#### **GROUP CONSULTATION PILOT - RESULTS OF INDEPENDENT EVALUATION**

#### **Executive summary**

In 2016, six practices in Croydon took part in a pilot project to deliver 'group consultations' - one to one medical appointments delivered by a clinician to a group of patients with similar health issues in a supportive group setting. Practices were free to choose an area of interest and recruit their own patients; five chose diabetes and one COPD. Sixty patients were recruited, with 48 attending one of the first consultations and 29 one of the last.

#### **Key findings**

#### Patient acceptability was high

The vast majority of patients awarded the process top marks and would recommend to a friend. Patients scored all aspects of the consultations that were measured higher than for their usual care, finding them more relaxed and enjoying regular review of their health issues and medicines, being able to raise questions that mattered to them, and having more time with the doctor. More than half of diabetic patients said they would prefer the group consultations to their usual care. Patients reported liking meeting people with the same condition, learning from others' experience and knowledge, sharing experiences, and feeling something in common with others. Half of patients said they intended to keep in touch with at least one person from the group.

#### • There were major improvements in all aspects of patients' self-management

Large improvements were seen from baseline scores in all aspects of self-management including patients feeling supported by others with similar health issues, understanding their condition and their medications, feeling in control of their health, feeling health was their responsibility, and feeling that their health condition did not get in the way of their life.

#### • Major improvements in clinical outcomes witnessed for type 2 diabetic patients

The average reduction in HbA1c for diabetic patients was 7.1 mmol/mol; poorly controlled patients achieved twice this, at 13.2 mmol/mol. The model may be particularly effective for diabetics with poor control. COPD patients saw no improvement, with MRC dyspnoea scores remaining largely unchanged.

#### Staff acceptability was high, particularly amongst GPs

Almost every member of staff completing a follow up survey admitted to having reservations about the process at the start, and subsequently found it to be better than expected, expressing surprise that patients opened up and interacted well. There was some concern at the amount of administrative and preparatory time taken, but more than half felt the positives outweighed the negative and most would recommend group consultations to colleagues.

#### Cost effectiveness

The sole additional cost of delivery in Croydon was staff time, which diminishes after the initial time invested in training required to deliver the consultations. It is too early to conclude whether the process has or will have any impact on consulting behaviour.

#### Recommendations

- 1. Undertake further research to consolidate the findings regarding the impact of the pilot programme
- 2. Support practices to continue to develop group consultation programme for type 2 diabetics in Croydon
- 3. Explore and test improvements that address recruitment and retention problems going forward
- 4. Promote practice uptake by identifying and supporting local clinical champions of the group consultation process
- 5. Continue to build the knowledge base by evaluating all sessions
- 6. Fully evaluate any group consultations undertaken for health conditions other than diabetes before considering their suitability for spread: it cannot be assumed that group consultations work equally well in all long-term conditions.

#### 1. Introduction

The demands placed on the health service by a population growing in age and need is a complex problem that demands new solutions. In 2016, Croydon Clinical Commissioning Group piloted a new approach, the group consultation process, following training from the Experience Led Care Programme (ELC). This report summarises the findings of independent evaluation of this pilot programme, and was commissioned by the CCG.

#### What is a group consultation?

Hailing from the United States, group consultations – also called shared medical appointments or group appointments – occur when several patients living with the same condition have one to one medical appointments delivered by a clinician. Consultations are informal, supportive and relaxed, and last for between 90 minutes and two hours. The clinician consulting with the group makes the decision on which patients to invite.

Although there are different models of delivering group consultations, the model in which Croydon primary care staff received training involved three key staff in delivering a series of four group consultation sessions<sup>1</sup>, roughly one a month, following training. The staff required to run the sessions in this model are a clinical expert – a GP or nurse - who is required to spend around 45 to 60 minutes with up to 12 patients at a time consulting with them about their medical condition, a process facilitator, whose role is to support the clinical expert, 'hold the space' and manage group dynamics, and a coordinator, who manages the administration relating to the programme. Other key features of group consultations are that health tests are undertaken in advance and results displayed to the entire group to aid comparison.

#### Why undertake group consultations?

Group consultations offer potentially large time savings for clinicians since the model involves the clinician spending around 45 minutes to an hour with up to 12 patients, compared to the 120 minute equivalent of each patient being given a ten minute appointment. As well as offering potential time savings for clinicians, a main aim of the group consultation process is to empower patients by allowing them the time and space to explore their condition in more depth. A further potential benefit of the group consultation approach, therefore, is that it can address some of the limitations of existing primary care provision.

Research by Fischer (2012), cited by the Health Foundation, concludes that:

"Patients fail to take in much of the information that is given to them due to the lack of time for reflection during the consultation and the pressured environment in which it takes place."

<sup>&</sup>lt;sup>1</sup> Early group consultation programmes consisted of six sessions

By empowering patients to develop a better understanding of, and control over, their condition, increasing 'patient activation' or self-management, group consultations have the potential to further reduce reliance on the health system.

#### What is the evidence base?

New consultation types and support for self-care are two of the ten high impact actions identified in the GP Forward View (April 2016), aiming to release capacity for primary care. To date, much of the research around the specific new consultation type of group consultations hails from the US, with much of the UK based evidence being largely anecdotal. The evidence that does exist has been mixed, and tended to avoid patient or staff acceptability: a systematic review (Edelman et al, 2012) found no assessment of staff acceptability and only two trials describing the effects on patient experience; neither demonstrated greater satisfaction for group consultations over usual care. Both patient and staff acceptability are key:

"(I)mplementation of SMAs<sup>2</sup> will not succeed if either patients or providers are unsatisfied with the new structure, and effects on patient and staff experience remain largely unknown." (Edelman et al, 2012)

Since this review was published, an American study focusing on patients with pulmonary hypertension (Rahaghi et al, 2014) reported that 98% of patients awarded the process a score of 'excellent' or 'very good' but did not look at staff perspectives. An Australian study (Eggers et al, 2015) focusing mainly but not exclusively on type 2 diabetes reported high levels of patient satisfaction with, for example, type 2 diabetes patients awarding the process an average of 4.55 out of 5 or 91%. The study also reported that all eight clinicians involved expressed support for the process, despite initial reservations. Whilst encouraging, good quality research is needed in the UK to investigate whether the group consultation model is as appealing in this country's health setting.

Research has also looked at clinical outcomes and impact on hospital usage. Follow up times have ranged from four to 48 months, and results have been mixed. The above mentioned systematic review (Edelman, 2012) identified ten randomised controlled trials and two observational studies of shared medical appointments. Although an association was found between shared medical appointments and decreased total or LDL cholesterol, none of the studies found statistically significant results. Two of the three observational studies did find statistically significant reductions from baseline to follow up in terms of A1c, however, only one of these (Kirsch, 2007) compared this change with a control group. Without comparison with a control group, it is clearly not possible to ascertain whether any clinical benefits would have been achieved without the intervention, and with usual care.

Shared medical appointments have been associated with improved blood pressure control, with much better consistency across studies than other biometric measures. One of three observational studies found a statistically significant pre- to post change in systolic blood pressure for the group consultation

<sup>&</sup>lt;sup>2</sup> Shared Medical Appointments

participants compared to a control (-14.93 mmHg compared to -2.54 mmHg, p=0.04). However, other studies have not found statistically significant differences. In terms of impact on hospital usage, each of five studies that looked at the effects of this approach on hospital admissions reported lower admissions, but not at a level that would be statistically significant.

The research in this area also shows that shared medical appointments have been associated with large improvements in quality of life scores.

#### 2. Methodology

A major priority for this evaluation was to investigate both patient and staff acceptability which, as was noted above, has been neglected in previous research. Additional areas of investigation included evidence of any improvements or otherwise in patient's self-management skills as well as their clinical outcomes. The main research methods used were pre- and post-intervention surveys (for patients), a post-intervention electronic survey (for staff), observation, and comparison of clinical measures provided by staff before and after the intervention.

#### 2.1 Patient survey

Baseline surveys were designed and distributed by practice coordinators to every patient present at the first group consultation, using a script to introduce the purpose of the surveys and encourage completion. Follow up surveys were designed and given to all patients attending the final group consultation session, either by the practice coordinator or by the researcher.

#### - Patient acceptability and satisfaction

Patients completing the follow up survey were asked to rate the overall process, comment on what, if anything they liked most or least about it, highlight a single benefit, and indicate whether they would recommend the process to a friend. Additional questions relating to patients' views regarding aspects of their current health care were also incorporated into the baseline questionnaire and compared with identical questions in relation to the group consultation process at follow up, in order to aid comparison between usual care and group consultations. These included: time with the doctor, views on whether consultations were relaxed and enjoyable, the extent to which medications were reviewed and followed up, and being able to raise questions that mattered.

#### - Patient self-management skills

It was initially hoped that a relatively new tool called the Patient Activation Measure (PAM) could be incorporated into this evaluation. Validated in the United States, the tool measures people's skills, knowledge and confidence to manage their own health and is beginning to be used in the NHS. However, at the time of this project commencing, the tool was still being tested in the United Kingdom and permission to use this was not granted. As such, a survey was designed to incorporate measurement of a number of aspects of self-management before and after patients had attended the group consultations. These included measurements of the extent to which patients felt they understood

their health condition, felt in control of it, understood their medications, considered health to be their responsibility, felt that their condition did not get in the way of their life, and felt supported by others. Patients were asked at baseline and follow up to rate their agreement with a series of statements on a scale and responses were compared.

#### - Patient achievements

A central tenet of the group consultation approach is that patients are encouraged to set individual goals early in the process and follow this up. As this is key part of the evaluation undertaken by ELC and there was no desire to duplicate this work, the follow up survey that was designed restricted its enquiry here to whether or not the patient had set goals, and the extent to which they had achieved these, if at all.

#### 2.2 Staff survey

To minimise commitments on staff time, a post-intervention design was used in favour of the pre- and post design used with patients. The key staff involved in the process as coordinators, facilitators or clinical experts were sent an electronic survey immediately following the final consultation and asked for consent to a further telephone conversation. Two further reminders were sent to those not responding.

#### - Staff acceptability

The survey enabled staff to give their views on any positive or negative impacts of the process on both patients and the practice as a whole, report any reservations they had and whether the process had been better or worse than anticipated, highlight any issues in terms of recruitment or facilitation, describe anything that surprised them and anything they would do differently. Finally, the survey asked staff whether they would recommend the process to others, both for the condition chosen and for other conditions, and give their reasons.

#### 2.3 Staff follow up telephone conversations

Those that consented were offered a brief follow up telephone interview to capture any additional comments regarding the group consultation process and their experience of the model. Three attempts were made to contact staff providing details if early attempts proved unsuccessful.

#### 2.4 Observation of group discussions

Additional observations of patient interaction and behaviour was obtained from observation of the group discussions. The main purpose of the observations was to supplement information given by individual patients in the survey and observe patient interaction as well as staff engagement in the process.

#### 2.5 Clinical changes

Appropriate clinical outcomes and proxies were agreed in advance with commissioners; HbA1C was the agreed proxy for patients with type 2 diabetes and MRC dyspnoea scores for patients with COPD.

#### 3. Results and discussion

Six practices were recruited to take part in the group consultation pilot, four in the Thornton Health area, and two in South Norwood. Practices were able to select a chronic health condition on which to focus: five chose to focus on type 2 diabetes, and one on COPD. The first practice to commence opened its doors to its first group consultation patients in June 2016, and all practices had completed the four session programme by mid December 2016.

Patient surveys were successfully undertaken in all practices and staff surveys were sent to all staff involved. The initial intention of observing one group discussion for each of the six practices did not prove possible when one practice was forced to cancel a consultation at the last minute due to staff sickness. As such, observation by the primary researcher took place in five of the six practices. An additional observation was carried out by the commissioning General Practitioner.

#### 3.1 Attendance and attrition

The six practices involved in the pilot recruited a total of sixty patients to the first group consultation sessions. Of these, 48 patients attended session 1, an 80% attendance rate. These numbers gradually declined over sessions 2 and 3, with 50% of those attending session one still in attendance by session 3. At session 4, the final session, numbers increased slightly, representing 60% of the original attendees (see Figure 1.)

Figure 1: Overall attendance and attrition of group consultation patients

### 60 patients

booked on

48

attended session 1

31

attended session 2

24

attended session 3

29

attended session 4

The practices were provided with guidance around best practice in recruiting patients to attend. This included the need for the clinician to invite people personally, which has been shown to increase

successful recruitment. The Royal College of General Practitioners<sup>3</sup> report that, certainly in the US, responses to invitations have reached 90% if received from a doctor, 50% from a nurse, and 10 to 20% if received from administrative staff.

Some practices found it more difficult to recruit and retain patients than others. For example, in one practice, seven of the eight patients booking onto session one attended the first session as well as the last, with five of these attending all four sessions. At the other extreme, a practice which attracted an impressive eleven people to its first session had lost more than 90% of these by the third session, where only one person attended, and attracted only two more to the final session. It is unclear whether the best practice guidance provided was followed and adherence to best practice guidance was not a measure applied in this study. None of the practices came close to recruiting or retaining the optimum twelve patients recommended by ELC.

#### 3.2 Demographics of patients attending at least one session

The average age of those attending the sessions was 67. The youngest attendee was 45 and the oldest 90. In terms of gender, 60% were female and 40% male. In terms of ethnicity, a good ethnic mix was achieved, nearly two fifths of attendees (37%) were African or Caribbean, just over a third (35%) were white British, and one in four (19%) were Indian or Pakistani, with the rest preferring not to say. However, when compared to census statistics for the wards in which consultations took place, there was an overrepresentation of patients who were white British, and an underrepresentation of black African and Caribbean patients in particular in the two practices situated in South Norwood (see Table 1.) Conversely, in the four practices in the Thornton Health area of Croydon, there was a slight overrepresentation of both Black African and Caribbean patients as well as patients of Asian origin, and an underrepresentation of patients reporting that they were white British (see Table 2.) However, differences were not as stark as in South Norwood.

Table 1: Comparison of ethnicity of patients attending group consultations with census data – South Norwood

| ETHNICITY                  | PATIENTS ATTENDING GROUP<br>CONSULTATION (SOUTH<br>NORWOOD) | CENSUS STATISTICS<br>(SOUTH NORWOOD) |
|----------------------------|---|--------------------------------------|
| White British              | 81.25%<br>(13)  | 47.70%                               |
| Black African or Caribbean | 6.25%<br>(1)  | 32.70%                               |
| Asian                      | 6.25%<br>(1)  | 9.40%                                |
| Prefer not to say          | 6.25%<br>(1)  |                                      |
| TOTAL                      | 100%<br>(16)  |                                      |

 $<sup>^3</sup>$  http://www.rcgp.org.uk/clinical-and-research/bright-ideas/shared-medical-appointments-in-the-uk-dr-rob-lawson.aspx

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Table 2: Comparison of ethnicity of patients attending group consultations with census data – Thornton Heath

| ETHNICITY                  | PATIENTS ATTENDING GROUP CONSULTATION (THORNTON HEATH) | CENSUS STATISTICS<br>(THORNTON HEATH) |
|----------------------------|--|---------------------------------------|
| Black African or Caribbean | 51.51%<br>(17)   | 42.79%                                |
| Asian                      | 27.27%<br>(9)  | 13.57%                                |
| White British              | 12.12%<br>(4)  | 32.84%                                |
| Prefer not to say          | 9.09%  |                                       |
| TOTAL                      | 100%   |                                       |
|                            | (33)   |                                       |

#### 3.3 Patient acceptability

A number of factors were measured at baseline (prior to the first group consultation session starting) and then again at follow up (immediately following the final session.) With one exception, all patients attending their first group consultation session completed a baseline questionnaire (47 of the 48), representing a 98% initial response rate. An additional survey was completed at the second session by a patient missing the first consultation, creating a baseline sample of 48 patients.

At follow up, surveys were returned by 28 of the 29 attendees of the final session, again an excellent initial response rate of 96%. Attempts made to encourage the small numbers who were not at the final session but who had attended three of the four sessions to complete and return a questionnaire, with limited success.

#### Patient satisfaction

Patients were asked to rate the process out of five. The average final score was 4.48 or 90%. Most patients (62% or 18 of 29) gave the process the top rating of five out of five, and a further 28% (8 of 29 patients) awarded four out of five. Two patients gave the process three out of five, one citing that they were not happy with their results being shared with others, and another patient, who stated only that they had 'trouble listening' awarding two out of five.

#### Likelihood that patients would recommend group consultations to a friend

With the exception of one person - one of the patients scoring the process 3 out of 5 - who indicated that they were 'not sure', every other patient responding to this question (28 of 29 or 97%) agreed that they would recommend the group consultations to other patients.

#### Comparison of baseline and follow up scores for specific aspects of care

Patient satisfaction with regards to specific aspects of the consultations compared to usual care was measured by comparing the scores given at baseline to those given at follow up for those 29 patients

completing the final evaluation surveys. Box 1 gives further details of the methodology used to compare the changes in scores.

Each aspect measured showed a positive improvement from baseline (see Table 3). On average, patients moved around two points along the scale in a positive direction. The largest improvements were seen for finding consultations relaxed and enjoyable and reporting that health issues and medication were reviewed regularly. However large, positive changes were also seen in the patients' ratings for raising questions that mattered to them, and amount of time with the doctor.

# Box 1: Methodology used to compare scores awarded for specific aspects of care before and after consultation process

The following scores were allocated to patients' responses at baseline and follow up:

Strongly agree 5
Agree 4
Not sure 3
Disagree 2
Strongly disagree 1

The lowest possible score was 1 (for strongly disagree) and the highest possible score was 5 (for strongly agree), therefore the highest possible change for each patient was +4 (moving from strongly disagree to strongly agree) or -4 (moving the opposite direction.

To assess changes at follow up, baseline scores were subtracted from follow up scores for each patient. These scores were then aggregated and divided by the total responses to give an average. To give the overall distance travelled for each question, aggregated scores were divided by the total possible change (4) multiplied by number of responses.

Table 3: Comparison of satisfaction scores at baseline and follow up

| Statement measured before and after group consultation          | Average | Distance travelled |
|---|---------|--------------------|
| process   | change  |                    |
| Consultations are relaxed and enjoyable                         | +2.2    | 55.2%              |
| Health issues/medicines reviewed regularly; patient followed up | +2.2    | 53.8%              |
| Able to raise the questions that matter                         | +2.1    | 51.8%              |
| Enough time with doctor <sup>4</sup>                            | +1.9    | 46.9%              |

<sup>&</sup>lt;sup>4</sup> As one practice did not involve doctors in the group consultation, this question was only asked of patients indicating that a doctor was involved in facilitating.

#### What patients liked most

Asked what, if anything, they liked most about the group consultations, the common themes to emerge were the discussions and learning. Many patients were not particularly specific about which aspects of the discussions they liked or whether the learning came more from interactions with clinicians or other patients and simply wrote 'the talks' or 'discussion.' However, where they did, it was common for them to mention that they liked meeting or simply 'being with' people with the same condition, being able to 'open up', learning from the experience and knowledge of other members of the group, sharing their own experiences, and feeling something in common:

"I got to know other people with the same condition and...to learn about their personal experiences... an excellent idea by the surgery. These sessions were really informative." "Makes you feel less different and helps you realise lots of people are going through the same."

"Other people have similar problems as I have."

"Socialising with other people with same condition and learning you are all in a similar situation."

Observation of a small number of group discussions suggested that even where individuals appeared not to be interacting at all, they reported feeling the benefit of being in a group and listening to other people. This was particularly noticeable with an all-male group of three, where each male chose to sit some distance from the other and tended to drop their eyes or scroll through their phone when another was talking. It emerged in the final session that two of the three men had lost their wives, however there was no apparent acknowledgement by the men of the other's experience nor attempt to stay in contact. All three, however, awarded the process top marks, with one describing it as 'therapy.'

The interaction with other patients was a key part of the experience for patients. Where a group had cleared 'gelled' and was working well together, patients supported and motivated each other. For example, in one final session that was observed, patients were debating the benefits of going on to join a follow on exercise based group which was being actively promoted by the facilitator. A member of the group who already attended, a younger male, was able to answer questions from group members in terms of what it entailed, and was enthusiastic about it, stating that 'It's over before you know it' and that he had started to feel the benefits quickly. Another patient, an older female, was clearly still hesitant, nervous about what it entailed and whether she would be able to participate. She was, however, persuaded to commit to it both by the positive encouragement of the facilitator and of another member of the group - a female of a similar age:

'Go on, we'll be a gang!'

'It's six weeks - you can do it.'

Pause.

'Alright, you've talked me into it.'

It was clear from the comments made in the surveys that some patients gained from the presence of specific people in the group, such as those who were more advanced in their condition or knowledge, or those who were making good progress:

"Being with others with the same condition, especially if they are at different stages to you."

"It has definitely been an invaluable experience meeting people who feel positive re being in control of a condition as a result of concerted efforts in their lifestyle changes."

This was also reinforced in the observations of the group consultations, where in at least three of the five group discussions observed by the researcher there was an obvious 'expert' patient who often used their knowledge and experience to motivate others in the group about the changes made. The existence of a 'star pupil' was often pointed out to the researcher in advance of the observation by one of the facilitators, excited at the progress made and the impact of the individual on the others in the group. One was the male cited above, who explained how increasing his physical activity had made more difference than any medication that he had tried. In another observed session, a female patient stood out as someone who was particularly knowledgeable and who had come to the group sessions less for her own purposes and more to pass her experiences on, and was indeed keen to continue her involvement in the groups and act as a peer mentor, particularly within her ethnic minority community. During the final session, another female in the group of a similar age openly praised her for what she had taught her about the condition.

Some patients used the evaluation survey to specifically cite their beneficial interactions with the doctor or nurse:

"The time taken by the doctor to see me."

"Having group discussions with the doctors regarding any concerns/issues I may have." Others were clear that they benefitted from both:

"Learning from each other, as well as the nurse and doctor."

"Learning from other patients, the open discussions with the clinician."

Observing some of the group discussions, particularly the final sessions, suggested that very strong relationships seemed to have been developed between staff and the attending patients. Often at the final sessions, patients were reluctant to leave and conversations continued, with patients asking staff their views, or staff voluntarily offering these and speaking of the process in highly positive terms. In one final session in particular, the doctor spoke passionately of feeling pride in the patients' achievements and shared some of his own personal story, giving the impression that the doctor-patient relationships were very strong and that a close bond had been developed. In another, a facilitator spoke of how much she had learned from the patients themselves. Staff were not positive in all sessions. In one practice, a member of staff was vocally extremely negative about the impact of the group consultation model on staff time, just as patients were about to fill in their evaluation questionnaire.

#### Most significant benefit

Patients were also asked what they would choose, if they had to pick a single benefit experienced from attending the sessions. Some of the earlier themes were repeated here, such as meeting and being in a group with others and hearing their experiences, and recognising commonalities. Others gave specific examples of what they had learnt about their condition. For example, COPD patients mentioned learning: not to panic when breathless; how to use inhalers, and that a dry mouth was normal. Several diabetic patients used the word 'control,' stating that they were now taking control of their diabetes, their health, or their lives. Three patients also mentioned the changes in lifestyles that the consultations had inspired, with one losing weight and reducing their cholesterol through going on to join Weight Watchers.

Observing the group discussions, particularly the final sessions, provided the opportunity to hear more detail about some of the changes that patients had made. Some patients attending the final sessions described having 'life changing' experiences:

"Has changed my life a lot. I used to be down and depressed. Thank God, since we started this new style, it has made a very big difference in my life. I am now confident and relaxed."

"This opened my eyes. Let's hope it carries on so other people can get the benefit we have."

#### What patients liked least

Asked what, if anything, they liked least about the group consultations, the most common response, made by 15 patients, was 'nothing' or 'not applicable', with some going on to state 'I enjoyed every minute of it.' Even some of those patients who preferred usual care from their doctor felt there was nothing about the process they disliked.

Of the small number that did write comments, the only comment that was mentioned more than once was the time or timing of the sessions – it being too late or clashing with the school traffic. One patient commented on the non-attendance by others; another that it was 'too short' - presumably referring to the number of sessions as a later comment from the same patient suggested that they would like it to be run three times a year. Finally, one patient noted that she was uncomfortable with

"(S)haring my health stats, however I overcame this and decided this was a motivation to improve my stats."

This particular patient had already written a letter to the practice about this issue, which she was keen for me to see and use further in the evaluation:

"I did feel a little uncomfortable to see my name and medical statistics relating to my condition up on the wall for everyone to see. I did point out how I felt at the session, surprisingly quite a few patients said they thought it was useful to see the comparisons to spur them on to improve their own statistics...The group has requested the BMI for the next session. I conceded the point and I am now determined to lose some more weight to get an acceptable BMI. In view of this, I suppose the 'naming and shaming' is working."

The patient went on to suggest that in future, patients are warned that this will happen and to confirm that she wished to continue attending." ELC have already addressed this point given similar feedback in other areas.

#### Patient preferences - group consultations or usual care?

Patients were asked whether they preferred the group consultation approach or their usual care.

The question deliberately encouraged respondents to choose one or the other, although a third option of 'unsure' or 'other' was also provided as it was anticipated that some patients might be unable to choose, or indicate they preferred a combination. Most patients were prepared to opt for one or the other, and slightly more patients indicated that they preferred group consultations over usual care for their condition (see Table 4a.) After a maximum of just four sessions, this would seem encouraging.

Table 4a: Patient preferences going forward

| Thinking about your usual GP care for this medical     | Number | Percent |
|--|--------|---------|
| conditionwhich do you prefer?                          |        |         |
| On the whole, I prefer the group consultations         | 12     | 42.9%   |
| On the whole, I prefer the usual care from my practice | 10     | 35.7%   |
| Not sure/other   | 6      | 21.4%   |
| TOTAL  | 28     | 100%    |

One in four patients were unsure or ticked 'other' and were asked to add further information. Only two opted to do so, one stating that they "...would prefer both 121 sessions and group consultations," the other that "The group sessions were valuable but at times a 121 with the doctor is better."

The sample size was too small to allow further analysis, for example, to compare whether preferences were associated with age or gender. However, it was apparent that only one patient attending the COPD

consultations preferred these to usual care for this condition. Table 4b shows the effects of removing responses from COPD patients and just including diabetic patients. Nearly twice as many patients preferred group consultations to usual care.

Table 4b: Patient preferences going forward - Diabetic patients only

| Thinking about your usual GP care for this medical     | Number | Percent |
|--|--------|---------|
| conditionwhich do you prefer?                          |        |         |
| On the whole, I prefer the group consultations         | 11     | 52.4%   |
| On the whole, I prefer the usual care from my practice | 6      | 28.6%   |
| Not sure/other   | 4      | 19.0%   |
| TOTAL  | 21     | 100%    |

#### 3.4 Patient achievements

Just over three quarters of patients completing a final questionnaire (76%) reported that they had set goals at the start of the process. Most of those who had not were from one practice. Of those that had, 95% reported that they achieved all or some of these (see Table 5.)

Table 5: Self-reported achievement amongst those setting goals

| To what extent did you achieve personal goals set? | Number | Percent |
|--|--------|---------|
| I achieved all or most of the goals I set          | 8      | 36.4%   |
| I achieved some of my goals I set                  | 13     | 59.1%   |
| I didn't achieve any of my goals                   | 1      | 4.5%    |
| TOTAL  | 22     | 100%    |

Observation of group consultations suggested that few if any patients retained or completed the progress booklets distributed to patients to complete each week, and this was confirmed as one of the challenges facing the process in the 'lessons learned' exercise facilitated by ELC.

#### 3.5 Patient self-management

Having considered patient acceptability and achievements, this section will now look at evidence of any improvements in patients' management of their health condition. As noted above, comparison of and changes from baseline to follow up was available for 29 of the 48 patients involved in the process in some way.

As with patient perspectives of specific aspects of care previously, each of the areas of self-management measured at follow up showed an improvement from baseline (see Table 6.) The largest improvements were in patients feeling supported by others with similar health issues and understanding

their medication. On average, patients moved an average of two points or more across a four point scale, in a positive direction. Large improvements were also witnessed for feeling in control of health and taking personal responsibility for health.

Table 6: Comparison of self-management scores at baseline and follow up5

| Statement measured before and after group consultation process | Average<br>change | Distance<br>travelled |
|--|-------------------|-----------------------|
| "I feel supported by other people with similar health issues." | +2.2              | 55.8%                 |
| "I understand what each of my prescribed medications do."      | +2.1              | 52.7%                 |
| "I feel in control of my health."                              | +1.8              | 44.6%                 |
| "My health issues are my responsibility."                      | +1.8              | 44.6%                 |
| "My health issues do not get in the way of my life."           | +1.5              | 38.4%                 |
| "I have a good understanding of my health condition."          | +1.2              | 29.5%                 |

#### 3.6 Patient intentions going forward

Patients were asked, in the follow up survey, how strongly they agreed or disagreed that they intended to stay in touch with at least one member of the group. Half (14 patients) agreed that they would, with nearly two fifths (eleven patients) agreeing strongly (see Table 7.) Many of the remaining half indicated that they were unsure, rather than they were in disagreement with this, perhaps indicating that they were unsure if their interest in staying in touch would be reciprocated.

Table 7: Proportion attending to stay in touch

| l intend to stay in touch with at least one person from the group | Number | Percent |
|---|--------|---------|
| Strongly agree  | 11     | 39.3%   |
| Agree   | 3      | 10.7%   |
| Not sure  | 9      | 32.1%   |
| Disagree  | 4      | 14.3%   |
| Strongly disagree   | 1      | 3.6%    |
| TOTAL   | 28     | 100%    |

#### 3.7 Clinical outcomes

Given the mixed bag of evidence around clinical outcomes from the research evidence, and the fact that follow up was taking place at only four months, improved clinical outcomes had not been considered

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<sup>&</sup>lt;sup>5</sup> Methodology used same as in Box 1

to be a primary area of investigation for this evaluation. Even if improvement were detected in four months, the lack of scope for a control group meant that it would not be possible to ascertain whether any clinical benefits would have been achieved without the intervention, and with usual care. However, given that practices were recording clinical measures before and after the intervention, it was agreed that comparison of HbA1C would be made for diabetic patients, and of MRC scores for COPD patients. Pre- and post-consultation MRC scores were available for six patients, all of whom had attended at least two group consultations. As Table 8 shows, virtually no changes to scores were witnessed.

Table 8: MRC dyspnoea scores before and after the group consultation process; COPD patients

|           | MRC score pre group consultation programme | MRC score post group consultation programme | Change |
|-----------|--|---|--------|
| Patient 1 | 3  | 3   | 0      |
| Patient 2 | 4  | 4   | 0      |
| Patient 3 | 3  | 2   | -1     |
| Patient 4 | 3  | 3   | 0      |
| Patient 5 | 4  | 4   | 0      |
| Patient 6 | 4  | 4   | 0      |

The results for diabetic patients were much more interesting. Two measurements of HbA1C, one immediately before and one after the group consultation programme, were available for 29 patients. Table 9 shows these ranked by HbA1C level at the start of the process, alongside any changes, and categorises these according to level of control over the diabetic condition.

Several factors were immediately clear. Firstly, more than half the patients coming into the group consultation process (18 of 29) were poorly controlled diabetics at baseline and several of them were extremely poorly controlled, with HbA1C levels over 100 mmol/mol. Seven were controlled diabetics, and a further four were at the pre-diabetic stage. Secondly, in terms of changes made, just over half (16/29) improved their HbA1c score from the beginning to the end of the group consultation process. Of these, five successfully moved from being poorly controlled to controlled – the three biggest changes all coming from one practice. The average improvement overall was a reduction in HbA1C of 7.3 mmol/mol, but for poorly controlled diabetics it was nearly double this, at 13.2 mmol/mol. These are major changes, particularly when considered in relation to the diabetes drug, Metformin, where estimates from trials suggest that it lowers HbA1C by 1- 2%. <sup>6</sup>

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<sup>&</sup>lt;sup>6</sup> Hirst J et al, (2012) Quantifying the Effect of Metformin Treatment and Dose on Glycemic Control. Diabetes Care 35(2): 446-454. <a href="https://doi.org/10.2337/dc11-1465">https://doi.org/10.2337/dc11-1465</a>

Table 9: HbA1c scores before and after group consultation process (mmol/mol)

| Number | Pre- consultation | Post- consultation | Change |
|--------|-------------------|--------------------|--------|
| 1      | 122               | 83                 | -39    |
| 2      | 119               | 50                 | -69    |
| 3      | 116               | 116                | 0      |
| 4      | 111               | 88                 | -23    |
| 5      | 103               | 93                 | -10    |
| 6      | 103               | 89                 | -14    |
| 7      | 82                | 69                 | -13    |
| 8      | 81                | 82                 | 1      |
| 9      | 81                | 67                 | -14    |
| 10     | 78                | 78                 | 0      |
| 11     | 78                | 52                 | -26    |
| 12     | 72                | 62                 | -10    |
| 13     | 71                | 56                 | -15    |
| 14     | 69                | 72                 | 3      |
| 15     | 68                | 69                 | 1      |
| 16     | 67                | 71                 | 4      |
| 17     | 60                | 52                 | -8     |
| 18     | 59                | 54                 | -5     |
| 19     | 56                | 57                 | 1      |
| 20     | 55                | 49                 | -6     |
| 21     | 54                | 54                 | 0      |
| 22     | 54                | 54                 | 0      |
| 23     | 50                | 49                 | -1     |
| 24     | 50                | 65                 | 15     |
| 25     | 48                | 53                 | 5      |
| 26     | 47                | 46                 | -1     |
| 27     | 45                | 39                 | -6     |
| 28     | 44                | 46                 | 2      |
| 29     | 43                | 59                 | 16     |

POORLY CONTROLLED DIABETES

**CONTROLLED DIABETES** 

**PRE-DIABETES** 

Thirdly, however, not all patients improved over the group consultation process period. Four patients remained unchanged and eight got worse, with one of these moving from being a controlled to a poorly controlled diabetic, and another (in the practice which also experienced the three best results) from being pre-diabetic to poorly controlled.

As was stated earlier, in the absence of a control group, and with such a small sample, no conclusions can be drawn about the above results and their association with the group consultation model. Similar results may have been achieved by these same patients attending routine GP appointments. However, further research could compare the results with, for example, a sample of diabetic patients, matched for age, gender and diabetic control, as well as to extend this evaluation to cover more practices that may undertake group consultations for type two diabetes. Evaluation of a larger sample of patients would also enable sub-group analysis on controlled and poorly controlled patients in order to investigate whether there is any further evidence for targeting the model towards a particular type of diabetic patient. If these results were reproduced in larger studies, these findings suggest there may be major gains for practices in targeting the group consultation model at poorly controlled diabetics in particular.

#### 3.8 Staff acceptability

This section considers the perceptions of staff regarding the group consultation process.

A total of 21 staff were identified by the practices themselves as having been involved in some way in the group consultation process across the six practices. Practices were notified in advance that a staff survey would be administered at the end of the process to capture the staff perspective. Each staff member was sent a link to an electronic survey immediately after the final consultation session in their practice. Those that did not complete the survey were sent up to three reminders before the survey was closed. A total of 16 staff responded (see Table 10), representing a 76% response rate. Six had the role of clinical expert, six of facilitator and four of coordinator. In general, GPs acted as the clinical expert, nurses as the facilitator, and administrators as the coordinator. Very few staff agreed to a follow up interview, and of those that did, many were uncontactable after three attempts.

Table 10: Job roles of staff survey respondents

| Job title              | Received survey | Completed survey |
|------------------------|-----------------|------------------|
| GP                     | 5               | 4                |
| Nurse                  | 4               | 3                |
| Assistant Practitioner | 1               | 1                |
| HCA/Senior HCA         | 4               | 3                |
| Administrator          | 8               | 5                |
| TOTAL                  | 21              | 16               |

#### Reservations

Staff were asked whether, looking back, they had had any reservations about the process. Only one member of staff reported having no reservations at all prior to the commencement of the process. Thirteen admitted to having 'some' reservations and two had 'many' reservations.

Staff were asked to indicate from a pre-determined list of reservations which, if any, applied to them. The biggest reservation by far was that patients would be unlikely to attend. The next most common reservations related to time: time taken to find out about the process, the time taken to deliver the consultations, and administrative time (see Table 11.) No other reservations were indicated.

Table 11: Staff reservations regarding the group consultation process

| Possible reservation                     | Number |
|--|--------|
| Patients unlikely to attend              | 14     |
| Time taken to find out about the process | 8      |
| Time taken to deliver the consultations  | 8      |
| Administrative time                      | 8      |
| Patients unlikely to benefit             | 4      |
| Too complicated                          | 3      |
| Other                                    | 0      |

The overwhelming majority of staff (12 out of 16) felt that the experience was 'better than they expected.' Four felt that the experience was 'much as they expected.' No-one indicated that their experience was worse than expected.

#### Staff perceptions of patient experience

Staff were asked an open-ended question regarding what, if anything, they considered to be the main **benefits** to patients. The most common type of benefit cited by staff was meeting with and learning from the experience of others with the same condition, which almost all respondents mentioned in some way. Examples included getting tips and ideas, sharing problems, supporting each other and realising others were in the same position and they were not alone.

Only one member of staff mentioned spending more time with the doctor as the main benefit, although another felt that the key benefit from this approach was that it provided the opportunity for patients to 'ask the questions that they thought were too small to bother the doctor about or forgot to ask the doctor at their appointment.'

Another cited that results had improved as the main benefit for patients.

Staff were asked an open-ended question regarding what, if anything, they considered to be the main **negative impacts** on patients. The most common response, from more than half of the staff responding, was that there were none, or these were 'not known' or not mentioned by patients. A smaller number of staff cited the following negative impacts:

- the fact that the usual diabetic tests such as blood tests, weight and foot checks could not be carried out (although some practices did achieve this in the session)
- patients having to commit their free time to four group sessions, and
- sharing of personal information (ie on weight) with others.

#### According to one member of staff:

"Many felt uncomfortable having personal information shared with strangers." (assistant practitioner)

#### And another stated that:

"Some patients felt they were being "named and shamed" by having their results visible for all to see." (practice nurse)

This is interesting, as only one patient completing the survey commented on this – although as we have seen, they felt so strongly about it that they also wrote a letter to the practice. A limitation of this evaluation, which is discussed below, clearly includes that the evidence of the patient perspective comes almost entirely from a self-selecting group of patients that completed the process and attended the final session. The perspective of those dropping out of the process has not been captured. It is possible that their reason for not attending may include concerns like sharing of results, but this evaluation cannot describe their reasons. It is equally possible that staff perceive this to be more of a problem to patients than it actually is.

Two other members of staff commented on the high drop-out rates in their practice, but did not offer an explanation.

#### Staff perceptions of impact on practice

Staff were asked an open-ended question regarding what, if anything, they considered to be the main **benefits** to the **practice**. Two clear themes emerged. The first was the time saved by the process:

"Capturing a group of people at one time saves time..." (HCA)

"Seeing over 10 patients in 2.5hrs GP / nurse time." (GP)

"Deliver your message in one go to multiple people." (GP)

One commented that the main benefit was a reduction in GP appointments.

An assistant practitioner however suggested that "(T)hose involved all still wanted to be seen outside of the consultation process."

A second strong theme to emerge was improved relationships with patients:

"Getting to know the patients personally." (HCA)

"Getting to know patients better." (Practice nurse)

"Building a better relationship with a couple of patients." (Administrator)

For one practice nurse this led to a "...realisation that clinicians and patient concerns did not always 'match'."

Three of the four GPs completing the survey mentioned improved relationships within the practice team. One described the process as a team building exercise; another that there was increased confidence in the practice team.

#### A third GP commented that:

"It showed the practice can implement a small innovation even if not everyone is on board and despite abduction. The trick is to sustain it." (GP)

A more minor theme to emerge was helping patients achieve lifestyle goals and improve their health and wellbeing:

"Helping them to achieve their goals and listening to them at the next meeting about how they have changed their lifestyle." (HCA)

"Improving health and wellbeing!" (HCA)

"Happy patients, more in control of their medical condition." (Administrator)

An administrator noted that they were now more personally aware of the specific condition and the impact it had on patients.

One practice nurse reported that they had been given good ideas by the patients, such as using text and email to communicate.

One person commented that they could not think of any benefits to the practice.

Staff were asked an open-ended question regarding what, if anything, they considered to be the main **negative impacts** on the **practice**.

Here, the overwhelming response was time, mentioned by eleven of the sixteen staff respondents. Where staff elaborated, this was to mention the administrative and preparatory time needed; time to encourage patients to attend, as well as time taken away from delivering a surgery.

One member of staff explained that they did not feel supported:

"I didn't feel in control. We had to plan the whole 4 sessions without much input from our mentor/colleagues (and were) concerned if the patients would come." (Senior HCA)

Staff were asked if they felt that the positives outweighed the negatives (see Figure 2.)

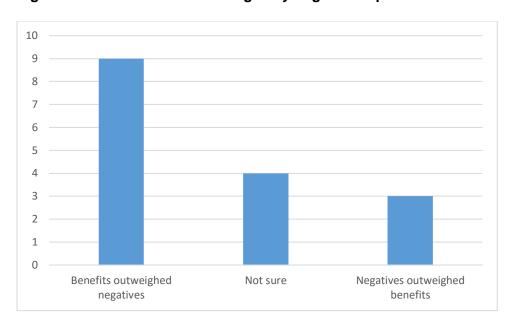


Figure 2: Did the benefits outweigh any negative impacts?

Slightly more than half (56%: nine staff) felt the benefits outweighed the negative, whereas 19% (three staff) felt that the negatives outweighed the positive and 25% (four staff) were not sure or felt they were about the same.

#### **Unexpected events**

Staff were asked if there was anything about the group consultations that surprised them.

The most common theme to emerge, across all types of staff, was the interaction and openness between the patients:

"I didn't know what to expect, but wondered whether the patients would be less inclined to speak up and was surprised at how well they interacted." (Administrator)

"How open patients were and ready to discuss personal issues / concerns." (GP)

"How the group came together and were willing to share their experiences." (Practice nurse)

One member of staff was surprised at how much they enjoyed the process:

"That I enjoyed it! It felt more informal getting to know patients and their concerns in a group. Also how patients tried to offer support to each other." (Practice nurse)

An assistant practitioner was also surprised at having overcome nerves and facilitated well, leading to demand for further groups:

"That although I found the whole process nerve wracking to begin with I surprised myself at my ability to hold a group together, and that the outcome although unexpected means I have support from a patient to instigate a pop -group within the surgery run by myself and patients." (Assistant practitioner)

#### **Facilitation**

Turning now to facilitation, thirteen respondents indicated that they were involved in facilitating the sessions, and seven admitted to feeling apprehensive about this. One reported that they were used to facilitating groups and had no reservations. None indicated that they required further training in this area, and no-one added additional comments in terms of what helped or hindered with facilitation.

Observations revealed evidence of some excellent facilitation skills in often challenging situations. Many staff were able to redirect conversations and reframe difficult discussions in a positive way to ensure that patients stayed on track, acknowledging any small changes that had been made and providing constant encouragement and support to patients to keep going. One clinician dealt very well with a patient who, at the final session, described reaching the conclusion that he had cured his own diabetes having discovered a miracle juice drink, and described how he would be communicating this widely as a cure for diabetes, as it had changed his life.

However, there was variation in the quality of the facilitation skills shown.

Observation showed that some facilitators seemed very unprepared as to what they were meant to be covering in the session<sup>7</sup>, and some were also less confident and able to cope with dominant individuals than others. In several of the observed groups, discussions strayed into personal areas, such as depression or menstrual cycles, which some patients might have been forgiven for considering more appropriate for one to one conversations.

It was disappointing that some practices encouraged patients to accept unhealthy snacks during the consultations.

Finally, not all practices followed the best practice model that they had been taught. Each took a slightly different approach to delivering the sessions. In one practice, the consultations were nurse rather than doctor led, another used two rather than one practice nurse to facilitate the first part of the session. In some, coordinators were present throughout some of the group consultation sessions, in others they were not present at all. And whereas most practices took measurements such as blood pressures and BMIs from patients at the beginning or end of the sessions, one practice took the decision to take these during the actual consultation itself, which meant that those individuals having measurements taken were not able to hear or be part of the group discussion whilst being measured, and made it extremely difficult for others to hear what was going on accurately. This particular session came across as a series of individual discussions rather than a group consultation, with several conversations going on in different corners at the same time.

Discussion with ELC, the training providers, suggested that some staff did not complete all of the required training available to participants in the group consultation programme. Completing all training should be a pre-requisite to quality assure group consultation provision to patients.

<sup>&</sup>lt;sup>7</sup> Two facilitators flagged that with the usual six session programme being reduced to four, they had not been given clear instructions as to how to adapt to this in the four sessions.

#### Recruitment

Ten respondents indicated that they had involvement in recruiting patients. Views on recruitment were divided, with most indicating that it was very (three staff) or quite (four staff) difficult to recruit patients, compared to the two who thought it was quite easy and the member of staff who thought it was very easy.

Staff were invited to provide additional comments on what helped or hindered recruitment. Most commented on the difficulty of recruitment in terms of firstly getting hold of patients and then of getting them to commit to a series of sessions taking place during the day, when many were not available or could not commit to being available. Another commented on the size of their diabetic list as a hindrance, and another on finding it hard to get the practice nurse on board. The only comments made in terms of what helped were the need to plan all four sessions ahead, and a personal approach, using knowledge of the patients themselves.

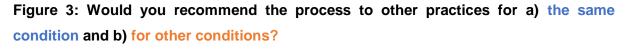
It was clear that retaining patients, as well as recruiting them, was a major problem for this pilot as well as for the evaluation. Interestingly, the practice recruiting the highest number of patients to its first consultation, at eleven, was the practice, which had most problems attracting patients to subsequent sessions, with numbers dropping to one in the third session and only reaching three at the final. The fact that patients would sometimes verbally commit to coming and then not attend appeared to 'throw' many of the facilitators (and other patients) who were often extremely disappointed that so few patients had turned up.

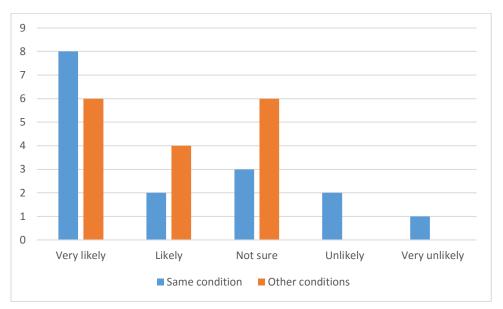
#### Would staff recommend to other practices?

Staff were asked whether they would recommend the process to other practices firstly for the same condition, and secondly for other conditions, and to give the reasons for their answer. The majority of staff responding to the survey said they were likely or very likely to recommend group consultations to other practices, both for the same and for other conditions (see Figure 3.)

In terms of whether they would recommend the process for the same condition, ten of the sixteen respondents were 'likely' or 'very likely' to recommend the process. The main reasons given were that patients appeared to enjoy the process, seem more empowered and find it beneficial, and health improved. One GP described it as a 'great use of resources.' Another GP who was likely to recommend did however comment that they would in future use a skilled nurse as the clinician.

Each of those indicating that they were unsure were administrators who had a coordination role. One felt it was not in their capacity to answer. Another gave as the key reason that so few patients were committed to attending each of the sessions. The third felt that it had been helpful for patients but that it 'wasn't appropriate to do a proper diabetic review in this setting'.





A further three were 'unlikely' or 'very unlikely' to recommend the process.

One person unlikely to recommend, an assistant practitioner, felt that in retrospect, diabetes had not been a good condition to focus on as:

"Many believe it's a 'fat person's disease' and they do not want to be associated with it. Regardless of the physical impact, many carry on burying their heads in the sand believing they have 'a touch' of diabetes or are just eating too much sugar. The consequences are huge and many people cannot or will not accept they have this condition, so getting them to engage is often a long difficult process."

A practice nurse felt that the consultation did not meet the clinical needs of the patient as they were

"Unable to discuss in detail other concerns. It took more time than a "traditional" consultation..."

Another practice nurse described how she could not

"envisage being able to carry out the physical examinations required for annual review and individualising treatments within a group setting."

In terms of the group consultation model being applied to **other** conditions, ten of the sixteen were again 'likely' or 'very likely' to recommend the process. The main reasons given were that good results had been achieved and some felt this could be applied to other chronic diseases. One of the practices targeting diabetes felt that COPD patients could benefit. Another felt that the approach could be applied to healthy lifestyles generally but that the format would need to be changed, although no further detail was given. One GP who was 'likely' to recommend for other conditions nonetheless noted that "Lots of time (is) required to overcome inertia and drive process through."

No staff said that they were unlikely or very unlikely to recommend the process for other conditions but six were unsure.

There were several areas that respondents said they would do differently if the process was carried out again, including

- Working with younger patients
- Holding fewer sessions
- · Holding sessions at a different time
- More preparation/administrative support
- Reiterating the 'rules' so that patients did not carry on seeing the doctor one to one
- Making changes to the personnel used: a coordinator suggested taking the nurse out of the
  process as this took up too much time. A GP suggested putting the nurse in instead of the GP
  and using administrators as the facilitators

Additional feedback from staff who wished to provide extra information after completing the survey, and which did not emerge from the survey questions, suggested the following additional views:

- Process was too rigid. It was hard to stick to a particular topic each month
- Training providers did not adapt the original six session programme resources to reflect that four sessions were being provided in Croydon, leading to confusion<sup>8</sup>
- Overestimated patients' level of knowledge. There were vast differences in people's understanding
- Cultural differences between patients are important and should be considered. Some cultures are less likely to open up.

#### 3.9 Cost effectiveness

To date, there has been little economic assessment of the cost effectiveness of the group consultation model. In the United States, where most group consultation evidence hails, research has drawn markedly diverse conclusions, with some finding the intervention cost much more, some much less, and some no difference with usual care. Clearly, comparing savings in a US with a UK system has limited purpose, however, evidence from the UK is scarce, and the limited time and resources available for this evaluation did not allow for a full economic assessment.

It is however important to note two things in relation to costs. Firstly, the only real 'cost' to the practices in taking a group consultation approach was in terms of **staff time** to prepare for and deliver the group consultation process. The financial outlay for this pilot project (training provision by ELC<sup>9</sup> alongside independent evaluation<sup>10</sup>) was met by a grant from Health Education South London. Secondly, in theory at least, seeing several patients with the same condition at once should represent a time saving in the shorter term, and could potentially both improve health, improve self-management, and reduce consultation frequency and therefore demand on primary (and potentially secondary) care in the longer term.

<sup>&</sup>lt;sup>8</sup> This was on the online learning platform which practices were made aware of

<sup>&</sup>lt;sup>9</sup> Total cost around £50,000

<sup>10</sup> Total cost around £20,000

This point is clearly dependent on a number of things – not least the number of patients that are recruited into and retained in the consultations. With only 29 patients fully engaged in the process so far, this is the tip of the iceberg compared to the 20,000 or so diagnosed diabetics in Croydon. Potential timesavings are also dependent on the effectiveness of the consultations and the peer to peer support in helping patients improve their self-management skills, and decrease their dependency.

These two factors - staff time and potential future savings - will now be considered in relation to the Croydon pilot.

#### Staff time

Table 12 details the amount of time that was required by each practice involved in the pilot to prepare, recruit, deliver and evaluate the group consultation programme. Clearly, doing anything for the first time takes longer. It is important to recognise that the table (a to c) represents the model which practices were trained to adopt by ELC, rather than the actual time spent since, in Croydon, practices frequently diverged from this best practice model. For example, as was noted above, not all staff in Croydon completed all of the required training. In addition, one practice chose to increase the burden on staff time by using two facilitators rather than one. One was nurse led, and in at least two practices, coordinators remained present for the entire consultation, as opposed to the recommended 30 minutes setting up time. Finally, although practices were given a clear direction of the evidence that recruitment works best when led by a GP making personal contact, either by telephone or face to face in a consultation, some practices did not follow this advice. Since recruitment time is an additional time factor flagged by practices, this has been estimated, based on information given by practices (Table 10d). In addition, as the model in Croydon was independently evaluated, the time involved in participating in evaluation has been included to more accurately reflect experiences in Croydon.

#### In summary:

- The preparation and training requirements, which should only be undertaken once in each
  practice, regardless of how many group consultations they deliver, require around a day's time
  for the clinical expert, just under two days for the facilitator of the process, and around a day
  and a half for the coordinator.
- The time spent on delivery depends on how many sessions are delivered, with around a half hour for the coordinator an hour for the clinical experts and an hour and a half for the process facilitator per session. Assuming four sessions are adopted, then, each set of four sessions requires around four hours from the clinician, six hours from the facilitator, and two hours for the coordinators. This is spread over several months, with one roughly one consultation every four weeks.
- The model used in Croydon also involved attending a half day 'lessons learned' event facilitated by ELC. Again, it would not be essential for this to happen after every group consultation programme but should always be included when a group consultation is being introduced to a locality for the first time, to support the potential spread of that model.

### Table 12: Staff time requirements – four session group consultation process

### a) Preparation and training

| ACTION                       | Clinical expert             | Process facilitator      | GC coordinator           |
|------------------------------|-----------------------------|--------------------------|--------------------------|
| 1. Training <sup>11</sup>    | 0.5 days (3.5h)             | 1 day (7h)               | 0.5 days (3.5h)          |
| 2. Learning platform         | 45m                         | 1.5h - 2h                | 1.5h – 2h                |
|                              | Module 1-3                  | Modules 1-6              | Modules 1-6              |
| 3. Webex                     | 2h (optional)               | 2h                       | 0                        |
| 4. Monthly learning          | 2h                          | 2h                       | 2h                       |
| exchange webinar             | (1h x 2, months 2<br>and 3) | (1h x 2, months 2 and 3) | (1h x 2, months 2 and 3) |
| 5. Support with material and | 0                           | 0                        | 2h                       |
| Standard Operating           |                             |                          |                          |
| Procedures <sup>12</sup>     |                             |                          |                          |
| TOTAL                        | 6h 15m - 8h 15m             | 12h 30m - 13h            | 9h - 9h 30m              |

### b) Delivery

| ACTION   | Clinical expert | Process facilitator | GC coordinator |
|--|-----------------|---------------------|----------------|
| Delivering a four session group consultation programme | 1h x 4          | 1.5h x 4            | 30m x 4        |
| TOTAL  | 4h              | 6h                  | 2h             |

#### c) Follow up - lesson learned

| ACTION   | Clinical expert | Process facilitator | GC coordinator |
|--|-----------------|---------------------|----------------|
| Lessons learned, spread planning and celebration event | 3 - 3.5h        | 3 - 3.5h            | 3 - 3.5h       |
| TOTAL  | 3 - 3.5h        | 3 - 3.5h            | 3 - 3.5h       |

#### d) Recruitment

| ACTION | Clinical expert | Process facilitator | GC coordinator |
|--------|-----------------|---------------------|----------------|
| TOTALS | 2h              | 0                   | 30m            |

#### e) Evaluation

| ACTION                     | Clinical expert | Process facilitator | GC coordinator  |
|----------------------------|-----------------|---------------------|-----------------|
| Briefing on evaluation     | 0               | 0                   | 30m             |
| process                    |                 |                     |                 |
| Administration involved in | 0               | 0                   | 60m             |
| evaluation surveys         |                 |                     |                 |
| Complete evaluation survey | 10m             | 10m                 | 10m             |
| Telephone interview        | 10m (optional)  | 10m (optional)      | 10m (optional)  |
| (optional)                 |                 |                     |                 |
| TOTAL                      | 10-20m          | 10-20m              | 1h 40m – 1h 50m |

<sup>&</sup>lt;sup>11</sup> There may be additional time commitments on staff where practices are initially undecided as to who will perform which roles, and who wish to send more than three staff to be trained.

 $<sup>^{12}</sup>$  Likely to be made available on the learning platform by ELC as a video in future.

Although practices in Croydon approached recruitment differently, with many finding this difficult, possibly because consultations were held during the daytime, this should be expected to take a total of around two hours, although if done during GP consultations some of this is expected to be absorbed within consultation time. In addition, it could reasonably be expected that the burden of recruitment would lesson over time, the more practice staff became accustomed to 'selling' the process, and particularly if made available outside of core hours.

Finally, Croydon commissioned this independent evaluation to accompany the pilot. Table 10e reflects the maximum time commitment, should all staff engage. Most staff in Croydon participated in the evaluation in some way by filling in a short, electronic evaluation survey taking around ten minutes to complete but did not opt for telephone follow up. Those most affected by the evaluation requirements are coordinators, who became the lead contact for the researcher's queries and who were briefed to hand out questionnaires at the start of the process and then again at the end.

Overall, and bearing in mind the slightly different ways of delivering the programme, for a practice starting this process for the first time and adopting a four session model, with one consultation delivered per month, the three staff involved in the process could expect the following time commitments:

Table 13: Estimate of maximum time commitment for a first set of four session group consultation process

| ACTION                   | Clinical expert | Process facilitator | GC coordinator |
|--------------------------|-----------------|---------------------|----------------|
| Preparation (average)    | 7h 15m          | 12h 45m             | 9h 15m         |
| Recruitment (average_    | 2h              | 0                   | 30m            |
| Delivery                 | 4h              | 6h                  | 2h             |
| Follow up (average)      | 3h15m           | 3h 15m              | 3h 15m         |
| TOTAL with no evaluation | 16h 30m         | 22h                 | 15h            |
| TOTAL with evaluation    | 16h 45m         | 22h 15m             | 16h 45m        |

Given that several parts of the overall package are only required once (such as the training requirements in Table 12a, the follow up in Table 12c, and the briefing for coordinators involved in the evaluation in Table 12d), it was also considered useful to reflect the time commitments on staff in those practices continuing with the process (see Table 14.) Clearly, for those practices who go on to adopt the group consultation model and for whom it may become 'business as usual', as in any change process, there is an initial 'outlay' in terms of investment in staff time upfront that begins to diminish.

Table 12: Estimate of maximum time commitment for ongoing, four session group consultation programmes

| ACTION                   | Clinical expert | Process facilitator | GC coordinator |
|--------------------------|-----------------|---------------------|----------------|
| Recruitment              | 2h              | 0                   | 30m            |
| Delivery                 | 4h              | 6h                  | 2h             |
| TOTAL with no evaluation | 6h              | 6h                  | 2h 30m         |
| TOTAL with evaluation    | 6h 15m          | 6h 15m              | 4h 15m         |

#### Potential future savings

The second point raised above in relation to costs was the potential of group consultations to effectively save time for clinicians, in particular by encouraging a self-management approach with the expected aim that consultations would reduce. The evaluation showed that many GPs in particular were of the opinion that there was time saved by their involvement in the process and by delivering the same message to many people at once. However, views were mixed. A nurse noted that patients continued to ask for one to one appointments, and a GP also referred to this and suggested that there be some sort of condition that those attending group consultations not be able to access one to ones for this condition in future.

It is of course also possible that group consultations increase demand for appointments: patients with long term conditions also consult for other reasons, and it is possible that by deepening the relationship between patient and clinician, as was clearly observed in the group consultation process in Croydon, patients may become more dependent on the valued advice from their clinician. Ellins and Coulter (2005) have undertaken research which suggests that, in the UK, some groups are less confident and equipped to take on the day-to-day management of their care: namely the elderly, those from lower social grades and the less educated. Regional and ethnic disparities were also in evidence. Overall, these groups were more likely to both need interventions designed to improve the capacity for action and need the greatest assistance to become active self-managers. Other research has suggested that interventions to improve activation have shown that patients with most to gain are those with the lowest activation scores, suggesting that effective interventions can help engage even the most disengaged.

#### Costs going forward

Very different models are currently being looked at in order to make this process more cost effective going forward, should this be the approach desired. Previously, practices were given the opportunity for one to one support and feedback, which was not necessarily utilised. Going forward, it is likely that the focus would be on building skills in facilitation through formal training – options under consideration include providing training as part of a care navigator training course – and providing further support for facilitators and support for clinicians via an action learning support programme with a mix of face to face and virtual support. External funding would cover the costs of training and any further evaluation. Therefore there would be no costs to the practice apart from time, as considered above.

#### 4. Strengths of this research

As well as being entirely independent, the strengths of this evaluation include that it adopted a mixed methods approach, combining the measurement of a range of factors which are key elements of the group consultation process. Evaluation incorporated assessment of both patient and staff perspectives, observation, and objective measures of clinical outcomes.

In terms of patient perspectives, this research has measured and compared self-reported assessments both of usual care and of degrees of self-management, before and after involvement in the programme,

rather than rely simply on a retrospective measure of change. The patient surveys were acceptable to patients, achieving an excellent response rate of close to 100% amongst those attending the first and final sessions.

#### 5. Limitations

The major limitation to this evaluation is that only those patients who continued to attend sessions and who by default were 'voting with their feet'- completed an evaluation and therefore the sample is biased towards those more likely to award high scores and be positive about the experience. This was to some extent deliberate. The aim of the evaluation was to gather the views and experience of those who took part in the process, rather than those that opted out, to assess the impact on attendees. However, the low numbers at some of the final sessions had not been anticipated and these low numbers are a second major limitation. Whilst the evaluation worked well in persuading virtually all of those attending the initial and final sessions to complete evaluation forms, making for a sample that is highly representative of attendees, the small sample of patients that did attend the final sessions limited the analysis somewhat. It would have been interesting, for example, to compare the responses in terms of gender, age and ethnicity. Those practices achieving 100% satisfaction were those with the lowest average age of 62 and one theory could be that the model is more suitable to a younger age group. It would also have been interesting to undertake comparison of the impact of mixed versus single sex groups, doctor facilitated versus non-doctor facilitated practices, and take the comparisons of COPD and diabetic patients further. However, as a small pilot study, analysing the small number of patients involved in each subset effectively prohibited this.

Attempts to address the low numbers involved in the evaluation and bolster the numbers giving their views by sending postal surveys had very limited success, with hardly any patients responding. If considered important, a different approach to accessing the views of those who dropped out early on in the process could be undertaken as a supplement to this research (see recommendation 6.1 below.)

The fact that only one consultation was observed in most practices might also be considered a limitation. Regrettably, resources did not allow for full observation to take place in all four sessions of all six practices involved in the pilot, and therefore the observations made from the random consultations that were observed might not have been representative of the bigger picture in that practice. Given the resources available, however, it was considered preferable to attempt to observe at least one consultation in each practice, in order to get a flavour of how each practice was approaching each session, and of the patients in attendance, to the alternative option that was available within the resources of following one practice through from beginning to end.

A final limitation to be considered is that although this evaluation provides a 'snapshot' of what participating patients thought at the end of the process, what it does not provide is an idea of how lasting the effects may be. For example, the survey revealed some impressive improvements in patients' self-

management. However, with patients also often commenting on wanting the process to go on, what is not clear is whether the intervention is sufficient as a stand-alone, or whether it would need to continue to encourage patients to continue to feel this way, and if so, how.

The ELC team encourage practices to support patients who come together for peer support. Reassuringly, many patients signalled that they intended to keep in touch with others, and many practices have already concluded that they wish to facilitate the continuation of the particular groups that came together in 2016 in some way. For example, one practice has encouraged existing patients to come back to be weighed or get support, and is undertaking another group consultation process in 2017; another practice is bringing patients together six months after the end of the group consultation process to review progress. A third practice is hoping to establish exercise and wellbeing classes on site, and a patient involved in the group consultation process at this practice wishes to become a peer supporter. Similarly, in a fourth practice, two patients have already volunteered to talk to other patients who may be interested in the process to extol its virtues.

#### 6. Conclusions

Bearing in mind the above limitations, principally the small sample size, this evaluation has taken the study of group consultations beyond the anecdotal and provided some local evidence to support high levels of patient and staff acceptability with this process, which has been shown be associated with increases in self-reported self-management skills as well as improved clinical outcomes in diabetes patients. The following, tentative conclusions could be drawn from this study:

## 1. Despite initial reservations, staff were generally supportive of the group consultation process, once they had experience of delivery.

It is important to start with the staff perspective. Staff commitment to the process is clearly crucial to any further implementation. Staff responded in lower numbers than did patients, however, survey results suggested that although many had their reservations (supporting anecdotal evidence that the majority were initially sceptical about the process and reluctant to commit) the actual experience of delivering group consultations was far less daunting than staff had imagined, with some admitting their surprise at actually enjoying it, and many GPs in particular extoling its virtues. This was by no means the case across the board. The anonymity of the surveys - which was considered essential in order to gain access to staff's genuine feelings on the process – has prevented further analysis, but it seemed likely that most negative voices came from one practice. It was also certainly the case that GPs were more positive about the process than other staff. However, given the radical change to usual care that this process represents, the responses from staff were encouraging. If the process is to be taken forward in Croydon, it would be wise to ensure that the views and experiences of staff who have been part of the pilot are utilised, with key staff becoming champions of the process and its potential benefits (see recommendation 6.4.) It was also interesting that the biggest initial reservation expressed by staff was that patients would not attend, given that recruitment did indeed prove challenging in Croydon. This could either reflect that staff were correct in their assessment and that group consultations have limited appeal locally, or potentially be indicative of an initial mindset that could be challenged, given the relative success of the process amongst those patients that did attend.

## 2. Group consultations achieved high levels of patient satisfaction and acceptability in Croydon.

High levels of satisfaction were witnessed amongst those patients who completed at least two of the group consultation sessions. A high response rate was achieved and therefore this can be considered representative of those completing the process at least. Most awarded the highest possible marks, preferring all aspects of it to usual care and, frequently reporting that they preferred group consultations to individual appointments with their doctor. Given the older age of the patients, this could be considered surprising. Thoughts of those not attending after one session are unknown.

## 3. Group consultations were associated with improvements in patients' ability to self-manage.

The group consultation process was associated with major improvements in patients' capacity for self-management. All aspects of this that were explored improved from baseline to follow up, including feeling supported, understanding prescribed medication, feeling in control and understanding their health condition.

#### 4. Group consultations may be particularly effective for poorly controlled diabetics.

Over the four to five months that the programme was delivered, large improvements in HbA1C scores were witnessed amongst diabetic patients. No changes in MRC scores were witnessed amongst COPD patients. Care should be taking in interpreting these results, since patients experiencing normal one to one care with their doctor could legitimately have experienced similar improvements. However, improvements amongst poorly controlled diabetics were particularly noticeable, with HbA1C scores improving by an average of 13.2 mmol/mol, twice that of the sample as a whole. This provides the tentative suggestion that poorly controlled diabetics, for whom the current model of primary care could be seen not to be working, may have the most to gain from this programme. Although a small sample size, if such improvements were witnessed on a wider scale, Croydon could reap major benefits in terms of improving the health of its diabetic population, and this impact would also be very easy to audit and measure at scale.

## 5. Group consultations should continue to recruit a 'mix' of patients in order to inspire and encourage learning.

Although poorly controlled diabetics gained the most in terms of clinical improvements, it would be a mistake to automatically assume that only diabetes patients with poor control have a place within the group consultation model. It was clear from observation of the group discussions that, at least from the

point of view of the patient with poor control, there was much benefit to bringing them together with well-controlled patients. Some practices realised this early on and deliberately recruited a mix. The idea that group consultations 'shine a light' on expert patients who can add value through their experiences was also found in the pilot group consultation approach in Slough, and has led to Slough setting an aspiration to involve expert patients more formally in group consultations, and for them to be trained as facilitators in the future.

### 6. No conclusions can be drawn as regards the effectiveness of group consultations with conditions other than diabetes.

It is important to remember that the above findings relate largely to patients with type 2 diabetes. This evaluation does not provide evidence to support the continuation or otherwise of group consultations for COPD and further pilots would be encouraged before applying this to other chronic conditions. Results suggest that intervention with COPD patients were less successful than those with diabetes, notably with regards to self-management: in all five of the practices working with diabetic patients, at least nine of the ten areas of self-management and health care perception that were investigated before and after the consultation programme improved; in the practice looking at COPD, only three of the ten showed an improvement from baseline, and in several areas, results suggested that patients ability to self-manage had actually gotten worse. However, with only one practice focusing on this condition and only seven patients from the wider sample involved, the sample is far too small to draw any conclusions either way as to whether the relative lack of success here was due to the health condition, other aspects of the group consultation or indeed to chance, and more research is needed.

It is important to note that much of the research around group consultation or shared decision making has been undertaken on diabetic patients. Edelman et al (2012) suggest that group consultations may be most effective for illnesses such as diabetes because they have a phase in which the risk of complication is relatively high while the disease is simultaneously asymptomatic, and in which medication titration and self-management are important. Edelman warns against generalising the results from diabetic patient to others:

"Until further studies are done that allow for comparisons across conditions, the targeting of SMA for chronic conditions other than diabetes will remain speculative." (Edelman et al, 2012)

## 7. No conclusions can be drawn as regards the effectiveness of group consultations with younger patients.

The findings of this evaluation also relate principally to older people. Each practice was free to recruit their own patients, and each chose to hold the group consultations during the day. At least partly as a result, those attracted to the group consultation tended to be older and – although employment status was not included in the survey – less likely to be working. The average age of those attending the consultations was 67. These results cannot necessarily be generalised to younger patients. However, it may be with a younger patient population, and potentially those newly diagnosed as diabetic, there is

most to gain, particularly if Ellins and Coulter (2005) suggestion that older people in the UK are less likely to adopt self-management is taken into account.

Should practices aim to attract young patients to any future group consultations, the timing of the sessions would clearly need to reconsidered to encourage participation by the working population. In the context of 'Seven Day Services' and the growing pressure on primary care to extend opening times, group consultation sessions in the early evenings or at weekends could be one way of both addressing this national direction and of meeting the rising demands of chronic disease management amongst the working population for whom 9 to 5 appointments have limited scope.

#### 8. No conclusions can as yet be drawn on any impact on savings to the health system

Although it is possible that group consultations reduce the burden on GP time, this report has not, in its short timeframe for completion, been able to provide evidence of this and further research is needed, after a suitable period of time to allow the change to embed has elapsed to give a more accurate picture of the time taken to practice this way. However, a key finding of this study has been the improvements in self-reported assessments of self-management. By influencing the patients' capacity to manage their own condition, the group consultation model certainly offers the potential to reduce health system costs and improve self-management of type 2 diabetes in a way, which the current primary care model of short one to one appointments may be less equipped to do.

### The group consultation approach has potential and should be explored further in Croydon

People with long term conditions such as diabetes and respiratory problems are now the most frequent users of the UK health system and their numbers continue to rise. The bulk of the NHS budget is spent on their treatment. Policy makers consider that that the majority of those with long term conditions could be supported to more effectively self-manage. Self-management should therefore be at the heart of chronic disease management. If the results in the pilot for people with type 2 diabetes were reproducible at scale, and in particular, if self-management were shown over time to impact on consultation frequency, there would be major gains for general practices from adopting the practice of group consultation.

#### 6. Recommendations

# 6.1 Further research to consolidate the findings regarding the impact of the pilot programme

The CCG could consider commissioning further research on the impact of the group consultation process on this particular group of patients, for example:

- Allowing a suitable period of time to elapse before collecting information on consultation frequency for each patient following group consultation attendance and comparing this with the same period of time prior to the consultations, taking into account date of diagnosis;
- Further research into the characteristics and views of those who chose not to return after attending only one group consultation session, to identify the causes and concerns and potentially inform which patients to invite in future.
- Further work could be carried out to compare the clinical results for those diabetic patients taking part in the group consultations with, for example, a sample of diabetic patients, matched for age, gender and diabetic control who undertook usual care, in the same practice.

# 6.2 Support practices to continue or develop the group consultation programme for type 2 diabetics in Croydon

Although the pilot study was not conclusive, the potential shown suggests that the CCG could consider extending the reach of group consultations for type 2 diabetic patients in Croydon by seeking funding to train additional practices, and encouraging those already trained to repeat the process. However, before so doing, it is essential that the recruitment and retention problems experienced be addressed.

#### 6.3 Address recruitment and retention problems going forward

With virtually all practices in the pilot study experiencing problems with recruitment and retention, it is essential that greater numbers are recruited and retained by any practices going forward. In the pilot, consultations with as few as three people, and on one occasion, one, went ahead, and this does not represent value for money. There may be many reasons for this. The evaluation found that not all staff completed the full training programme nor followed ELC's best practice advice related to maximising recruitment success - namely ensuring invitations to the group consultation came directly from GPs - not from registrars or others and not via post.

A key learning is that non-attendance is inevitable and to maximise efficiency, there should be 'over recruitment' to the sessions. This did not appear to happen. Furthermore, now that practices have access to their own individual practice reports as well as this full evaluation report – practices need to have a full and frank discussion about the differences where recruitment worked, and where it didn't and the reasons why.

Other ways of addressing recruitment problems may lie in simply holding sessions during extended hours and outside the working day. The feasibility of holding group consultations at weekends could also be trialled as part of seven day GP working arrangements.

# 6.4 Promote practice uptake by identifying champions of the group consultation process

Given the difficulties experienced in recruiting practices to this pilot and the reservations which most staff involved in the process admitted to at the start, it will be important that those who have experienced the process and understand the benefits 'fly the flag' with other practices. This could include potentially funding the 'backfill' for key staff to promote the group consultation model. Having clinicians from other practices observe a live group consultation is also likely to prove a successful strategy to overcome scepticism. This could be classed as CPD and funded through that route. ELC report that there is evidence for GPs being the most influential champions within practice irrespective of whether they are delivering the sessions themselves.

#### 6.5 Continue to build the knowledge base by evaluating all sessions

Given that the small sample size of staff and patients available to the evaluator posed limitations on significance testing and general conclusions drawn, the potential for further evaluation should be considered, aiming to grow the sample size of patients from its baseline of 29. With the methodology and survey designs already in place, evaluation would be simple and relatively inexpensive to continue. Alternatively, NHS England reports that there is now a free online tool for measuring patient activation that could be useful.

Further analysis using the same patient survey methodology would enable the testing of some of the hypotheses in this report and allow for subgroup analysis to compare the results, and ultimately any association between the effectiveness of the intervention and factors such as health condition, age, gender, working status and potentially ethnicity. Analysing data from a larger sample of patients with type 2 diabetes would crucially enable sub-group analysis on controlled and poorly controlled patients in order to inform whether there is any further evidence for targeting the model towards any particular type of diabetic patient.

# 6.6 Fully evaluate any group consultations undertaken for health conditions other than diabetes before consider their suitability

Whether or not any further evaluation is done for group consultations in diabetes, it is essential to evaluate group consultations for other health conditions that may be trialled in Croydon, given the small sample of patients with conditions other than diabetes involved in this evaluation.

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#### References

Edelman, D.D. et al. (2012) 'Shared Medical Appointments for Chronic Medical Conditions: A Systematic Review.' VA Evidence-based Synthesis Program Reports. Washington DC: Department of Veterans Affairs (US)

Egger, G et al (September 2015) 'Patients' and providers' satisfaction with shared medical appointments' in Australian family physician 44(9):674-679

Ellins, J; Coulter, A; (Nov 2005) How engaged are people in their health care? Findings of a national telephone survey. Picker Institute Europe

Fischer, M. and Ereaut, G. (2012) 'When Doctors and Patients Talk: Making Sense of the Consultation.' London: The Health Foundation.

Hibbard, J and Gilburt, H (May 2014) Supporting People to Manage their Health. An introduction to patient activation. The King's Fund

Hibbard, J H; Mahoney E R; Stockard J and Tusler M; Development and Testing of a Short Form of the Patient Activation Measure. Health Research and Education Trust. OI: 10.1111/j.1475-6773.2005.00438.x

Kirsh S, Watts S, Pascuzzi K, et al. (2007) Shared medical appointments based on the chronic care model: a quality improvement project to address the challenges of patients with diabetes with high cardiovascular risk. *Qual Saf Healthcare* 16:349-353.

Rahaghi, F. F. et al. (Mar 2014) Shared medical appointments in pulmonary hypertension in Pulm Circ. 2014 Mar; 4(1): 53–60 doi: 10.1086/674883