I had a problem, she is the person I would go to. She's got me to see all the people I need to.

APPENDIX 6: Diabetes and Homelessness project Occupational Therapy brief

We are looking for some Occupational Therapy collaborators to think about whether there are any specific joint dietician / OT interventions that might improve the diet of people experiencing homelessness with diabetes. This would be for OTs already working with people experiencing homelessness who have diabetes.

We believe the common challenges in this area are:

- Inappropriate accommodation with limited facilities – lack of cooking facilities, lack of a fridge etc.
- Limited access to healthy food – due to poverty, high carb, high fat food bank / hostel food provision, donations, lack of understanding of healthier choices.
- Lack of life skills – cooking / shopping skills etc.
- Engagement resistance – due to a history of feeling 'told off', and also feeling unable to actually do what is being recommended.
- Comprehension difficulties regarding diabetes advice - due to language, literacy, brain injury etc.
- Co-occurrence of addictions / mental health.

We want to see if a small number of easy recipes accompanied by a recommended weekly shopping list could be used as the basis for an OT intervention targeted at helping someone to make small changes to their diet in line with recommendations for diabetes, whilst also being realistic in their homelessness context. Some suggested recipes and shopping list would be provided. This is part of a wider project looking at improving health care for people experiencing homelessness with diabetes.

If you would like to be involved, please get in contact: *Samantha Dorney-Smith, Nursing Fellow, Pathway* *Samantha.Dorney-Smith@nhs.net*

In the meantime, some questions you might want to use to start a conversation regarding whether your client is interested in making any changes to their diet in line with diabetes recommendations. (if you have not discussed this with them previously)

Conversation starter with clients

1. How do you feel about your diabetes diagnosis?
2. Do you think you follow a diet that would be recommended by Doctors / Nurses for your diabetes?
3. If not, what do you think are the reasons you do not do this? Are there any specific issues / barriers that you face?
4. If you were able, do you think you would want to make any changes to your diet because of your diabetes? If yes, what help do you think you would you need?