# Multidisciplinary care plans for diabetes: how are they used?

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iabetes is a common and increasingly prevalent chronic disease that currently affects at least one million adults in Australia. Structured care of patients with diabetes, often by multidisciplinary teams, is associated with improved health outcomes.<sup>2,3</sup> Australian general practitioners play an important role, managing diabetes in 3.5 per 100 patient encounters. In 1999, the Australian Government introduced GP rebates for enhanced primary care (EPC) multidisciplinary care planning. The guidelines stated that care planning required collaboration between GPs, other providers and patients with chronic illnesses. 5 Initial uptake of EPC care plans was slow.<sup>6</sup> During this period, many GPs found care planning difficult to incorporate into their usual practice.<sup>7</sup>

In 2004, the Allied Health and Dental Care Initiative was introduced, allowing patients with a care plan to access Medicare rebates for five allied health or dental services a year. This led to a doubling in the number of claims for care plans.8 In 2005, GP management plans (GPMPs) and team care arrangements (TCAs) replaced EPC care plans. GPMPs are indicated for any patient with a chronic illness who would benefit from structured care. TCAs are intended for patients with complex care needs, require collaboration among providers, and allow patients to claim rebates for allied health and dental care. In financial year 2005-06, GPs prepared more than 645 000 GPMPs and almost 300 000 multidisciplinary care plans (EPCs and TCAs).8

Much of the existing research into care planning predates these more recent changes. It focused on GPs' reaction to EPC care plans,<sup>7,9</sup> practical difficulties associated with their use,7 and facilitators of uptake. 10,11 Our previous record audit study found that diabetes care delivery improved in the year following a care plan. However, we were unable to prove that this was due to care planning. <sup>12</sup> To measure whether care planning affects health care delivery or patient health outcomes, it is first necessary to understand more precisely how care plans are being used, and in particular how they affect usual care of people with chronic illness. Therefore, our aim in this study was to explore current care planning practices for people with diabetes, with a particular focus on the role of collaboration.

#### **ABSTRACT**

**Objective:** To understand how multidisciplinary care plans are being used in the management of patients with diabetes, and to explore the role of collaboration in care planning.

**Design:** Grounded theory interview study.

Setting: Primary care, June 2005 to October 2006.

**Participants:** Thirty-eight people from three New South Wales Divisions of General Practice: 19 general practitioners, eight diabetes-related allied health providers, two endocrinologists, and nine adults with type 2 diabetes. Sampling was purposeful then theoretical.

**Results:** GPs use care plans to organise clinical care and help patients access allied health providers. Written plans are used to educate patients about their care and to motivate change. GPs rarely discuss care plans with other providers, and providers are unlikely to change their approach to patients on the basis of care plans. Patients do not expect to participate in care planning.

**Conclusions:** Care planning may increase evidence-based multidisciplinary care for patients with diabetes, but it rarely results in genuine collaboration between providers and patients. This suggests a difference may exist between Australian policymakers' and providers' definitions of patients with complex needs. Care plans could facilitate patient self-management by including more personalised information. Further research is needed to clarify which patients would benefit from a truly collaborative approach to their care.

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## **METHODS**

#### Design

Our study was conducted using grounded theory methodology, which provides a means for understanding processes like care planning from the perspectives of the people who are involved in them. This methodology does not start with a preconceived model for how care plans should be used, nor does it seek to discover the extent to which current practice adheres to this model. Instead, the aim was to allow participants to describe care planning in their own terms.

## Sampling and recruitment

Participation in the study was voluntary. Providers were invited to participate by Divisions of General Practice and through advertisements to a New South Wales GP research network. Patients were recruited by invitation from participating allied health providers (AHPs). The researchers did not have existing professional or personal relationships with any of the participating providers or patients.

Initial sampling was purposeful, aiming to include GPs, diabetes-related AHPs, endocrinologists, and patients with diabetes from a range of settings within NSW to provide different perspectives on the care planning process. Subsequent sampling was guided by theory development, and continued until saturation of the major concepts was achieved.<sup>13</sup>

#### Data collection

Data were collected by semi-structured interview between June 2005 and October 2006. All interviews were conducted by T S, who informed participants that he is a GP and researcher. During early interviews, participants were asked to describe in detail the development of a care plan, and subsequent interviews focused on emergent concepts, including care planning purposes and collaboration in decision making.

## **Analysis**

Interviews were tape-recorded, fully transcribed and de-identified, then entered into NVivo version 2.0 qualitative software (QSR International, Melbourne, Vic) for analysis.

Grounded theory methodology acknowledges that the researcher influences data collection and analysis. <sup>13</sup> TS was responsible for data collection and coding. He met with both GP and non-GP members of the research team on several occasions to simultaneously code sections of interviews. These meetings broadened the perspective of the analysis by increasing sensitivity to concepts in the data. They were also used to refine the coding framework. <sup>14</sup> Analysis was by constant comparison using a coding matrix. <sup>13</sup>

#### **Ethics approval**

Participants gave written informed consent, consistent with the ethics approval granted by the University of New South Wales and Sydney South West Area Health Service human research ethics committees.

## **RESULTS**

## **Participants**

There were 38 participants in the study (19 GPs, eight AHPs, two endocrinologists, and nine patients with type 2 diabetes).

Thirteen GPs were male; all the GPs were at least 36 years old. Fourteen worked in urban areas, seven in solo practice and seven in practices of 2–4 GPs. Three had been in practice for less than 10 years and nine for more than 20 years.

The AHPs (one man, seven women) included four diabetes educators, three dietitians and a podiatrist. Three were younger than 35 years. Three AHPs worked in private practice collocated with GPs, and the remainder worked in public practice. Only one had been in practice for more than 10 years.

The endocrinologists, both men older than 35 years, worked in private and public practice. One had been in practice 5–10 years, the other more than 20 years.

The patients (six men, three women) ranged in age from 47 to 77 years. They differed by stage of diabetes: four taking insulin, one about to commence insulin, three taking oral hypoglycaemics, and one newly diagnosed.

## Care planning purposes

## GP perspectives

All GPs said they used care plans as clinical tools. The main purposes of care planning were to organise and facilitate clinical care delivery and to engage patients in their care.

Making a dedicated appointment to develop a care plan gave GPs time to review the patient's clinical care needs and to develop a structured plan. Most GPs preferred using disease-specific templates that incorporated evidence-based guidelines as prompts.

GP02: It certainly helps me in generating in one sitting my thought processes about the sort of care processes she [the patient] needs.

Several GPs used care plans primarily to help patients access private AHPs, either to save GPs time or for their supplementary expertise. For some, this represented a change in practice, in that the potential for improved patient access to AHPs actually prompted the GPs to initiate care plans and new AHP referrals.

GP01: I think the allied health initiative has been a big driver to really look hard at care planning. Because in the past we just baulked at sending many of our poor old patients to those almost non-existent public services.

GPs rarely used the written plans to communicate specific information about patients to other providers, preferring referral letters or phone calls.

GPs also saw care plans as assisting them to engage patients in their care. They used discussion of evidence-based targets to educate patients about their current health status and to motivate them to change behaviour. GPs used the written plan to remind patients about the treatment and monitoring that was needed, so it was typically written in simple English and included standardised targets and clinical care tasks rather than personalised self-management information.

## Other health care provider perspectives

Other health care providers said they thought care planning was more beneficial for GPs than themselves, although AHPs said that care planning had increased GPs' use of their services and improved patients' access to private providers. Endocrinologists felt they helped GPs to organise structured care.

Many AHPs felt sceptical about the benefits of written plans because they rarely included personalised information except for a list of medical problems and other providers involved in the patient's care. Both AHPs and endocrinologists said they did not change their approach to management on the basis of a written care plan.

AHP04: What I provide them as an educator would be no different if they had a care plan or not.

#### Patient perspectives

Patients recalled very little about their care plans. Outcomes that patients appreciated

were referrals to new health care providers and rebates for AHP visits. Patients felt reassured by the idea that their GP had a plan for their future care. None of the patients reported using the written plan in their day-to-day self-management.

Patient07: I saw it as more for him [the doctor], but also for me I suppose an assurance that certain things would be monitored and noted on the document.

## Collaboration in care planning

## GP perspectives

GPs generally did not discuss care plans with other health care providers. Instead, they sent the completed plans to providers to invite comment, or included plans with referral letters. Even when patients had complex care needs, GPs felt confident knowing what the providers could do, although on rare occasions would contact them to check whether they could make a genuine contribution to a patient's care. Several GPs reported that care planning had increased their knowledge of AHPs' skills, but once having gained this knowledge, it was rarely necessary to discuss individual patients. Most GPs said it was disrespectful to give providers specific instructions, so written plans described their roles in general

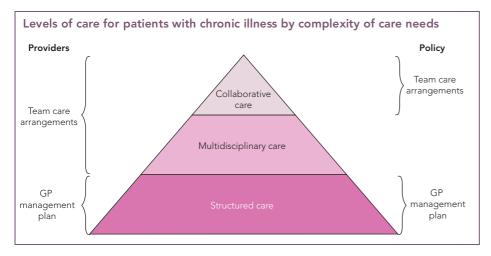
GP09: I usually just touch base with the dietitian and say "this is the situation, do you think you can be a part of it?"

GPs felt a strong sense of responsibility for patients' health outcomes. Failing to reach targets had potentially serious implications for patients with diabetes, so GPs felt that negotiation about the treatment goals was an abdication of their professional responsibility. Even when patients had comorbidities, this only affected GPs' expectations of what was realistically achievable, not what they should try to achieve.

GP13: With diabetes you have to be a bit more strict with, more close to what the guidelines are ... 'cause once they [the patients] get complications then it's not easy to sort of come back.

## Other health care provider perspectives

Other health care providers reported that care planning had not changed their beliefs about their roles. GPs were still the coordinators of care, and most providers did not expect to be consulted during the development of a care plan. They felt comfortable providing a clinical service to patients and giving feedback to GPs.



Several AHPs said one of their roles was to translate the GP's plan into a set of achievable self-management goals and tasks. They believed that GPs rarely had enough time to personalise care, and that GPs were more accustomed to the "medical model" while they had more expertise in "patient-centred care".

AHP01: I see the care plans and I see the management that they want to do, the things, the targets, the goals and the needs. And then I make them realistic.

Endocrinologists believed their role was to give GPs an opinion about patient care informed by best-practice principles. They said they were happy to leave the ultimate responsibility for decision making to the GP.

## Patient perspectives

Patients indicated that they did not expect to be involved in decisions about their care plan. This is partly because care plans were seen to document clinical goals and activities about which they had no expertise. Moreover, patients said they did not believe there was any uncertainty about the best treatments, so there were no real options to discuss.

#### **DISCUSSION**

Health care providers described several different approaches to care planning that have the potential to improve health care delivery and outcomes. However, these approaches rarely involved the collaboration that was envisaged in care planning policy. Rather, GPs focused their use of care plans on ensuring that patient care was comprehensive and in accordance with evidence-based guidelines, and that patients were adequately informed about their clinical care needs.

GPs rarely collaborated with other health care providers when preparing multidisciplinary care plans, and most providers did not believe that collaboration would improve care for the majority of their patients, including patients they identified as having complex needs. This suggests that a difference may exist between Australian policymakers' and providers' definitions of complex needs. For providers in this study, patients had complex needs and were eligible for TCAs because they required care from two or more additional providers. They felt that only a small proportion of these patients had problems so complex as to require collaboration beyond that which already occurs through referral and feedback letters. This clearly differs from the policy requirement that all TCAs involve active discussion between the GP and other providers at the time of their development  $(Box)^{15}$ 

Many GPs used care plans to provide patients with general education about the clinical goals and tasks of diabetes care, and referred patients to AHPs for more specific self-management support. Self-management is enhanced by collaborative goal-setting, which in turn relies upon an understanding of the patient's needs and preferences. <sup>16,17</sup> GPs could therefore assist AHPs by including more personalised patient information in their written care plans, such as potential barriers to achieving evidence-based targets.

Many patients with chronic illnesses benefit from multidisciplinary care. <sup>18</sup> This study suggests that care planning plays an important role both in prompting and in facilitating referrals to AHPs. Policymakers should consider clarifying the eligibility criteria for TCAs to better reflect current practice (with its limited collaboration), bearing in mind that future restrictions on patients' access to

AHP rebates is likely to adversely affect GPs' use of care planning and multidisciplinary care

Future research into the effect of care planning needs to take note of the various purposes for which GPs use care plans, as these purposes affect the process and outcomes of care planning in different ways. Studies in other countries have begun to explore this issue; however, most research in this field has been done in the United States in managed care settings that do not translate easily to the Australian context. <sup>19,20</sup> Australian studies are needed to help clarify which patients would most benefit from true collaboration in the provision of their multidisciplinary care.

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## **COMPETING INTERESTS**

None identified.

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