Final Report

Young Diabetics Project

June 2015 – May 2016

Delivered through Community Pharmacies in Wiltshire by Swindon and Wiltshire LPC, funded by Wiltshire Council Public Health Team

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Introduction

The "Young Diabetics Project" was a funded health promotion initiative in Wiltshire during 2015. Activity started in June 2015, with the intention of completing all patient interactions by the end of the financial year (ending 30th March 2016)

This was an innovative project due to its specific focus on the Young Adult age-group, and targeting patients with diabetes. Despite diabetes being a Public Health and NHS priority nationally, there are few services commissioned in community pharmacy with a specific focus on this group.

This document will describe the aims and objectives of the project; share the processes and results; describe the challenges of implementation and make recommendations for future initiatives.

Background

At the Wiltshire Diabetes Summit 2014, it was highlighted that young adults (age 16-40) with diabetes are the least likely to engage with the Health Services designed to support them in managing their condition and avoiding future complications.

While the healthy lifestyle advice is the same for those with Type 1/Type 2 diabetes as for the general population, targeted interventions are necessary to reduce health inequalities.

The reasons for poor engagement by younger people with services may include:

- assertion of independence;
- difficulty in attending appointments due to work or studies;
- conflicting personal priorities.

The majority of these young people are believed to access Community Pharmacy to routinely collect medication. This project is designed to show how this contact could be used to support Self Care, including accessing help and monitoring from specialist services as appropriate.

The target cohort was those aged 16-40, who are dispensed medicine for diabetes (Type 1 or Type 2).

From prevalence data and an informal audit carried out by LPC members in their own pharmacies, It was estimated that the 73 pharmacies in Wiltshire have a total contact with around 1400 patients in this cohort.

Aims and Objectives

Avoiding long term complications of diabetes requires a commitment to a healthy lifestyle and motivation to control blood sugar levels more closely than necessary just to control the immediate symptoms of hyper- and hypo-glycaemia.

The long term complications of diabetes -

- cardiovascular disease,
- kidney disease,
- diabetic retinopathy

- are major causes of disability, poor quality of life and reduced life expectancy; however, they are all preventable through a combination of healthy lifestyle and good diabetic control.

All patients with Diabetes are entitled (and encouraged to participate) in a series of Care Processes (described within Appendix 1) – these are designed to monitor indicators of poor control, and to facilitate early detection of complications.

Wiltshire Council Public Health Team have previously developed a "Blue Book" (Appendix 1) for issue to patients. This book details the care processes to which all patients with diabetes are entitled, and can act as a care planning tool. However, patients who do not attend for reviews are the least likely to be issued with this resource, or consider that these care processes apply to them.

The project had the following aims

- To raise awareness among the target cohort of potential long term complications
- To increase the use of the "Blue Book" by patients in the cohort
- To increase participation in routine care processes designed to minimise these complications or identify early signs of complication
- To raise awareness among Community Pharmacists and pharmacy staff about self-care messages that could be shared routinely
- To demonstrate that a "brief intervention" model similar to those used for Stop Smoking or Alcohol interventions could be beneficial in this situation

The objectives of the project were to

- Engage with community pharmacists and their teams in communicating with the Young Adult cohort of patients with diabetes
- Provide interventions to approximately 700 patients
- Receive feedback on the acceptability/benefits of the intervention

Training of Pharmacy Staff

There was no specific staff training requirement for participation in this project. All pharmacies were provided with a written briefing (Appendix 2) and an Intervention Aide-memoir (Appendix 3). The written briefing included suggested sources of further information or training

As part of the engagement element of this project, face to face training was arranged for pharmacists and their teams. This was delivered by the specialist diabetes nurses and covered the following subjects:

- Patient perceptions about the seriousness of diabetes
- The Care Processes: what they involve and why they are important
- What do patients learn about on formal education programmes (DAPHNE & DESMOND?)
- Blood Glucose Testing – when is it valuable for education; when is it used for dose adjustment; when is it a complete waste of time and money
- Recognising and treating hypos
- Local progression from Metformin to sulphonylureas, newer preparations and insulin

45 members of staff from 20 different pharmacies attended this training, which received very positive feedback.

Some members of staff attending had been expecting training which more directly instructed them on how to carry out the project. This had not been provided as the authors of the project believed that the processes for implementation needed to be specific to each pharmacy. LPC members did identify instructions for carrying out the required searches for each of the PMR systems and supplied these to the appropriate pharmacies.

Intervention Description

Each Community Pharmacy was asked to identify the patients in the cohort through the use of their Patient Medication Records and request the appropriate number of health promotion packs.

A member of the pharmacy team was then tasked with following a brief intervention protocol when the patient next collected their routine prescription. A separate protocol was designed for use when the patient's representative collected the medicines.

Pharmacy teams were asked to follow up after 1-3 months (next prescription) to request feedback on how useful the information provided had been.

All recruitment and promotion of the service was by pro-active approach to patients identified by their prescription medicines. No patient facing materials were prepared other than the pack to be provided as part of the intervention.

Brief Intervention with Patient

1. Ask the patient to rate their awareness of these complications of Diabetes on a scale of 0-5 where 0 = not aware that it is a complication to 5 = actively managing diabetes and lifestyle to minimise my personal risk:
    a. diabetic retinopathy (blindness);
    b. kidney disease;
    c. CVD (e.g. heart attack or stroke).
2. Where awareness is low, highlight seriousness of complications.
3. Ask the patient if they have had each of the following checks in the past 12 months (at GP surgery/diabetic clinic or elsewhere):
    a. HBA1C (indication of average Blood Glucose Levels over a period of several weeks);
    b. Blood Pressure;
    c. Cholesterol;
    d. Foot check (Skin, circulation and nerve supply);
    e. Urine test for albumin;
    f. Weight check and waist measured;
    g. Asked about smoking status and offered support/advice on quitting if smoker;
    h. Blood test for creatinine.
4. Explain that they are entitled to all of these checks every year – and that they are all designed to help them manage their condition to avoid the complications discussed.
5. Give pack which includes the Blue Book and information signposting to helpful websites.

Brief Intervention with Patient's representative

1. Ask the representative what their relationship is to the patient
    a. Parent
    b. Partner
    c. Other
2. As appropriate to the relationship, discuss
    a. Complications
    b. Care Processes/Blue Book
    c. Offer appointment for Medicines Use Review with patient
3. Offer health promotion pack to pass to patient

Follow-up Intervention

1. Ask whether patient found previous intervention useful
2. Enquire about actions taken since the intervention
    a. Additional care processes completed
    b. Access/Review of Health Promotion Resource
    c. Changes made to diabetes management or lifestyle

Results of Reported Interventions

All records of eligible patients and interventions were made on PharmOutcomes. PharmOutcomes is a web-based system which helps community pharmacies provide services more effectively and makes it easier for commissioners to audit and manage these services. By collating information on pharmacy services it allows local and national level analysis and reporting on the effectiveness of commissioned services, helping to improve the evidence base for community pharmacy services.

- 319 eligible patients were identified by 37 pharmacies. (A small number of pharmacies included patients outside of the target age range).
- Pharmacies which did not participate identified issues with prioritising this project within their workload, or lack of understanding of how to interrogate their Patient Medication Records system to identify eligible patients)

79 interventions with patients and 38 interventions with representatives were reported. 25 of these interventions had a recorded follow-up. The following reasons for not recording an intervention with an identified patient were proposed by participating pharmacies:

- Interventions were carried out or packs supplied to representative, but no record was kept
- Lack of system in the pharmacy to highlight the need for intervention when the patient collected medicine
- Conflicting workload priorities

Anecdotally, pharmacies reported a much higher rate of collection of medicines by representatives that had been assumed, and did not participate in the intervention or did not record the conversation if a pack was handed out to a representative.

The graphs below show the responses received to intervention questions

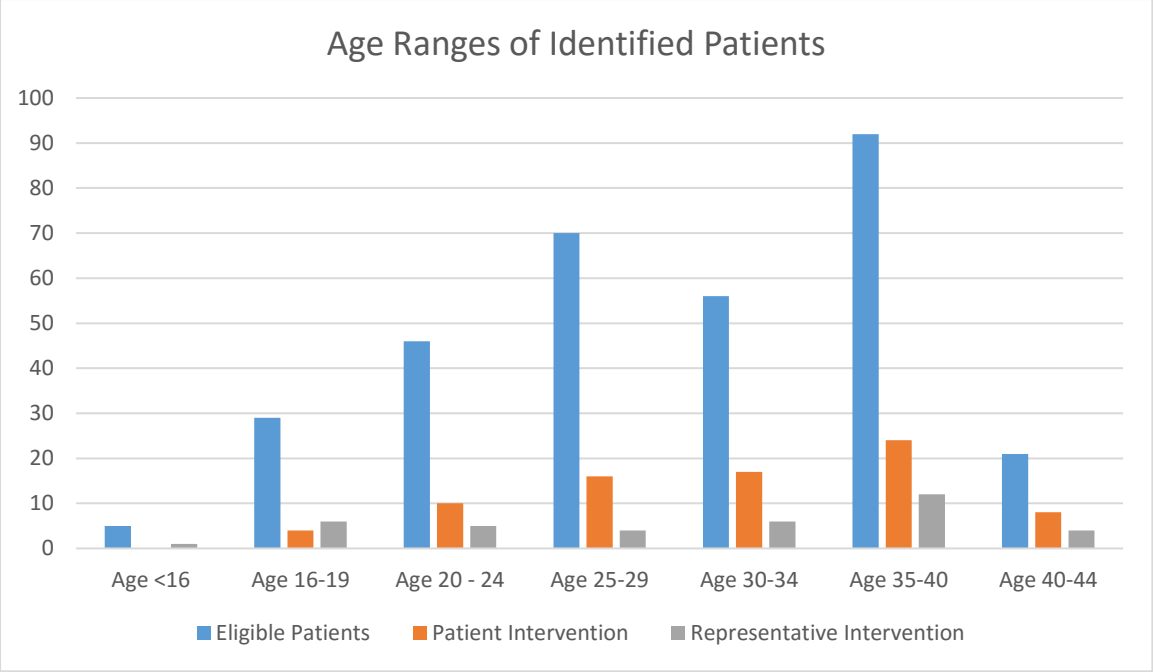


Figure 1

An expected increase in incidence was seen with increasing age. Figure 1 shows us that Community Pharmacies were equally effective at engaging will all ages of the cohort. The proportion of prescriptions collected on behalf of the patient was as expected in the older teenage population, however pharmacies were surprised at the proportion of older patients who did not attend the pharmacy.

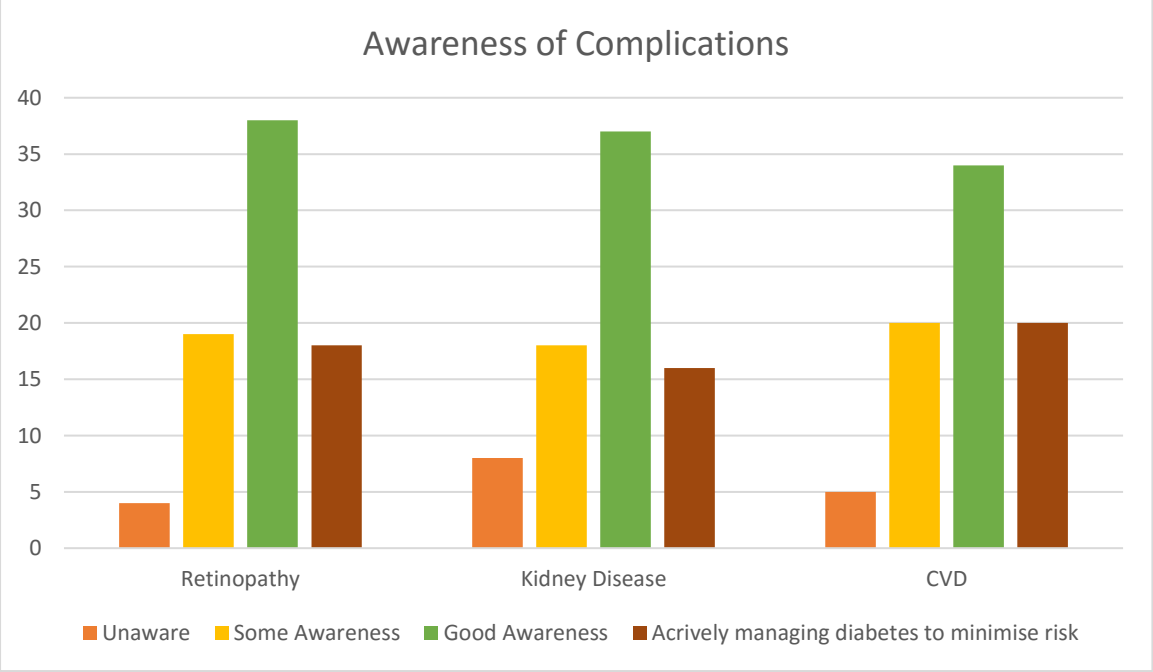


Figure 2

Figure 2 shows us that awareness of the risk of CVD was highest among patients, however significant numbers of patients appeared to have little or no awareness of one or more of the serious long term complications of their condition.

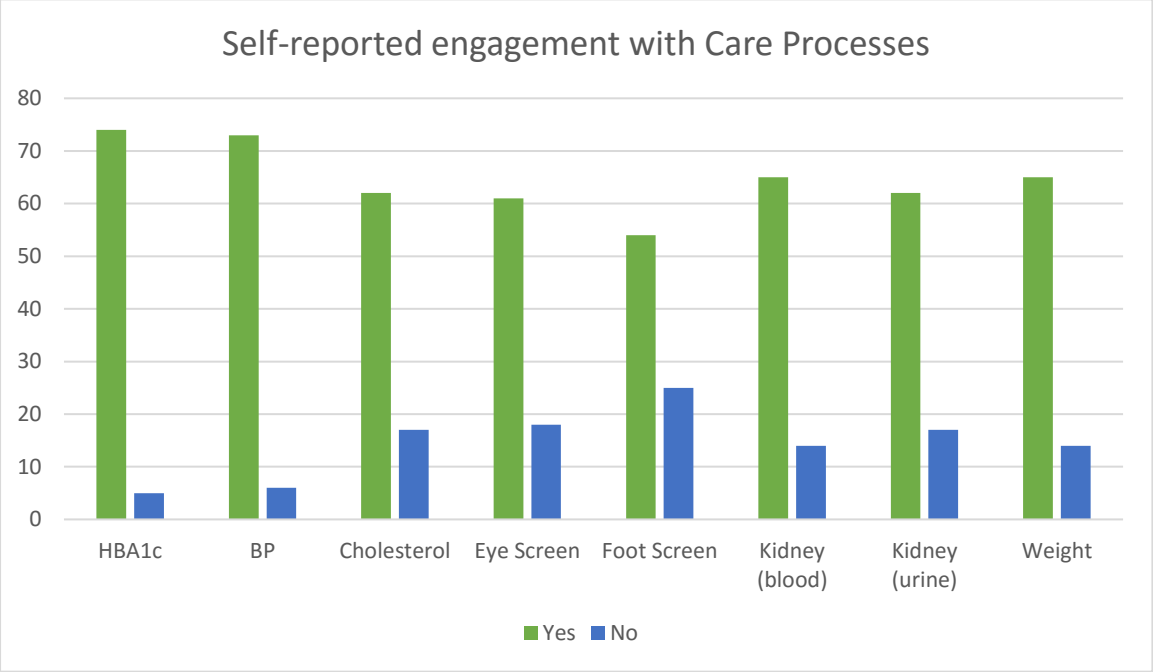


Figure 3

The table below shows how this compares with the "National Diabetes Audit" data 2012-13 (latest available publicly) for Wiltshire

Care Process	**% uptake self-reported for cohort 2015**	**% uptake reported for all ages in National Diabetes Audit 2012-13**
HBA1c	93.7%	93%
BP	92.4%	95.2%
Cholesterol	78.5%	92.1%
Eye Screening	77.2%	
Foot Screening	68.4%	86.8%
Serum Creatinine (Kidney)	82.3%	94.2%
Urine Albumin (Kidney)	78.5%	80.1%
Weight (BMI)	82.3%	90.1%

41 patients reported completing all of the Care Processes in the past 12 months

Figure 3 and the table above shows us that patients were most likely to know that their HBA1c and/or their blood pressure had been measured. Foot screening was the annual check least likely to be reported as completed.

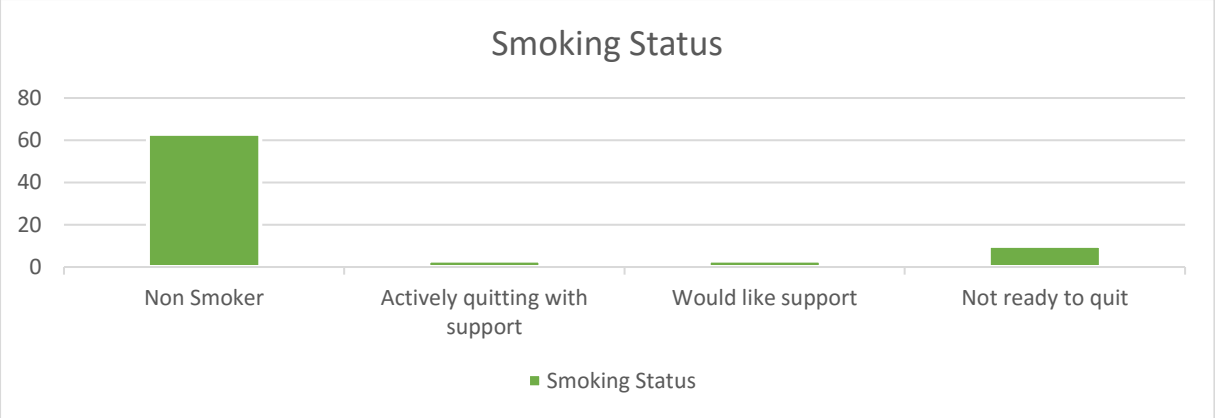


Figure 4

A smoking prevalence of 22% in the group (Figure 4) compares badly with a Wiltshire all age smoking prevalence of 16.7% (2015 Wiltshire Health Profile PHE)

Structured Training

13 patients reported that they had received structured training, however 5 individuals described this structured training in terms of either regular appointments or being given a booklet.

The structured training provision available in Wiltshire includes:

- DAPHNE
    - DAFNE is an educational course for managing type 1 diabetes, giving diabetic patients the necessary skills to administer the right amount of insulin for the amount of carbohydrate you choose to eat.
- DESMOND
    - DESMOND is the acronym for Diabetes Education and Self Management for Ongoing and Newly Diagnosed. It is part of a school of patient education for people with diabetes, developed by a number of NHS Organisations.
- XPERT
    - A course run by a Diabetes Nurse and Dietician over 4 x 3 hour sessions
- LIFT (no longer available)
    - A more generalised course, based on IAPT (Improved Access to Psychological Therapies) encouraging self-management of Long Term Conditions

2 individuals had attended DAPHNE, 2 had attended DESMOND, 3 Reported Group sessions at or with a nurse from the hospital, and 1 reported attending a “General Course”.

Of these 8 patients, 5 reported “actively managing their diabetes or lifestyle” to avoid the stated complications and were participating in all of the care processes. The remaining three did not appear to have been receptive to the training at the time.

Conversations with Patient's Representatives

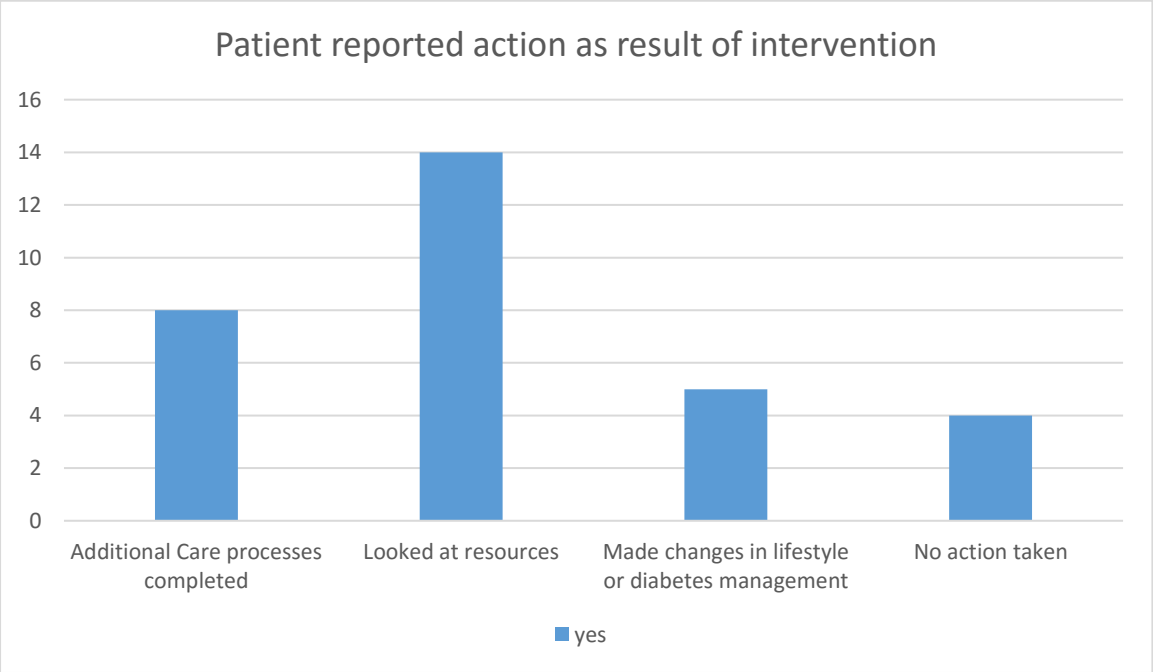
In 37 reported interactions with a representative collecting medicines on behalf of the patient, 23 of these were with a parent (across all age groups and mainly Type 1) and 11 with a partner (mainly patients age 30+). In 29 of these interactions, the representative and the member of pharmacy staff were happy to discuss complications (and therefore the reason for passing on information), however none recorded discussing the Care Processes.

Follow-up/Feedback

Of 26 patients questioned on follow-up, 16 (62%) stated that they intervention had been useful. 8 were not sure and 2 stated that it had not been useful.

Of the two, who stated that it was not useful, both were from parents. One was "not interested"; the other related to a 14 year old patient (outside of cohort range) and the parent considered the materials only relevant to those with Type 2 diabetes.

Only 4 respondents to the follow-up stated that they had taken no action as a result of the intervention.



While 15% of those asked on follow-up stated that they had taken no action at all following the intervention, 31% had completed additional Care Processes and 19% had made an active change in their lifestyle of diabetes management.

Perceptions of those providing the interventions

Two of the pharmacies who appeared most engaged with the project were asked for their feedback. This is reproduced below:

Pharmacy A (pharmacist)

I think I only gave 2 packs (from memory and it was about 9 months ago) to the actual patient. Both of these interactions I still remember as they were significant.

The first was a man in his early 20s who gives off the air of being a bit of a lad and not seeming to care about himself. The discussion we had was important, because whilst he was aware of the required 10 checks, he couldn't remember, and didn't have recorded, when they had last been done. In this respect the blue book was a perfect memory aid and nudge to keep focused on his care. We also had a discussion about stopping smoking and his alcohol use. He couldn't remember ever having his cholesterol checked so I prompted him to get this measured too. He also impressed me as to how interested in his diabetes he was and his understanding of the condition which changed my perception of him. To be honest, I was dreading the conversation as I was expecting an uninterested teenage/ twenty something male grunt in response!

The other patient who sticks in my mind is again in her early twenties but was totally unengaged. She had heard of some of the 10 annual checks but not all of them and had no idea if or when they had last been done. I warned of the dangers of not gaining tight glucose control in someone so young and the potential for complications. By the end of it, I feel at least she understood some of the importance of the checks and I signposted her straight to the surgery, blue book in hand, to see where she was with these checks. I have only seen her 2-3 times since then and I have not had any feedback from her. She is quite shy and withdrawn and I haven't wanted her to feel hounded by me. I guess this is something I should follow-up now we are 6-9 months later.

Overall, I found the handing of packs to representatives a bit too superficial; maybe my own fault? I wish I had said to representatives that I would like to call the patient in a few days to discuss the blue book in a little detail to get more out of the project. (this would have been more time consuming and therefore would have required more payment).

I was a bit disappointed that nearly all the interactions were with representatives and surprised at this.

Some of the representatives wanted to have a discussion and I ran through the contents of the blue book with probably about half of the people I handed them out to. Educating family members can sometimes be very useful as they can then nag their partners/ children to get these checks done.

The fact that a young diabetic was singled out for a bit of special treatment and education, I found was well received and didn't get any negativity from people. Someone said to me that it was nice that someone was taking an interest in their son's care which may highlight how this group of patients may be relatively hard to reach, especially men.

Discussion of Results

The brief intervention approach appeared to work successfully for those patients who were approached.

The feedback from pharmacy staff regarding patients not knowing whether particular blood tests have been done may explain some of the discrepancy between self-reported uptake of care processes and National Diabetes Audit data. The audit data is taken from GP records – if a check was done and in normal range the practice may not be routinely sharing this with the patient, or the patient may be unaware of the significance.

The proportion of prescriptions collected on behalf of the patient rather than by the patient demonstrates the difficulty of engaging with this cohort. Most especially notable was the proportion of prescriptions for Type 1 diabetes collected by the patient's parent, even when the patient is in their 20's, 30's or even 40s.

The project was partially successful in achieving its objectives. Although only 11% of the planned number of interventions were recorded, those interventions were correctly targeted towards a group of patients who are at significant risk of long term ill health, often have a poor understanding of their own self-management and are receptive to information supplied by their pharmacist

The numbers of interventions are related to pharmacy engagement and this will be discussed further below.

Pharmacy Engagement

Practical implementation of the intervention process and data recording within the pharmacies appeared to cause some issues which need to be investigated and resolved for future similar projects.

The recording process for pharmacies used the following templates on PharmOutcomes

Template	**Number of Active Pharmacies**	**Comments**
Resource Pack Request	27	Completion of this template recorded how the pharmacy had identified the number of eligible patients, and triggered an appropriate number of patient packs to be sent to the pharmacy. 464 packs were distributed to pharmacies on the basis of completing this template. 10 pharmacies completed this stage, but did not go on to register any patient specific detail

Patient Registration	26	This template was designed to allow recording of basic patient information in advance of the intervention, however it could also be filled in at the time of intervention 11 of the pharmacies completing this stage did not complete a resource pack request. Any pharmacy that went on to complete interventions must have obtained packs from another pharmacy that had requested them, but not gone on to use them
Patient Intervention or Representative Intervention	19	On average 37% of registered patients received a recorded intervention. This ranged from 3 pharmacies who recorded interventions on 100% of registered patients (indicating that registration was done at the time of interventions) 10 pharmacies who recorded between 50% and 78%; 6 pharmacies who recorded between 25% and 49% and 2 pharmacies who did not record interventions on any of their registered patients
Follow-up	5	

On follow-up with pharmacies during the project to encourage participation, a number of pharmacies reported that the patient packs had been provided to patients or their representatives, but that no record of the conversation had been made.

Pharmacists and staff members carrying out the initiative reported very positive conversations with patients who welcomed their interest.

Difficulty in engaging appeared to be related to how to implement the project within the pharmacy, identifying and "capturing" the patients when they collect prescriptions and then ensuring a record was made on PharmOutcomes. If this is at a time when the manager or a key staff member was not alert, the intervention did not occur or was not recorded.

Learning for future initiatives

- The intervention was generally successful and welcomed by patients and their representatives
- The reporting mechanisms on Pharmacy Patient Medication Record (PMR) systems are each very different and can be clumsy. Not all pharmacies found the process of identifying eligible patients through their PMR straightforward
    - Interrogation of patient records may be made easier in the future by a programme known as "Check 34" which enables analysis of dispensing data from priced prescriptions. This is likely to be available to pharmacies from September 2016 onwards.

- PMR systems do not appear to have a straightforward mechanism to highlight the need for an intervention at the next dispensing of medicines
    - Successful pharmacies relied on individuals being alert for appropriate prescriptions/patients when they presented
    - This can be unreliable if the “right person” does not identify the opportunity
    - Systems to resolve this are needed if more pro-active interventions are to be commissioned
- The positive reaction by relatives and patients must be noted; this was a well-received intervention with the potential for significant patient benefit if practical implementation issues can be overcome.