Working together: Traditional and non-NHS diabetes service providers

Jill Hill

PCTs have an obligation to consider alternative providers when commissioning any services (Department of Health, 2008). These alternative providers should challenge conventional GP service delivery, and encourage innovation to meet people's changing healthcare needs (Confederation of British Industry, 2007). These innovative, non-NHS providers will need to fit in with the traditional services that the person with diabetes comes into contact with, so there is continuity of care without duplication or, more worryingly, omission of care. In this article, the author describes the development of the Birmingham Own Health programme and how this links with existing services provided by GP practices and the community diabetes team in NHS Birmingham East and North.

Birmingham Own Health (www.birminghamownhealth.co.uk) offers a personalised, structured programme of care-managed support for people in Birmingham with coronary heart disease, heart failure, chronic obstructive pulmonary disease, or diabetes. Recently, Birmingham Own Health has developed other services to support people who have had a stroke, older people needing more support, and people at risk of developing cardiovascular disease. The service is delivered in partnership by NHS Birmingham East and North (NHS BEN, previously BEN PCT), Pfizer Health Solutions (a group within Pfizer Limited that operates independently of its pharmaceutical business) and NHS Direct.

The rationale for selecting long-term medical conditions for this programme is based on the evidence that changes in a person's behaviour and lifestyle (for example, diet, exercise, getting regular health checks, and so on) can make a significant impact on controlling the condition, slow its potential deterioration, reduce the risk of complications, and ultimately help him or her to stay as healthy as possible (Department of Health [DH], 2001; 2005).

The service is delivered over the telephone by a team of care managers: there is no face-to-face contact between the care managers and patients. The care managers are trained and experienced nurses employed by NHS Direct, who aim to build and maintain ongoing relationships with enrolled members (individuals who fit the Birmingham Own Health criteria; *Table 1*), and provide motivation, support and knowledge to

Article points

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2. The service is delivered over the telephone by a team of care managers: there is no face-to-face contact between the care managers and patients.
3. Part of the care manager's role is to work closely and build relationships with the clinicians and healthcare professionals, to ensure that he or she can best support and complement the work of the local primary healthcare team.
4. Working together will, ideally, mean high quality diabetes care for all people with diabetes, no matter what their circumstances or needs.

Key words
- Birmingham Own Health
- Care provision
- Working together

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1. Individuals who need support for diabetes management are identified and referred by their GP, and invited to enrol in the service.
2. The basic principles of the care management philosophy are supporting and empowering individuals to make health behaviour changes that will positively affect their clinical markers and improve their wellbeing.
3. The service initially aimed to support up to 2000 patients in three deprived localities.

help encourage people to take actions to improve their health and get the best health outcomes from treatment programmes already recommended by their GP and other healthcare professionals. It also offers direct services in English, Punjabi, Urdu and Hindi (and other languages via a language interpreting telephone service), to reach across Birmingham's diverse ethnic communities to improve health and wellbeing and reduce inequalities across NHS BEN.

Who is suitable?

Individuals who need support for diabetes management are identified and referred by their GP, and invited to enrol in the service. They should meet the criteria outlined in *Table 1.*

Principles of the system

The basic principles of the care management philosophy are supporting and empowering individuals to make health behaviour changes that will positively affect their clinical markers and improve their wellbeing. This, in turn, has been shown to improve the pattern of demand on healthcare resources, and, as such, provide benefits for the healthcare system as a whole (DH, 2005). The service is commissioned from Pfizer Health Solutions by NHS BEN, and initially aimed to support up to 2000 patients in three deprived localities. The delivery of the telephone-based nursing service is sub-contracted to NHS Direct at Brierley Hill, West Midlands. It has the following objectives (BEN PCT, 2006):

- To develop a personalised care-management service tailored to the needs of individuals.
- To deliver care-management to black and minority ethnic communities and those experiencing social exclusion, difficulties in access to care and difficulties in self-management.
- To complement existing clinical care by providing time for people to properly understand their condition, what they can do and how this fits with clinical treatment plans.
- To integrate with the PCT's model of delivery for individuals with long-term conditions.
- To identify those most likely to benefit and facilitate engagement through primary care.

Table 1. Details of inclusion and exclusion diabetes criteria for the Birmingham Own Health service.

Inclusion criteria	Exclusion criteria
● Diabetes on register. ● Aged >18 years. ● Registered with practice for ≥2 months. ● Access to and use of a telephone. And at least one of the following: ● HbA_{1c} >7.4%. ● Cholesterol ≥5mmol/L (due to non-compliance). ● Coronary heart disease, stroke or transient ischemic attack registry, or hypertension registry and blood pressure >150/90 mmHg. ● BMI greater than 30 kg/m^2. ● Complication of microalbuminuria or overt proteinuria, lower extremity amputation or ulceration, or diabetic neuropathy. ● Assessed by clinician as likely to benefit from the programme.	● Under active case-management or intensive (greater than standard shared care) specialist-level care. ● Personality, physical or mental health issues that would make cooperation difficult, such as psychosis, dementia, drug addiction. ● Pregnancy. ● Terminal illness with a life-expectancy of <1 year. ● Recent or anticipated major surgery within 3 months. ● Active treatment for a related or unrelated significant illness, for example cancer therapy, renal dialysis, HIV/AIDS.

- To develop a robust partnership governance framework.
- To develop and implement an evaluation plan that maximises qualitative and quantitative learning.

The care managers' proactive, structured and personalised support is based on the following eight key priorities for people using the programme:

- To know how and when to call the doctor.
- Knowledge about their conditions and setting goals.
- To take their medicines correctly.
- To get recommended tests and services.
- To act to keep the condition well controlled.
- To make lifestyle changes and reduce risks.
- To build on strengths and overcome obstacles.
- To follow up with specialists and appointments.

The service should complement current treatment programmes and targets agreed with the individual's GP and usual diabetes team. Indeed, the relationship between an enrolled person and his or her GP, other healthcare professional, or both, continues to have primacy in identifying and agreeing the programme of treatment needed. The service also helps people to understand how to engage and use local NHS services more appropriately and effectively (for example, by accessing exercise programmes). The care managers build one-to-one relationships with individual patients, telephoning them at mutually agreed times, as often as needed. GPs and other healthcare professionals can encourage people to call their care manager if they need extra support or have specific queries on their condition on those occasions when a visit to the GP is not essential.

Linking in with existing services

Eastern Birmingham PCT, as it was in 2006 when this programme was launched, was one of three national beacon sites for implementing Kaiser Permanente principles (Feacham et al, 2002). For those readers who are not familiar with this American healthcare system, it is based mainly in California and includes a strong emphasis on clinical leadership, patient education and self-management. The Eastern Birmingham community diabetes team had been launched in 2003 with these principles providing the core framework for the community and primary care diabetes services. The two clinical leaders for the community diabetes team – the author and a consultant diabetologist – were therefore dismayed to be told in passing, by the director of service redesign, that Birmingham Own Health was being commissioned.

To the author, this did not seem compatible with the concept of clinical leadership for diabetes. The concept of "passive patients" being telephoned every week by care managers did not sit too well with the ideal of self-management either. On further investigation, it was discovered that the diabetes experience of the nurses who were being recruited to be care managers appeared to be quite limited in most cases. Diabetes was not included in the training programme for new recruits. Also, patients enrolling in the programme would be given information packs that were different from the diabetes handbook and patient-held records that the team had just rolled out across all the GP practices for use for all people with diabetes (with the aim of achieving consistent, good quality information available for all).

It was felt that the Birmingham Own Health programme was being introduced with little consultation with the community diabetes team, who decided that there was a choice: work with the initiative or ignore it. They chose to work with the programme, as it was recognised that, although there were an increasing number of diabetes resources available in the area, some people could not access them, chose not to, or needed support different to that provided by the traditional ways of delivering diabetes care.

Written materials

The community diabetes team quickly managed to halt the production of the Birmingham Own Health diabetes booklets, and arranged for the PCT diabetes handbook to be customised for individuals using this service. The books are an important part of the educational component

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given by the care managers, as readers are referred to specific parts of their books to reinforce information given, or recommended to read a particular page in preparation for the next agreed telephone call.

Induction for care managers

The care managers were given a comprehensive training induction package when they began working for the Birmingham Own Health service. Motivational interviewing skills and diabetes training were included in this. A short diabetes package was developed in conjunction with Warwick University, and was run over 3 days just before the service started in 2006 (*Box 1*).

As can be imagined, this was an intensive course but we had only about 1 month to get the care managers up to speed before the Birmingham Own Health service went live. It was important to have some accreditation for the course too – hence involving Warwick University – as this was a new service and would be under considerable scrutiny.

The community diabetes team is now involved in providing diabetes update sessions and training for new care managers. As well as increasing diabetes knowledge in the care managers, the training sessions have helped to develop networking, and the author has encouraged care managers to email or telephone her with queries about diabetes issues. This is appreciated by the care managers, who may feel quite isolated at times, as exemplified by the quote below:

> *"Thank you so much for the advice – it has been really useful. Thanks too for knowing I can send them your way when things get complicated!"*

Each care manager is dedicated to specific GP practices participating in the scheme. Part of the care manager's role is to work closely and build relationships with the clinicians and healthcare professionals, to ensure that he or she can best support and complement the work of the local primary healthcare team, and together achieve the best health outcomes for people with diabetes or other long-term conditions. Although the care managers never meet these individuals face-to-face, they do meet with the GP practice staff to discuss new referrals and diabetes issues they have identified.

Is there a need for this service?

Initially, the author was sceptical as to whether there was a need for the Birmingham Own Health service, as ideally people with diabetes

Box 1. Content of the 3-day diabetes training package for care managers.

Day 1

- Welcome and introductions
- Patient video and discussion
- Overview of type 1 and type 2 diabetes
- Complications of diabetes
- Nutrition and diabetes
- Lifestyle, setting goals
- Self-care:
  - – feet
  - – eyes
- Overview of the annual diabetes review

Day 2

- Oral hypoglycaemic agents
- Insulin therapy
- Practical: looking at insulin delivery devices
- Self-monitoring of blood glucose
- Hypoglycaemia
- Sick day rules
- Case studies

Day 3

- Using the basic eight self-management priorities with people with diabetes
- What care can a patient expect?
  - – from the GP/practice nurse?
  - – from secondary care/the consultant?
- The work of the community diabetes team
- Cultural diversity (health beliefs and practices of different cultures in North and East Birmingham)
- Small group work: case studies
- Feedback and group discussion
- Question and answer session

should see their GPs, practice nurses and DSNs regularly, and ideally these resources should be easily available for appropriate advice. However, some of the correspondence the author received from the care managers made for uncomfortable reading, as it reveals gaps in the traditional service, difficulty in accessing help from usual diabetes carers, and poor advice being given (*Box 2*).

Does it work?

Generally, people with diabetes like the service, and Birmingham Own Health reports levels of 96% patient satisfaction (http://www.birminghamownhealth.co.uk/faqs). It appears to have significant effect on some people achieving targets in behaviour changes and improvement in clinical outcomes, as exemplified by this quote:

"I feel well in myself and it motivates me to stick to the diet that I have. I was 14 stone, going on 15. I am down to 10 now. The care manager has motivated me into doing something. She has not asked me to lose weight because she has never seen me, but I have lost it."

Data for the first 506 people enrolled on the service indicated that (BEN PCT, 2006):

- 52% of enrollees improved their stage of change for diet.
- Approximately 22% changed their exercise level in a positive direction within a 49-day period.
- The mean HbA_{1c} level decreased significantly from 8.08% to 7.78% (P=0.02) and mean total cholesterol levels went from 4.56 mmol/L to 4.33 mmol/L (P=0.006) (*Table 2*).

What is difficult to measure, however, is how much of the improvement is due solely to the effect of Birmingham Own Health, and how much is due to the care given by the GP or other diabetes providers. The author discovered that a well-motivated individual with type 1 diabetes

who she was seeing in her community diabetes clinic for carbohydrate counting and insulin adjustment was also being contacted regularly by Birmingham Own Health. Any improvements in her diabetes control will be included in the scheme's statistics, but the author hopes that her intervention will have had some impact.

One lesson to be learned from this is the importance of collecting robust data about your activity, costs and effectiveness. Commissioners will use this data to determine who will provide care to the people with diabetes in their locality. As healthcare professionals, we cannot simply assume that our services will be chosen because they have been around for a long time. Birmingham Own Health appears costly (£315 per patient if 2000 people are enrolled, £630 per patient if only 1000 join the scheme), but this benchmarks well when compared with the reduction in the number of interventions, both planned and unplanned. "Business speak" predicts the return on investment will increase as both the number enrolled rises and the level of self-management increases.

There appears to be a reduction in the use of inappropriate visits to GP practices and the Accident and Emergency department with the service, which is used to justify its cost (BEN PCT, 2006). How many of us formally calculate the savings made by our interventions?

Box 2. Examples of issues with the traditional diabetes service, exemplified by quotes from care managers.

"I wonder if you can advise me about one of my patient's high blood glucose levels? She is on metformin 500 mg twice daily, gliclazide 80 mg twice daily and insulin glargine 42 units at night. Her blood glucose levels have been 12–14mmol/L pre-breakfast, and 12–19mmol/L in the evenings. She has seen the nurse practioner twice since last week on my advice, but the nurse practitioner does not seem too concerned. I have tried to contact the DSNs, but one is on annual leave and the other nurse only works Thursday and Friday and was not reachable when I called her on Thursday. What do you think I should do?"

"I met Dr B a couple of weeks ago and he is really pleased with the programme, and in particular how I have turned the teenagers around. He has asked if I could meet the teenagers as a group, and they could learn from one another."

"Just a quick question regarding sick day rules for people with type 1 diabetes. I have a patient who is on insulin glargine and insulin aspart three-times daily. He says he was advised by the GP when he was ill not to have the insulin aspart as he was not eating anything, and it is short-acting and requires food, but to continue with the insulin glargine. Is this correct?"

Table 2. Changes in clinical metrics over time and levels of significance (Birmingham East and North PCT, 2006).

Indicator	Before	After	*n*	Average interval between baseline and follow-up (days)	Significance (*P*-value)
HbA_{1c} (%)	8.08	7.78	80	113	0.02
Systolic blood pressure (mmHg)	141	133	181	101	ns
Total cholesterol (mmol/L)	4.56	4.33	112	138	0.006

Conclusion

Diabetes care will not just be provided by the NHS in the future. Commissioners will be looking for services that are innovative, cost-effective, and meet the needs of *all* people living in their areas who have diabetes. Traditional providers of diabetes care may feel threatened by non-NHS providers. Recognising their advantages for people whose needs are not being met by traditional methods of care is important. Ideally, working together will mean high quality diabetes care for all people with diabetes, no matter what their circumstances or needs. ■

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