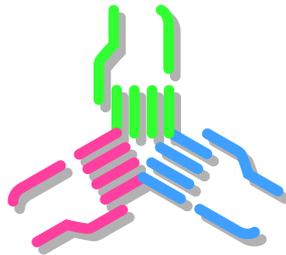


Central Bayside
Division of General Practice Ltd.

Pharmacy and General Practice Disease Management Collaboration



Final Report

April 2003

Central Bayside Division of General Practice Ltd
193 Bluff Road
SANDRINGHAM, VIC 3191
Tel: 03 9521 6755 Fax: 03 9521 6855
www.centralbayside.com.au
info@centralbayside.com.au

For further information contact Roy Batterham
roy.batterham@centralbayside.com.au

Acknowledgements

This project was funded by the Commonwealth Department of Health and Ageing as part of the Third Community Pharmacy Agreement under the Research and Development Grants Program. The authors wish to thank the staff of the Pharmacy Guild of Australia for their unflagging interest in, and support of, this project. We also thank the staff of the Pharmaceutical Society of Australia for their input and their assistance locating relevant literature. A special mention also goes to the staff at Central Bayside Division of General Practice who provided such great support over the life of the project, it has been much appreciated.

Mostly we wish to thank all the local consumers, GPs and pharmacists who participated in focus groups and have been enthusiastic in taking on the project, their input and feedback has been invaluable.

Project Team

Roy Batterham	Chief Investigator
Margaret Lawson	Project Manager
Reitai Minogue	Consultant Pharmacist

Steering Committee

Frank Fisher	Consumer
Denise Seely	Consumer
Kathryn De Garis	GP
Rod Trevena	GP
Susan Kloot	GP
Michael Best	GP
Gerald Galatis	Pharmacist
Neil Petrie	Pharmacist
Alicja Najbar-Kazkiel	NPS Facilitator

Contents

Table of contents

ACKNOWLEDGEMENTS	I
CONTENTS	III
Table of contents	iii
Table of tables	v
Table of figures.....	v
GLOSSARY AND ABBREVIATIONS	VI
EXECUTIVE SUMMARY	VII
Purpose and aims	vii
Methods.....	vii
Evaluation.....	ix
Results	ix
Beyond medication review?’	ix
Summary of conclusions	x
Recommendations	xi
1 INTRODUCTION	1
1.1 Overview.....	1
1.2 Aims	1
1.2.1 Guiding aims.....	1
1.2.2 Operational objectives	2
2 STAGE 1: MODEL DEVELOPMENT	3
2.1 Introduction	3
2.2 Overview of methods	3
2.3 Results.....	4
2.3.1 Survey of literature	4
2.3.2 Consumer focus group	5
2.3.3 GP and pharmacist focus group	5
2.3.4 Principles and requirements emerging from consultation process	6
2.4 Development of the shared care plan.....	7

2.4.1	Overview of the shared care plan.....	7
2.4.2	Development of the implementation process.....	7
2.4.3	Combined GP/pharmacist/consumer focus group.....	7
3	RECRUITMENT AND TRAINING	9
3.1	Recruitment of pilot participants	9
3.1.1	Participants experience in summary	9
3.2	Training	9
4	EVALUATION DESIGN AND METHODS	11
4.1	Evaluation questions.....	11
4.1.1	Initial evaluation questions	11
4.1.2	Additional evaluation questions: moving beyond medication review	11
4.2	Data collection methods	11
4.2.1	Ethics approval	12
4.3	Selection/development of instruments.....	12
5	EVALUATION RESULTS: OVERVIEW BY EVALUATION ACTIVITY	13
5.1	Preliminary consultations and focus groups	13
5.2	Implementation and issues monitoring.....	13
5.2.1	Uptake data	13
5.2.2	Issues log	14
5.2.3	Review of sample of shared care plans.....	15
5.2.4	Conclusions and results from implementation and issues monitoring.....	15
5.3	Pre-post patient questionnaires	15
5.3.1	Constructs assessed in the questionnaires	15
5.3.2	Problems with the pre-post data.....	16
5.3.3	Changes in patient factors	17
5.3.4	Conclusions and results from pre-post patient questionnaires	24
5.3.5	Was it worth it?.....	25
5.3.6	Reported value of project.....	25
5.4	Follow-up consultations and focus groups.....	27
5.4.1	Patient focus group	27
5.4.2	First GP/pharmacist focus group.....	28
5.4.3	Second GP pharmacist focus group	30
5.4.4	Extra patient interviews	32
5.4.5	Conclusions and results from follow-up consultations and focus groups	32
6	CONCLUSIONS AND RECOMMENDATIONS	33
6.1	‘Beyond medication review?’	33
6.2	Sustaining the gains	33
6.3	Lessons for future research.....	35
6.4	Summary of conclusions.....	36
6.5	Recommendations.....	36

7 BIBLIOGRAPHY	38
INDEX OF ATTACHMENTS.....	39
Attachment A: Questions for consumer focus group (April 02)	40
Attachment B: Questions for GP/pharmacist focus group (April 02).....	41
Attachment C: Shared Care Plan.....	42
Attachment D: Outline of process	49
Attachment E: Example Shared Care Plan Contact Log	50
Attachment F: Patient questionnaire before Shared Care Plan	51
Attachment G: Patient Questionnaire Post Shared Care Plan	54
Attachment H: Patient Follow up Telephone Interview Questions.....	58
Attachment I: Questions for focus Groups (Dec 02).....	60
Attachment J: Participants experience in detail	63

Table of tables

Table 1: Patient pre-test and post-test returns for each participating GP	14
Table 2: Summary of changes between pre and post patient questionnaires	20
Table 3: Ratings of usefulness of specific aspects of the program	26

Table of figures

Figure 1: Graphs showing changes and frequencies for provider utilisation items	21
Figure 2: Graphs showing changes and frequencies for self-efficacy items	22
Figure 3: Graphs showing changes and frequencies for health anxiety items	23
Figure 4: Frequencies for follow up questions on the value of aspects of the program.....	26

Glossary and Abbreviations

Glossary

CARE PLAN	In the context of this project a care plan refers to a document produced by a GP in consultation with a patient and involving two other providers that meets the requirements of the Commonwealths 'care planning' item numbers.
DOMICILIARY MEDICATION MANAGEMENT REVIEW	A review of medication that is: a) requested by a GP b) conducted by an accredited pharmacist c) in the presence of a patient (frequently in their home) d) that meets Commonwealth content requirements, and e) attracts a payment to both the referring GP and the pharmacist.
ENHANCED PRIMARY CARE	A Commonwealth Government strategy to improve primary care. It involves a number of initiatives and components, most relevantly a range of new item numbers and incentives to assist GPs work collaboratively with other providers.
HOME MEDICATION REVIEW	See Domiciliary Medication Management Review above.
INTEGRATED CARE PROJECT	A project currently being undertaken by CBDGP that involves development and testing of a decision support system for GPs to use in the management of patients with asthma. The PGP DMC project is expected to inform the ICP in relation to GP-pharmacist collaboration in the management of asthma.
SELF EFFICACY	The belief that one has the power and ability to implement desired practices or make desired changes effectively. ('Chronic disease self efficacy' refers to the belief that one can manage one's own illness effectively)
SHARED CARE PLAN	A template for the GP and pharmacist to contribute to the development of a care plan and monitor its implementation. The template meets the requirements of both a care plan and DMMR. Copies are retained by the GP, patient and pharmacist. This tool was developed as part of this project.

Abbreviations

CBDGP	Central Bayside Division of General Practice
CMF	Consumer Medication Fact-sheet
DMMR	Domiciliary Medication Management Review
EPC	Enhanced Primary Care
HMR	Home Medicines Review
HIC	Health Insurance Commission
ICP	Integrated Care Project
OTCs	Over-the-counter medications
PGA	Pharmacy Guild of Australia
PGP DMC	Pharmacy and General Practice Disease Management Collaboration
PSA	Pharmaceutical Society of Australia
QUM	Quality Use of Medicines
RACGP	Royal Australian College of General Practitioners
SCP	Shared care plan

Executive summary

Purpose and aims

The Pharmacy and General Practice Disease Management Collaboration project was a 12-month project funded by the Commonwealth Department of Health and Ageing as part of the Third Community Pharmacy Agreement under the Research and Development Grants Program. The main purpose was to develop and test a model of increased GP-pharmacist collaboration in the care of people with chronic illnesses.

At the time that the program commenced a number of other initiatives were also commencing focusing on possibilities for collaboration. The most notable was the introduction of Domiciliary Medication Management Reviews (DMMR)¹ an initiative where GPs could request pharmacists to visit a patients home to assess how they were handling and using medication. There was some evidence however, that both GPs and pharmacists were uncomfortable with having their potential collaboration considered solely in terms of medication review—many GPs felt that review programs involved pharmacists “checking up on them” while pharmacists felt that the programs underestimated their potential contribution to patient management.

In the context of these concerns it was important that the project also sought to inform debates about:

- How can pharmacists contribute to the management of people with chronic illnesses beyond just medication review?
- How can better communication between the GP and the pharmacist add value to and enhance the care provided to patients and, ultimately, the outcomes of that care?
- Is there value in pharmacists contributing to a multidisciplinary care plan and if so what form of contribution is beneficial?

The contracted aims of the project, which form the rationale for undertaking the project, were, to achieve:

1. Enhanced structured communication between pharmacists and GPs in relation to the management of patients with complex health care needs
2. A transferable model of disease management that reflects the skills and strengths of community pharmacy and general practice
3. A long-term reduction in health care costs for participating patients through better patient management.

Methods

The sequence of development proceeded through a number of stages. Initially a brief scan of the literature and informal discussions with a number of stakeholders helped define the potential value of collaboration between GPs and pharmacists and led to the development of questions to be explored more formally through the focus groups. This stage can be viewed as a scoping exercise.

¹ Now more commonly referred to as Home Medicines Review (HMR).

Two focus groups were then conducted, one with consumers and one with GPs and pharmacists together. The focus groups had two main purposes:

- a) to identify ways in which improved collaboration between GPs and pharmacists might potentially lead to benefits to patients
- b) to identify criteria that any model for collaboration (and any tools or instruments used to implement it) must meet.

The next step involved the development of a draft 'Shared Care Plan' as a tool for collaboration. This was informed by input from Division staff, the project's pharmacy adviser and two member GPs. The draft tool was then presented to another meeting of GPs, pharmacists and patients including most of those who had attended the first two meetings. This group was asked:

- a) whether the tool met the requirements they had identified;
- b) for any other suggestions or improvements.

In concluding the group identified the following key requirements for any model to improve collaboration

- Pharmacists need to know reason for medication so can better inform patient
- Pharmacists want to provide patient with information / education regarding their medication
- Pharmacists want to know result when patient is referred back to GP
- GPs need to know what the patient is taking other than on prescription i.e. Over The Counter drugs (OTCs)
- GPs and Pharmacists need to know about medication compliance
- GPs want patient referred back as necessary.

Principles and requirements emerging from consultation process

One of the key points of discussion for both groups was how the patient could be effectively engaged as a manager and coordinator of their own care. This led to an expanded model of partnership involving the patient, GP and pharmacist (hence the project logo with the three hands). A second major requirement was that model and tools would need to meet the requirements for both a Care Plan (GP funding item) and a Domiciliary Medication Management Review (GP and pharmacy funding item).

The Shared Care Plan was developed to meet the requirements of the three project participants, GPs, Pharmacists and patients. As such the data and format incorporates information regarding:

- Patient and provider demographics
- Diagnosis / condition / medication
- Adverse events
- Problem list
- Action plans and request
- Issues that may influence medication use or effectiveness and
- Contact log.

The Shared Care Tool that was developed not only satisfied care planning requirements but also those for a Medication Management Review. This provided some efficiencies in data collection and usage.

Evaluation

Data collection primarily involved questionnaires for patients (pre, and post), and focus groups with all stakeholders.

Questionnaires were used to collect data on patients and involved pre and post assessment of current management including self-management behaviours and confidence about managing their illness/es. Standardised tests were used for some aspects of this data collection (see Section 5.3.1).

Focus Groups were used:

- Before the pilot focus groups with GPs and pharmacists to develop the requirements for the model and assess the acceptability and feasibility of the proposed model
- After the pilot focus groups to identify patients perceptions of the value of the contribution of GPs and pharmacists and of having them act collaboratively. Additional groups with GPs and pharmacists will assess how the model can be improved and made sustainable.

Communications between pharmacist and GPs regarding the patient management plan were logged on the shared care plan in some cases.

An issues log was kept noting any issues raised through the course of the trial by patients, GPs or pharmacists.

Results

Beyond medication review?’

The collated experiences of GPs and pharmacists in the project make it clear that there many important contributions that pharmacists can make to the implementation of a GP’s plan of care. It was equally clear, however, that most GPs have no overall understanding of these contributions and that the prompts in the shared care plan were insufficient to stimulate GPs to identify potential contributions. Increased awareness was achieved among participating GPs; but this came about through the experience of interacting with pharmacists in relation to particular patients rather than as a result of using the shared care plan proforma.

The pharmacist roles that were valued by GPs and patients were:

- Home Medications review
- Notification of the GP that the patient was on medications of which the GP was unaware
- Assistance dealing with the practicalities of medication use, particularly scheduling. (This was an issue for single medications but was even more of an issue where the patient was on many medications.)
- Helping patients to deal appropriately with side-effects
- Monitoring conditions where numerous repeat medications are the norm (eg hypertension, asthma)
- Advising about natural and over the counter medications.

For pharmacists the things that were considered most important in helping them fulfil these roles were:

- Obtaining a full list of the medications that a GP believed a patient was on
- Reasons for prescription indicated on scripts
- Highlighting changes in medication or dosage and comments on the reason for changes
- Greater personal knowledge of the GP and feeling comfortable to ring them
- Lists of active medical conditions
- Specific requests for pharmacy intervention (pharmacists indicated that such requests could be very useful but that during the project few specific requests were made despite the dedicated section of the shared care plan tool).

Summary of conclusions

- C1.** The utilisation of a shared care plan between GPs and pharmacists gives some patients a greater sense that the pharmacist is a legitimate health care provider and that they are being cared for by a team of providers. This belief, along with the process of doing the care plan and the document itself, gives patients increased confidence about their ability to access the help they need to care for their health. These effects were demonstrated both quantitatively and qualitatively. While statistical significance was achieved with only a few variables positive trends were seen for nearly all items and many of these could be expected to achieve significance with greater numbers. Care plans were highly valued by patients.
- C2.** The project achieved greater mutual understanding between GPs and pharmacists and a greater appreciation by GPs of the contribution that pharmacists can make to patient care. This was considered to be more a result of getting to know each other than of the tools and processes that were involved in the project.
- C3.** The GP care plan and a Home Medicines Review can be used in an effective, complementary manner but this occurred in relatively few cases. The main barriers to more uniformly effective use of the shared care plan appeared to be:
- a. Poor understanding by GPs of the contribution that pharmacists can make with a consequent difficulty making specific requests
 - b. Generally poor understanding of what care planning involves as evidenced by a lack of specific objectives in all but a few care plans
 - c. The amount of time that a care plan takes to undertake
 - d. The number of new initiatives that GPs were seeking to take on board during the trial period
 - e. Possibly a reluctance to include text in computer generated documents (the GP who used the hard copy tools included many more details about the care plan and requests to pharmacists).

In addition the extra burden involved in explaining the research project and obtaining consent hindered the utilisation of the shared care plan².

² While GPs reported that this was the case the fact that they consented at least 106 patients but then went on to complete Shared Care Plans on less than half suggests that the process of scheduling and completing the care plan was, in fact, the greater barrier.

Recommendations

- R1.** The Department of Health and Ageing should acknowledge the appropriateness of pharmacists as participants in care plans and should actively encourage GPs to involve pharmacists.
- R2.** The Pharmacy Guild should develop an education strategy (including a brochure) to inform GPs about the potential contribution of pharmacists to patient care in terms of:
- a. Dealing with the practicalities of medication usage (eg: scheduling, dose management devices, technique, working around side-effects and lifestyle issues)
 - b. Medication review (including both HMR and less formal reviews that may lead to pharmacists notifying GPs of medications that the patient is using of which they are not aware)
 - c. Disease management for priority conditions including diabetes, asthma and hypertension
- The strategy should also inform GPs of the value of providing pharmacists with full current medication lists, reasons for prescription and, where possible highlighting and explaining changes in medication.
- R3.** There should be continued exploration of mechanisms to reimburse pharmacists for the above contributions (R2) and for participating in the development and implementation of a patient care plan.
- R4.** Divisions should encourage and create opportunities for members to develop personal relationships with local pharmacists (eg: joint educational activities, HMR).
- R5.** A standard for communication between GPs and pharmacists should be defined and a realistic change management strategy for achieving that standard should be developed (eg: simplifying and prompting the recording of reasons for prescription, automating the production of medication change summaries).
- R6.** The developers of clinical software packages should consider the following enhancements to their products:
- a. Developing a modular tool for producing care plans with optional modules applicable to certain professions
 - b. Introducing a flag to highlight on the prescription printout when there has been a change in a patient's prescribed medications, e.g. when the dosage / frequency of a current medication has been changed or when a current medication has been substituted with something similar.
 - c. Encouraging the inclusion of patient's nominated pharmacist's name and contact phone number in the patient record and bringing it up when GP recalls patient demographic details.
- R7.** Central Bayside Division of General Practice should modify the computerised Shared Care Plan template in line with suggestions and continue to make it available to members and encourage its use. Utilisation should be monitored in the absence of the extra burden of the research project. The Division should review and implement the suggestions for sustainability listed in section 6.2 above.
- R8.** The Department of Health and Ageing, Divisions and the Divisions program need to continue to support care planning in relation to:
- a. Clarifying the purposes and essential features of care plans
 - b. Increasing the ability of GPs to formulate specific medium-term, goals, objectives and planned actions

- c. Increasing the understanding of GPs about the potential contribution of health providers (including pharmacists) to the assessment and medium to long term management of patients with complex health problems
- d. Helping practices developed streamlined and efficient processes for conducting care plans.

R9. While the assessment of intermediate level patient outcomes such as self-efficacy, confidence, anxiety, and self-management behaviours creates logistical difficulties for researchers, they are critical to the achievement of health benefits and more intervention trials should consider assessing them.

1 Introduction

1.1 Overview

The Pharmacy and General Practice Disease Management Collaboration project was a 12-month project funded under the Pharmacy Guild of Australia's Third Community Pharmacy Agreement Research and Development Grants Program. Central Bayside Division of General Practice (CBDGP) was invited to submit a proposal following discussions with the Pharmacy Guild of Australia (PGA) about possibilities for collaborative care for people with asthma that could be incorporated into the Division's Integrated Care Project (ICP).

At the time that the program commenced a number of other initiatives were also commencing focusing on possibilities for collaboration. The most notable was the introduction of Domiciliary Medication Management Reviews (DMMR)³ an initiative where GPs could request pharmacists to visit a patient's home to assess how they were handling and using medication. There was some evidence however, that both GPs and pharmacists were uncomfortable with having their potential collaboration considered solely in terms of medication review—many GPs felt that review programs involved pharmacists “checking up on them” while pharmacists felt that the programs underestimated their potential contribution to patient management.

In terms of GP initiatives, the Commonwealth Government was reviewing its policies on the use of ‘care plans’⁴ seeking to ensure that they were being used effectively and in accordance with the purposes for which they were intended. As part of this review the appropriateness of involving pharmacists as one of the other treating disciplines had been strongly questioned. In the context of these questions about DMMR and care plans an important issue for the project is to answer questions about:

- How can pharmacists contribute to the management of people with chronic illnesses beyond just medication review?
- How can better communication between the GP and the pharmacist add value to and enhance the care provided to patients and, ultimately, the outcomes of that care?
- Is there value in pharmacists contributing to a multidisciplinary care plan and if so what form of contribution is beneficial?

Given this context it was important that the project not only test a model for collaboration but also help inform these important policy debates.

1.2 Aims

1.2.1 Guiding aims

The contracted aims of the project, which form the rationale for undertaking the project, were, to achieve:

³ Now more commonly referred to as Home Medicines Review (HMR).

⁴ Care plans involve the production of a plan of care by a GP for a patient, where the planning involves consultation with that patient and two other providers. For completion of a plan GPs can bill the government using certain item numbers.

1. Enhanced structured communication between pharmacists and GPs in relation to the management of patients with complex health care needs
2. A transferable model of disease management that reflects the skills and strengths of community pharmacy and general practice
3. A long-term reduction in health care costs for participating patients through better patient management.

These broad aims were addressed through activities seeking to achieve the following operational objectives.

1.2.2 Operational objectives

The contracted objectives are:

1. To outline a model of collaboration between community pharmacists and GPs that enhances chronic disease management
2. To detail effective collaborative strategies between community pharmacists and GPs that optimise chronic disease management
3. To recommend appropriate strategies to the Integrated Care Project (ICP) for community pharmacist/GP collaboration that enhance chronic disease management
4. To identify acceptable incentives for community pharmacist and GP engagement in optimal chronic disease management.

In addition to these contracted objectives, the project staff decided to add the following two operational objectives:

5. To test a model and tools for enhanced GP-pharmacist-patient collaboration in chronic disease management in the Central Bayside Region
6. To assess the impact of an improved three way a partnership in care on patient satisfaction, confidence and self-management skills.

The Shared Care Plan has been produced in two formats:

1. 3 multi paged NCR paper format – hand written
2. Medical Director Template format – some automatic data input from Medical Director software application.

2 Stage 1: Model development

2.1 Introduction

The process of development of a model for GP-pharmacist collaboration in chronic disease management involved a number of stages and components. As discussed in the introduction above, an important requirement of the development process was to identify aspects of collaboration that go beyond just medication review and that build upon aspects of the sort of relationship people with chronic illnesses often develop with a pharmacist. Early reading and discussion with pharmacists and relevant agencies generated the following ideas (hypotheses) about the nature of this relationship—pharmacists:

- are seen as authoritative sources of information about drugs including over-the-counter drugs (OTCs)
- often have more frequent contact with the patient than the GP
- are often in a position to be aware of a patient's use of OTCs and other substances
- are often in a position to detect signs of misuse of medication or difficulties with use
- are often in a position where they can detect side effects or complications arising from medication use
- have access to a wide range of health information resources on supplementary strategies for patients to take control of their own health (and in some cases pharmacies host public health initiatives such as diabetes education or walking programs).

These and other themes and ideas were explored through a brief survey of the literature, consultation with key agencies, and in depth focus group consultation with consumers, GPs and pharmacists.

2.2 Overview of methods

The sequence of development proceeded through a number of stages. Initially a brief scan of the literature and informal discussions with a number of stakeholders helped define the potential value of collaboration between GPs and pharmacists and led to the development of questions to be explored more formally through the focus groups. This stage can be viewed as a scoping exercise.

Two focus groups were then conducted, one with consumers and one with GPs and pharmacists together. The focus groups had two main purposes:

- c) to identify ways in which improved collaboration between GPs and pharmacists might potentially lead to benefits to patients
- d) to identify criteria that any model for collaboration (and any tools or instruments used to implement it) must meet.

These two groups utilised a true focus group methodology⁵. The focus group method is structured to lead participants to provide a considered, sensitised and honest opinion on matters about which they may not have thought deeply before. It proceeds from quite general questions to which everyone can relate to 'the focus' questions in this case related to

⁵ As distinct from the group interview methodology that is normally, incorrectly, called a focus group.

desirable features of GP-pharmacist collaboration. The questions for the groups are provided in attachments A and B.

The next step involved the development of a draft 'Shared Care Plan' as a tool for collaboration. This was informed by input from Division staff, the project's pharmacy adviser and two member GPs. The draft tool was then presented to another meeting of GPs, pharmacists and patients including most of those who had attended the first two meetings.

This group was asked:

- c) whether the tool met the requirements they had identified;
- d) for any other suggestions or improvements.

2.3 Results

2.3.1 Survey of literature

Due to the very tight timelines for the first stage of the project there was not time to complete a formal literature review. None-the-less a large amount of literature was collected and scanned for relevant issues and insights. The following summarises some of the most important background considerations for the development of this project.

Medicines are an important component of the Australian health care system. It has been documented in Australia that prescriptions are written in 63.8% of all general practitioner consultations, and in 1996 approximately 178 million prescriptions were dispensed. Around 75% of all prescriptions dispensed in Australia are subsidised under the PBS. The other major source of subsidised medicines is public hospitals, where medicines are provided free to in-patients. The total cost of PBS prescription drugs dispensed from community pharmacies each year is nearly \$3.9 billion. The Commonwealth pays around 83% of this cost. The remainder is funded by patient co-payments. This information provides some background into the significance of the research issue.

Effective disease management requires continuity of care, pro-active health promotion, evidence based practice, care planning, care pathways, prevention and education for patients. This project sought to further operationalise the known components of effective communication and create opportunities for improved communication between Pharmacists and GPs ensuring continuity of patient care, improved population health outcomes and medication management services.

Best use of medication is an important area of health care. Adverse reactions, sub-optimal and inappropriate usage of drugs and hospitalisation for drug related events are evidence of the need for improvement. Effective interventions will be systems change focused and acceptable to key stakeholders (consumers, Pharmacists and GPs).

"Medication can be improved by enhancing communication between doctors, pharmacists, other health professionals and consumers". There has been some research into options for improved communication strategies that will lead to the wise use of medicine including:

- Development of protocols by Pharmacists, with input from GPs and consumers.
- Improvement of referral pathways between specialists, Pharmacists and GPs.
- Pharmacist input into primary care including medication reviews.
- Development of co-operative structures to link Pharmacists and GPs.

“Communication and relationships are the keys to balancing collaboration and optimal patient care with autonomy and privacy issues. Effective communication depends both on it being a two way process, and on how the relationship between the two parties influences the interpretation of ‘messages’ by each.”

The study conducted by Gilbert et al was a substantial project⁶ focusing on consumers and Pharmacists. This study had an intervention where all patients enrolled in the trial received a domiciliary medication review conducted by an accredited consultant pharmacist. It is recognised that Pharmacists do not always have the capacity or resources to leave their business and undertake domiciliary medication reviews; therefore this type of intervention is not within the scope of this project. Rather, the focus is to understand the *processes* that will facilitate Pharmacists and General Practitioners, working together within their existing structures and systems. The communication process and strategies tested were adapted to local conditions.

2.3.2 Consumer focus group

The consumer focus group involved 16 consumers. Detailed notes were taken during the meeting and the session was recorded and transcribed. The main findings of relevance to the project were:

- Patients want to be involved as managers of their own care
- Patients need the correct medication prescribed
- Patients need to know reason for medication
- Patients need to know more about effects of medications prescribed and possible alternatives
- Patients need to know more about effect of over-the-counter (OTCs) purchases
- Patients and carers want to know they have been listened to.

2.3.3 GP and pharmacist focus group

The GP / Pharmacist focus group was attended by two GPs and seven pharmacists.

One component involved asking for suggestions about ways in which pharmacists could contribute more to the care of people with chronic illnesses. The following suggestions were put forward:

Symptom and side effect monitoring

1. Communicate about all concerns phone, email & fax
 - Fax referral and faxback form
2. Communication
3. Side effect questions on first repeat
4. Form for patients to check side effects
5. Look at asthma action plan

Patient / Carer Education and Questions

1. GP tells pharmacist reason for prescribing (need patient consent)
2. Refer back to GP's for many questions
3. Medication lists for patients (including reasons)

⁶ Project funded for \$668,000

4. Consumer Medication Fact Sheets (CMFs) – then reassurance
5. Education on OTC and complementary
6. Questions on stopping medication

Medication Review

1. Correct use
2. Nursing Home Lists
3. OTC
4. Compliance
5. DMMR – (Preferably also in Nursing Homes)
6. Drug interactions

These issues were summarised in terms of **9 key elements** of the collaboration model:

1. Relationship building
2. DMMR
3. Enhance communication
 - content of standard communication (reason for prescription)
 - when to communicate and how
4. Audit Trail – tracking the patient between the GP and pharmacist
5. Patient education about reason for medication especially from GP
6. Compliance checks / ongoing medication review – dose , new, OTC, flag changes in drug orders
7. Care plan – indication on script in language that the patient can understand
8. Notifying GP re OTC usage
 - patient education re OTCs
9. Encourage patient to go to one pharmacist.

In concluding the group identified the following key requirements for any model to improve collaboration

- Pharmacists need to know reason for medication so can better inform patient
- Pharmacists want to provide patient with information / education regarding their medication
- Pharmacists want to know result when patient is referred back to GP
- GPs need to know what the patient is taking other than on prescription i.e. Over The Counter drugs (OTCs)
- GPs and Pharmacists need to know about medication compliance
- GPs want patients referred back as necessary.

2.3.4 Principles and requirements emerging from consultation process

One of the key points of discussion for both groups was how the patient could be effectively engaged as a manager and coordinator of their own care. This led to an expanded model of partnership involving the patient, GP and pharmacist (hence the project logo with the three hands). A second major requirement was that model and tools would need to meet the requirements for both a Care Plan (GP funding item) and a Domiciliary Medication Management Review (GP and pharmacy funding item).

2.4 Development of the shared care plan

Based on the learnings from the focus groups the following rationale for Shared Care Plan was used:

1. it provides common framework for pharmacist, patient and GP collaboration
2. it helps patient understand their condition and treatment
3. it helps GP and pharmacist understand patient situation
4. it is written in plain English for better understanding by all
5. it helps establish 'ownership' by the patient / carer.

2.4.1 Overview of the shared care plan

The Shared Care Plan was developed to meet the requirements of the three project participants, GPs, Pharmacists and patients. As such the data and format incorporates information regarding:

- Patient and provider demographics
- Diagnosis / condition / medication
- Adverse events
- Problem list
- Action plans and request
- Issues that may influence medication use or effectiveness and
- Contact log.

The data not only satisfied care planning but can also be further utilised for Medication Management Review. This provided some efficiencies in data collection and usage.

The Shared Care Plan was designed to provide all three participants with an opportunity to collaborate to the benefit of the patient. The Health Insurance Commission (HIC) guidelines and rules that govern care planning applied to the Shared Care Plan.

2.4.2 Development of the implementation process

The implementation process was designed to follow, as closely as possible, the normal sequence of events from a patient's perspective. It commences with a visit to the GP and then continues to the pharmacist (see Attachment D) in anticipation that the majority of patients will have a prescription to be filled. This and subsequent repeat prescription visits to the pharmacy provide opportunities for the patient and the pharmacist to complete their agreed actions.

The spirit and intent of the process was to create opportunity for all three participants to have conversations about their agreed actions.

2.4.3 Combined GP/pharmacist/consumer focus group

The purpose of this meeting was to walk the participants through a draft of the proposed Shared Care Plan document and trial process. This was achieved by providing the participants with copies of the relevant documents (see Attachments C and D) and stepping them through each data element or process, asking for comment.

The Shared Care Plan was generally accepted with several suggestions for improvement. These were subsequently included on the final document. The GPs particularly emphasised the need to reduce the time it takes to complete the Shared Care Plan. They suggested that it should be made available in Medical Director as this is the software package predominantly used by the Division's GPs. It was noted that whilst GP's are remunerated for the Shared Care Plan via Medicare item numbers Pharmacists are not. This was seen as a potential barrier to Pharmacist participation. Project funding alleviated this problem for the trial but it is an ongoing area requiring resolution.

Consumer participants were very supportive of the Shared Care Plan seeing benefit in having their medical information in the one document. They commented that the Shared Care Plan would have credibility with the many providers they interact with, giving them some relief from having to repeatedly 'tell their story'.

There was also group consensus that the process was reasonable and workable.

Forms of the shared care plan

The Shared Care Plan has been produced in two formats:

3. 3 multi paged NCR paper format – hand written
4. Medical Director Template format – some automatic data input from Medical Director software application (Attachment C).

These two formats ensured that all GPs within the Division were able to utilise the Shared Care Plan. Of the 20 GPs participating in the trial 17 opted to use the Medical Director template and 3 opted to use the paper format.

3 Recruitment and training

3.1 Recruitment of pilot participants

Recruitment of the three groups of project participants is best described as a cascading process. In summary, the GP opportunistically recruited suitable patients and the patient then designated their preferred pharmacist (see Attachments D and J). The target was to have 20 GPs recruit 20 patients each; resulting in a total of 400 patients. The number of pharmacists was dependent upon the patient's preferences. A comprehensive list of local pharmacists was supplied to each participating GP.

All pharmacists within the Central Bayside Divisional boundaries received a personalised letter from the project manager to raise project awareness and to invite comment and further inquiries. This letter generated many calls from pharmacists who expressed their support and interest in participating in the project. Pharmacists were provided with a participation incentive payment of \$35.00 per Shared Care Plan they were actively involved in.

Recruitment of the GPs involved both targeted and general awareness campaigns. Divisional GPs who had previously expressed an interest in Medication Management Review were sent a personalised letter inviting their participation. This was followed up by general flyer sent to all Divisional GPs and articles in the Divisions newsletter. Initially 22 GPs responded positively to the recruitment drive, with three withdrawing before commencement of patient recruitment. This resulted in reaching our target of a total of 20 GP participants. By November 2002, 13 GPs had commenced recruiting one or more patients. This number did not increase over the remainder of the project (see section 5.2.1 for more details).

3.1.1 Participants experience in summary

In the pilot there were four compulsory points of face to face contact for the patient participant as follows (see attachment D for detailed steps)

- Initial consultation with the GP to create the Shared Care Plan
- Initial review of the Shared Care Plan with the Pharmacist
- Final review of the Shared Care Plan with the Pharmacist
- Final review of the Shared Care Plan with the GP.

There may have been further interaction with the GP and Pharmacist depending on the patient's needs and circumstances. This was left to the discretion of the GP, Pharmacist and patient.

The patients were invited to participate in a post trial focus group. This was on a voluntary basis with a total of 17 patients taking part.

3.2 Training

Due to the nature of the participants, training was problematic and so was delivered in a variety of ways. As the GPs commenced the Shared Care Plan process they were the first target group. Initially a breakfast briefing was conducted for GPs prior to the commencement of the pilot. This was attended by 6 of the 20 GP participants. It consisted of a Divisional GP providing a short 'how to' session on care planning, covering basic principles and hints and tips. This session was accompanied with a briefing from the project

manager regarding the GP's role and responsibilities. Each GP was provided with a take home Information Kit, a self-inking project stamp and 10 patient information folders to get them started.

The second method was to visit GPs in their practices. In total 14 visits were conducted by the Project Manager. Some of these visits were one on one and some conducted as a group or practice information sessions. Again, each GP was provided with a take home Information Kit, a self-inking project stamp and 10 patient folders to get them started.

All pharmacists within the Central Bayside Divisional boundaries received a personalised letter from the Project Manager to raise project awareness and to invite comment and further inquiries. GPs undertook to further supplement this when they made contact with pharmacists to develop the Shared Care Plans. The Project Manager also visited pharmacies to provide further information and support.

Patients were informed about the project via their GP. GPs were encouraged to use the supplied visual aid whilst discussing the project with the patient during a consultation. The patient was then offered a patient information folder to take home and read. The folder directed the patient or their carer to contact the GP or project manager for further information. Only two patients who wished to seek further clarification regarding the project contacted the project manager directly.

4 Evaluation Design and Methods

4.1 Evaluation questions

4.1.1 Initial evaluation questions

Developmental phase

1. What are the barriers to collaboration between GPs and pharmacists and what would be required of a system to achieve effective collaboration in management of particular chronic conditions?
2. Is the model developed considered acceptable and feasible by GPs and pharmacists?

Implementation phase

3. Can this model be implemented effectively with patients, GPs and pharmacists?

Post intervention and follow-up phase

4. Does the model provide benefits to patients? (perceived and actual)
5. Is the model sustainable and applicable for the future?

4.1.2 Additional evaluation questions: moving beyond medication review

In addition to these questions the evaluation sought to explore a number of more general issues related to the potential role of GP-pharmacist collaboration going beyond just the model trialled here. In particular the study sought to investigate⁷:

- How can pharmacists contribute to the management of people with chronic illnesses beyond just medication review?
- How can better communication between the GP and the pharmacist add value to and enhance the care provided to patients and, ultimately, the outcomes of that care?
- Is there value in pharmacists contributing to a multidisciplinary care plan and if so what form of contribution is beneficial?

4.2 Data collection methods

Data collection primarily involved questionnaires for patients (pre, and post), and focus groups with all stakeholders.

Questionnaires were used to collect data on patients and involved pre and post assessment of current management including self-management behaviours and confidence about managing their illness/es. Standardised tests were used for some aspects of this data collection (see Section 5.3.1).

Focus Groups were used:

- Before the pilot focus groups with GPs and pharmacists to develop the requirements for the model and assess the acceptability and feasibility of the proposed model
- After the pilot focus groups to identify patients perceptions of the value of the contribution of GPs and pharmacists and of having them act collaboratively.

⁷ See discussion and rationale for these questions in section 1.1.

Additional groups with GPs and pharmacists will assess how the model can be improved and made sustainable.

Communications between pharmacist and GPs regarding the patient management plan were logged on the shared care plan in some cases.

An issues log was kept noting any issues raised through the course of the trial by patients, GPs or pharmacists.

4.2.1 Ethics approval

As the project involved collecting data directly from patients and accessing a portion of the patient medical record (albeit in de-identified form) approval by an ethics committee was required. The project received approval from the ethics committee of the Royal Australian College of General Practitioners (RACGP) prior to commencement of the pilot phase.

4.3 Selection/development of instruments

A major aim of the project was to determine if improved collaboration between GPs and pharmacists produces detectable benefits for patients. The focus groups suggested that possible benefits might include:

- fewer medication errors
- more effective use of medications
- more integrated and comprehensive planning of care (documented and a copy held by patient)
- increased ability of patients to communicate their care plan to other providers
- improved symptom monitoring
- better patient education and thus improved patient understanding of their illness and its management
- patients more able to access support and advice
- patients more empowered to participate in managing their own illness
- patients more confident about their ability to manage their illness
- eventually, improved disease control and improved health outcomes.

The literature on chronic disease management as well as evaluations of previous chronic disease programs suggests that a critical issue is the patient's belief that they are able to effectively manage their own condition and to access all the resources that they need in order to do so. This issue is usually referred to as self-efficacy. We hypothesised that self-efficacy would increase as a result of:

- having a care plan
- increased knowledge
- increased access to support.

For these reasons, self-efficacy was chosen as the main patient level outcome to be assessed at the start and at the end of the trial. Suitable instruments have been developed by Professor Kate Lorig a leader in chronic disease self-management programs. The final set of instruments is attached as attachments F and G.

5 Evaluation results: overview by evaluation activity

5.1 Preliminary consultations and focus groups

The results of the initial consultations and focus groups were summarised in sections 2.3.1 through 2.4.3 and formed the basis for developing the shared cared model and instrument as well as for identifying evaluation criteria.

5.2 Implementation and issues monitoring

5.2.1 Uptake data

GP and patient uptake during the pilot phase of the project spanned from July 2002 to December 2002. The patient pre Shared Care Plan -questionnaire was coded to uniquely identify the GP by alpha character. Patients were requested to return their completed questionnaires anonymously to the researchers via the provided stamped self-addressed enveloped. This technique was also used for the return of the post Shared Care Plan patient questionnaires and provided the main source of uptake information for the researchers. Patient post Shared Care Plan questionnaires where returned from December 2002 to April 2003.

As can be seen from the table below the return of the questionnaires indicated a slow and irregular uptake. GPs that failed to commence Shared Care Plans were individually followed up by the Project Manager to ascertain if there were any particular problems preventing their participation in the project (see 5.2.2 for further discussion regarding the issues encountered). The drop off between return of pre and post questionnaires was very marked. In the main this can be attributed to two problems:

1. GPs commenced Shared Care Plans but did not complete the review process after which the questionnaire was to be completed by the patient. It is interesting to note that this mirrors Health Insurance Commission (HIC) data in relation to a drop off of claims made against the Care Plan review item number as opposed to the initial care plan creation item number for CBDGP GPs.
2. Patients did not complete the process with the pharmacist and or did not return the questionnaire

Table 1 provides some evidence that the low uptake and in particular the low rate of return of the post-questionnaires was more due to GP factors than patient factors. The table shows that the percentage of patients of each GP who returned the post questionnaire was either 0% or close to 100%. There were two exceptions but we know from speaking to those GPs that they completed few of the care plans. This pattern suggests that where the GP actually sent out the post-questionnaire, patients were very likely to complete it. In short the low response rate was mostly due to GPs not sending them out, often because they had not completed the process.

GP ID	Status	Pre-test	Post-test	Post %
A	Withdrawn	0	0	
B	Pre-only	1	0	0%
C	Withdrawn	0	0	
D	Pre-only	1	0	0%
E	Withdrawn	0	0	
F	Pre and post	10	8	80%
G	Withdrawn	0	0	
H	Withdrawn	0	0	
I	Pre-only	6	0	0%
J	Pre-only	15	0	0%
K	Pre and post	3	3	100%
L	Withdrawn	0	0	
M	Withdrawn	0	0	
N	Pre and post	6	5	83%
P	Pre-only	5	0	0%
Q	Pre-only	1	0	0%
R	Pre-only	14	0	0%
S	Pre and post	20	2	10%
T	Withdrawn	0	0	
U	Pre and post	8	5	63%
W	Pre and post	16	2	13%
X	Withdrawn	0	0	
		106	25	24%

Table 1: Patient pre-test and post-test returns for each participating GP

5.2.2 Issues log

At the commencement of the pilot phase an Issues Register was developed by the researchers to capture questions and problems being experienced by GPs and pharmacists. Initially the issues being raised by GPs were predominately of a technical nature in relation to the use of care planning and Health Insurance Commission compliance guidelines. As these questions were satisfied then further queries raised by GPs included the project and care planning processes to be followed. A recurring theme was how to best incorporate care planning and contact with a pharmacist into daily practice and a patient consultation. Many GPs complained of care planning taking too much time. As seen in Table 1 nine GPs failed to resolve this particular problem and as a result did not commence using the SCPs.

A minority of GPs raised questions regarding the motives of Pharmacists and demarcation of roles, e.g. do pharmacists want to take over our job? However, it was more common for the GP to ask, 'How can a pharmacist contribute to a care plan and be of help to my patient?'

For the most part Pharmacists had issues around GPs sending them incomplete information (Shared Care Plans) particularly in regards to specific requests for pharmacist action or input. Several Pharmacists contacted the Project Manager to report that they had received a Shared Care Plan but did not know what to do next as the GP had not indicated his / her request.

Where this occurred before the patient had been seen by the pharmacist the Project Manager encouraged the pharmacist to contact the GP and seek direction. Several pharmacists reported that in the absence of a request for action from the GP they “worked out with the patient what to do on the spot” without checking with the GP. This usually occurred whilst the patient was in the pharmacy.

5.2.3 Review of sample of shared care plans

The researchers obtained photocopies or print outs of 22 care plans with all identifying details deleted or blacked out. Certain details of the care plan were entered onto a database including:

- Eligibility criteria
- Active medical conditions
- Current medications
- Objectives of care plan
- Requests to pharmacists

In addition the care plans were reviewed qualitatively to assess the depth of assessment and goal setting and of communication to the pharmacist. For the following discussion the reader is referred to the care plan form in attachment C.

Patients receiving a shared care plan had an average of 5 active conditions and were on an average of 8.5 prescribed medications. These figures clearly indicate the patients chosen for plans were complex and had significant potential for complications arising from medication use issues. On 20 of the care plans GPs had ticked a box indicating a category of objective (eg symptom control) but there were only 8 of the care plans on which the GP had written any specification of the actual objective, and these 8 came from just 2 GPs. In a sense most of the ‘plans’ did not contain any actual planning.

In regard to requests to pharmacists, Home Medication Reviews were requested on 13 of the care plans, education about drug use on 11 and other requests on 11. Eight care plans had written as well as checkbox requests to the pharmacist.

5.2.4 Conclusions and results from implementation and issues monitoring

The major issues in relation to implementation are the difficulties experienced by GPs in trying to incorporate care planning and contact with a pharmacist into their daily practice and patient consultations. This is born out in the GPs provision of incomplete information to the pharmacists and the review of the sample of care plans. Secondly many GPs were unaware of the potential value of a Pharmacist involvement and seemed unwilling to contact the pharmacist to discuss any options. Where GPs did take the step of contacting pharmacists directly they reported a useful and helpful experience. This was particularly the experience of GPs who requested a Home Medications Review.

5.3 Pre-post patient questionnaires

5.3.1 Constructs assessed in the questionnaires

The questionnaire was developed based on instruments used by Kate Lorig in the evaluation of previous patient self-management programs. Some additional questions were added relating to the patients relationship to the pharmacist. The questions were in five groups relating to:

1. **Utilisation of providers:** The patients relationship and comfort utilising relevant providers (questions 1-7)
2. **Self efficacy beliefs about disease management:** beliefs about their ability to manage their own illness and to control their life despite the illness (questions 8-17)
3. **Symptom control:** confidence that they could minimise the symptoms of their disease (questions 18-21)
4. **Medication behaviours:** self report about mistakes in use of medications These were yes/no questions (questions 22-25)
5. **General health:** one question asking patients to rate whether their general health was poor, fair, good, very good or excellent (question 26)
6. **Health anxiety:** questions asking about the frequency with which people experience negative emotional states because of their health. Rated 0 to 5, from 'none of the time' to 'all of the time' (questions 27 to 30)

Questions 1 to 21 (sections 1 to 3) all used a 1 to 10 rating scale (ie a score out of 10).

The post questionnaire contained an additional six rating questions (1 to 10) and also provided space for participants to comment on the project (questions 31-37).

The questionnaires are attached as attachments F and G. The questions are also repeated in the results table (Table 2, pp 18 and 19).

5.3.2 Problems with the pre-post data

Pre-questionnaires were completed by 106 patients who were recruited for the project and post questionnaires were completed by 25 patients. The reasons for the dramatic difference related were:

- GPs were unable to find the time to complete the care plan and so the patient never received the intervention
- The patient didn't come back for a care plan review (in some cases because they were recruited too late in the project to allow the review which must occur after 3 months)
- GPs or practice staff were unable to keep track of the patients who participated and thus were unable to mail out the follow up questionnaires.

These implementation difficulties were discussed in the previous section. There is strong evidence that the low post questionnaire rate was due to GP/practice factors rather than patients declining to do the questionnaire. This is clearly seen in Table 1 where it can be seen that GPs tended to have nearly 100% of their patients return the post-questionnaire or else 0%. The two exceptions relate to GPs who we know from interviews did not complete many of the intended care plans within the designated period.

The low follow-through rate of participating GPs and the low post-questionnaire rate was a major disappointment and undermined the initial evaluation plan to a substantial degree. It was initially intended that for each patient who completed the process we would have a matched set of pre and post questionnaires and a de-identified copy of the plan. It has to be admitted that our strategy for achieving this failed and there are lessons to be learnt from this for future research with GPs.

The project sought to utilise GPs to recruit, consent and track patients and to manage each stage of their participation. This was done in order to maximise patient privacy as it meant

that the Division did not need to know or record the patients' names or contact details. The strategy was unsuccessful in a number of ways:

- The process was considered onerous by GPs and was a disincentive to utilising the shared care plan
- The process influenced GP selection of patients so that they chose patients on the basis of their ability to participate in the process rather than on the basis of need
- Neither GPs nor practice staff⁸ were able to track the patients effectively meaning that we were unable to obtain matched pre and post tests as the original design stipulated.

As it happened, nearly all patients who completed the follow-up questionnaire voluntarily put their name on it in order to be included in a prize draw. It seems therefore that having the researchers know their names was not as great a disincentive to participation as we had thought and that the study would have proceeded more successfully if it had been administered directly by the Division. The experience highlighted, however, one very important point about the current state of general practice and that is that while a number of the new items and incentives in general practice require doctors to track patients through a series of steps, most GPs and practices have great difficulty accomplishing this.

The failure to obtain matched pre and post questionnaires meant that a weaker test of significance had to be used to assess whether or not a change had occurred (a t-test for uncorrelated samples rather than the preferred t-test for matched samples). This made it substantially less likely that we would find an effect.

In addition it was reported to us by some GPs that some patients had difficulty with the questionnaire and just circled the same response to all questions. Inspection of the data confirmed that approximately a third of patients had a strong response set and that there was very little variation in their responses. Questionnaires where there was no variability in either 3 or 4 of the sections where this could be seen (sections 1, 2, 3 and 6) were omitted. This resulted in 74 usable pre-tests and 19 usable post tests. The comments section was considered whether or not it was considered that the patients had been able to understand and successfully complete the quantitative questions. In hindsight it would have been better to have an alternative assessment strategy for those who the GP regarded as having cognitive impairment.

Despite the limitations in sample size and matching, and the weakness of the statistical tests that we were forced to apply, the results were surprisingly positive with a number of statistically significant changes detected and trends suggesting further positive changes.

5.3.3 Changes in patient factors

The table on the following page contains values for all pre and post test questions along with changes in the mean value and p values for a single-tailed t-test for uncorrelated samples. There are two sets of pre-test values presented. The first set imposes a very restrictive set of conditions in order to assure maximum equivalence between the groups: that is it only includes patients of GPs who had greater than 60% of patients complete the follow-up. Given this restriction it is highly likely that most of the 19 follow-up patients are also among the 25 included pre-tests, they are close to being the same group of people. The second set of values

⁸ In a couple of cases practice managers or nurses who had agreed to do the task resigned.

includes all surveys with sufficient variability no matter which GP they came from. Values with a difference in means greater than 5% of the scale range and/or where p-values approach significance are shaded; statistically significant vales are also boxed.

Item	Question	Post tests (N=19) Post-Mean	Pre tests with most restrictive conditions (N = 25)			Pre tests with least restrictive conditions (N 74)	
			Pre-Mean	Chg mean	P value	Pre mean	Chg mean
<i>How confident are you that you can.....</i>							
1	get information about your disease from community resources?	8.65	6.00	2.65	0.01	6.19	2.46
2	ask your doctor things about your illness that concern you?	8.94	9.00	-0.06	0.47	9.44	-0.49
3	discuss openly with your doctor any personal problems that may be related to your illness?	8.78	9.10	-0.32	0.35	9.36	-0.58
4	work out differences with your doctor when they arise?	8.72	8.95	-0.23	0.39	9.18	-0.46
5	ask your pharmacist things about your illness that concern you?	8.83	8.95	-0.12	0.42	7.86	0.97
6	discuss openly with your pharmacist any personal problems that may be related to your illness?	8.67	8.00	0.67	0.19	7.07	1.60
7	work out differences with your pharmacist when they arise?	9.00	8.75	0.25	0.34	7.82	1.18
Average of study specific questions (1-7)		8.77	8.39	0.37	0.26	8.16	0.60
Average of pharmacist specific questions (5-7)		8.83	8.57	0.27	0.31	7.60	1.24
<i>How confident are you that you can.....</i>							
8	do all the things necessary to manage your condition on a regular basis?	8.71	8.95	-0.24	0.32	8.49	0.22
9	judge when the changes in your illness mean you should visit a doctor?	8.72	8.75	-0.03	0.48	8.59	0.13
10	do the different tasks and activities needed to manage your health condition so as to reduce your need to see a doctor?	8.29	8.11	0.19	0.40	7.78	0.52
11	reduce the emotional distress caused by your health condition so that it does not affect your everyday life?	7.88	7.30	0.58	0.23	7.22	0.66
12	control any symptoms or health problems you have so that they don't interfere with the things you want to do?	7.00	6.65	0.35	0.36	6.66	0.34
13	do things other than just taking medication to reduce how much your illness affects your everyday life?	8.00	7.65	0.35	0.34	7.45	0.55
14	continue to do your hobbies and recreation>?	7.65	6.95	0.70	0.21	7.07	0.58

Item	Question	Post tests (N=19) Post-Mean	Pre tests with most restrictive conditions (N = 25)			Pre tests with least restrictive conditions (N 74)	
			Pre-Mean	Chg mean	P value	Pre mean	Chg mean
15	continue to do things you like to do with friends and family (such as social visits and recreation)?	8.18	6.80	1.38	0.08	7.32	0.85
16	keep from getting discouraged when nothing you do seems to make a difference?	7.59	6.60	0.99	0.14	6.93	0.66
17	do something to make yourself feel better when you are feeling discouraged?	7.94	8.10	-0.16	0.41	7.70	0.24
	Overall self efficacy (Average of items 8-17)	8.05	7.56	0.49	0.21	7.53	0.52
18	reduce your physical pain?	6.56	7.27	-0.72	0.40	7.55	-1.00
19	keep the physical discomfort or pain of your disease from interfering with the things you want to do?	7.10	6.69	0.41	0.27	7.00	0.10
20	keep any other symptoms or health problems you have from interfering with the things you want to do?	7.07	7.14	-0.07	0.37	7.13	-0.06
21	keep your shortness of breath from interfering with what you want to do?	5.92	5.67	0.25	0.41	6.86	-0.94
	Ability to control symptoms (Average of items 18-21)	6.66	6.27	0.40	0.34	7.06	-0.40
22	Do you ever forget to take your medicine?	Yes = 3	Yes = 3			Yes = 20	
23	Are you careless at times about taking your medicine?	Yes = 0	Yes = 0			Yes = 6	
24	When you feel better do you sometimes stop taking your medicine?	Yes = 1	Yes = 1			Yes = 6	
25	Sometimes if you feel worse when you take the medicine, do you stop taking it?	Yes = 2	Yes = 4			Yes = 17	
	Average number of negative medication behaviours	0.33	0.40	-0.07	0.36	0.67	0.34
26	In general would you say your health is:	3.35	3.58	-0.23	0.25	3.43	-0.08
27	were you discouraged by your health problem?	2.12	2.47	-0.36	0.22	2.04	0.07
28	were you fearful about your future health?	1.76	1.74	0.03	0.47	1.73	0.04
29	was your health a worry in your life?	1.88	1.79	0.09	0.43	1.84	0.04
30	were you frustrated by your health problem?	2.00	2.89	-0.89	0.05	2.33	-0.33
	Overall health anxiety (Average of items 26-30)	2.02	2.22	-0.21	0.32	1.98	0.03

Table 2: Summary of changes between re and post patient questionnaires

In each of the following three sections, three graphs are presented based on data utilising the most restrictive constraints on the pre-test group (thus 25 pre-tests and 19 post-tests). In each case the first graph shows changes in mean scores for all of the items; the second graph shows a pre and post distribution of average scores across all of the questions in that section; and the third graph shows a pre and post distribution for one of the most significant items. In the second and third graphs the pre-tests frequencies are solid and the post test frequencies are cross hatched. Results are discussed below the graphs.

Study specific scales (Provider utilisation: questions 1-7)

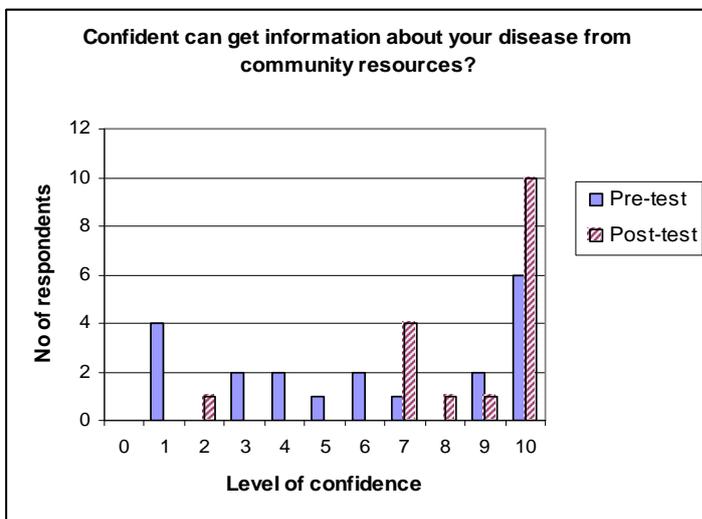
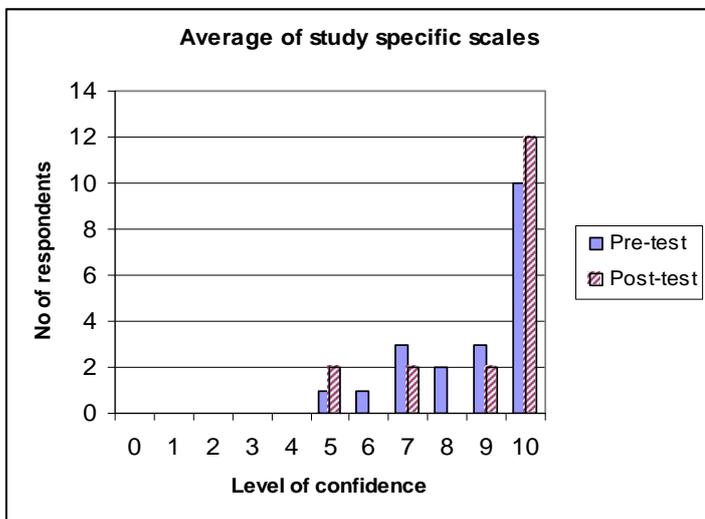
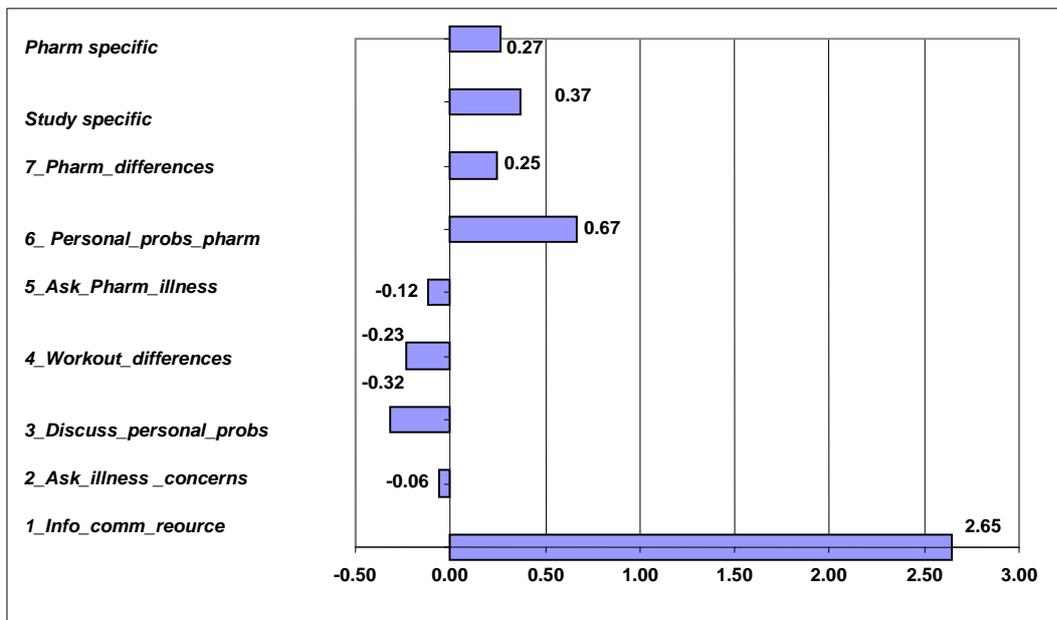


Figure 1: Graphs showing changes and frequencies for provider utilisation items

In these scales the only significant change was for question 1 ‘How confident are you that you can get information about your disease from community resources’. The change in willingness to share information with the pharmacist is sizeable but not significant. When the comparison is made with the less restrictive constraints on the pre-test group the changes in questions 1, 6 and 7 are all highly significant as is the combined score for the pharmacy items (5-7). The change in the overall score approaches significance. The potential to detect change in this section was lessened by a reluctance of patients to score less than 10 for questions 2-4 (regarding their

relationship with their GP). There was stronger response set in this section (tendency to score all 10s) than any of the others, even on the pre-test.

Self efficacy scales (questions 8-17)

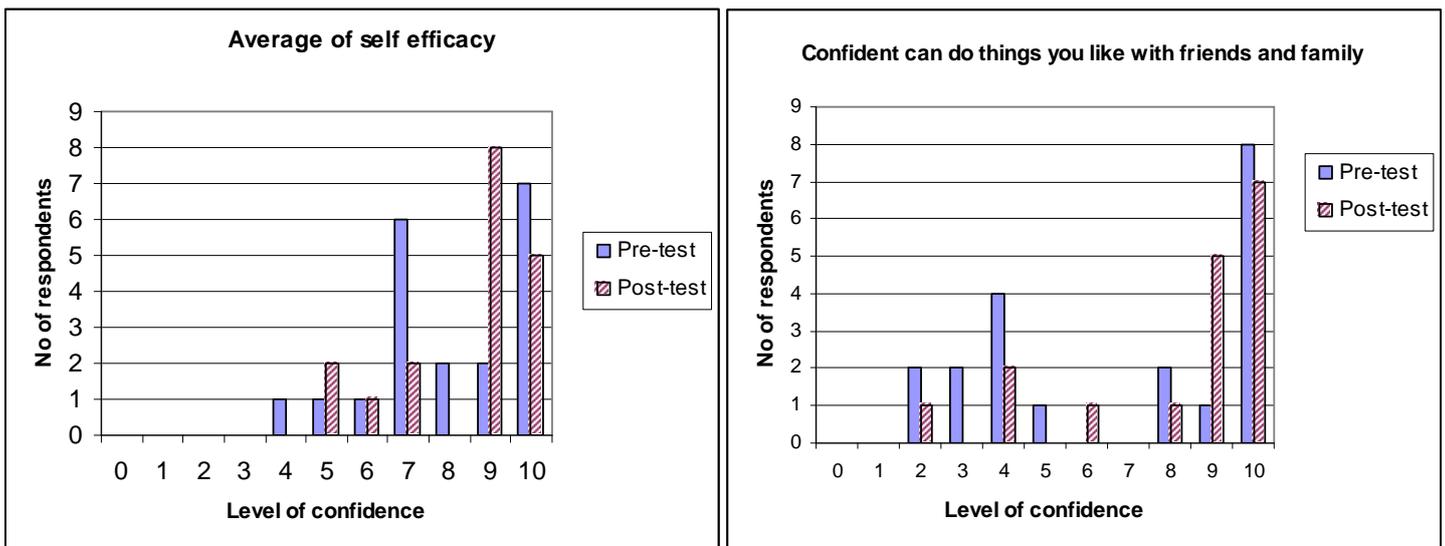
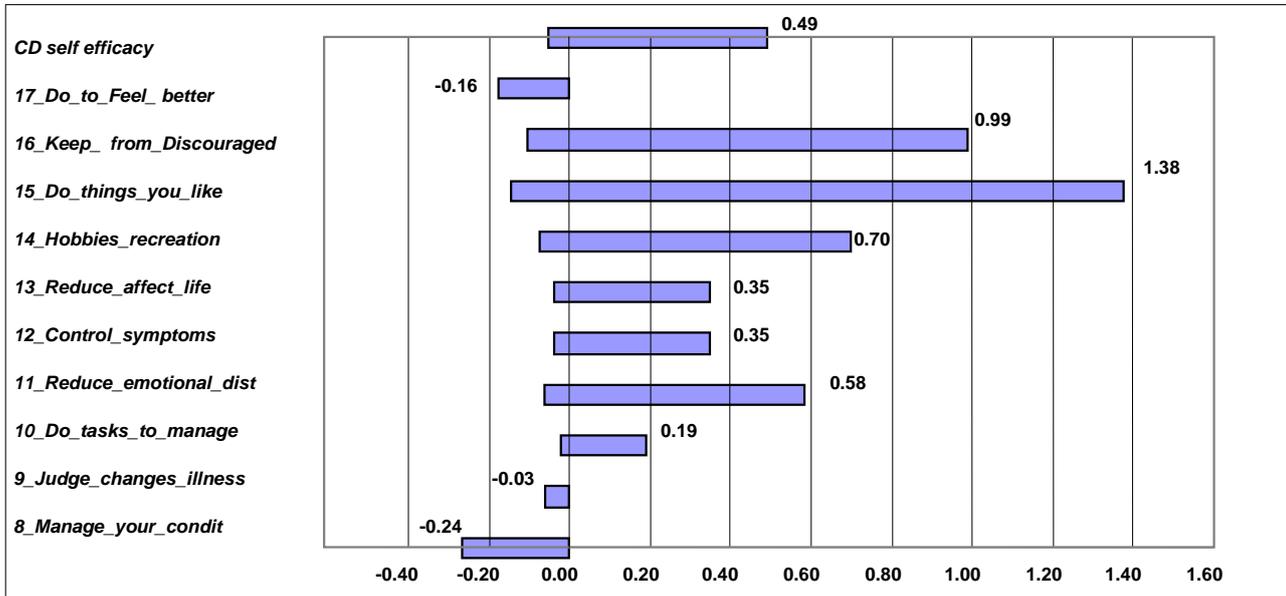


Figure 2: Graphs showing changes and frequencies for self-efficacy items

The first graph indicates a strong tendency to improvement across most items in this scale even when the most restrictive constraints are applied. When the less restrictive constraints were applied changes in scores for questions 11 (reduce the emotional distress caused by your health condition so that it does not interfere with your everyday life); 15 (continue to do things you like with friends and family); 16 (keep from getting discouraged when nothing yo do seems to make a difference) were sizeable and approaching significance as was the change in overall score for the scale. With the more restrictive constraints only the changes in questions 15 and 16 approached significance. In fact the change in question 15 became more pronounced and closer to significance (p = .08).

Symptom control, Use of medications and General health

From Table 2 it can be seen that there was no change in peoples’ ability to control symptoms such as pain and shortness of breath except that with the least restrictive constraints placed on

the pre-test group there was a moderate decrease in reported ability to control shortness of breath (this approached significance).

Patients in the least restrictive pre-test group reported an average of .67 inappropriate medication use behaviours. This was halved in the post test group to 0.33 and the difference was very nearly statistically significant ($p = .06$). When the more restrictive constraints were placed on the pre-test group however, this difference disappeared.

There was no discernible difference between the three groups (pre- restrictive, pre-non-restrictive and post) on their rating of their overall health. In each case the average was close to 3.5 (midway between fair and good) with a standard deviation of one level. This is important in that it suggests that the changes seen were not just a result of patients feeling better (after all they were recruited at a time when they had gone to see the doctor for something).

Health anxiety scales

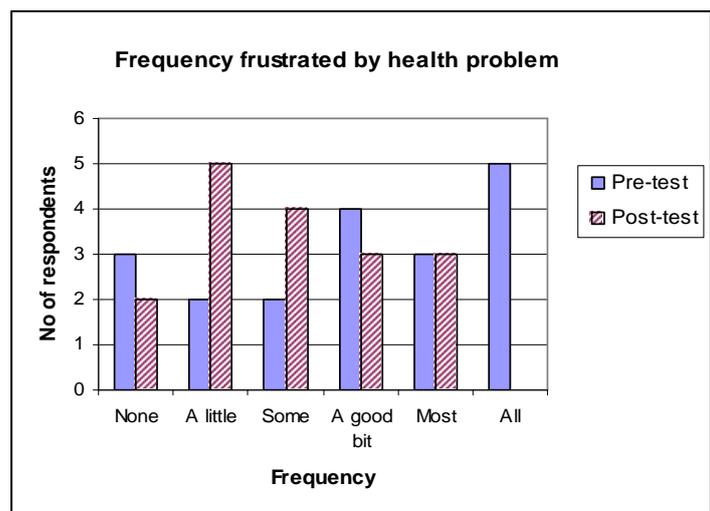
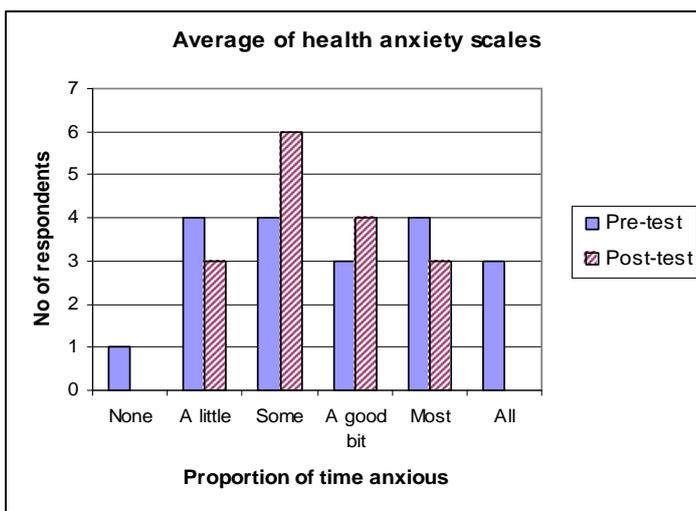
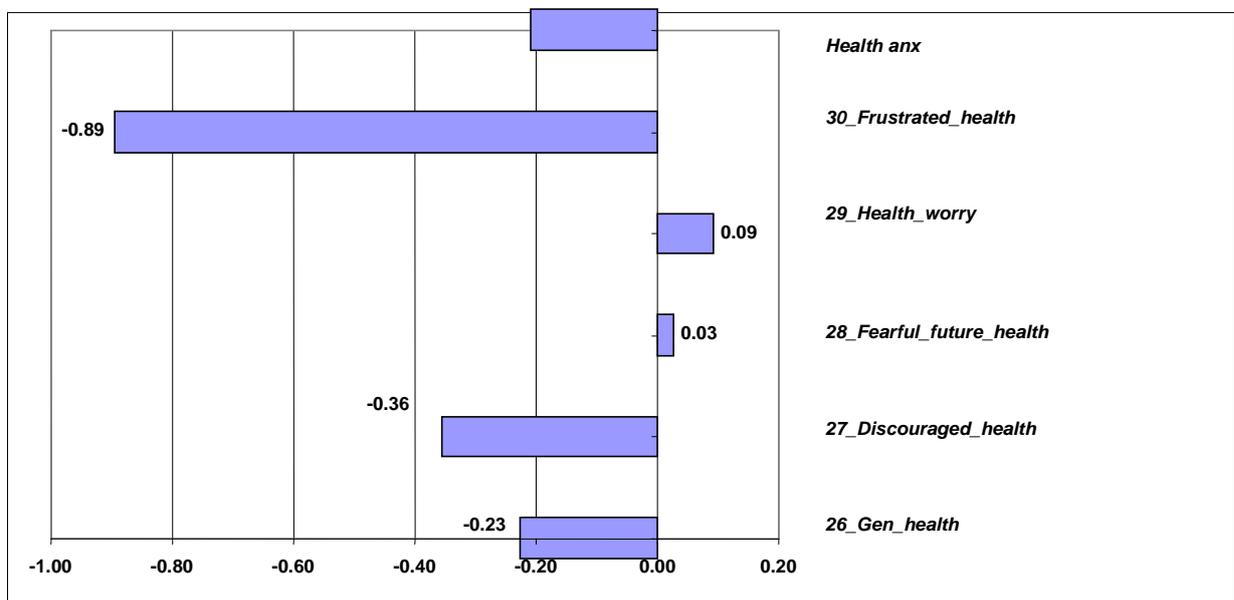


Figure 3: Graphs showing changes and frequencies for health anxiety items

There were four health anxiety items and the first graph indicates a moderate reduction in two of these items 27 (frequency of discouragement about health) and 30 (frequency of frustration with

health) with negligible changes in the other two. The overall effect was a small, non significant reduction in health anxiety. The reduction in the frustration scale was, however significant with $p = .05$.

5.3.4 Conclusions and results from pre-post patient questionnaires

While there were few statistically significant changes, especially when the most restrictive eligibility constraints were applied to the pre-test group, the fact that there was any was remarkable. Overall it would be reasonable to conclude that there were trends towards:

- Increased utilisation of pharmacists and community resources
- Increased self-efficacy
- Decreased health anxiety, in particular frustration
- Possibly a decrease in inappropriate medication use behaviours
- No change in symptom control or general health status.

These trends are completely consistent with the findings of the focus groups below.

It is difficult, in the absence of a control group, to be completely confident that the differences were attributable to the intervention rather than to processes that may have occurred anyway. The two most likely alternative explanations for the change (thus threats to the validity of the conclusion that change was caused by the project) are:

- It is possible that patients went to the doctor and were thus recruited to the project at a time that they were sick and thus at a low-ebb. Their outlook on their health and circumstances may have changed as they recovered from the exacerbation that took them to the doctor. (Threat to validity known as “Selection-history interaction”).
- Other concurrent initiatives or changes in the environment (eg changes in service availability) led to the observed changes.

Against these alternative explanations it is worth noting that:

- We were unaware of any other major changes in the health service environment or broader environment that could be expected to systematically affect these patients;
- The pattern of changes in the items was consistent with the main hypotheses and expectations we took into the project rather than with a general improvement in outlook associated with recovery from an acute event (ie no changes in general health or relationship with doctors but changes seen in self-efficacy and relationships with pharmacists and community resources);
- The focus groups confirmed the changes and participants were able to identify specific beneficial aspects, most notably:
 - Having the document that summarises their history and medications
 - Having a second professional who knows their situation and who is relatively accessible.

In conclusion we can say that there is moderately secure evidence that certain features of the intervention produced positive benefits to the patient mostly related to their confidence. This is in addition to specific changes in management that arose from the interventions carried out by the doctors and pharmacists.

5.3.5 Was it worth it?

Within the project a substantial amount of effort was put into collecting this patient outcome data and it probably came at some cost in terms of the willingness of GPs to implement the shared care plans widely.⁹ An alternative process would have been to just focus on GP and pharmacist behaviour without imposing additional burden on the GPs of having to collect patient data. Despite the problems the researchers feel that the collection of patient data was worthwhile for a number of reasons:

- Patient confidence (self-efficacy) an understanding is an important predictor of their behaviour and of health outcomes;
- Patient engagement, confidence and understanding was expected to be one of the major benefits achieved through and enhanced pharmacist role;
- The patient engagement emphasis and the inclusion of patient data stops the process being a mechanical communication between GPs and pharmacists and forces an emphasis on the quality of the process not merely compliance with a procedure.

It has been a recent trend in health evaluations to force a choice between ‘health outcomes’ or ‘practitioner compliance with guidelines’ as the possible outcomes of health system development projects. This project has demonstrated that this is a false choice and that there are important intermediate outcomes between practitioner behaviour and changes in health status that ultimately determine the outcomes of care. We would encourage more projects to focus on patient engagement issues and to consider important intermediate patient outcomes when designing evaluations. These outcomes could include patient:

- understanding,
- confidence,
- self-efficacy,
- ability to formulate a plan of action for themselves,
- behavioural intention,
- social support, and
- behaviour.

Having said that we well recognise the limitations and impact of the processes used within this study as discussed elsewhere.

5.3.6 Reported value of project

In addition to the pre-post questionnaires the follow-up questionnaire asked patients to rate the value of six aspects of the project and provided them with space to offer comments.

	Mean In	Mean All
Doing the shared care plan with the doctor was very useful	8.12	8.17
Discussing the shared care plan with the pharmacist was very useful	7.82	7.96
Having the shared care plan helped me to understand my treatment	7.47	7.88
The shared care plan helped me understand how I could look	7.59	8.08

⁹ Although as noted elsewhere the main limitation was GPs willingness to create the time to do the plans themselves.

after my health better		
Because of this project I now use the pharmacist more to help me with my health	6.47	6.58
This project was useful to me	7.47	7.71

Mean In: patients who were included in the pre-post analysis N =19; Mean All were all post tests N = 25. Scores out of 10

Table 3: Ratings of usefulness of specific aspects of the program

At first glance the rating for the fifth question, “I now use the pharmacist more to help me with my health” is disappointing and seems to contradict other findings. Inspection of the frequency graph below indicates however that the reason for the low mean was because many people scored a 5 meaning ‘unsure’. Feedback from the focus groups suggests two reasons why people may have felt unsure. Firstly, a number of people indicated that they already have a well established relationship with a pharmacist. Secondly the time frame in which they had had an opportunity to have increased contact with the pharmacist was small and in part the question needs to be based on speculation about the future, speculation that a number of people were clearly uncertain about. The questions in the pre-post test did not require such speculation as they only asked about peoples’ comfort and willingness to discuss things with the pharmacist. Against this most respondents indicated that discussing the care plan with the pharmacist was very valuable.

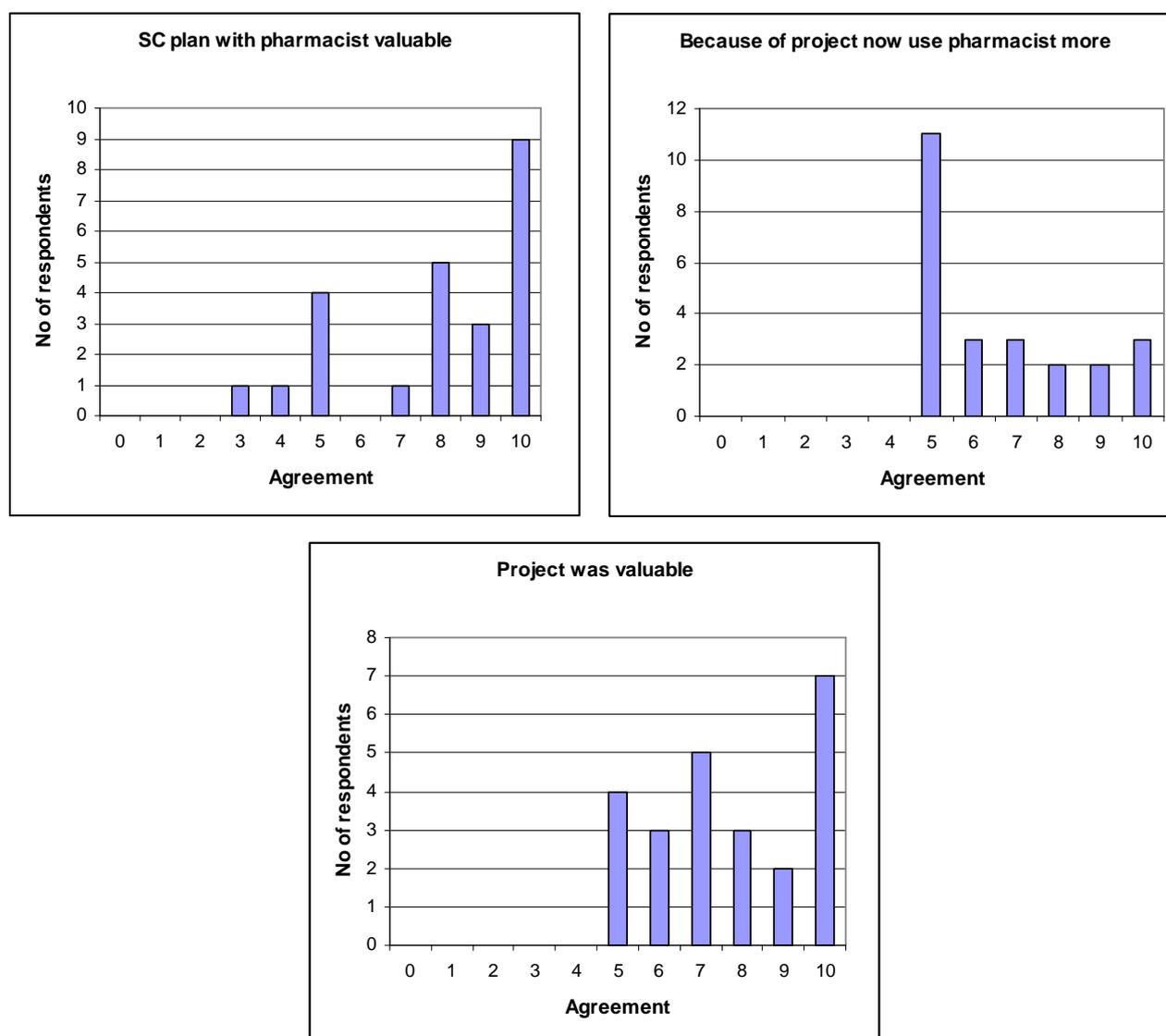


Figure 4: Frequencies for follow up questions on the value of aspects of the program

Comments

Nine people put comments on their pot-questionnaires. These were

Because of my pharmacist being new in his business he is quite pleasant and listens but I've had little to say and he needs to get to know us more

I am very satisfied with my treatment by both my medical practitioner and pharmacist but am not equally sure the project was a total success in my case

I believe that it is an excellent scheme, however it can only succeed if fully supported by doctors and pharmacists - usually very busy coping with patients generally

I feel more confident to speak to my doctor and Pharmacist about any problems I have my health.

I think this is a great thing keep it going

I was referred by my doctor to attend a 6 week course at Hampton Rehabilitation Hospital on cardiac problems and management which was extremely helpful

I'm happy my GP has made me more aware of what I have to do to control diabetes and is coordinating effectively with the specialist doctors who are treating me and also with my dietician and diabetic nurse educator at the Diabetic Institute in Caulfield.

Participation in the project has given me a better understanding of my medical conditions and how the prescribed medications help alleviate these. It has also stimulated me to think more about my health.

Pleased to help.

5.4 Follow-up consultations and focus groups

Three focus groups were conducted in December 2002 as the project was approaching completion. The groups were:

1. A patient group: this group contained 17 patients who had participated in the program and had a shared care plan completed.
2. A first combined GP/pharmacist group this group included 3 GPs and 3 pharmacists and focused on changes in their actions, communication, difficulties, perceived patient benefits and overall impressions of value.
3. A second combined GP/ pharmacist group to whom the results of the first two groups were presented and who were asked to consider what aspects of the program could be carries forward into the future.

Questions for the patient group and the first GP-pharmacist group are in Attachment I.

5.4.1 Patient focus group

Seventeen patients attended the focus group representing a wide range of degrees of participation: some had completed a full cycle including a review of the care plans while others had only just been recruited and had not as yet taken the care plan to the pharmacist. One was still awaiting the initial care planning session with the doctor. The main findings included:

- ☰ Very variable experiences:
 - How it had been implemented
 - The degree of their involvement in the care plan
 - Pharmacy interventions
- ☰ High baseline (most had long-term relationships with a GP and a pharmacist)
- ☰ Loved the document
 - Confidence
 - Helps communication with others (including new GPs)
 - Carry it around (more accurate and complete, saves them repeating things)
 - Emergency info (sticking it on the fridge)
- ☰ Sense of security
 - Document
 - Belief that the GP and pharmacist both knew and communicated about their care (sense of a ‘team’)
- ☰ Led to changes in confidence and willingness to ask questions rather than behaviour
- ☰ Some changes in medication
- ☰ Hated the word ‘chronic’
- ☰ Those who had DMMRs found them very valuable
- ☰ Greater willingness to discuss clinical issues with pharmacist (expanded view of their role)
- ☰ Want to continue to have care plans
- ☰ Some patients reported a very thorough process including many other providers

5.4.2 First GP/pharmacist focus group

The first provider group involved 3 GPs and 3 pharmacists. As with the patient group there experience with the shared care plans varied widely. Generally speaking each individual pharmacist had received very few since there are many more pharmacies in the area than there were participating GPs. One pharmacist had still not received any. In one case the GP always referred to the same pharmacist so that pharmacist had received several. This was also the GP who provided most detail on the document (see section 5.2.3 above) thus this GP-pharmacist pair probably provide the best insight into **the potential** of the model when fully implemented.

GPs

- ☰ Research component (recruiting, explanation, consent) was a major barrier including to some patients. (It also influenced selection of patients)
- ☰ General problem with the length of time taken:
 - Research component
 - Contacting other practitioners (easier with time as personal relationships develop)
- ☰ Variable number and selection criteria:
 - Start with the easiest vs
 - Start with the most needy
- ☰ Most had some experience with care plans (some had established processes including practice nurse role)
- ☰ Feelings of guilt/apprehension seeking involvement of other practitioners who don’t get paid – somewhat alleviated in this project thru knowing pharmacist was to be paid
- ☰ Care planning can be difficult for part time staff (especially those who work out of hours)
- ☰ Resentment re over-formalizing what GPs do anyway (“good medicine”) vs glad there is a mechanism to be paid for it

- ☰ Direct dialogue and relationship building with pharmacist ⇨ more willing to call
- ☰ Believed the plans increased patient confidence.

Pharmacists

- ☰ Each had personally received very few shared care plans
- ☰ Some difficulty distinguishing the Shared Care Plan from other DMMRs
- ☰ Extra knowledge about the patient condition was very valuable:
 - Complete medication lists
 - Clinical issues especially reason for prescribing
- ☰ Formalizing what they already do and putting but putting it on a better informed footing
- ☰ Knowing what the doctor thought the patient was taking (c.f. what they really are taking – other prescriptions and OTCs, unfilled scripts)
- ☰ Stronger personal relationship with GPs and feel much more comfortable about ringing them
- ☰ Appreciated being paid.

The following text boxes contain quotes illustrating some of the most common ideas and emphases emerging from the groups.

Medication mysteries

The following sequence of comments illustrates the importance of pharmacists receiving full medication lists:

Pharmacist: I think the benefit was getting a list of what the doctor actually thought the patient was on and comparing that with what the patient really was on...I got one who had four other doctors and was on four other things that the doctor didn't know about, it was just incredible...What shocked me was that I knew what she was on—I knew everything she was on—I just wasn't aware that the doctor didn't know.

Making it work

One GP and pharmacist involved with the same patient made the following comments about the process:

GP: I obviously have not done the right thing in terms of starting with the most difficult patients [but] they desperately need this. One of the main problems is compliance, eg if they are starting to have dementia. With one patient I had to get her daughter to come to the session, give her the shared care plan and say, 'Your mum needs to go to the pharmacist now.

Pharmacist: It was lucky you'd done that and I sort of dropped everything and really went for it because I knew this needed attention and it worked out.

The pharmacist and GP agreed that this was only possible because they had got to know and trust each other.

Managing the practicalities of medication use

A common theme was the value of having the pharmacist review the practicalities of medication management in a patient's life, be it timing, technique or side-effect management. For example: *GP: We just say, 'three times a day' or whatever but we don't say specifically with relation to what meal or 'don't take it within half an hour of such and such'*

(The importance of this point was also emphasised in a private interview with one of the consumer representatives on the steering committee. He emphasised how often practitioners recommend therapies that are unworkable in the patient's individual context. For this reason he had strongly advocated continuation of a pharmacy unit in a Community Health Service he was associated with)

5.4.3 Second GP pharmacist focus group

The second provider group contained 3 GPs, 3 pharmacists and 1 practice nurse. The group was presented with the results of the earlier focus groups and asked to focus in particular on identifying what could be carried forward and implemented on a sustainable basis from the project. The group started off by reviewing the findings of the earlier groups and in general confirmed those results.

Conclusions and recommendations about the future

The group started off by reviewing the findings of the earlier groups and in general confirmed those results. In particular they emphasised:

- ☐ Will be easier outside of research context:
 - Don't need to select a lot of patients in a hurry
 - Select on basis of need rather than ability to cope with trial
- ☐ Need appropriate general practice processes:
 - Allow time and don't try to do too many
 - Choose the right patients for care plans and HMR
 - Practice nurses vital in managing it efficiently
- ☐ May in fact be easier in the future
 - Care plans get easier over time because GP gets to know a number of other providers who understand the process and don't need to have it explained or be talked into it
 - Have developed processes and practice nurses have developed more understanding of the process
- ☐ Recommendations for restructuring the document
 - Put issues affecting medication use earlier because GPs don't usually think about it
 - One practice restructured the goals, actions and providers into a table so that providers could easily see what actions they were being asked to take
 - Some sections needed bigger fonts so that they were easily readable by patients
 - If document is to be used by patients need to make it more user friendly, including the language used to complete it
- ☐ Continuation with shared care plan:
 - Rather than continuing with a special shared care plan we should put elements of this into the normal care planning templates
 - Need optional components such as the requests to pharmacists section
 - Develop the contact log into a communication tool that can be used separately

- ☐ Recommendation to promote DMMR/HMR very actively (but be careful of overlap, where for example, practice nurses already do home visits and check medication)
- ☐ Need to continue developing the understanding of GPs and patients about what pharmacists potentially can do. The project has started this.

Shared care planning in ‘real’ practice

One GP highlighted the difference between how she would use the shared care plan in real practice rather than in the context of a trial:

GP: ...in a real general practice setting we have a patient about whom we might say “this is just a nightmare”, I need to get the carer in, sit them down and explain about the purple ones, the white ones etc. but I must admit that [in the trial] I sort of thought of willing patients that I could call on to do the project and they were basically the ones who are always pleasant, who I know well.

The same practitioner also commented that the time frame was an obstacle-trying to do a lot in a short time created too much stress and meant that she wasn’t always happy with the quality of the document:

GP: The time component is just huge. In the future I would restrict myself to one care plan a week and make the time to sit down and do it properly and enlist the help of the practice nurse to go through it and get all the medications right.

The relationship is everything

The following exchange illustrates the importance of a personal relationship as a context for effective documentary communication, including the shared care plan:

Pharmacist: Sometimes I got to work and I just had one of these in my pigeon hole...at that stage I didn’t know who the GP was. I hadn’t dealt with that GP before and I didn’t know how appropriate it would have been for that GP to ring up or for me to ring the GP and say is there any specific issues you want me to address...sometimes it just doesn’t come through on a bit of paper.

GP: ...but that paper has to exist, and exist in the context of a relationship...maybe we should be clarifying issues and be confident about contacting each other.

5.4.4 Extra patient interviews

Five patients expressed interest in providing feedback but were unable to attend the December focus groups. Of these five, two patients were able to be followed up by phone interview (for the questions asked see Attachment H).

Although neither patient could identify any specific change in their health management both believed that the project had been worthwhile. Similar to the focus group findings, both patients found the Shared Care Plan document useful in providing a reference list of their medications and specialist providers. More specifically one patient reported that his wife (who had also been a project participant) had recently required hospital admission and they were able to use the Shared Care Plan to explain her medications to hospital staff. He also reported that he personally found the document useful as he has been experiencing loss of immediate recall and cannot always remember the details of his medical history when speaking to other health care providers. The Shared Care Plan was a handy aid to his memory.

With regards to the relationship with their GPs and pharmacists, again neither patient reported a significant change as both felt that their existing relationships were good and longstanding. While one patient reported that the process “brought it all together” in having the consultation with the GP to develop the Shared Care Plan. The other patient considered that he already received excellent treatment from his GP and pharmacist and the Shared Care Plan did not impact this in any way.

5.4.5 Conclusions and results from follow-up consultations and focus groups

Comparing the focus groups conducted before the project commenced with those conducted at its completion it is clear that the ideas presented in the pre-groups about the possible pharmacist contributions to care were rather theoretical and abstract (especially from the GPs). By contrast, the ideas discussed in the post-groups reflected an emerging, concrete appreciation of the contribution pharmacists can make, an appreciation that was more likely to be expressed in anecdotes, the language of commitment and even ‘aha’ experiences.

The comprehensiveness of the lists produced in the pre-groups misled us, somewhat, about the extent to which the roles of the pharmacist could be formalised on a checklist that would be meaningful and useful to GPs. As has been seen the checklist in the shared care plan was little used and didn’t really help the GP understand the potential contribution of the pharmacist.

*I think that an issue that has come out is that often GPs don’t **really** know what pharmacists potentially can do; **even though the list was meant to help a little bit.** (2nd provider focus group)*

This understanding only emerged over time as a result of opportunities for personal interaction and of collaboration with particular patients. As it turned out stories and case studies of collaboration would probably have been of more value than the checklist, although clearly nothing replaces experience and GPs and pharmacists being exposed to each other.

6 Conclusions and recommendations

6.1 'Beyond medication review?'

The collated experiences of GPs and pharmacists in the project make it clear that there are many important contributions that pharmacists can make to the implementation of a GP's plan of care. It was equally clear, however, that most GPs have no overall understanding of these contributions and that the prompts in the shared care plan were insufficient to stimulate GPs to identify potential contributions. Increased awareness was achieved among participating GPs but this came about through the experience of interacting with pharmacists in relation to particular patients rather than as a result of using the shared care plan proforma.

The pharmacist roles that were valued by GPs and patients were:

- Home Medications review
- Notification of the GP that the patient was on medications of which the GP was unaware
- Assistance dealing with the practicalities of medication use, particularly scheduling. (This was an issue for single medications but was even more of an issue where the patient was on many medications.)
- Helping patients to deal appropriately with side-effects
- Monitoring conditions where numerous repeat medications are the norm (eg hypertension, asthma)
- Advising about natural and over the counter medications.

For pharmacists the things that were considered most important in helping them fulfil these roles were:

- Obtaining a full list of the medications that a GP believed a patient was on
- Reasons for prescription indicated on scripts
- Highlighting changes in medication or dosage and comments on the reason for changes
- Greater personal knowledge of the GP and feeling comfortable to ring them
- Lists of active medical conditions
- Specific requests for pharmacy intervention (pharmacists indicated that such requests could be very useful but that during the project few specific requests were made despite the dedicated section of the shared care plan tool).

The understanding of participating GPs about the potential contribution of pharmacists increased to the point where in the focus groups one of the GPs commented that he could not imagine doing a care plan and not including the pharmacist.

6.2 Sustaining the gains

The difficulty of sustaining the gains of the Pharmacy / GP collaboration project has concerned both the project participants and the Steering Committee. In particular issues relating to the Project being of a short duration without any ongoing funding or impetus and the difficulties in using care plans as the communication tool have been identified.

The following ideas for sustaining the gains have been formulated via discussion with the project participants and the Steering Committee. They include ideas that both incorporate the use of care planning and suggestions for collaboration without the use of care plans. It is hoped

that by providing practical and achievable suggestions to GP's, Pharmacists and Divisional staff regarding possible ongoing local actions that they can be taken up with a minimum of resource and effort.

In addition to the suggestions below, CBDGP has carried forward the promotion of Pharmacy and GP collaboration via a number of current projects and programs, in particular the following support collaboration in a variety of ways:

- Chronic Disease Management Program
- Quality Use in Medicines Program
- Home Medicines Review Program
- Falls Prevention Collaboration Project

Suggestions for sustaining the gains in summary

The following suggestions relate to activities that can occur within CBDGP to maintain the gains achieved through this project. In most cases, however, the suggestions are equally applicable to any other Division that may wish to take them on board.

1. Within CBDGP (and Divisions of General Practice)

- Continue to encourage and support GP's to complete data entry of diagnosis into patient record database e.g. Medical Director. This provides the opportunity for the GP to easily advise the Pharmacist of diagnosis / updates and the reason for medication by printing out the relevant information and attaching it to the prescription. This can be done with or without a formal Care Plan being produced. Patient consent would need to be obtained.
- Where a GP has created a Shared Care Plan the contacts log page can be used to note alterations or new medications and relevant clinical details (see example in Attachment E). This suggestion was made by one of the GPs participating in the project. She has since advised that she now routinely uses the contacts log for patients who will benefit from a care plan to keep the pharmacist informed. In addition, the Shared Care Plan Contacts Log sheet can be incorporated into other standard care plan formats or could be set up as a stand alone document template
NB: The Shared Care Plan has been made into a standard Medical Director Template. This will be available to Divisions and GPs via the CBDGP website shortly (the website is currently under revision).
- Whenever possible, encourage the GP to ring the Pharmacist during the patient consultation allowing a three way conversation or opportunity for all to check and reaffirm details and decisions.
- Where a care plan has not been created but the patient's condition is of sufficient complexity the GP could print the Medical Director medication list and attach it to the prescription. This provides both the patient and the pharmacist with a useful checklist and a basis for picking up discrepancies.
- Throughout the project it was evident that GPs do not always understand the usefulness of patient diagnosis / clinical information to Pharmacists. It is very important to encourage pharmacists to speak to GPs about the usefulness of the diagnosis information wherever possible to help reinforce GPs sharing of this information where appropriate.
- During the project evaluation focus groups many patients commented on the use of Shared Care Plan as a safety net document. Several patients reported placing their Shared Care Plan in a prominent place at home, such as on the fridge door, so it was easily accessible to

relatives and ambulance officers in case of emergencies. The patients perceived benefit in the GP and pharmacist knowing about their condition in case of emergencies.

- As a result of participating in the project several GPs went on to utilise Home Medicines Review (HMR) for the first time. Promotion of HMR for complex patient medication assistance provides a very solid basis for three way collaboration between the GP, pharmacist and patient.
- Continue inviting local Pharmacists to appropriate joint education events with CBDGP GPs to foster

6.3 Lessons for future research

There were a number of processes followed in this pilot that were not as effective as they could have been and a number of lessons that can be learnt for future research. The project sought to utilise GPs to recruit, consent and track patients and to manage each stage of their participation. This was done in order to maximise patient privacy as it meant that the Division did not need to know or record the patients' names or contact details. The strategy was unsuccessful in a number of ways:

- The process was considered onerous by GPs and was a disincentive to utilising the shared care plan
- The process influenced GP selection of patients so that they chose patients on the basis of their ability to participate in the process rather than on the basis of need
- Neither GPs nor practice staff were able to track the patients effectively meaning that we were unable to obtain matched pre and post tests as the original design stipulated.

In addition there was evidence from both the GPs and from the data itself that a substantial number of patients couldn't really understand or validly respond to the pre and post questionnaires.

These problems could have been avoided by not seeking to collect data directly from patients. This would however have substantially weakened the findings of the study in that the studies demonstration of a substantial trend towards increased confidence and self-efficacy was an important outcome (and relatively unique in recent Australian intervention studies). In addition abandoning the assessment of key patient level outcomes and assessing outcomes only in terms of the behaviours of providers risks de-emphasising critical elements of quality care such as the quality of communication and the ability of providers to target care to meet the life circumstances of patients. We consider that more studies should consider assessing such outcomes.

A number of alternative approaches could have been used to increase the success of the research aspects of the project:

- Patient tracking and assessment could have been handled by the researchers. Most patients in fact opted to provide their names and contact details to receive a prize so it would appear that privacy concerns were not paramount.
- The instruments should have been better piloted and specific criteria for selecting patients who could complete the tools identified. An alternative pathway for patients with moderate cognitive impairment should have been defined.

The project was also impacted by the fact that the criteria for completion and reimbursement of care plans was reviewed and tightened midway through the project and also by the fact that

numerous new initiatives were being promoted to GPs in the same year. It was probably the single greatest year for change in general practice for many decades.

6.4 Summary of conclusions

- C1.** The utilisation of a shared care plan between GPs and pharmacists gives some patients a greater sense that the pharmacist is a legitimate health care provider and that they are being cared for by a team of providers. This belief, along with the process of doing the care plan and the document itself, gives patients increased confidence about their ability to access the help they need to care for their health. These effects were demonstrated both quantitatively and qualitatively. While statistical significance was achieved with only a few variables positive trends were seen for nearly all items and many of these could be expected to achieve significance with greater numbers. Care plans were highly valued by patients.
- C2.** The project achieved greater mutual understanding between GPs and pharmacists and a greater appreciation by GPs of the contribution that pharmacists can make to patient care. This was considered to be more a result of getting to know each other than of the tools and processes that were involved in the project.
- C3.** The GP care plan and a Home Medicines Review can be used in an effective, complementary manner but this occurred in relatively few cases. The main barriers to more uniformly effective use of the shared care plan appeared to be:
 - a. Poor understanding by GPs of the contribution that pharmacists can make with a consequent difficulty making specific requests
 - b. Generally poor understanding of what care planning involves as evidenced by a lack of specific objectives in all but a few care plans
 - c. The amount of time that a care plan takes to undertake
 - d. The number of new initiatives that GPs were seeking to take on board during the trial period
 - e. Possibly a reluctance to include text in computer generated documents (the GP who used the hard copy tools included many more details about the care plan and requests to pharmacists).

In addition the extra burden involved in explaining the research project and obtaining consent hindered the utilisation of the shared care plan¹⁰.

6.5 Recommendations

- R1.** The Department of Health and Ageing should acknowledge the appropriateness of pharmacists as participants in care plans and should actively encourage GPs to involve pharmacists.
- R2.** The Pharmacy Guild should develop an education strategy (including a brochure) to inform GPs about the potential contribution of pharmacists to patient care in terms of:
 - a. Dealing with the practicalities of medication usage (eg: scheduling, dose management devices, technique, working around side-effects and lifestyle issues)
 - b. Medication review (including both HMR and less formal reviews that may lead to pharmacists notifying GPs of medications that the patient is using of which they are not aware)

¹⁰ While GPs reported that this was the case the fact that they consented at least 106 patients but then went on to complete Shared Care Plans on less than half suggests that the process of scheduling and completing the care plan was, in fact, the greater barrier.

- c. Disease management for priority conditions including diabetes, asthma and hypertension

The strategy should also inform GPs of the value of providing pharmacists with full current medication lists, reasons for prescription and, where possible highlighting and explaining changes in medication.

- R3.** There should be continued exploration of mechanisms to reimburse pharmacists for the above contributions (R2) and for participating in the development and implementation of a patient care plan.
- R4.** Divisions should encourage and create opportunities for members to develop personal relationships with local pharmacists (eg: joint educational activities, HMR).
- R5.** A standard for communication between GPs and pharmacists should be defined and a realistic change management strategy for achieving that standard should be developed (eg: simplifying and prompting the recording of reasons for prescription, automating the production of medication change summaries).
- R6.** The developers of clinical software packages should consider the following enhancements to their products:
 - a. Developing a modular tool for producing care plans with optional modules applicable to certain professions
 - b. Introducing a flag to highlight on the prescription printout when there has been a change in a patient's prescribed medications, e.g. when the dosage / frequency of a current medication has been changed or when a current medication has been substituted with something similar.
 - c. Encouraging the inclusion of patient's nominated pharmacist's name and contact phone number in the patient record and bringing it up when GP recalls patient demographic details.
- R7.** Central Bayside Division of General Practice should modify the computerised Shared Care Plan template in line with suggestions and continue to make it available to members and encourage its use. Utilisation should be monitored in the absence of the extra burden of the research project. The Division should review and implement the suggestions for sustainability listed in section 6.2 above.
- R8.** The Department of Health and Ageing, Divisions and the Divisions program need to continue to support care planning in relation to:
 - a. Clarifying the purposes and essential features of care plans
 - b. Increasing the ability of GPs to formulate specific medium-term, goals, objectives and planned actions
 - c. Increasing the understanding of GPs about the potential contribution of health providers (including pharmacists) to the assessment and medium to long term management of patients with complex health problems
 - d. Helping practices develop streamlined and efficient processes for conducting care plans.
- R9.** While the assessment of intermediate level patient outcomes such as self-efficacy, confidence, anxiety, and self-management behaviours creates logistical difficulties for researchers, they are critical to the achievement of health benefits and more intervention trials should consider assessing them.

7 Bibliography

1. Blakeman T. M., Harris M. F., Comino E. J., Zwar N. A., Evaluating general practitioners' views about the implementation of the Enhanced Primary Care Medicare items. *MJA* 2001, 175: 95 – 98
2. Buchbinder R. Hall S., Grant G. Mylvaganam A., Patrick M. R., Readability and content of supplementary written drug information for patients used by Australian rheumatologists. *MJA* 2001, 174: 575 - 578
3. Cater M., Spin J. D., Consuming the evidence: consumers and evidence-based medicine. *MJA* 2001, 175:316 - 319
4. Commonwealth Department of Health and Aged Care. Annual Report 1999-2000.
5. Commonwealth of Australia. Budget 2001-2002 Health Fact Sheet 1.
6. Department of Human Services Victoria. The Burden of Disease in Local Government Areas of Victoria, 1996.
7. Freeman A. C., Sweeney K., Why general practitioners do not implement evidence: qualitative study. *BMJ* 2001, 323: 11001102
8. Gibson P.G et al. The effects of self-management education and regular practitioner review in adults with asthma. Cochrane Collaboration, ed. Cochrane Library Issue 2. 1999.
9. Gilbert A, Beilby J, Mott K. Quality use of medicines in the community. An implementation trial about collaborative medication management services. General Practitioner Resource Kit. School of Pharmacy and Medical Sciences, University of South Australia, Adelaide, 1996.
10. Hancock K. Management issues in adult asthma. *Aust Family Physician* 2001; 30:114-119.
11. Health Insurance Commission. General Practice Statistics Report, by Division of General Practice. www.hic.gov.au/statistics/imd/forms/gpStatistics.shtml
12. Jones M. I., Greenfield S. M., Bradely C. P., Prescribing new drugs: qualitative study of influences on consultants and general practitioners. *BMJ* 2001, 323: 378 - 323
13. Liddell M.J, Goldman S.P. Attitudes to and use of a modified prescription form by general practitioners and pharmacists. *MJA* 1998; 168:322-325.
14. Little P. Everitt H., Williamson I., Warner G., Moore M., Gould C., Ferrier K., Payne S., Observational study of effect of patient centredness and positive approach on outcomes of general practice consultations. *BMJ* 2001, 323: 908 - 911
15. Lorig K. Stewart A., Ritter P., Gonzalez V., Laurent D., Lynch J., Outcome Measures for Health Education and other Health Care Interventions. Sage Publications, 1996.
16. Munday A., Kelly B., Forrester J. W. E., Timoney A., McGovern E., Do general practitioners and community pharmacists want information on the reasons for drug therapy changes implemented by secondary care?. *British Journal of General Practice* 1997, 47: 563-566
17. Roberts M.S, Stokes J.A. Prescriptions, practitioners and pharmacists. Better communication and teamwork for improved patient outcomes. *MJA* 1998; 168:317-318.
18. Rogers S., Humphrey C., Nazareth I., Lister S., Tomlin Z., Haines A., Designing trials of interventions to change professional practice in primary care: lessons from an exploratory study of two change strategies. *BMJ* 200, 320: 1580 - 1583
19. Ruth D, Hodge M, Murphy B. Improving the relationship between general practitioners and pharmacists. *Aust Family Physician* 1994; 23:1536-1540.
20. Saltman D. C., O'Dea N. A., Sambrook P. N., Managing osteoarthritis in general practice: a long-term approach. *MJA* 2001, 175:s92-s96
21. Stewart K. Role of the Pharmacist. Victorian College of Pharmacy (presentation)
22. Zermansky A. G., Petty D. R., Raynor D. K., Freemantle N., Vail A., Lowe C. Randomised controlled trial of clinical medication review by a pharmacist of elderly patients receiving repeat prescriptions in general practice, *BMJ* 2001, 323: 1340 - 1343

Index of attachments

Attachment A: Questions for consumer focus group (April 02)

Attachment B: Questions for GP/pharmacist focus group (April 02)

Attachment C: Shared Care Plan

Attachment D: Outline of process

Attachment E: Example Shared Care Plan Contact Log

Attachment F: Patient questionnaire before Shared Care Plan

Attachment G: Patient questionnaire post Shared Care Plan

Attachment H: Patient follow-up telephone interview questions

Attachment I: Questions for Focus Groups (Dec 02)

Attachment J: Participants experience in detail

Attachment A: Questions for consumer focus group (April 02)

CONSUMER FOCUS GROUP APRIL 11, 2002

Focus Group Outcome

Criteria for good collaboration between GP and Pharmacist (needs to be considered, honest and sensitized)

Questions

Q1 (concrete, set up language, push to be comprehensive)

Describe a specific event re your experience of seeing / consulting with a GP and Pharmacist. "Tell me about the last time you saw both the GP and pharmacist?"

Describe what the GP role was

Describe what the Pharmacist role was

Draw up list of comparisons

Q2

What made this experience worse or better than other experiences?

Q3

Thinking about all that has been said so far, what ideally do you consider to be the GP role and the Pharmacist role in relation to your care?

Q4

In order to achieve this 'ideal' what are the main areas where there needs to be improvement or change?

Q5

What do you consider to be your role?

Q6

We've thought about individual roles. Now we want to consider aspects of communication and the way in which they work together; what would be the ideal cooperation between the GP and pharmacist?

Q7

What are the main areas that need to be improved to achieve this collaboration?

Q8

Do you have any suggestions about practical things that can be done?

Attachment B: Questions for GP/pharmacist focus group (April 02)

GP & Pharmacist Focus Group Meeting Thursday 17/4/02

1. Introduction

- Consent Forms
- About the project
- Repeat prescription framework prompt
- Tonight we are going to explore these potential opportunities for interaction between the:
 1. Patient – Pharmacist
 2. Pharmacist –GP

2. Sensitising Questions

When did you last communicate with a pharmacist / GP?

How do you value that relationship?

What are the barriers / facilitates that relationship?

3. Brainstorm

How can we improve collaboration between Pharmacists and GPs?

Examples of collaboration

Categorise

- Education
- Symptoms and side effects monitoring
- DMMR
- Care Planning

Rank most useful

Rate top 5

- Essential
- Important
- Not important

4. Practical & Logistical Issues

Preferred mode of communication

- Email
- Fax
- Phone
- Face to face

5. Take home article

6. Close

Attachment C: Shared Care Plan

**Pharmacy / GP Collaboration Project
SHARED CARE PLAN**

for patients with multidisciplinary care needs
(to be conducted by patient's usual GP and Pharmacist)

PATIENT

<<Patient Demographics: Full Details>>

Name of Carer: <<Name of Carer>>

Phone No: <<Phone number of carer>>

Relationship to Patient: <<Relationship of Carer to Patient>>

SHARED CARE PLAN HISTORY

Is there already a current care plan in existence? <<HISTORY-Is there a current care plan?>> If so, by whom Date <<If so, who prepared that Care Plan?>> <<When was "that" Care Plan created?>>

Is the patient eligible under Veterans' Affairs? <<Is patient eligible for DVA?>>

(If yes, please ensure this form is available on request from DVA)

CRITERIA FOR SHARED CARE PLAN

Chronic medical condition likely to be present for more than 6 months? <<CRITERIA - Chronic condition > 6 months?>>

Multidisciplinary care needs involving 2 other health or community care providers? << 2 or more Hospital admissions in last 6 months? >>

Routinely takes 7 or more medications (including OTCs)? <<Routinely takes 7 or more medications (incl. OTCs)>>

Requires Medication Management Review (MMR)? <<Requires MMR?>>

ALLIED AND HEALTH PROFESSIONALS INVOLVED IN CARE PLAN

	Name & Address & Phone Number	Role	Date Care Plan Discussed
1	<<Doctor: Full Details>>	Medical Practitioner	<<Miscellaneous: Date>>
2	<<Addressee: Full Details>>	Pharmacist	<<Miscellaneous: Date>>
3			
4			
5			

PROBLEMS TO BE ADDRESSED BY SHARED CARE PLAN

(Includes diagnoses, current active problems, difficulties in functioning, significant areas of risk and unmet needs. e.g. Impaired hearing, Risk of falls, INR on warfarin, Poor mobility, Hypertension, Foot care needs.)

A. (Type each problem, then press Enter. A, B, C will appear automatically.)

MEDICATION INFORMATION

MEDICATION

<<Clinical Details: Medication List>>

CLINICAL REASON FOR
MEDICATION

ALLERGIES & ADVERSE REACTIONS

<<Clinical Details: Allergies>>

(Numbers next to comments indicate the specific health worker who contributed to the shared care plan.)

PROBLEM A
Management Goal:
Main Treatment, Services and Care needed:
Other Treatment and Services, e.g. Community:
Arrangements for Implementation:
Review scheduled for...

PROBLEM B
Management Goal:
Main Treatment, Services and Care needed:
Other Treatment and Services, e.g. Community:
Arrangements for Implementation:
Review scheduled for...

PROBLEM C
Management Goal:
Main Treatment, Services and Care needed:
Other Treatment and Services, e.g. Community:
Arrangements for Implementation:
Review scheduled for...

PROBLEM D
Management Goal:
Main Treatment, Services and Care needed:
Other Treatment and Services, e.g. Community:
Arrangements for Implementation:
Review scheduled for...

PROBLEM E
Management Goal:
Main Treatment, Services and Care needed:
Other Treatment and Services, e.g. Community:
Arrangements for Implementation:
Review scheduled for...

Give or offer a copy of the completed Care Plan to each of the team members.

Vision: any visual issues>>	<<ISSUES - Describe	Language & Literacy Problems: language/literacy problems (if any)>>	<<Describe
Cognition (memory & comprehension) with cognition>>:	<<Describe any issues	Hearing: hearing issues>>	<<Describe any
Swallowing: difficulty swallowing?>>	<<Does patient have	Dexterity (ex. manual co ordination): dexterity issues>>	<<Describe any
Does the Patient Smoke? Smoking>>	<<Clinical Details:	Alcohol consumption Alcohol>>	<<Clinical Details:
Medication administration: administered?>>	<<How is medication		
Medication aids or other equipment used:			
Peakflow Meter? Peak Flow Meter used?>>	<<MEDICATION AIDS -	Blood Glucose Meter Used? Meter Used? >>	<<Blood Glucose
Spacer used?	<<Spacer used? >>	Multi/ unit dose DAA (ex dosette) used? used?>>	<<Dosette Box
Syringes used? Insulin pump used? >>	<<Syringes used?>> <<Insulin pump used? >>	Nebuliser used?	<<Nebuliser used? >>

Patient Weight History

<<Clinical Details: Measurements>>

Patient Height

<<Clinical Details: Measurements>>

Patient Blood Pressure Details

<<Clinical Details: Measurements>>
<<Clinical Details: Measurements>>

Disease Control? Disease Control?>>	<<OBJECTIVES -	Symptom Control?	<<Symptom Control?>>
Maintain/ Improve Function? function?>>	<<Maintain/Improve	Improved Compliance?	<<Improve Compliance?>>
Self Management?	<<Self Management>>		

Other (Specify)

NOTES:

PHARMACIST ACTION PLAN REQUEST FORM

GP & Patient to complete

1. Does patient need medication information/ education for the following medications. (include OTCs)?

Pharmacist to complete, in consultation with patient

1. Provided patient with medication information/ education for the following medications. (include OTCs)

2. Does Medication Compliance need to be checked?

3. Does Asthma Action Plan need to be checked?

4. (D)MMR needed?

5. Refer back to Medical Practitioner when.....

Other.....

2. Medication Compliance check
In progress
Completed

3. Asthma Action Plan
In progress
Completed

4. Conducted Medication Management Review
(see attached report)

Referred back to Medical Practitioner (specify reason)

GP/ PHARMACIST CONTACT LOG

Date	Person	Mode of contact (Fax/ Phone/ email/ visit)	Reason for contact	Notes

CHECK LIST

A copy of this sheet has been provided to

- Pharmacist
- Patient
- Other practitioner

**Project stamp on original & duplicate of prescription
for identification & follow up**

Preferred means of communication to GP

CHECK LIST

A copy of this sheet has been provided to

- Medical Practitioner
- Patient

**Preferred means of communication to Pharmacist
Fax or email or phone**

SHARED CARE PLAN AGREEMENT

PATIENT'S AGREEMENT

I have agreed / my carer has agreed to this care plan and I understand the recommendations.

Signed by Patient / Carer / or Verbal

date

Signed by GP

date

Surgery Details

<<Practice: Name>>

<<Practice: Address>>

Phone <<Practice: Phone>> Fax <<Practice: Fax>>

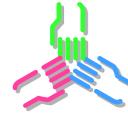
REVIEW DATE

I would / would not like a reminder for my care plan to be sent by <<Recall Date>>

Attachment D: Outline of process

Pharmacy & General Practice Collaboration Project

Shared Care Plan Process at a Glance From July to 6th December 2002



Step 1

Patient visits GP. Patient consents to creation of Shared Care Plan.

- ▣ 1 copy given to patient
- ▣ 1 copy faxed / emailed to pharmacist + 1 other practitioner
- ▣ 1 copy kept by GP
- ▣ Script stamped with 'SCP'



Step 2

Pharmacist confirms receipt of Shared Care Plan & agrees actions



Step 3

Patient visits Pharmacist with script and copy Shared Care Plan. They review the Shared Care Plan and agree actions.



Step 4

Patient and Pharmacist do agreed actions



Step 5 (optional repetitive step)

When patient next goes to the pharmacist (for repeats & OTC's) or to the GP the action plan is reviewed /updated. If Plan is updated then circulate to GP, Pharmacist & Patient.



Step 6 (before end of Nov 2002)

Final review of Shared Care Plan with Pharmacist



Step 7 (by Dec 6th, 2002)

Final review of Shared Care Plan with GP

Attachment E: Example Shared Care Plan Contact Log

Example Shared Care Plan Contact Log				
Dr:		Ph:		
Provider No:		Fax:		
e-mail:				
Pharmacy: Example Pharmacy Mr Pharmacist 44 Address Street Melbourne Phone			Patient: Name Address	
Date	Provider	Mode of contact: Ph / fax/ e-mail /visit	Reason for Contact	Notes
17/10/02	Dr XYZ		New medication	Dr XYZ Diagnosis: Oesophageal candidiasis Adverse drug reaction – Amoxil Actions: Prescriptions printed Diflucan capsule 100mg 1 tab daily
21/11/02	Dr XYZ		New medication	Dr XYZ Diagnosis: Solar keratosis/es Atrial Flutter Actions: Pathology requested: U&E/CREAT, serum digoxin Prescriptions pronted: Sunsense 30+ Cream SPF 30+ apply daily
15/12/02	Dr XYZ		New medical condition	Dr XYZ Diagnosis: ? cerebellar CVA Actions: Result notified by Dr ABC – CT Brain 14/12/02 Letter written – re ?CVA to NMP hospital

Attachment F: Patient questionnaire before Shared Care Plan

Chronic Disease Patient Self Management Questionnaire

We would like to know how confident you are in doing certain things in regards to your illness. For each of the following questions, please **4** the number that best corresponds to your confidence that you can do the task / thing **at the present time**. Please rate your confidence from ← not at all confident to ∞ totally confident. On pages two and three you will be asked to circle your answer to questions regarding taking your medication and how you are feeling. You will be asked to complete this questionnaire before the trial starts and again at the end.

Do not put you name on this form

Question	Response - at the present time	
How confident are you that you can.....	Not at all Confident	Totally Confident
1. get information about your disease from community resources?	← ↑ → ↓ ° ± " ≥ × ∞	
2. ask your doctor things about your illness that concern you?	← ↑ → ↓ ° ± " ≥ × ∞	
3. discuss openly with your doctor any personal problems that may be related to your illness?	← ↑ → ↓ ° ± " ≥ × ∞	
4. work out differences with your doctor when they arise?	← ↑ → ↓ ° ± " ≥ × ∞	
5. ask your pharmacist things about your illness that concern you?	← ↑ → ↓ ° ± " ≥ × ∞	
6. discuss openly with your pharmacist any personal problems that may be related to your illness?	← ↑ → ↓ ° ± " ≥ × ∞	
7. work out differences with your pharmacist when they arise?	← ↑ → ↓ ° ± " ≥ × ∞	
8. do all the things necessary to manage your condition on a regular basis?	← ↑ → ↓ ° ± " ≥ × ∞	
9. judge when the changes in your illness mean you should visit a doctor?	← ↑ → ↓ ° ± " ≥ × ∞	
10. do the different tasks and activities needed to manage your health condition so as to reduce your need to see a doctor?	← ↑ → ↓ ° ± " ≥ × ∞	

Question	Response - at the present time
How confident are you that you can.....	Not at all Confident Totally Confident
11. reduce the emotional distress caused by your health condition so that it does not affect your everyday life?	← ↑ → ↓ ° ± " ≥ × ∞
12. control any symptoms or health problems you have so that they don't interfere with the things you want to do?	← ↑ → ↓ ° ± " ≥ × ∞
13. do things other than just taking medication to reduce how much your illness affects your everyday life?	← ↑ → ↓ ° ± " ≥ × ∞
14. continue to do your hobbies and recreation>?	← ↑ → ↓ ° ± " ≥ × ∞
15. continue to do things you like to do with friends and family (such as social visits and recreation)?	← ↑ → ↓ ° ± " ≥ × ∞
16. keep from getting discouraged when nothing you do seems to make a difference?	← ↑ → ↓ ° ± " ≥ × ∞
17. do something to make yourself feel better when you are feeling discouraged?	← ↑ → ↓ ° ± " ≥ × ∞

If the any of the following 4 questions do not apply to you please 4 Not applicable

How confident are you that you can.....	Response - at the present time
18. reduce your physical pain?	← ↑ → ↓ ° ± " ≥ × ∞ μ Not applicable
19. keep the physical discomfort or pain of your disease from interfering with the things you want to do?	← ↑ → ↓ ° ± " ≥ × ∞ μ Not applicable
20. keep any other symptoms or health problems you have from interfering with the things you want to do?	← ↑ → ↓ ° ± " ≥ × ∞ μ Not applicable
21. keep your shortness of breath from interfering with what you want to do?	← ↑ → ↓ ° ± " ≥ × ∞ μ Not applicable

Please circle one answer for each question below

22. Do you ever forget to take your medicine?	Yes No
23. Are you careless at times about taking your medicine?	Yes No
24. When you feel better do you sometimes stop taking your medicine?	Yes No

Please circle one answer for each question below

25. Sometimes if you feel worse when you take the medicine, do you stop taking it?	Yes	No
26. In general would you say your health is:	Excellent	1
	Very good	2
	Good	3
	Fair	4
	Poor	5

These questions are about how you feel and how things have been with you **during the past month**. For each question, please **circle one number** for each question that comes closest to the way you have been feeling. **How much time during the past 4 weeks**

27. were you discouraged by your health problem?					
None of the time	A little of the time	Some of the time	A good bit of the time	Most of the time	All of the time
0	1	2	3	4	5

28. were you fearful about your future health?					
None of the time	A little of the time	Some of the time	A good bit of the time	Most of the time	All of the time
0	1	2	3	4	5

29. was your health a worry in your life?					
None of the time	A little of the time	Some of the time	A good bit of the time	Most of the time	All of the time
0	1	2	3	4	5

30. were you frustrated by your health problem?					
None of the time	A little of the time	Some of the time	A good bit of the time	Most of the time	All of the time
0	1	2	3	4	5

Thank you for completing this questionnaire

Please post it (as soon as possible) in the stamped, self addressed envelope provided.

No information by which you can be identified will be included in any project reporting. (All data will be handled as per the Privacy Policy of the Central Bayside Division of General Practice which complies with the Privacy Amendment (Private Sector) Act 200).

If you would like to discuss any aspects of the trial in more detail you can contact the project manager, **Margaret Lawson**, at Central Bayside Division of General Practice by phoning **03 9521 6755**.

Attachment G: Patient Questionnaire Post Shared Care Plan

Chronic Disease Patient Self Management Questionnaire

Now that the project has ended we would like to know again how confident you are in doing certain things in regards to your illness. For each of the following questions, please **4** the number that best corresponds to your confidence that you can do the task / thing **at the present time**. Please rate your confidence from ← not at all confident to ∞ totally confident. On pages two and three you will be asked to circle your answer to questions regarding taking your medication and how you are feeling.

Do not put your name on this form

Question	Response - at the present time	
How confident are you that you can.....	Not at all Confident	Totally Confident
1. get information about your disease from community resources?	← ↑ → ↓ ° ± " ≥ × ∞	
2. ask your doctor things about your illness that concern you?	← ↑ → ↓ ° ± " ≥ × ∞	
3. discuss openly with your doctor any personal problems that may be related to your illness?	← ↑ → ↓ ° ± " ≥ × ∞	
4. work out differences with your doctor when they arise?	← ↑ → ↓ ° ± " ≥ × ∞	
5. ask your pharmacist things about your illness that concern you?	← ↑ → ↓ ° ± " ≥ × ∞	
6. discuss openly with your pharmacist any personal problems that may be related to your illness?	← ↑ → ↓ ° ± " ≥ × ∞	
7. work out differences with your pharmacist when they arise?	← ↑ → ↓ ° ± " ≥ × ∞	
8. do all the things necessary to manage your condition on a regular basis?	← ↑ → ↓ ° ± " ≥ × ∞	
9. judge when the changes in your illness mean you should visit a doctor?	← ↑ → ↓ ° ± " ≥ × ∞	
10. do the different tasks and activities needed to manage your health condition so as to reduce your need to see a doctor?	← ↑ → ↓ ° ± " ≥ × ∞	
11. reduce the emotional distress caused by your health condition so that it does not affect your everyday life?	← ↑ → ↓ ° ± " ≥ × ∞	

Question	Response - at the present time	
How confident are you that you can.....	Not at all Confident	Totally Confident
12. control any symptoms or health problems you have so that they don't interfere with the things you want to do?	← ↑ → ↓ ° ± " ≥ × ∞	
13. do things other than just taking medication to reduce how much your illness affects your everyday life?	← ↑ → ↓ ° ± " ≥ × ∞	
14. continue to do your hobbies and recreation>?	← ↑ → ↓ ° ± " ≥ × ∞	
15. continue to do things you like to do with friends and family (such as social visits and recreation)?	← ↑ → ↓ ° ± " ≥ × ∞	
16. keep from getting discouraged when nothing you do seems to make a difference?	← ↑ → ↓ ° ± " ≥ × ∞	
17. do something to make yourself feel better when you are feeling discouraged?	← ↑ → ↓ ° ± " ≥ × ∞	

If the any of the following 4 questions do not apply to you please 4 Not applicable

How confident are you that you can.....	Response - at the present time	
18. reduce your physical pain?	← ↑ → ↓ ° ± " ≥ × ∞ μNot applicable	
19. keep the physical discomfort or pain of your disease from interfering with the things you want to do?	← ↑ → ↓ ° ± " ≥ × ∞ μNot applicable	
20. keep any other symptoms or health problems you have from interfering with the things you want to do?	← ↑ → ↓ ° ± " ≥ × ∞ μNot applicable	
21. keep your shortness of breath from interfering with what you want to do?	← ↑ → ↓ ° ± " ≥ × ∞ μNot applicable	

PLEASE CIRCLE ONE ANSWER FOR EACH QUESTION BELOW

22. Do you ever forget to take your medicine?	Yes	No
23. Are you careless at times about taking your medicine?	Yes	No
24. When you feel better do you sometimes stop taking your medicine?	Yes	No
25. Sometimes if you feel worse when you take the medicine, do you stop taking it?	Yes	No

PLEASE CIRCLE ONE ANSWER FOR EACH QUESTION BELOW

26. In general would you say your health is:	Excellent	1
	Very good	2
	Good	3
	Fair	4
	Poor	5

These questions are about how you feel and how things have been with you during the past month. For each question, please circle one number for each question that comes closest to the way you have been feeling. How much time during the past 4 weeks

27. were you discouraged by your health problem?					
None of	A little	Some of	All of	A good bit	Most of
the time	of the time	the time	of the time	the time	the time
0	1	2	3	4	5

28. were you fearful about your future health?					
None of	A little	Some of	All of	A good bit	Most of
the time	of the time	the time	of the time	the time	the time
0	1	2	3	4	5

29. was your health a worry in your life?					
None of	A little	Some of	All of	A good bit	Most of
the time	of the time	the time	of the time	the time	the time
0	1	2	3	4	5

30. were you frustrated by your health problem?					
None of	A little	Some of	All of	A good bit	Most of
the time	of the time	the time	of the time	the time	the time
0	1	2	3	4	5

Question	Response - at the present time	
How strongly do you agree or disagree with the following statements (5 means that you neither agree or disagree)?	DISAGREE as strongly as possible	AGREE as strongly as possible
31. Doing the shared care plan with the doctor was very useful	← ↑ → ↓ ° ± " ≥ × ∞	
32. Discussing the shared care plan with the pharmacist was very useful	← ↑ → ↓ ° ± " ≥ × ∞	
33. Having the shared care plan helped me to understand my treatment	← ↑ → ↓ ° ± " ≥ × ∞	

Question	Response - at the present time	
How strongly do you agree or disagree with the following statements (5 means that you neither agree or disagree)?	DISAGREE as strongly as possible	AGREE as strongly as possible
34. The shared care plan helped me understand how I could look after my health better	← ↑ → ↓ ° ± " ≥ × ∞	
35. Because of this project I now use the pharmacist more to help me with my health	← ↑ → ↓ ° ± " ≥ × ∞	
36. This project was useful to me	← ↑ → ↓ ° ± " ≥ × ∞	

37. Please feel free to make comments about your participation in the project:

Thank you for completing this questionnaire

Please post it (as soon as possible) in the stamped, self addressed envelope provided.

No information by which you can be identified will be included in any project reporting. (All data will be handled as per the Privacy Policy of the Central Bayside Division of General Practice which complies with the Privacy Amendment (Private Sector) Act 200).

*If you would like to discuss any aspects of the trial in more detail you can contact the project manager, **Margaret Lawson**, at Central Bayside Division of General Practice by phoning **03 9521 6755**.*

Attachment H: Patient Follow up Telephone Interview Questions

Patient follow-up interviews

Focus

Has the process improved clinical outcome, self management or confidence? How?

Questions

Q1: Could you describe what happened when you and the doctor first did the shared care plan?

Q2: Was this different from things you have done with your doctor before? How? How did you find it?

Q3: Were any issues raised that you had not discussed with your doctor before? Please illustrate if you feel comfortable.

Q3: Did you end up discussing the shared care plan with a pharmacist?

- How long after?
- Did the pharmacist already have it? (and had they read it?)
- What happened in your discussions with the pharmacist?
- How did you find this?
- Did you have a home medications review?
- How did you find this?

Q4: Were any issues raised in your discussion with the pharmacist that you had not discussed with a pharmacist before? Please illustrate if you feel comfortable.

Q5: Did you read and use the shared care plan yourself?

- Did it change the way you thought about your chronic illness?
- Were there any other ways in which the document was useful?

Q6: Would you say that your doctor did anything different with the way they handled your care as a result of doing the shared care plan?

- Please illustrate if you feel comfortable?
- Did you see any evidence that the doctor had communicated with the pharmacist about your care?

Q7: Would you say that your pharmacist did anything different with the way they handled your care as a result of doing the shared care plan?

- Please illustrate if you feel comfortable?
- Did you see any evidence that the pharmacist had communicated with the doctor about your care?

Q8: Would you say that you did anything different with the way you managed your health or your illness as a result of this process?

- Please illustrate if you feel comfortable?
- Are you aware of any benefits from these changes?

Q9: Overall were there benefits to you from the project?

- *Problems picked up that might have been missed*
- *Confidence*
- *Knowing the GP and pharmacist were collaborating*
- *Better knowledge of my health and how to manage it*
- *The plan*
- *Health*

Q10: Did the project change your ideas about how a pharmacist can help you?

Q11: Were you aware of any problems with how the program worked? Was it different to what you expected?

Q12: Do you think the shared care plan was useful to all three of you (you, the doctor and the pharmacist)?

Q13: Overall, could anything have been done to make the process better?

Q14: Do you have any other suggestions about how pharmacists/GPs could help you more or about how pharmacists and GPs could work better together?

Attachment I: Questions for focus Groups (Dec 02)

Patient Group – Tuesday 10th Dec 1.30PM

Focus

Has the process improved clinical outcome, self management or confidence? How?

Questions

Q1: Could you describe what happened when you and the doctor first did the shared care plan?

Q2: Was this different from things you have done with your doctor before? How? How did you find it?

Q3: Were any issues raised that you had not discussed with your doctor before? Please illustrate if you feel comfortable.

Q3: Did you end up discussing the shared care plan with a pharmacist?

- How long after?
- Did the pharmacist already have it? (and had they read it?)
- What happened in your discussions with the pharmacist?
- How did you find this?
- Did you have a home medications review?
- How did you find this?

Q4: Were any issues raised in your discussion with the pharmacist that you had not discussed with a pharmacist before? Please illustrate if you feel comfortable.

Q5: Did you read and use the shared care plan yourself?

- Did it change the way you thought about your chronic illness?
- Were there any other ways in which the document was useful?

Q6: Would you say that your doctor did anything different with the way they handled your care as a result of doing the shared care plan?

- Please illustrate if you feel comfortable?
- Did you see any evidence that the doctor had communicated with the pharmacist about your care?

Q7: Would you say that your pharmacist did anything different with the way they handled your care as a result of doing the shared care plan?

- Please illustrate if you feel comfortable?
- Did you see any evidence that the pharmacist had communicated with the doctor about your care?

Q8: Would you say that you did anything different with the way you managed your health or your illness as a result of this process?

- Please illustrate if you feel comfortable?
- Are you aware of any benefits from these changes?

Q9: Overall were there benefits to you from the project?

- *Problems picked up that might have been missed*
- *Confidence*
- *Knowing the GP and pharmacist were collaborating*
- *Better knowledge of my health and how to manage it*
- *The plan*
- *Health*

Q10: Did the project change your ideas about how a pharmacist can help you?

Q11: Were you aware of any problems with how the program worked? Was it different to what you expected?

Q12: Do you think the shared care plan was useful to all three of you (you, the doctor and the pharmacist)?

Q13: Overall, could anything have been done to make the process better?

Q14: Do you have any other suggestions about how pharmacists/GPs could help you more or about how pharmacists and GPs could work better together?

GP / Pharmacist Group – Tuesday 10th Dec 7.00 PM

Focus

Is the process able to improve clinical outcome, self management or confidence? What is necessary for this to happen?

Questions

Section A: Descriptive

Q1: Have you done care plans or DMMRs apart from the shared care plan in this project? How have you found it? Do you have any arrangements in place for doing care plans (eg practice nurse, capacity for long appointments)?

Q2: Have you done any shared care plans?

- Do you have any general impressions of the patients you decided to use it for?
- If you did none or few care plans, why was this? (logistical and time issues, relatively low priority compared to other issues, a belief that it would not be beneficial to your patients, other)

Q3: Were you able to identify suitable roles for the pharmacist? Did this change through your experiences? (Did the shared care plans you received identify suitable roles for the pharmacist)

Q4: To what extent did you have contact with the pharmacist/GP:

- In the development of the care plan
- Subsequent to the development of the care plan

Section B: Evaluative

Q5: To what extent did you find the process of developing the care plan useful (those who didn't do the shared care plan can comment on other experiences with care planning of they wish):

- Useful for themselves
- Useful for the patient
- Useful for careers
- Useful for other providers

Q6: Do you have any evidence that the pharmacists used the care plan to do things differently than they were before? (Were there any ways in which the shared care plan changed the care you provided?)

Q7: To what extent did patient education and self-management advice form part of the care planning process?

Q8: Are there potential benefits to the patient in relation to their ability to manage their own health? What?

Q9: Was the shared care plan document useful for you? Do you believe it was useful for the patient? The pharmacist/GP?

Q10: Overall, has anything changed in the way you practice or work with pharmacists/GPs as a result of this project?

Q11: Is this an initiative worth continuing with in the future?

Section C: Logistics and recommendations

Q12: Were there any features of the project or the shared care plan tool that were unhelpful and should be improved?

Q13: What other barriers or difficulties affect your ability to do shared care planning?

Q14: What other barriers or difficulties affect your ability to work more effectively with pharmacists/GPs?

Variation for Thursday Group (likely to be more experienced GPs)

Layout findings from Tuesday Group – do you agree or disagree?

Have you got any recommendations that we can trial over next few months?

Attachment J: Participants experience in detail

Participant Step	Approx Time Commitment
Patients will be recruited into the project by their GP opportunistically. That is their GP will assess their suitability and ask them to consider participation while they are being seen in a 'normal' appointment. No public advertisements will be undertaken. GP's may put up an information sheet in their surgery / rooms to raise interest.	
At the consultation the GP assesses the patient to meet one or more of the following selection criteria: <ul style="list-style-type: none"> - a chronic medical condition likely to be present for more than 6 months - need of multidisciplinary care involving 2 other health or community care providers – have had 2 or more hospital admissions in last 6 months – routinely takes 7 or more medications including over the counter (OTC) non prescription medications 	10 mins
The GP will explain the purpose and aims of the project to the patient at the completion of the consultation.	
The patient will be given the information sheet and consent form and asked to consider their participation.	
The patient can elect to participate at this point or go home and think about it.	
If the patient elects to participate in the project then the GP will go through the information sheet and consent form in more detail, explaining aims, risks and the process.	5 mins
The patient will be given a list of participating Pharmacists by the GP and can choose a Pharmacist from this list or provide details of their preferred Pharmacist.	
If their preferred Pharmacist is not already taking part in the trial the GP will contact the Project Manager at Central Bayside Division of General Practice to approach the Pharmacist on behalf of the patient. Patient participation will then be on hold until confirmation by the Pharmacist is received.	Contact with the Pharmacist will be made within 1 working day of receipt of request by Project Manager
The Project Manager will advise the GP re the Pharmacists decision. The GP will then advise the patient.	Within 2 working days of receipt of request by Project Manager
Upon the patient signing the Consent Form and selecting a participating Pharmacist the Shared Care plan can be created. If this is not convenient at the time of the initial appointment then another appointment can be made to complete the Shared Care Plan.	
The patient will be given a pre trial evaluation questionnaire to complete and mail back (via self addressed and stamped envelope) to the Project Manager.	20 mins

Participant Step	Approx Time Commitment
The Share Care Plan is completed by the GP in consultation with the patient and or their carer.	15 – 30 mins
The patient is given a hard copy of the Shared Care Plan to take with them at the completion of the appointment.	
If the GP has written a prescription at this time then they stamp the hard copy script with ' SCP ' to indicate to the Pharmacist that a Shared Care Plan exists for this patient. This also serves as a reminder to the patient that their Shared Care Plan should be taken to the Pharmacist when next they visit.	
The GP faxes or emails a copy of the Shared Care Plan to the designated Pharmacist. The Shared Care Plan details requested actions for the Pharmacist.	5 mins
The Pharmacist phones / faxes / emails confirmation of receipt of the Shared Care Plan acknowledging their understanding of the requested actions. If the Pharmacist has any questions they will phone the GP directly to clarify.	5 mins
The patient then goes to the designated Pharmacist within 2 days of the creation of the Shared Care Plan. The Pharmacist and the patient review the requested actions. Agreement is reached as to timing and frequency of actions and noted on their and the patients' copies of the Shared Care Plan.	15 – 30 mins
The Pharmacist faxes / emails the completed Shared Care Plan to the GP.	5 mins
The patient then brings the Shared Care Plan to each subsequent visit to the GP or Pharmacist in case of need of review or revision. This step is optional and will depend upon the circumstances of each individual patient's needs.	
At the completion of the trial period the patient has a final prearranged visit with the Pharmacist for review of the Shared Care Plan.	15 mins
At the completion of the trial period the patient has a final prearranged visit with the GP for review of the Shared Care Plan. NB: The patient and the GP may choose to continue to use the Shared Care Plan with or without the involvement of the Pharmacist. Should this occur these arrangements are beyond the scope of this project	15 mins
The patient is given a post trial evaluation questionnaire at the final visit with the GP. The patient completes the questionnaire and returns it to Central Bayside Division of General Practice via a self addressed pre stamped envelope	20 mins
At the completion of each patient's final visit to the GP the GP will provide Central Bayside Division of General Practice with one hard copy of the Shared Care Plan. All patient identifying information will be removed from this copy of the Shared Care Plan, i.e. name, address, phone number, fax and email	
Central Bayside Division of General Practice Bayside will aggregate details of the Shared Care Plan use as part of the project findings.	
Once the aggregation is complete all the Shared Care Plan forms will be destroyed via an in-house secure process of shredding.	