NOVA Public Policy

Evaluation of the Third Community Pharmacy Agreement Research and Development Grants Program

Final Report
For the Pharmacy Guild of Australia

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More information about NOVA Public Policy and its work can be found on the website: www.novapolicy.com.

Executive Summary

The purpose of this evaluation is to inform the Pharmacy Guild of Australia (the Guild) and government decisions about the future objectives and funding of the Third Community Pharmacy Agreement Research and Development Program (the R&D Program), including whether the Program is meeting its stated aims and objectives, whether it is still appropriate and fulfilling a research and evaluation need and if so, the priorities for the future Program. The evaluation was designed to provide the Guild and the Department of Health and Ageing (the Department) with a comprehensive assessment of program operation and management, outputs and outcomes of the projects and the Program and the impact of the Program.

The Research and Development Program

The Research and Development Program is funded through the Third Community Pharmacy Agreement (Third Agreement) between the Pharmacy Guild of Australia and the Australian Government Department of Health and Ageing. The Agreement ran from 2000 to mid 2005, and provided $188 million for the Pharmacy Development Program (PDP), which makes periodic grant payments to individual community pharmacies to take part in identified quality activities or achieve particular quality outcomes. Of the funding, $15 million was allocated to the R&D Program for the development of proposals relating to the objectives of the PDP.

The goal of the R&D Program is to identify research priority areas in community pharmacy service provision and to fund projects with the greatest potential to deliver services with positive health and economic impacts to consumers and the health system.

The program aims to:

1. improve/maintain the health of Australians through the delivery of quality pharmacy services
2. deliver cost effective pharmacy services using best practice professional and management standards
3. enhance and develop the role of the community pharmacist as a member of the health care team
4. develop and support research expertise and capacity in community pharmacy.

The Program priority areas are:

- quality use of medicines
- continuing care across the health system
- evaluation and further development of existing community pharmacy services and programs
- development of new cognitive services
- harm reduction for drug dependent people
- facilitating change processes within pharmacy practice and the health system to deliver higher quality and morecost effective pharmacy professional services
- the pharmacy workforce.

The Program provided funding for two types of projects:

- Investigator Initiated Grants (IIG) that are generated through calling for Expressions of Interest (EOI) followed by a full grant application process. The awarding of IIG grants

was made through selection committees that were established to shortlist EOIs and assess full grant applications.

- Commissioned Grants that were put out for public tender. All Commissioned Grants were overseen by an Expert Advisory Group that included key stakeholders.

Over the five-year period the Program provided funding for 58 projects.

The evaluation methodology

The evaluation involved three distinct phases and incorporated three evaluation approaches.

1. A process evaluation which examined and measured the procedures and tasks involved in implementing the program against the guidelines in the Australian National Audit Office's *Grants Administration Better Practice Guide*, published by the Commonwealth of Australia in 2002. The NOVA evaluation team used a combination of methods including:

- interviewing Guild staff and Department personnel
- reviewing a selection of files, reports and other documentation provided by the Guild
- examining online tools, the Guild Website and email records.

2. An outputs and outcomes evaluation, which assessed the outputs and outcomes of the projects funded by the Program. Expert reviewers identified the priority or priorities addressed by each project, on the basis of the project report and external evaluation report. A Professional Services Classification was assigned, also on the basis of the project report and external evaluation report.

3. An assessment of program impact, which was informed by the outputs and outcomes evaluation, and based on consultations with key stakeholders. The consultations included a particular emphasis on the assessment of the extent to which major stakeholders in the health system were aware of and engaged with the process and the extent to which they were able to identify effects the program had on its stakeholders and the community.

The consultations took several forms:

- an expert workshop with a small group of invited pharmacy educators and researchers and representatives of selected stakeholder groups, the Divisions of General Practice and primary health funders
- a group consultation with representatives of the Department
- a range of individual discussions with service provider, professional and consumer association representatives.

Evaluation of process

The process evaluation assessed and reviewed the appropriateness of systems, processes and documentation in place for the administration of the grants and benchmarks better practice as set out in the Australian National Audit Office *Grants Administration—Better Practice Guide.* The Guide recommends four categories in grants administration:

1. Planning for an effective grant program
2. Selection of projects
3. Management of funding agreements
4. Evaluation of the program.

The evaluation found that the R&D Program administration and management had:

- good processes and systems in place

- well-documented policies and guidelines (for IIG)
- good documentation
- an impressive database providing easy access to information on the progress and status of all EOIs, tenders and funded projects
- consistent formal protocols and formats for contracts, application forms, Requests For Tender (RFT) and other documentation.

The Program administration and management generally met or exceeded ANAO standards for the management of a grants program.

Evaluation of outputs/outcomes

This component of the evaluation is substantially based on review and consideration of the 31 completed projects, with limited capacity to extract applicable information from ongoing projects, with and without interim and progress reports. The projects covered the full range of program priorities:

- 23 projects undertook the development of a new cognitive service
- 21 undertook an evaluation and development of community pharmacy services and programs and/or a quality assurance strategy
- 20 focused on continuing care, with a number also addressing the professional service type continuity of care
- 16 focused on quality use of medicines
- 13 projects focused on change facilitation.

Analysis of the projects funded through the Program showed that:

- new cognitive services have demonstrated or indicated benefit
- projects to some extent have indicated health behaviour change or consumer satisfaction. Those projects that identified client satisfaction usually focused on pharmacist, general practitioner and consumer. The measurement of satisfaction, of itself, does not provide significant information
- few projects specifically assessed economic factors or outcomes. Economic benefit tools for analysis of pharmacy interventions and initiatives need improvement
- a substantial proportion of studies reported problems with recruitment and retention of of pharmacies, pharmacists, and/or consumers for the study
- lack of collaboration with key stakeholders, particularly general practice and consumers across projects, was evident. However, other projects did show some benefit through collaboration with general practice and other health service providers
- for a research program of this substance, there has been minimal active dissemination of the information and knowledge generated by the research projects.

The overall conclusion of the NOVA evaluation team was that a substantial body of useful information has been generated, with a number of projects demonstrating potential for further development and potential implementation. Allocation of sufficient funds to selected areas of focus or priority attention is warranted to support deliberative attention to and intensive development in selected areas.

Consultative assessment of impact

The consultative approach to assessment of the impact of the Program identified that the Program has:

- produced some valuable and innovative outputs
- demonstrated considerable potential to have a positive impact on government policy and pharmacy practice
- developed greater capacity within itself, through the successive national Community Pharmacy Agreements and
- undertaken (through the Third Agreement Program) the first consultative approach to the development of research priorities and directions.

Stakeholders considered that the Program would maintain and increase its impact on community pharmacy research, practice and on health outcomes through:

- a multi-disciplinary, multi-sectoral program structure and administration that is designed to maximise collaboration between the Program, the Department and major relevant stakeholders
- stronger delineation of focus on community pharmacy services and community pharmacy infrastructure
- continuation of innovative research to some level
- strengthening of the technical/research development and advisory capacity available to the management of the Program and the projects
- consideration of the breakthrough collaborative approach for specific practice and policy issues, including case conferencing, chronic disease management, and practice models.

Program performance

The NOVA evaluation team's overall assessment is that the Program has been performing as well as possible, given some structural and cultural barriers that have inhibited the ability of the Program to reach its full potential.

Factors that facilitated the achievements of the Program included:

- Government and stakeholder support
- good management systems and processes
- increased research capacity in the pharmacy sector.

The performance of the Program has been affected by some significant barriers, including:

- limited activity focused on the provision of policy and practice information and application
- the relationship between the Program and policy and program areas in the Department
- limited structural engagement of other health disciplines and sectors
- low to poor levels of recruitment of research participants, pharmacies, pharmacists and other health professionals, notably general practitioners and consumers
- limited economic analysis capacity resulting from low recruitment, lack of validated tools and lack of focus in a range of projects.

The future program

The NOVA evaluation team strongly recommends that the Community Pharmacy Research and Development Program be continued and enhanced. The next generation of the program should now take a strategic approach, establishing a strong pathway from academic research and publication to development, trial and implementation of service models and pharmacy practice evidence-based information.

The evaluation recommendations propose an improved structure and focus for the Program to consolidate its achievements, identify future research gaps and priorities, and to develop strategies and programs for the application of research to community pharmacy practice.

Recommendations are made in relation to:

- program administration, structure and processes
- the research focus
- a Program management committee
- the Program Goal and Objectives
- program priorities
- a communication protocol and process between the Guild and the Department
- a communication strategy.

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Glossary and Acronyms

AMC	Agreement Management Committee—a committee overseeing the Third Community Pharmacy Agreement
ANAO	Australian National Audit Office
CPA	Community Pharmacy Agreement
DMMR	Domiciliary Medication Management Review
EAG	Expert Advisory Group—overseeing management and selection of commissioned projects
EOI	Expression of Interest—initial documents provided by researchers applying for Investigator Initiated Grants under the R&D
FGA	Full Grant Application—submitted by researchers as part of the Investigator Initiated Grants Program under the R&D Grants Program
GST	Goods and Services Tax
HEC	Health Economics Committee—internal Guild Committee that considers matters with financial implications for the Guild
HIC	Health Insurance Commission
IIG	Investigator Initiated Grants
MIC	Medicines Information to Consumers
PDP	Pharmacy Development Program—one of a number of programs under the Community Pharmacy Agreement
PSA	Pharmaceutical Society of Australia
QIP	Quality Improvement Program
QCPP	Quality Care Pharmacy Program
R&D	Research and Development
RFT	Request for Tender—documents prepared by the Guild seeking tenders from researchers seeking to undertake commissioned projects under the R&D Grants Program

1 Introduction

1.1 Objectives of the evaluation

The Pharmacy Guild of Australia (*hereafter the Guild*) is required under the Third Community Pharmacy Agreement (hereafter the *Third Agreement*) to evaluate the Research and Development Grants Program (*hereafter the Program)* to determine how effective the Program has been in achieving its objectives.

The primary purpose of this evaluation was to inform Guild and Government decisions about the future objectives and funding of the Program, including the continuation of the Program, whether the Program is meeting its stated aims and objectives, and whether it is still appropriate and fulfilling a research and evaluation need.

The specific objectives of this evaluation were to:

- assess and review the appropriateness of systems, processes and documentation in place for the administration of the grants, benchmarking best practices as recommended by the Australian National Audit Office
- assess the appropriateness and effectiveness of the original objectives and if they remain so
- map the Program progression identifying key barriers and enablers that impact/impacted on the implementation and effectiveness of the Program
- benchmark the Program against a similar Australian Program
- classify the projects and interventions funded under the Program, where possible, according to the classification system used in the document *The Value of Professional Pharmacy Services*
- categorise the outputs of the projects in terms of changes in professional practice achieved, effect on health outcomes, economic impact or professional or patient satisfaction, where appropriate
- assess client satisfaction, expectations, recommendations and lessons learned
- make recommendations and discuss implications for the on-going delivery of the Program
- identify the performance indicators for the ongoing monitoring and evaluation of the Program.

1.2 Structure of this report

This report provides an overview of the history and structure of the Program (Chapter 2) and describes the evaluation methodology (Chapter 3). In Chapters 4, 5 and 6 the findings of three phases of the evaluation—process, outcome and impact—are discussed. The NOVA evaluation team's overall assessment of the findings is set out in Chapter 7. Chapter 8 makes recommendations for the future structure and management of the Program.

1.3 Desired Outcomes

This evaluation has been designed to provide the Guild and the Department of Health and Ageing (*hereafter the Department*) with a comprehensive assessment of:

1. Program operation and management:
    - the effectiveness with which the Program management systems have met the Program objectives and funding requirements
    - the extent to which and the effectiveness with which the projects funded through the Program have met Program objectives.
2. Outputs and outcomes of the projects and the Program:
    - the information and knowledge identified and developed through each project and of each priority area of the Program.
3. Impact of the Program:
    - the potential or actual impact of the outputs and outcomes of the projects and the Program within the continuum of care, within the settings of care, for the target groups, and in the context of the national health policy and priority areas.

2 The Research and Development Program

2.1 The history of the Research and Development Program

The predecessor to the current Program was established under the Second Community Pharmacy Agreement, which ran between 1995 and 2000.

This earlier Program—called the Pharmacy Agreement Projects Scheme—was largely reliant on residual funds under the Second Agreement, and had a budget of $5 million over five years. The funding and contracting was administered by the Department until September 1999 when it was handed over to the Australian Pharmacy Research Centre (based in Sydney) for the remainder of the Second Agreement.

The Pharmacy Agreements Projects scheme focused on:

- demonstration of the cost-effective roles of pharmacy in primary health care
- investigation of the professional role of community pharmacy, especially in the areas of:
    - pharmacy care in rural and remote areas
    - health promotion
    - preventative health care
    - ambulatory care/home health care.

Applications were invited for projects based on investigating and demonstrating cost-effectiveness of enhanced community pharmacy services, in line with the overall aims of the Second Agreement. A total of 42 grants were funded under the Program.

Some of the projects funded are listed in Table 1. A number of the programs went on to become part of the Pharmacy Development Program *(hereafter PDP)* funded under the Third Agreement

The Scheme was managed by a Pharmacy Agreement Projects consultative committee, which consisted of representatives from the Guild, the Department, the Pharmaceutical Society of Australia, the Australian Association of Consultant Pharmacy (observer status), and the Society of Hospital Pharmacists (observer status). There was also a technical advisory group to review grants.

Table 1. Examples of Projects Funded under the Pharmacy Agreements Project Scheme (1995–2000)

Pharmacy Access/Remoteness Index of Australia (PHARIA)
Dose Administration Aids
Framework for Standards for Quality Pharmacy Services
Standards of Practice for the Provision of Pharmacist Only and Pharmacy Medicines in Community Pharmacy
The Role of Community Pharmacy in Methadone Maintenance Treatment
Professional Practice Standards Development Project
Immunisation in Community Pharmacy
National Evaluation of Medication Review Services in Australian Nursing Homes
A Comparative Study of Two Collaborative Models for the Provision of Domiciliary Medication Review
Cost Analysis of Medication Regimen Reviews Performed by Community Pharmacists for Ambulatory Patients through Liaison with Local General Medical Practitioners
The Evaluation of the Asthma Card in New South Wales
Quality Care Pharmacy Program
Professional Services Practices Program
SUGARCARE: Best Practice Guidelines for Disease Management Program-Professional Remuneration Strategy for Diabetes in Community Pharmacy.

The Program was reviewed prior to the negotiations for the Third Agreement. The review found there was strong interest in the Program from the outset, and that the Program had a reasonable expectation of producing a range of outcomes including:

- development and evaluation of, or development and pilot study of best practice models

- development of implementation strategies for and implementation of best practice standards and revision of current standards
- best practice models
- development of professional practice initiatives
- development and assessment of enhanced community pharmacy practice
- literature reviews and audits on a range of issues
- training and other education tools
- collection of baseline data on workforce issues and identification of national strategies.

The design for the current Program was developed during the negotiations for the Third Agreement between the Guild and the Australian Government. Under the Third Agreement, the Program was established to invest in projects designed to improve the quality and range of pharmacy services to deliver positive health outcomes for consumers.

The Program was funded under the Pharmacy Development Program (PDP), one of a number of programs funded under the Third Agreement (see Figure 1). The Third Agreement operated from 1 July 2000 to 30 June 2005.

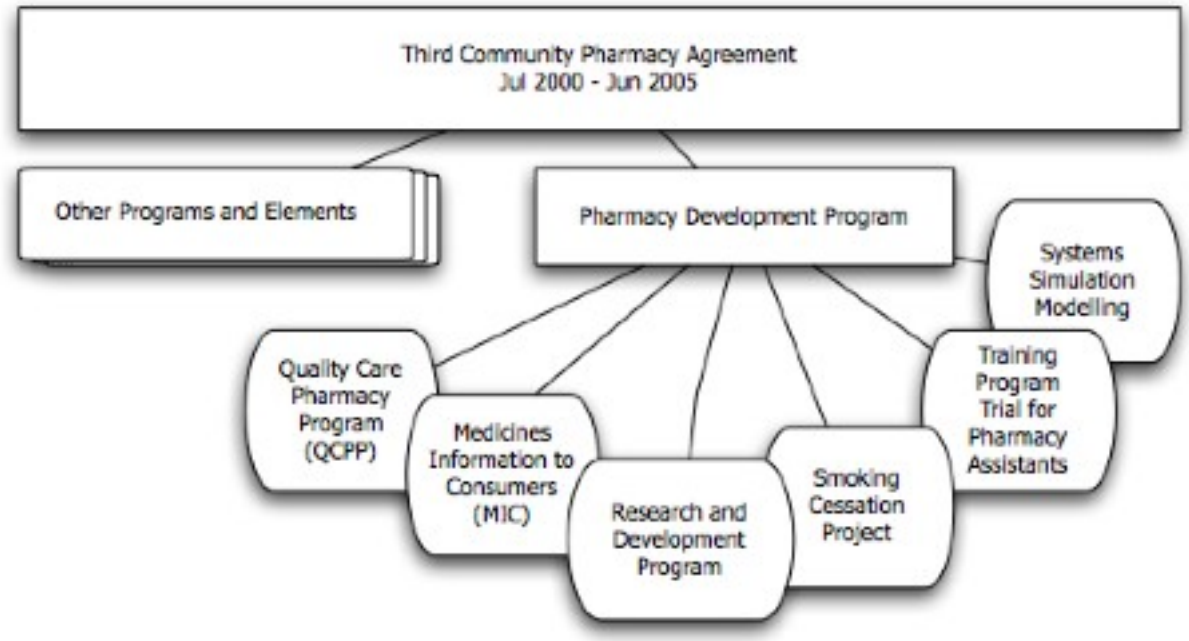


Figure 1. Diagram showing location of R&D Grants Program under the Third Agreement

The Third Agreement between the Pharmacy Guild of Australia and the Australian Government Department of Health and Ageing ran from 2000 to mid 2005. The Third Agreement had the principal objectives of:

- provision of a quality, personalised pharmacy service to the Australian community through a network of well-distributed, accessible and viable community pharmacies
- increased access to community pharmacies for persons in rural and remote regions of Australia
- continued development of an effective, efficient and well-distributed community pharmacy service in Australia that takes account of the recommendations of the Competition Policy Review of Pharmacy and the objectives of National Competition Policy

- greater financial stability for the parties to the Agreement through the introduction of risk sharing arrangements
- identification and development of ways in which information technology can be used to improve medication management, and more broadly to improve the Australian health care system for the benefit of the community
- development of enhanced medication reviews, in cooperation with the medical profession, aimed at improving health outcomes and quality use of medicines for the Australian community
- implementation of quality standards; coordination in the delivery of primary health health-care services and achievement of a multi-disciplinary approach to the provision of quality health and pharmacy services for all sections of the community
- a focus on achieving continued improvement in community pharmacy services provided to Aboriginal and Torres Strait Islander people
- generally, the fostering of a stable and viable community pharmacy sector in Australia.

Part of the Third Agreement included funding of $188 million over the life of the Third Agreement for the PDP. The PDP was designed to make periodic grant payments to individual community pharmacies for participation in identified quality activities or achievement of particular quality outcomes. Of the funding, $15 million was allocated to research and development funds for the development of proposals relating to the objectives of the PDP (i.e. the R&D Program).

The primary objective of the PDP is to:

> " promote the enhanced involvement of community pharmacy in the pursuit of quality and cost effective service delivery"
>
> ——Third Community Pharmacy Agreement

2.2 Overview of the R&D Grants Program Objectives, Goals and Priorities

The goals and objectives of the R&D Grants Program are listed in Table 2 below. The Pharmacy Guild Research and Development Program website states that the "R&D Grants Program has been established to invest in projects designed to improve the quality and range of pharmacy services to deliver positive health outcomes for Australians. The efficiency and cost effectiveness of these services will also be considered so that the services are affordable and accessible for the consumer, sustainable and viable for community pharmacy and affordable for the health system."

In addition to the Program goal and objectives, the Program has a series of priorities (also listed in Table 2) that were developed and reviewed over the life of the Third Agreement. These priorities were:

> " developed in consultation with stakeholders to optimize the investment in projects that will contribute to the development of community pharmacy services within the context of a collaborative health team and a changing health system.
>
> The Pharmacy Guild of Australia has developed research priorities for the Program through an extensive consultation process with stakeholders and communication with the Department of Health and Ageing. The priorities will be reviewed annually and used to advertise the grants and inform applicants on the scope and desired outcomes for the Program.

Research priority areas will be advertised each year and these may be investigated using a variety of settings or target population groups. It is highly recommended that proposals for funding address those areas where there is greatest potential to improve health and cost effectiveness of community pharmacy services."

——The Guild Website 2005

Table 2. Goals, Objectives and Priorities of the Third Community Pharmacy Agreement Research and Development Grants Program

Goal	It is the goal of the CPA R&D Program to identify research priority areas in community pharmacy service provision and to then fund projects with the greatest potential to deliver services with positive health and economic impacts to consumers and the health system.
Objectives	1. Improve/maintain the health of Australians through the delivery of quality pharmacy services. 2. Deliver cost effective pharmacy services using best practice professional and management standards. 3. Enhance and develop the role of the community pharmacist as a member of the health care team. 4. Develop and support research expertise and capacity in community pharmacy.
Priority Areas	• Quality use of medicines • Continuing care across the health system • Evaluation and further development of existing community pharmacy services and programs • Development of new cognitive services • Harm reduction for drug dependent people • Facilitating change processes within pharmacy practice and the health system to deliver higher quality and cost effective pharmacy professional services • Pharmacy workforce.

The Pharmacy Guild identified the context for the Research and Development Grants Program grants within the interaction of all of these environments and requirements as shown in the diagram from the Guild's website (April 2005) replicated in Figure 2 below.

The outcomes of the Research and Development Grants Program will provide maximum value to the Pharmacy Guild and the Department of Health and Ageing if these are assessed within this multi-sectoral and multi-factorial context.

The Pharmacy Guild also established principles for the Program. These are that the projects address:

- information technology and information management (IT/IM) issues within the project in relation to software use and development, information systems and infrastructure, and to consider these in relation to the Government's IT/IM policies and infrastructure development and the IT/IM initiatives incorporated within the Third Community Pharmacy Agreement
- the most appropriate settings and target populations to achieve health gains, such as the geographically disadvantaged, Aboriginal and Torres Strait Islander populations and the frail aged, and that projects consider existing initiatives for these populations
- the economic implications and future sustainability of the project
- the cost effectiveness of any new service or change in service in improving or maintaining health outcomes, and present options for remuneration to the pharmacist for the service

- the requirements for the development or revision of professional standards for the delivery of new or amended services (where applicable)
- the development of new services or improvements to existing services involves relevant stakeholders, such as consumers, general practitioners and other associated health professionals and organisations, including liaison with Divisions of General Practice and other locally based health care organisations to enhance the integration of service delivery within existing systems
- the involvement of practising community pharmacists as appropriate.

Additionally, the Pharmacy Guild established four objectives for projects undertaken through the Program with a set of guidelines for each objective, as follows:

Objective 1—Improve/maintain the health of Australians through the delivery of quality pharmacy services.

Improved health outcomes for Australians is the key driver for the delivery of services, and it is imperative that research and development projects can demonstrate the value that quality pharmacy services contribute.

Research and development projects addressing this objective may critically evaluate and develop improvements to existing community pharmacy services or develop, implement and evaluate new pharmacy services. The aim of the projects will be to demonstrate the contribution of these services to improving or maintaining the health of Australians.

The development of new pharmacy services should involve consultation and collaboration with relevant health care sectors, organisations and professionals.

Services may be evaluated and developed using concepts of quality such as effectiveness, appropriateness, safety, accessibility and capability. Improvements in quality can then be linked with service delivery and health outcomes to ascertain the benefits of delivering services within a quality framework.

Objective 2—Deliver cost effective pharmacy services using best practice professional and management standards.

Costs associated with the delivery of health care are escalating with Australian expenditure on health services estimated in 1998-99 at $50.3 billion (AIHW 2000). With pharmaceuticals one of the high growth areas, this objective provides the challenge of investigating opportunities to contain the cost of pharmaceuticals and related services while ensuring equitable and sustainable access within a viable pharmacy network. Gains in efficiency may be achieved through improved models of service delivery.

The expansion of service delivery to include a range of cognitive and preventive services poses new challenges for pharmacists and pharmacy proprietors.

Within the pharmacy, proprietors will need to provide an appropriate environment to deliver new professional services and be aware of other health care providers and programs that might be appropriate for the comprehensive care of the consumer. It is important that this shift in service delivery is underpinned by the development of appropriate professional standards and changes in business practice.

Objective 3—Enhance and develop the role of the community pharmacist as a member of the health care team.

Retention of pharmacists in the active workforce has been identified as a key strategy to provide an adequate workforce, particularly in rural and remote areas (Health Care Intelligence, 1999). Without an adequate workforce it will be impossible to deliver new services and enhance the role of the pharmacist in the health care team.

Strategies to retain pharmacists and enhance integration with other health care providers could be explored through career and professional development related to the provision of new services and involvement in research activities. Research addressing this objective will demonstrate the value of pharmacy professional services within the primary health care team. Research will also identify the competencies required by pharmacists to contribute effectively within the team setting and develop support resources required by the pharmacist.

Objective 4—Develop and support research expertise and capacity in community pharmacy.

It is imperative for the future of research and development in community pharmacy that there is sufficient capacity and resources to develop ideas and produce results. This requires an investment in developing the research capacity of the pharmacy sector at an institutional level as well as clinical level of community pharmacy.

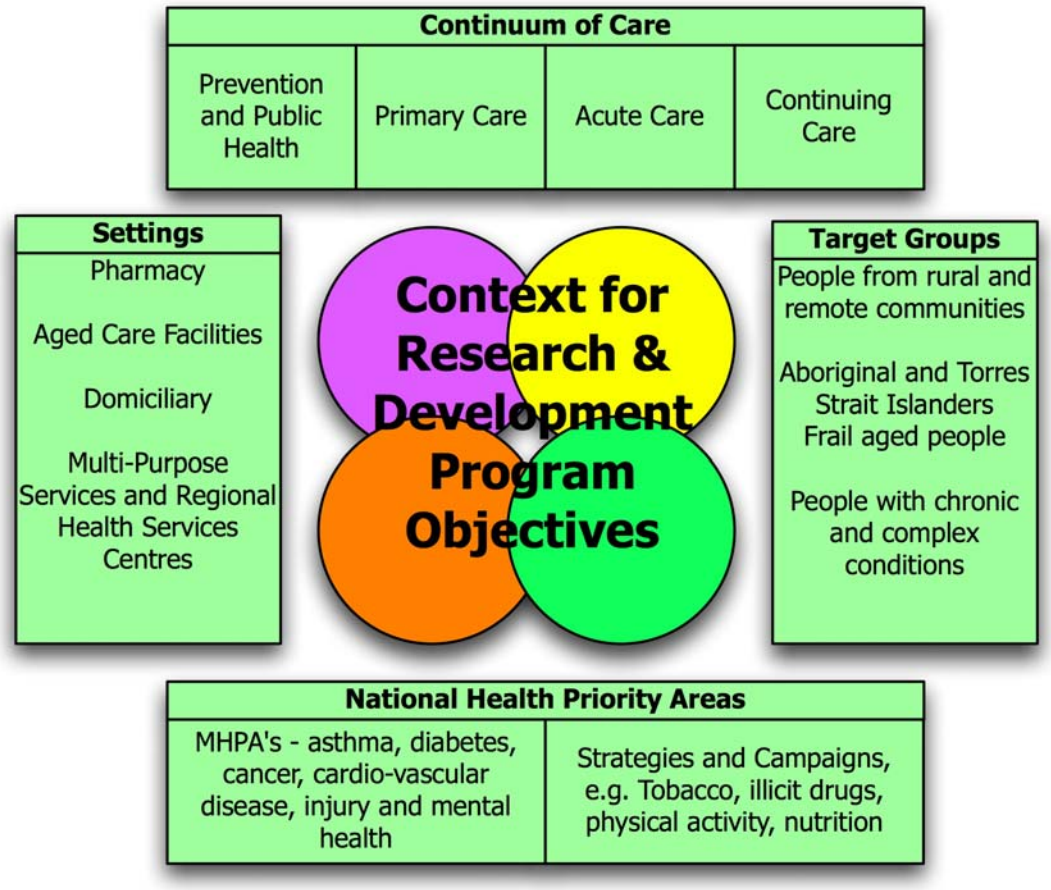


Figure 2. Strategic Priorities under the Third Community Pharmacy Agreement R&D Grants Program

2.3 Brief Overview of how the Research and Development Grants Program operated

2.3.1 Types of Grants

The Program funded two types of projects:

- Investigator Initiated Grants that were generated through calling for Expressions of Interest followed by a Full Grant Application process. The awarding of IIG grants was made through selection committees that were established to shortlist EOIs and assess full grant applications.
- Commissioned Grants that were put out for public tender. All Commissioned Grants were overseen by an Expert Advisory Group that included key stakeholders.

The Investigator Initiated Grants were run for three rounds of funding (2001, 2002 and 2003) and were predominantly researcher driven within the constraints of identified priority areas. The processes for the IIG involved a two-stage process requiring potential researchers to prepare an Expression of Interest (EOI) and Full Grant Application (FGA). The maximum funding for a project per application round was $150,000.

Research priorities were:

- evaluating the value of activities that pharmacists already undertake such as clinical interventions and dose administration aids
- consolidating new services that commenced in the Third Agreement, for example Home Medicines Review
- examining the feasibility of new remunerated services, such as Pharmacy Diabetes Care and Pharmacy Asthma Care Programs.

Projects of 12–18 months duration that would contribute to the negotiation of the Fourth Community Pharmacy Agreement were preferred, and the funding benchmark and timelines were such that the majority of Investigator Driven projects were intended and designed to be completed prior to the conclusion of the Third Community Pharmacy Agreement on 30 June 2005. Investigator Initiated Grants were generated through a call in each of the first two years of the Program for Expressions of Interest. Selected EOIs were then invited to progress to a Full Grant Application process. The awarding of IIG grants was made through selection committees that were established to shortlist EOIs and assess full grant applications.

Commissioned Grants were designed by the Program and were put to public tender. An Expert Advisory Group that included key stakeholders oversaw all Commissioned Grants. Commissioned Projects were advertised as a Request for Tender (RFT). Projects put to tender also included evaluation of programs funded under the PDP, such as the Quality Care Pharmacy Program (QCPP) and the Domiciliary Medication Management Review (DMMR) Program.

A total of 58 projects were funded under the Program. A complete list can be found later in this chapter.

The Agreement Management Committee (AMC) undertook oversight of the Program as a whole. Either a Selection Committee or an Expert Advisory Group also oversaw each project. A small team in the Guild administered the day-to-day management of the Program. The draft final reports of all IIG and Commissioned Grant projects were reviewed by an independent expert to assess their quality and compliance with what was proposed in the grant application. This process has been evaluated in Chapters 4, 6 and 7.

Each of the groups involved in the management of the Program is described briefly below. More information about the processes can be found in the Process Evaluation (Chapter 4)

2.3.2 The Agreement Management Committee

The AMC—a committee set up under the Third Agreement—was responsible for the active management the agreement. It had members from the Department, the Guild, and the Pharmaceutical Society of Australia (PSA). The AMC also had observers from Medicare Australia (formerly the Health Insurance Commission).

The AMC met a minimum of four times a year and advised the Minister—through the Department—on the operation of the Agreement. The chair of the AMC could rotate between the Department and the Guild.

With respect to the Program the AMC:

- endorsed the strategic research priorities
- endorsed the selection criteria used for the assessment of EOIs under the IIG Program
- approved any variation to an open selection process
- endorsed the members and chair on any selection committee
- endorsed the members and chair on EAGs (6 Aug 2000 onwards)
- considered final selection reports
- considered all final reports.

2.3.3 Health Economics Committee

The Health Economics Committee (HEC) is an internal Guild Committee that considers all Guild proposals with funding implications. HEC meetings were held prior to each AMC meeting to consider the AMC Agenda and papers.

The requirement for consideration of Program-related issues by the HEC was not mandated by the Third Agreement or the PDP Agreements. This process provided the Guild an extra avenue for quality assurance.

2.3.4 Selection Committees

Selection Committees were established to shortlist EOIs and shortlist and assess Full Grant Applications *(hereafter FGA*) for the IIG. The membership of Selection Committees was developed in consultation with the Department and had to include at least one member from the Department and one member from the Guild. An independent chair, The Hon John Cleary chaired any Selection Committee convened and the Guild provided secretariat services.

The requirements for the selection committees evolved through the various PDP agreements. From 2002–03 onwards, new members of the selection committee had to be approved by the AMC and the selection committee was also responsible for developing the Terms of Reference (TOR) for the selection committee.

The application assessment process to be undertaken by Selection Committees is specifically set out in the PDP Agreement. These processes evolved over time.

The first PDP Agreement (2000–01) set out the process for assessment of applications, this was later amended to assessment of Full Grant Applications in the remaining PDP Agreements and the requirements provided additional steps to be undertaken.

2.3.5 Expert / Independent Review of Full Grant Applications

An expert review process for all proposals for the IIG was established to assess the methodology prior to the Selection Committee consideration of FGAs.

In the first PDP agreement this was known as technical assessment. The Guild was given the option of recruiting and contracting a small technical advice team or compiling a list of suitable and available reviewers to assess the grant applications received to ensure the proposed methodology was of a high standard. The arrangements for technical assessment had to be in place prior to the closing date for FGA and the technical assessment report had to be finalised within three weeks of the closing date.

From 2001–02 onwards this process became the Expert Review, and the Guild was given the responsibility of finding experts to review the methodology in proposals and to ensure that the expert advice was provided within eight weeks of the closing date.

The requirements for the expert review also evolved through the various PDP agreements. In 2002–03, a new requirement to have at least two expert or independent reviewers and for these experts to be approved by the Department's R&D contact officer came into force. In the 2003–04 PDP the Department's Project Officer could also nominate additional departmental experts.

2.3.6 Expert Advisory Groups (EAGs)

Expert Advisory Groups were first established after August 2000 after a deed of variation to the 2000–01 PDP.

EAGs were convened for each Commissioned Grant project. In line with the PDP Agreement, an EAG was convened to advise on the development of each commissioned project brief, assess and select tenderers, and advise on the ongoing management of the successful commissioned grant project.

Membership of each EAG included relevant stakeholders and expertise and was approved by the AMC.

The application assessment process to be undertaken by EAGs is specifically set out in the PDP Agreement.

2.3.7 Expert / Independent Review of Final Reports

At the Draft Final Report stage, all Investigator Initiated and Commissioned Grants were reviewed and evaluated individually by external evaluators, Health Technology Analysts. Each project was reviewed for methodological rigour and relevance. The external evaluators reviewed each project proposal for Investigator Initiated Projects, and each project draft final report for both Investigator Initiated Projects and Commissioned Projects. The evaluation approach employed is modelled on the *Schema for evaluating evidence on public health interventions: version 4* (National Public Health Partnership 2002), providing a guide to appraising the evidence on public health interventions through both qualitative studies and randomised controlled trials.

The external evaluator reports were provided to researchers at each stage and researchers were provided with right of reply and amendment (if appropriate) of the project final report prior to final submission.

The external evaluator reports, in most cases, were published on the Pharmacy Guild website with the Project final report. In some instances, the external evaluators provided separate written advice to the Pharmacy Guild regarding specific project issues or concerns.

2.4 Projects funded through the R&D Program

As previously mentioned the Program funded two types of projects:

- Investigator Initiated Grants that were generated through calling for Expressions of Interest followed by a Full Grant Application process. The awarding of IIG grants was made through selection committees that were established to shortlist EOIs and assess full grant applications.
- Commissioned Grants that were put out for public tender. All Commissioned Grants were overseen by an Expert Advisory Group that includes key stakeholders.

At the time of this evaluation, 21 Investigator Initiated projects were complete, 11 were ongoing, 11 Commissioned projects were complete and 14 were ongoing. The R&D Program evaluation project (this report) is not included in these figures or in this report. The Program had achieved the intention of having a majority of Investigator Initiated projects completed prior to the conclusion of the funding period.

Table 3. Third Community Pharmacy Agreement Research and Development (R&D) Grants Program—List of 58 projects funded

Project ID	Grant Title		Institution and Chief Researcher	$ Amount of Grant
2001 Investigator Initiated				
2001-008	Woundcare benchmarking in community pharmacy - Piloting a QA indicator development	*	University of Queensland Julie Stokes	75,000.00
2001-011	Development and evaluation of a computerized system for the provision and documentation of community pharmacists' cognitive services	*	University of Tasmania Greg Peterson	86,472.00
2001-028	Pharmacy and general practice disease management collaboration	*	Central Bayside Division of General Practice Reitai Minogue	149,418.30
2001-036	Community pharmacists providing clinical services for dispensing doctors and depot pharmacies in rural Queensland - tele-pharmacy	*	University of Queensland Lisa Nissen	96,500.00
2001-041	Educating community pharmacists to provide quality advice and information to consumers via the internet	*	Monash University Chris Silagy	72,847.00
2001-049	Enhancing the value of pharmacists through augmented competency standards and targeted professional practice standards	*	PSA Bill Kelly	128,830.00
2001-052	Mentor support program	*	AACP Leone Coper	150,000.00
2001-054	The economics of pharmaceutical services for methadone services in a public clinic and community pharmacies	◇	Curtin University Bruce Sunderland	142,363.00
2001-055	Hypertension: Improving patient compliance and clinical outcomes through community pharmacist managed care	*	Curtin University Jeffery Hughes	111,539.00
2001-056	Reference data base of Australia's community pharmacies: analysis of national survey	*	Curtin University Con Berbatis	70,950.00
2001-064	Case conferences and care planning - Collaboration between community pharmacists and general practitioners	*	University of Sydney Tim Chen	86,537.00
2001-070	An investigation into business and professional facilitators for change for the pharmacy profession in light of the Third Guild/Government Agreement	*	University of Sydney Charlie Benrimoj	74,752.00
2001-072	Professional pharmacy services to private hospitals	*	University of Sydney Rebekah Moles	69,630.00

2001-074	Pharmacy Asthma Action Plan - Pharmacists receiving remuneration for addressing the issues for people with asthma in the community	*	University of Sydney Sinthia Bosnic- Anticevich	85,089.00
2001-075	An integrated model for disease state management (DSM) in diabetes: collaboration of the community pharmacist and GP in continuity of care	*	University of Sydney Ines Krass	153,878.00
2001 Commissioned				
2001-501	Pharmacy workforce supply and demand 2000-2010	*	Health Care Intelligence David Gadiel	150,000.00
2001-502	Cost benefit analysis of pharmacist only and pharmacy medicines and a risk based evaluation of the standards	*	University of Sydney Charlie Benrimoj	812,180.00
2002 Investigator Initiated				
2002-004	Ensuring the appropriateness of topical over-the-counter antifungal agents for clients with self-diagnosed vaginal thrush	*	Curtin University Peter Tenni	85,778.62
2002-005	Customised education programs for patients with Diabetes Mellitus—Use of Structured Questionnaires and Education Modules	^	Curtin University Jeffery Hughes	162,640.00
2002-009	Rural community pharmacists integrating care for people with complex health needs	†	University of Queensland Lisa Nissen	184,200.00
2002-013	Improving the quality, effectiveness and sustainability of smoking cessation services, delivered through community pharmacies	*	University of South Australia Andrew Gilbert	149,935.09
2002-020	Developing a sustainable Pharmacy Support Network to address geographical issues associated with quality use of medicines	†	PSA—NSW Fiona Kelly	144,660.00
2002-022	Pharmacy-based program to tackle coronary heart disease in the Australian community.	*	University of Tasmania Greg Peterson	149,903.00
2002-024	A community pharmacist delivered therapeutics outcome monitoring service for hyperlipidemia	^	University of Sydney Parisa Aslani	130,333.00
2002-026	An integrated service , initiated by community pharmacists, for the prevention of osteoporosis	*	University of Sydney Susan Taylor	146,784.00
2002-027	A community pharmacy based anticoagulant management service	†	University of Sydney Andrew McLauchlan	160,836.36
2002-028	From hospital to community: a multi-disciplinary "continuity of care" model for cardiovascular patients involving community pharmacists	†	University of Sydney Tim Chen	149,975.00
2002 Commissioned				
2002-504	Review of DMMR software	*	HMA Wayne Kinrade	65,000.00
2002-507	The value of pharmacist professional services in the community setting	*	University of South Australia Libby Roughhead	54,587.45
2002-508	Community Pharmacy Research Support Centre	*	University of Sydney Carol Armour	475,376.00
2002-516	Workforce and career path options for pharmacy assistants	*	HMA Wayne Kinrade	245,366.00
2002-518	Pharmacy Diabetes Care Program	*	University of Sydney Ines Krass	664,442.00
2002-519	Effectiveness and cost effectiveness of Dose Administration Aids	*	University of Queensland Michael Roberts	397,500.00
2003 Investigator Initiated				
2003-005	Improving medication management of palliative care patients: enhancing the role of community pharmacists	^	Monash University Roger Nation	198,846.00
2003-007	Quantification of facilitators to accelerate uptake of cognitive pharmaceutical services (CPS) in community pharmacy	*	University of Sydney Charlie Benrimoj	57,980.00
2003-008	Asthma self-management in the community: pharmacists facilitating empowerment of patient asthma self-management practices through	^	University of Sydney Sinthia Bosnic- Anticevich	177,580.00

2003-010	3D* Labels (Dandenong Division of General Practice)	*	Dandenong Division of General Practice Graeme Sweet	154,525.00
2003-013	Medication management and education of osteoarthritis patients: evaluation of a role for community pharmacists	^	University of Sydney Tim Chen	171,729.00
2003-017	Improving Australian's access to prescription medicines: Development of pharmacy practice models	*	Monash University Tracey Bessell	159,528.00
2003-028	Collaboration between CP & mental health care practitioners	^	Curtin University Paula Whitehead	149,073.00
2003 Commissioned				
2003-504	Community Pharmacy Medication Incident and Reporting Management System (CPMIRMS) (PROMISe)	*	University of Tasmania Greg Peterson	580,800.00
2003-519	Evaluation of Clinical Interventions within Community Pharmacy(PROMISe II)	†	University of Tasmania Greg Peterson	943,878.00
2003-524	Facilitating quality use of medicines between hospital and community (Med-E-Support)	^	University of Tasmania Greg Peterson	874,026.32
2003-526	Pharmacy Asthma Care Program	†	University of Sydney Carol Armour	677,918.61
2003-530	Change management and community pharmacy	*	University of Technology, Sydney Dexter Dunphy	893,077.00
2004 Commissioned				
2004-503	The role of pharmacy in immunisation	*	Aoris Nova Pty Ltd Joan Dawes	56,306.00
2004-509	Pharmacy Continence Care Program	^	Nova Public Policy Rosemary Calder	251,332.23
2004-511	Pharmacy Cardiovascular Health Care Model	†	University of Tasmania Greg Peterson	205,000.00
2004-526	Evaluation of HMR Program	*	Urbis Keys Young John Schwartzkoff	401,784.00
2004-532	Development, Implementation and Evaluation of Funding Model Options for the Dispensing of Pharmacotherapies for Opioid Dependence in Community Pharmacy (Addiction Care 1)	^	HMA Wayne Kinrade	499,810.00
2004-534	Dispensing and Monitoring of Schedule 8 and Schedule 4 (with dependency properties) Drugs (Addiction Care 2)	^	University of Ballarat Chris Lynton-Moll	141,730.00
2004-536	Effectiveness and cost effectiveness of Dose Administration Aids—phase 3 (DAA phase 3)	^	University of Queensland Michael Roberts	249,400.00
Major Evaluations Commissioned				
92001-01	Evaluation of the Quality Care Pharmacy Program	*	AIPM John Chapman	606,600.00
92002-04	Evaluation of the Medicine Information for consumers (MIC) program	*	Taylor Nelson Sofres Murray Benton	399,913.00
2005-522	Weight Management	†	University of Western Australia Allan Everett	195,844.00
2005-501	Consumer Experiences, Needs and Expectations of Community Pharmacy	†	University of SA Kathy Mott	249,276.00
2005-531	Consumer Access to Prescription Medicines	†	HMA Wayne Kinrade	90,848.00
2005-532	Evaluation of the R&D Program	‡	Nova Public Policy Rosemary Calder	70,760.00
	TOTAL			14,340,865.98

Key	*—completed	^—still under way	◊—resubmitted	†—at review stage	‡—delayed

3 The Evaluation Methodology

In order to meet the objectives of the project, this evaluation of the Research and Development Grants Program was undertaken in three distinct phases and incorporated three types of evaluation:

- a process evaluation
- an output and outcomes evaluation
- an assessment of program impact.

The methodology for each is discussed below.

3.1 Process evaluation

Process evaluation examines the procedures and tasks involved in implementing a program; identifies how the program has operated and the extent to which the program has met required standards of administration, financial management and probity where appropriate; and the extent to which facilitators, barriers and difficulties affected the operation of the program.

The objective of the process evaluation was to:

- assess and review the appropriateness of systems, processes and documentation in place for the administration of the grants, benchmarking best practice as recommended by the Australian National Audit Office
- map the Program's process identifying key barriers and enablers which impact/impacted on the administration and management of the Program
- benchmark this aspect of the Program against a similar Australian Program.

In order to form an opinion in relation to these objectives the NOVA evaluation team used a combination of methods to conduct the process evaluation. These included:

- interviewing Guild staff and Department of Health and Ageing personnel
- reviewing a selection of files, reports and other documentation provided by the Guild
- examining online tools, and the Guild Website and email records
- identifying other similar programs to use as a benchmark against which to measure the R&D Program.

3.1.1 Assess and review appropriateness of systems, processes and documentation

A key document informing the evaluation was the ANAO *Grants Administration Better Practice Guide* (Commonwealth of Australia 2002). This publication identifies a number of areas in its discussion of better practice in grants administration. Table 4 summarises the areas examined as part of this evaluation.

Table 4. Areas identified by the ANAO *Grants Administration Better Practice Guide* and coverage in process evaluation

ANAO Better Practice Guide		Process Evaluation Coverage	Comment
Planning for an effective grant program	Establish the need for the program	☑	
	Define operational program objectives	☑	
	Risk management	☑	
	Design program for value for money	☑	
	Design program for accountability	☑	
	Establish performance measures	☑	Also covered in evaluation more broadly
	Select funding strategy	☑	
	Consider taxation issues	☑	
	Produce program guidelines	☑	
Selection of Projects	Handing applications	☑	
	Appraising applications	☑	
	Grant announcements	☑	
Management of funding agreements	Establish funding agreements	☑	
	Establish monitoring arrangements	☑	
	Monitor progress and payments	☑	
	Acquit funds	☑	
Evaluation of the grants program	Managing the review	☒	Outside scope
	Carrying out the review	☒	Outside scope
	Reporting	☒	Outside scope

The major work of the process evaluation involved systematically evaluating the program against the ANAO benchmark document. As it was not feasible within the timeframe or budget of the evaluation to conduct an in-depth analysis of all 58 grants funded under the program, the evaluators randomly selected eight projects that covered the breadth of a range of criteria for intensive examination (see Table 5).

Table 5. Project selected for intensive examination as part of the process evaluation

Grant ID	Project title	Topic	Type of grant	Researcher
2001-028	Pharmacy and general practice disease management collaboration	Disease State Management, collaboration	Investigator initiated	Central Bayside Division of General Practice
2002-013	Improving the quality, effectiveness and sustainability of smoking cessation services, delivered through community pharmacies	Disease State Management	Investigator initiated	University of South Australia
2002-519	Effectiveness and cost effectiveness of Dose Administration Aids	Medication management, professional	Commissioned	University of Queensland

Table 5. Project selected for intensive examination as part of the process evaluation

Grant ID	Project title	Topic	Type of grant	Researcher
		services		
2003-005	Improving medication management of palliative care patients: enhancing the role of community pharmacists	Medication management, quality use of medicines	Investigator initiated	Monash University
2003-008	Asthma self-management in the community: pharmacists facilitating empowerment of patient asthma self-management practices through collarboration	Disease state management	Investigator initiated	University of Sydney
2003-519	Evaluation of Clinical Interventions within Community Pharmacy (PROMISe II)	Professional services	Commissioned	University of Tasmania
2004-503	The role of pharmacy in immunization	Disease state management	Commissioned	Aoris Nova Pty Ltd
92001-01	Evaluation of the Quality Care Pharmacy Program	Evaluation	Commissioned	AIPM

The eight projects were randomly selected to cover the following:

- year of grant (2001 through 2004)
- type of grant (Investigator Initiated or Commissioned Project)
- origin of grant holder (University or other)
- completed or not completed
- across research priority areas.

3.1.2 Mapping the program's processes

During the process evaluation the evaluators documented the processes undertaken by the Guild to administer each component of the program. In the process evaluation and the other two components of the evaluation a record of the enablers and barriers was developed.

3.1.3 Benchmarking the Program

The Department and Guild sought to have the Program benchmarked against a similar program. However, it was the NOVA evaluation team's view that this Program did not have a well-established peer program, and that those programs with similar governance, roles and objectives were only relatively recently established and were therefore not suitable for comparative purposes at this stage. The Department and the Guild have similarly formed that view and the Program was therefore measured against the ANAO Guidelines.

3.2 Outputs and outcomes evaluation

Outputs and outcomes evaluation is undertaken to assess the initial results of a program or projects. It is useful in determining and assessing whether projects have produced the desired results and are meeting their objectives.

To assess the outputs of the Program, and to provide a basis for identification of outcomes of the Program, the evaluation process included:

- classification of the projects and interventions funded under the Program, where possible, according to the classification system used in the document *The Value of Professional Pharmacy Services*
- categorisation of the outputs of the projects in terms of changes in professional practice achieved, effect on health outcomes, economic impact or professional or patient satisfaction, where appropriate.

The body of work reviewed and evaluated as part of the output and outcome evaluation comprised 32 Investigator driven projects and 25 Commissioned Projects. This represented 57 of the 58 projects funded. This evaluation—a commissioned project—was not included in the evaluation for obvious reasons.

The outputs of the projects were assessed by an expert panel comprising academic evaluators, practice evaluators and policy evaluators in order to assess contributions of pharmacy practice to education, training and professional development and related professional issues. The expert panel comprised Assoc. Professor Gabrielle Cooper; John Bell, Community Pharmacist; and Rebekah Moles, Hospital Pharmacist, Associate Lecturer, research grant recipient. In addition, Rosemary Calder and Kate Moore of NOVA Public Policy reviewed projects for their contribution to consumer outcomes and to broader health policy. (This group together is referred to as the expert evaluators for the remainder of this section).

The expert evaluators panel:

- considered the extent to which these projects addressed and contributed to the Program Priority areas (refer Table 2 for the list of R&D priorities)
- assessed the extent to which contributions could be identified from Investigator Initiated Projects and Commissioned Projects to:
    - research leadership and development, academic and clinical knowledge in community pharmacy
    - practice information and knowledge enhancing the role, capacity and capability of community pharmacy in primary health care
    - health policy and consumer health information, knowledge and engagement.

The NOVA evaluation team also used the project review reports prepared by the external evaluators for all completed projects for those that were available at June 2005, and considered interim reports for those projects in progress at June 2005. The NOVA evaluation team relied on the summary of evidence from the Third Community Pharmacy Agreement R&D projects and other Australian-based research, provided by the Guild as at 4 February 2005. Each project has been reviewed by at least two members of the expert evaluators' panel for academic, clinical and policy and stakeholder outcomes and implications.

Project outcomes were assessed:

- for the information and knowledge developed through each project and for each priority area of the Program,

- to provide the basis for an assessment of the potential or actual impact of these:
    - within the continuum of care
    - within the settings of care
    - for the target groups
    - in the context of the national health policy and priority areas.

The expert evaluators' panel, together with the consultation process that considered indicators of impact of the Program, identified to the extent possible the appropriateness and effectiveness of the priorities for Investigator driven projects and the extent to which these remain appropriate for the Fourth Community Pharmacy Agreement.

3.2.1 Classification of studies

A requirement of this evaluation specified in the original request for tender was to classify the projects using the classification system used in the report *the Value of Professional Pharmacy Services* (Roughead, Semple and Vitry undated) in order to review the contribution and impact of the projects. The *Value of Professional Pharmacy Services* report described, classified and grouped 90 randomised controlled trial studies, identified through a systematic literature review, in a number of ways:

- classification by the interventions employed by the study
- classification by a hierarchy of the types of outcomes assessed
- classification by one of 19 pharmacist professional service types.

These are shown in summary detail in Table 6 below.

Table 6. Classification categories under Value of Pharmacists' Professional Services

Roughead, Semple et al. Classifications under Value of Pharmacists' Professional Services		
Classification by the interventions employed by the study	Classification by a hierarchy of the types of outcomes assessed	Classification by one of 19 pharmacist professional service types
• Provision of Information • Provision of Education • Medication chart review • Review of medical case notes • Patient interviews • Development of care plans • Liaison of collaboration with other health care professionals • Monitoring signs and symptoms • Monitoring laboratory results • Device education or monitoring • Follow-up	• Clinical outcomes (level 1) • Surrogate or intermediate outcomes (level 2) • Other measurable variables with indirect or unestablished connection to the clinical outcome(s) of interest (level 3) • Quality of prescribing or quality of medication use (level 4)	• Pharmaceutical care services • Continuity of care services • Pharmacist clinic services • Pre-admission clinics • Medication review for repeat prescriptions • Medication review for aged care facilities • Pharmacist services providing education to patients or consumers • Education services for health care professionals • Drug information services • Pharmacist participation in therapeutic decision making • Pharmacist involvement in non-prescription medicine use • Smoking cessation services • Pharmacist advocacy for immunisation services • Pharmacist administration of vaccines • Hospital in the home • Interventions • Screening • Monitoring

In developing the overall evaluation framework and through consultation and workshop with the expert evaluators and commentators, the NOVA evaluation team determined that classification by the interventions employed would not add further information to classification of outputs and outcomes. The team also considered that classification by types of outcomes, whilst potentially useful, was of very limited benefit, as it was not consistently

articulated by the project reports, nor used as an assessment criterion by the external project evaluation. On the other hand, the Pharmacist Professional Service type classification potentially provided a useful mapping of the "outputs of the projects in terms of changes in professional practice achieved" as in the evaluation objectives.

The expert evaluators used a set of descriptors of key characteristics, developed by the expert team, to assist in an initial identification of the application of the outputs of each project. All expert evaluators used the following guideline (see Table 7) to identify the outputs of the projects in terms of:

- changes in professional practice achieved
- effect on health outcomes, economic impact or professional or patient satisfaction, as appropriate
- the extent to which the sub-program and projects demonstrated client satisfaction and met client expectations, using the sub-program and project definitions of clients.

In the consultations conducted by the NOVA evaluation team, stakeholders were asked to identify outputs, outcomes, contributions and potential of individual projects with which they were familiar, and of the Program overall.

Specific questions put to all stakeholders included:

- Have one or more of the outputs of the funded projects been useful to your organisation and/or the people you represent?
- To what extent is the knowledge generated through the Program contributing to the development of the role of the community pharmacist as a member of the health care team? How could this be improved?
- To what extent is the knowledge generated through the Program contributing to the delivery of cost-effective pharmacy services using best practice professional and management services? How could this be improved?

Table 7. Summary of key characteristics assessed as part of the output and outcomes evaluation component

CONTINUITY OF CARE	TARGET GROUPS	SETTING	NATIONAL HEALTH AREA
Prevention and Public Health	Rural remote	Pharmacy	Topic area (e.g. asthma, illicit drugs, general)
Primary Care	Aboriginal/Torres Strait Islanders	Aged Care Facilities	National Strategies or Campaigns
Acute Care	Frail Aged	Domiciliary	
Continuing Care	Chronic/Complex conditions	Acute care transition to Community care	
		MPS or Regional Health Service centre	
		Other	

OTHER RESEARCH AREAS	OUTCOMES	OTHER
Practice Change	Improved health outcomes	Barriers
Workforce	Economic impact shown	Facilitators
New service development	Development of pharmacists role	Lessons learned
Harm reduction	Community pharmacists involved in research	Project recommendations
	Patient satisfaction demonstrated	

3.3 An assessment of program impact

Impact evaluation assesses the impact a program has on its stakeholders and the community. Impact evaluation is usually undertaken twelve months to five years after a program has been fully implemented and usually measures the longer-term impact of a project or program. Due to the timing of this evaluation a partial impact evaluation was undertaken.

Whilst the outputs of completed research projects have been independently and individually evaluated by the Program external evaluator, that evaluation was neither designed nor intended to assess the outputs of the projects over time, across the sector, and in the wider context in which the Program and projects have occurred, or in terms of the overall measurable impact of the Program on professional practice, on health outcomes or in economic impact.

Within the limited timescale and scope of this program evaluation, a consultative approach was developed to undertake an assessment of the identifiable impacts (*referred to hereafter as the assessment of impact*) was developed to fit the purpose within the parameters of the project and the body of work and information accessible to the NOVA evaluation team.

Table 8. List of Stakeholders for the R&D Grants Program

Key Stakeholders
Australian Government Department of Health and Ageing
The Pharmacy Guild of Australia
The Pharmaceutical Society of Australia
University Schools of Pharmacy
Other Stakeholders
Australian College of Pharmacy Management
Pharmacists
Consumers
Service providers/grantees
Other health professionals

The expert evaluators were provided with the independent evaluations of individual projects and considered evidence of emerging research relevant to the outputs of the individual projects and within the sector.

The satisfaction of stakeholder clients was considered where projects had addressed these.

In addition, key stakeholder consultations and some external information and data sources were used to identify any impact the Program could be considered to have had or to potentially have, and the extent to which it could be measured.

This included a particular emphasis on assessment of the extent to which major stakeholders in the health system have been aware of and/or engaged in or by the process, outputs and outcomes of the Program, and have been able to identify impacts of the outputs of the projects and of the Program overall on pharmacy practice and policy, and on the broader health policy, funding and service provision environment within which community pharmacy is positioned.

The consultations with key informed stakeholders identified the extent to which:

- the processes used by the Program have been effective and efficient in (a) identifying priorities, and (b) allocating funding to projects that contribute to meeting the objectives of the Program
- the outputs of projects have been useful to stakeholder organisations and/or work priorities
- the knowledge generated through the Program has contributed or can be expected to contribute to the development of the role of the community pharmacist as a member of the health care team
- the knowledge generated through the Program has contributed or can be expected to contribute to the delivery of cost effective pharmacy services using best practice professional and management services
- the Program has contributed to or can be expected to contribute to the development and support of research expertise and capacity in community pharmacy
- knowledge generated through the projects has been disseminated effectively
- knowledge generated through the projects could be used more effectively.

The NOVA evaluation team met with a range of key stakeholder organisations, including the Consumers' Health Forum, the Australian Divisions of General Practice, a number of divisional representatives within the Department of Health and Ageing, the Pharmaceutical Society, the College of Pharmacy Practice and Management and the Australian College of Consultant Pharmacies. The list of consultation participants and summaries of the Expert Workshop and Department roundtable can be found in Appendix 2. The external evaluator for the project proposals and reports, Health Technology Advisers, was also consulted, as was the senior leadership of the Pharmacy Guild.

Consultations took several forms and comprised:

- an expert workshop with a small group of invited pharmacy educators and researchers and representatives of selected stakeholder groups, the Divisions of General Practice and primary health funders (a full list of participants is in Appendix 2)
- a group consultation with representatives of the Department
- a range of individual discussions with:
    - service provider, professional and consumer association representatives with some involvement in or awareness of the Program
    - the external evaluators of the Program's project proposals and reports, processes and results
    - senior officers of the Guild.

4 The Process Evaluation

4.1 Introduction

This chapter assesses and reviews the appropriateness of systems, processes and documentation in place for the administration of the grants, and benchmarks better practice as recommended by the Australian National Audit Office (ANAO). It also maps the Program's processes. A discussion of the enablers and barriers that impacted on the administration of the Program can be found in Chapter 7.

The ANAO *Grants Administration Better Practice Guide* (Commonwealth of Australia 2002) recommends better practice in grants administration against four categories:

(a) planning for an effective grant Program

(b) selection of projects

(c) management of funding agreements

(d) evaluation of the Program.

The structure of this chapter reflects the content and better practice recommended by the ANAO and uses three of the above ANAO category headings. Assessment against the fourth category—evaluation of the Program—is limited in this section to evaluation of projects within the Program rather than the Program as a whole, as the latter is the subject of this evaluation report.

At the beginning of each section in this Chapter is a brief description of the ANAO's recommended practice followed by the evaluation findings.

Readers need to be aware that the establishment of the Program predates the 2002 ANAO Guide. An earlier 1997 edition of the ANAO Guide was available at the time the Program was established and is referred to in the 2000–01 PDP Agreement as the basis to be used for creating the Grant Administration Guidelines. This earlier ANAO publication (38pp) was considerably less detailed than the current 2002 edition (74pp).

4.2 Planning Process

4.2.1 Establish the need for the program

Has the need for a grant program been thoroughly established?

Please note: The ANAO Guide suggests that some of the first steps in the process of creating a grants program is establishing the need for the program. In this case the establishment of the program was a decision of Government. As such, evaluating the actual process undertaken by the Government to establish the need for the Program is outside the scope of this evaluation. The comments provided in this section are for background purposes only.

The need for the Program, was identified and negotiated between the Guild and the Government as part of the CPA Agreements. Some of this is captured in the previous Chapter.

The review of the earlier Program found strong interest in the Program from the outset and that the Program had a reasonable expectation of producing a range of useful outcomes. The review also outlined the need for the Program, and identified that:

> " …in the absence of such a Program, research and development in these areas does not fit easily into the range of other research funding Programs. Accordingly there remains

a need for and value in supporting the continuation of this or a similar research program with funding at levels which enable substantial and significant projects to proceed."

— Australian Pharmacy Research Centre Review
May 2000

Along with the initial identification of Program need, in developing the initial proposal for the Program, the Guild noted that there were few opportunities for new pharmacy graduates to conduct research in the area of community pharmacy.

" Traditionally research grants are evaluated on experience and 'track record', and it can be very difficult for new researchers with innovative ideas and enthusiasm to obtain funding. The allocation of these grants are [sic] aimed at attracting pharmacy graduates to research and to provide options once a higher degree is obtained. This will help to develop a greater pool of researchers with valuable experience and expertise to be involved in community pharmacy research."

—Pharmacy Guild AMC Paper 2000

4.2.2 Define operational program objectives

Have the objectives of the program been clearly documented and communicated to all stakeholders?

The ANAO Guide suggests grant programs should operate under clearly defined and documented operational objectives that are clearly linked to the outcomes set by government for the grant-giving organisation. The objectives should be authorised or endorsed by the Minister, Board or senior staff appropriately. Further it suggests that the operational objectives for the program should include quantitative, qualitative and milestone information or be phrased in such a way that it is clear when these objectives have been achieved.

The Program objectives (refer Table 2 on page 6) were written into the annually updated schedule relating to the Program under the Third Agreement, and were enshrined in the agreement in this way. The schedules also contained a detailed list of 'Administration Activities' that set out the operational activities to be undertaken each year by the Guild. These effectively became the operationalisation of the Program objectives. The schedules set out tasks and timeframes for the Program.

The objectives of the Program were communicated to other key stakeholders sitting on various Selection Committees and Expert Advisory Groups. The NOVA evaluation team also found the Program objectives were readily available on the Guild website[1] and were provided in material to applicants. Information about the Program goals and a brief background on the Program were also readily available.

In addition, workshops to determine the research priorities were undertaken in December 2000 and June/July 2002, and these would have further served to communicate the Program's objectives to a wider audience.

Are the program's operational objectives consistent with the organisation's strategic objectives?

The operational objectives were found to be consistent with the overall objectives of the Community Pharmacy Agreement, which the NOVA evaluation team considered to be a more appropriate set of strategic objectives to measure the Program against in this case.

[1] All references in this Chapter to content available on the Guild's website refer to the period during which the process evaluation was undertaken—that is, the website as it appeared in May and June 2005.

Further discussion about the objectives can be found in later Chapters.

4.2.3 Risk management

Have all relevant factors and risks to the program been identified, analysed, assessed, and prioritised? Have appropriate strategies and controls been developed?

In seeking information about the Risk Management processes adopted by the Guild, both generally and specifically in relation to the Program, the NOVA evaluation team was referred to the quality assurance processes and systems in place within the Guild.

The Guild has a Quality Assurance certification against ISO9001:2000. The scope of the Guild's Quality Assurance certification is:

- The Pharmacy Guild of Australia is a member-based organisation. The Quality Assurance system (known as the Quality Improvement Program or QIP) of the National Secretariat of the Pharmacy Guild of Australia addresses processes required for:
    - support of members through the various services provided to members
    - support of functions needed in the provision of training as a Registered Training Organisation
    - support of the development, management and administration of the Quality Care Pharmacy Program
    - development of programs and health initiatives aimed at achieving better health outcomes for the community through the Guild Government agreements
    - assessment of health issues and the development of policies that support the pharmacy industry.

The Quality Assurance Framework is operationalised through the Guild's Quality Improvement Program (QIP).

The NOVA evaluation team also noted that from May 2004 the AMC agreed that all procurement proposals submitted to the AMC would follow a procurement template that complied with the Australian Government Procurement Guidelines. Built into this template was a section on risk assessment. Appendix 2 of the AMC paper endorses Contracting and Tendering Guidelines include a comprehensive list of the possible risks that may emerge in a contracting or tendering process.

There was no document available that could be termed a 'risk management' plan *per se,* but Guild Staff referred to the QIP system and appeared to indicate it was providing a built-in risk management framework.

The evaluation was confined to evaluating the risk management processes put in place by the Pharmacy Guild in its management of the R&D program. It is acknowledged that there may have also been other agencies, such as the Department, with risk management strategies in place with regard to the R&D program but evaluation of other agencies processes was not part of the evaluation of this program.

4.2.4 Design program for value for money

Does the program conflict with or duplicate other funding sources?

There was no evidence found during the process evaluation that the Program conflicted with or duplicated other funding sources. This issue is discussed further in later Chapters.

Have all the agency administrative costs been identified?

The total funding pool available for grants was agreed as part of the negotiations of the Third Agreement. The total funding pool included funds for the final evaluation of the Program.

Administrative costs for the Program were not separately identified in the PDP agreement. Allocations for administration of the Program were allocated internally from the PDP administration funds each year. The budget for the PDP contains five items covering the cost of administering the R&D Program. The total budget for Program administration in 2004-2005 was $741,191. This covered costs of staff, Expert Advisory Committees, expert reviews of all funded projects, publication of reports and dissemination of research results. The Program team is provided with a statement of receipts and payments monthly, through which they track income and expenditure against the budget.

Initially a full time research manager and a project manager in the Guild managed the Program.

In May 2003 the workload had increased to an extent that another staff member was recruited by the Guild to manage the IIG. In June 2005 the Guild Team consisted of the Research Manager, Senior Project Officer and a Project Officer

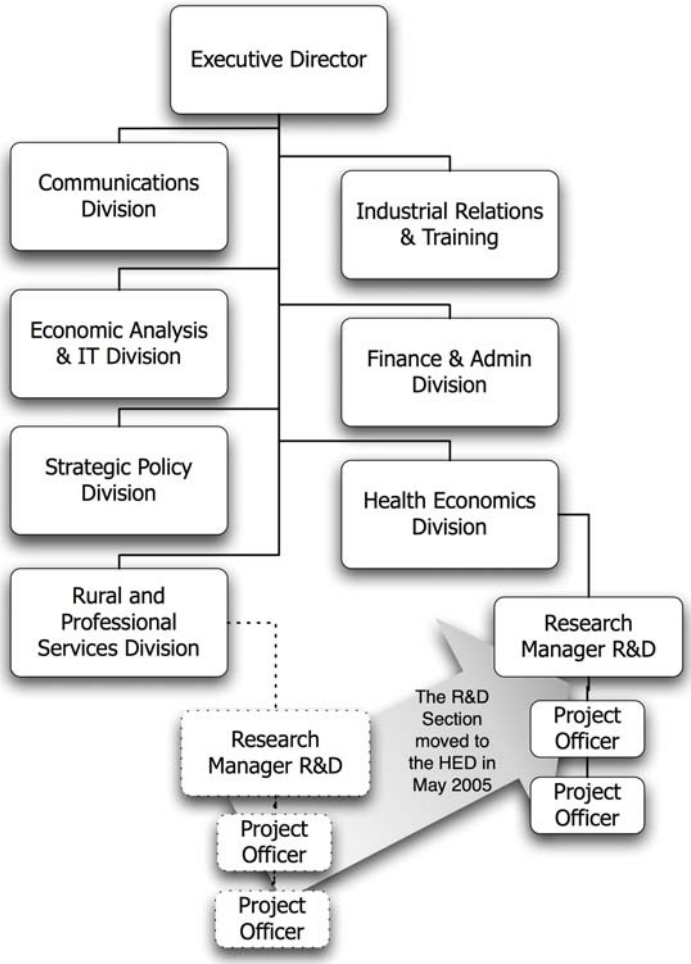


Figure 3. Organisational Chart showing location of R&D Section within the Guild—June 2005.

Options for on-line processing

The ANAO Guide suggests that "on-line application, appraisal and management systems have the potential to streamline the application and selection process, reduce administrative costs and increase the transparency of grant administration" (p.15). It goes on to note that such systems enable a range of functions to be carried out on-line.

The NOVA evaluation team found that the Guild had provided a partially on-line system that enabled potential applicants to:

- test their eligibility for grants by reading the application materials
- view the standard funding agreement template that would be used should their grant application be successful.

The system did not extend to online application and appraisal systems. The R&D Team did use an overarching database to manage the Program. It enabled them to monitor progress and manage payments, and generate management information for evaluation and accountability purposes.

Have administrative responsibilities for the program been agreed?

As mentioned in the previous section the day-to-day management of the Program is managed by a team of three staff.

The team was initially in the Rural and Professional Services Division. In May 2005, after an internal strategic planning process and restructure within the Guild, the Program responsibility and the team were moved to the Health Economics Division.

Administrative Oversight by Committees and Review Teams

A series of committees and groups oversaw the administration and approval processes for the Program. Chapter 3 provides an overview and description of the roles and responsibilities of the various groups and committees involved in the management of the Program.

The NOVA evaluation team found that the structures set up for management of the Program were comprehensive and ensured that the Program was appropriately managed both on an individual project level as well as a whole-of-Program level.

Identify and resolve any conflicting objectives or duplication of effort?

Please refer to the later Chapters for a discussion of this issue.

Have basic rules been set on eligibility, the scale of assistance and the conditions of support?

Guidelines for eligibility for the IIG Program are contained within the Policy and Guidelines document available on the Guild website.

The eligibility guidelines stipulate:

- the applications must be submitted through an organisation, institution or other legal entity and the application must state an ABN of that institution
- the project must demonstrate involvement of a pharmacist or pharmacy-related organisation in the development of the proposal
- the proposal must address one or more of the Research and Development Grants Program priorities as stated in the Strategic Priorities and Information for Applicants—Section Three
- the Chief Investigator or a Principal Researcher must be an Australian citizen.

The Commissioned projects are selected through an open tender process. As such the eligibility criteria for commissioned grants are essentially contained within the RFT documents. Tenderers must comply with a range of criteria and be able to demonstrate their claims against the selection criteria. Potential applicants may self-assess their own ability to prepare a tender. Should applicants submit tenders that do not comply with the requirements, the RFT document makes it quite clear that tenderers can be excluded from consideration. The NOVA evaluation team noted that the format and requirements of the RFT documents (currently listed on the Guild website) remained the same throughout the term of the Third Agreement.

4.2.5 Design program for accountability

The ANAO Guide has an extensive section on designing grant programs for accountability. Given the nature of the Program and its location within the Third Agreement many of the recommended practices were not considered as part of the current process evaluation. The sections on whether the project complied with legal and government requirements and whether the Government's access and equity provisions were complied with, were assumed to have been in place as a part of the negotiations for the Third Agreement.

The remaining items in the ANAO guide relating to program accountability are discussed below.

Is there adequate provision for recording reasons for decisions?

Selection Committees or EAGs made decisions about grants. Decisions by both were minuted.

Are there any conflicts of interest?

The ANAO notes that "A conflict of interest could arise where decision makers or officers involved in grant Program administration have a direct or indirect interest in the selection of a particular project for funding. Actual or perceived conflicts of interest can be potentially damaging to a funding organisation and its programs. Ensuring that relevant guidelines clearly outline what constitutes a conflict of interest, and that procedures are in place for staff to declare their interests can mitigate this risk." (p.24)

The NOVA evaluation team found evidence that conflict of interest declarations were performed at the commencement of each selection process examined.

Are accountability mechanisms directed to outcomes as well as inputs and outputs? What accountability reporting mechanisms are proposed?

The Guild was required to provide a range of reports to the Department. These were stipulated in the Schedule to the CPA and for 2004–05 included:

- written final report and additional six-monthly progress reports on the administration of the Program including all activities, all projects approved during the period and detailed financial statements (audited 12 monthly)
- two hardcopies and one electronic copy of the interim and final reports submitted for each R&D project funded under the Program
- information about under-performing R&D projects or where there was a risk of under performance
- additional ad hoc information on the progress of specific R&D projects requested by the Department
- a copy of all materials submitted to AMC five days prior to consideration by AMC.

The reporting requirements were detailed in a separate schedule to the CPA and included a requirement to report on the outcomes of each project.

4.2.6 Funding strategy

The ANAO Guide (p.31) suggests that three funding strategies are appropriate for grant funding:

- lump sum funding—where a lump sum is paid irrespective of the project's costs
- standard percentage funding—a sum is paid that represents a fixed percentage of the project's costs
- flexible funding—a financial appraisal of the project determines the amount and the terms of the grant.

The Guild provided funding to projects using a flexible funding model. This was limited, however, by the initial planning phases of the Program, which set the broad parameters for the funding to be allocated to various parts of the Program, for example the split between IIG and commissioned projects and also a indicative amount for some individual projects. Payments of grants were made in line with a milestones and deliverables specified in funding agreements between the Guild and the successful grant applicant. Once the milestone was reached the Guild invoiced the Department for the funds. Funds were not paid in advance of the milestones being achieved.

The NOVA evaluation team concluded that this funding strategy was appropriate and that the other two models suggested by the ANAO would not have been feasible or appropriate under the Third Agreement.

4.2.7 Taxation issues

Taxation issues for the Program were set out in the PDP Agreements. The Guild standard contract for grant recipients, in turn, included a clause dealing with the Goods and Services Tax (GST), as do the Policies and Guidelines for the IIG Program. The GST clause was present in all the contracts for the eight projects selected for examination.

4.2.8 Program guidelines

The ANAO Guide recommends that

> " clear, consistent and well-documented Program guidelines are an important component of an effective grant Program administration system. A single reference source for policy guidance, administrative procedures, appraisal criteria (including the relative importance and weighting), monitoring requirements, evaluation strategies and standard forms helps to ensure consistent and efficient administration. This is especially important … where multiple assessors are examining applications."
>
> —p.37 ANAO Administration of Grants Better Practice Guide (Commonwealth of Australia 2002)

Investigator Initiated Grants

For the Investigator Initiated Grants the following documents were available for download from the Guild website:

- Investigator Initiated Grants (2003)
- Policy and Guidelines (2003)
- Strategic Priorities (2003)

- Expression of Interest (EOI) application form
- Full Grant Application (FGA) form (2003)
- Draft research contract (2003)
- FGA Expert Review Form

The Guild website also stated that:

> " The Investigator Initiated Grants are predominantly researcher driven within the constraints of identified priority areas. The grants are available for research and evaluation projects, as well as development and implementation projects. The maximum funding for a project per application round is $150,000.
>
> The Investigator Initiated Grants will be advertised in late February each year and consist of two stages. Expressions of Interest (EOI) will be called for initially and the proposals must use the application form provided and comply with the Policy and Guidelines for the relevant year. A Selection Committee will then short-list the EOIs and successful applicants will be invited to submit a Full Grant Application (FGA). It is anticipated that this process will be completed in October each year and contracts finalised for the successful applicants.

Selection Committees also had access to Terms of Reference.

The NOVA evaluation team concluded that the Guild has provided a single reference source for policy guidance, administrative procedures, appraisal criteria, monitoring requirements, evaluation strategies and standard forms and that these formed the basis of a comprehensive set of documents to assist both the grant applicants and the selection committees.

The NOVA evaluation team found that the fact that IIG grants were not advertised in February 2004 or 2005 was not particularly obvious to website visitors, which seemed to imply that IIG were advertised *each* year. The fact that these grants were not to be offered in 2004-05 is noted in one of the links embedded in the information about the IIG, but this required people browsing the website to open the link.

The relative importance and weighting of the assessment criteria was also not described in the policy and guidelines and may be something that could be considered for a future Program.

Commissioned Projects

A single point of reference for the policies and guidelines for the Commissioned projects were less readily available to applicants for the Commissioned projects.

The Guild website included a section describing Commissioned projects which outlined some of the crucial steps in the administration of Commissioned projects. A copy of the draft contract was also made available.

The website also contained previous RFTs, a list of previous projects and the publicly available final reports for completed projects to date.

To a large extent the standard Request for Tender document provides much of the information needed by potential applicants to apprise themselves of the process. For example, each RFT provides the evaluation method, the compliance and selection criteria for the RFT. The standard RFT document mirrors a standard RFT issued by the Department of Health and Ageing.

Internally, the Guild did have policies and guidelines for the Commissioned Projects on their QIP system including:

- a program plan for R&D Grants Program
- an evaluation form for tenders (which matched the compliance and selection criteria set out in the RFT documentation)
- Terms of Reference for EAGs
- process for Commissioned projects
- Standard Operating Procedure for the R&D Grants Program
- a contract and tool for conduct of external reviews of completed projects.

The NOVA evaluation team identified a comprehensive range of documentation that covered administrative procedures, appraisal criteria, monitoring requirements, evaluation strategies and standard forms but were unable to identify a single reference source for the above documents.

4.3 Selection of Projects

4.3.1 Handling applications

How are initial approaches from prospective applicants encouraged and developed?

The ANAO Guide recommends that appropriate communications methods are used to encourage and develop interest from potential applicants.

A range of promotional activities relating specifically to either IIG or Community Grants was identified and is discussed separately below.

More generally, the Guild undertook a range of activities to promote the Program. These included:

- conducting two workshops (2000 and 2002) timed to precede the calling for grant applications. Invitations to attend the workshops were advertised in the *Weekend Australian*
- presentations by the Research Manager at a number of Conferences
- papers and presentations at conferences by researchers
- through *Community Pharmacy*, *Pharmacy Review*, and *Guild e-news*
- via List serve, and the Guild Website
- provision of advice four weeks prior to calling for EOIs for IIG through pharmacy trade press, the website and university departments
- maintaining a website that announced upcoming opportunities for potential grant applicants
- an email list that encourages subscribers interested in receiving notices about:
    - calling for Expressions of Interest for the CPA R&D Investigator Initiated Projects
    - Commissioned Projects that are being put to tender
    - completion of projects and availability of reports
    - general information about the R&D Grants Program
- The *R&D Update* distributed to 550 people from Guild database, through community pharmacies (5000 copies) and the National Library of Australia
- *R&D Delivers* distributed to stakeholders and other organisations.

Investigator Initiated Grants

Invitations to submit and EOI to undertake an IIG were advertised in the *Weekend Australian* in February 2001, 2002 and 2003.

	2001	2002	2003	Total
EOIs Received	80	31	39	150
FGAs received	25	14	15	54
FGAs accepted	15	10	7	32

Commissioned Projects

Calls for Tenders for Commissioned projects were advertised in the *Weekend Australian* as stipulated by the PDP Agreements.

RFTs were also added to the Guild Website as they were released.

Are there helpful guidance notes and clear application forms?

Please see discussion in the previous section under 'Program Guidelines'.

4.3.2 Appraising applications

Not all issues identified in the ANAO Guide were considered relevant to the evaluation. For example, questions such as whether the appraisal criteria targeted the available resources to priority areas and whether the appraisal considered whether projects could proceed without funding or whether there was scope for alternative forms of support, were not considered as part of the evaluation.

The remaining ANAO issues are addressed below.

The selection processes for IIG and CG are separate. Detailed process requirements for each are set out in the PDP Agreements. (For details of the actual processes employed please see the next section.)

Do selection procedures reflect the risk analysis? Do appraisal procedures ensure that successful applications meet the stated objectives of the program?

The NOVA evaluation team identified well-structured and documented processes and findings for selection processes.

The selection processes established under the Program appeared sound.

Do appraisal procedures include a quality assurance phase?

The NOVA evaluation team found that quality assurance of the appraisal process was provided through a number of mechanisms. These included:

- approval of the selection committees and EAGs by the AMC
- expert/independent review of the methodology of IIG grant applications
- use of a two-stage process for inviting applications for IIG
- provision of the final selection report to the Department's R&D Contact Officer
- conflict of interest declarations were performed at the commencement of each selection process examined.

Do appraisal procedures provide for timeliness of appraisal?

The last four PDP Agreements[2] stipulated the timeframes for selection processes as follows:

[2] The first PDP Agreement had slightly different, generally shorter, timeframes for these processes.

- FGA and Tender Proposals to be provided to Selection Committees or EAGs within one week of receipt. EOIs to be provided to Selection Committee within two weeks of closing date and a shortlist for EOI proposals completed in six weeks from the closing date.
- Selection of FGA to be completed within 10 weeks from closing date with a final report provided to the AMC within 12 weeks.
- Selection of Tenderers for Commissioned Projects to be completed within eight weeks of closing date with the final report provided to the AMC within 10 weeks.

Is there clear separation of duties between appraisal of application and approval of offers?

The selection processes stipulated by the PDP Agreements and employed by the Guild ensured that there was no opportunity for a single officer to both appraise applications and give financial approval for a grant application.

4.3.3 Grant announcements

Access to reasons for decisions

The PDP Agreements stipulated the requirements and timeframes for announcing successful EOI applicants but not applicants for Full Grant Applications or tenderers for Community Projects.

> "Invitations to successful EOI applicants to be sent within one week of shortlist being approved by the selection committee."

The PDP Agreements also set out timeframes for informing unsuccessful EOI applicants and Tenderers for commissioned projects but did not specify a process for informing unsuccessful FGA applicants.

> " Letters to unsuccessful EOI applicants sent within one week of shortlist being approved by the selection committee."
>
> "Unsuccessful tenderers for Commissioned Projects advised in writing within four weeks of EAG decision."

Interviews with the R&D team found that the Guild database automatically generated emails and letters to inform both successful and unsuccessful applicants about their grant proposals or tenders. Successful grant holders were also contacted by telephone. Unsuccessful applicants were invited to seek feedback from the Guild.

Summary of the potential feedback for unsuccessful candidates was documented in the six-monthly reports to the Department of Health and Ageing. In addition, in at least one of the workshops (June/July 2002) potential grant applicants were informed more generally about common reasons why grant applications were not successful.

For the eight randomly selected projects, the NOVA evaluation team found evidence that applicants were informed of the outcome of their proposals.

Overall, the NOVA evaluation team found the summaries of

Table 9. Clauses covered in standard contracts

- Project performance, including milestones
- Grant payments
- Specified personnel
- Use and banking of grant money
- Goods and Services Tax
- Accounts, record keeping and audit requirements
- Reporting arrangements
- Ownership and use of assets
- Guild material
- Disclosure of information
- Intellectual property rights and acknowledgements
- Sub-contracting
- Indemnity and insurance
- Warranties
- Suspension and termination
- Repayment of funds
- Transition
- Assignment of rights
- No partnership or employment
- Compliance with law
- Waiver
- Severability
- Notices
- Governing law and jurisdiction
- Dispute resolution
- Agreement by Grantee not to bind the Guild or the Commonwealth
- Conflict of interest

the reasons for unsuccessful applications and selection of successful proposals to be well documented. Although some of the reports were extremely brief in their summary of the comments, there was a breadth of reasons provided for non-selection, including poor proposal construction, lack of relevance of outcomes outside the project, other existing research in the field or project overlaps with other organisations core business, more appropriately funded by corporate sponsor.

The reasons provided for non-selection process demonstrated a good grasp of the scope and priorities under the Program.

4.4 Management of Funding Agreements

The following findings are based on the general process findings as well as the detailed examination of the eight projects.

4.4.1 Funding agreements

The funding agreements between the Guild and the grant recipients were prescribed by the PDP Agreement in each year. The contract entered into with each recipient mirrored the contract held between the Guild and the Australian Government.

A standard contract was used for all grants examined. The contract comprehensively covered a wide range of issues and contingencies. A list of these is shown in **Error! Reference source not found.**.

The Guild has also developed a Services Agreement for use by grantees when sub-contracting part of the work involved in the project to a third party. The clauses of this Agreement mirror the requirements of the Guild as stipulated in the Agreement between the Guild and the Australian Government and which are then reflected in the contracts between the Guild and grantees. Use of this Agreement by grantees is not compulsory, but is recommended by the Guild in order to ensure that grantees meet the terms and conditions of their contract.

Funding agreements set out the payment schedule for set milestones and deliverables. The process for administration of payments is outlined in the Standard Operating Procedures for the Program. First, the Guild had to receive the appropriate milestone (contract or report) and invoice from the researcher. Second, this evidence was provided to the Department with a Guild invoice for payment. Third, the Department released the funds and finally, payment was made to the researcher.

Of the four IIG projects selected for examination, the percentages paid at different stages were as set out in Table 10.

Table 10. Payments by stage for four IIG projects examined by the NOVA evaluation team

	2001-028	2002-013	2003-005	2003-008
Stage 1 (commencement)	40%	40%	40%	40%
Stage 2	0%	20%	0%	0%
Stage 3	40%	30%	40%	40%
Stage 4 or 5 (final report)	20% (stage 4)	10% (stage 5)	20% (stage 4)	20% (stage 4)

Of the four Commissioned Projects, the percentages paid at different stages were as set out in Table 11.

Table 11. Payments by stage for four Commissioned projects examined by the NOVA evaluation team

	2002-519	2003-519	2004-503	92001-01
Stage 1 (commencement)	40%	40%	30%	40%
Stage 2. 1st	40%	40%	40%	30%
Stage 3	20% (Draft final report and proposal for phase 3)	0%	30% (Final report)	20%
Stage 4	n/a	20% (Final report)	n/a	10% (Final report)

In addition, each project had to provide a mid-term financial report and a final audited financial statement to acquit the funds.

4.4.2 Setting up monitoring arrangements

Does the monitoring officer have access to all relevant specialist expertise? Are there arrangements to ensure consistent, high quality, and appropriate frequency of monitoring?

Monitoring Arrangements—Guild R&D Team

The R&D team within the Guild has a number of monitoring arrangements for the day-to-day management of the Program. These consisted of:

- a Microsoft Access database containing details of all grants held on a secure shared drive on the Guild's server and accessible by relevant staff
- paper and electronic files for each project
- electronic and paper files for the overall management of the Program.
- Email records.

Monitoring requirements were set out in the funding agreements and data entered into the database. This enabled the Guild R&D team to closely monitor and follow-up milestone achievement and deliverables.

Monitoring Arrangements—Committees

At another level the AMC, HEC and committees specifically assigned to each project (selection committees for IIG and EAGs for CG) also performed a monitoring role in respect of the projects from inception to final product delivery.

The evaluation identified that the AMC had met between five and nine times each financial year since 2000–01. There were also four meetings of the AMC between 5 May and 26 June 2000 prior to the start of the Third Agreement.

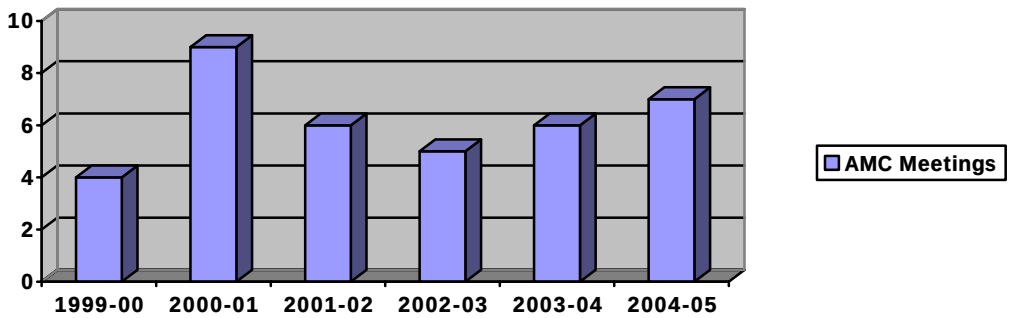


Figure 4. Number of AMC Meetings held over life of Third Agreement R&D Grants Program

At these meetings the AMC considered research priorities, approved grants, accepted reports and endorsed various activities related to the administration and management of the Program.

The NOVA evaluation team also found evidence that proposals and AMC agendas and papers were considered by the HEC prior to proceeding to the AMC.

Monitoring arrangements—external review

The arrangements in place for external review also form part of the monitoring arrangements in place for the Program.

Independent review, by an external contracted evaluation consultancy, was carried out on all IIG projects both at the EOI and final report stage. The files of the four projects that were examined contained expert opinion on the worth of the proposed research at the EOI stage, and the report of the independent review was included in the files of the two completed project. The latter reports are also published on the Guild's website.

The external contracted evaluation consultancy also reviewed the final reports of all commissioned grant projects.

4.4.3 Monitoring payments

Are budget targets monitored regularly? Are monitoring arrangements linked to the risk of fraud?

At a whole-of-program level, the reporting requirements stipulated under the PDP Agreement, required the Guild to prepare an audited financial statement each year. The Guild also maintained a master spreadsheet of all grants and the payments made and outstanding payments.

Resource allocations were developed for the Program over the duration of the Third Agreement and were refined each year to account for delays or changes in expenditure. These allocations provided the Guild with a maximum amount of funding for each category of project to work within.

Table 12. Budgeted and Actual Expenditure for the R&D Program 2000-2005

	Allocation		Cumulative Total	
	Budget	Actual	Budget	Actual
2000-01	$2,500,000	$772,000	$2,500,000	$772,000
2001-02	$2,500,000	$812,180	$5,000,000	$1,584,180
2002-03	$3,000,000	$3,477,588	$8,000,000	$5,061,768
2003-04	$1,500,000	$3,150,000	$9,500,000	$8,211,768
2004-05	$1,500,000	$2,250,000	$11,000,000	$10,461,768

The NOVA evaluation team found that the payment monitoring system in place for the Program was sufficiently robust.

The funding agreements set up with researchers require deliverables and milestones to be achieved, prior to payments being made. This structure reduced the risk of fraud.

4.4.4 Monitoring progress

Has a monitoring strategy been implemented? Does monitoring include an assessment of project work in meeting program objectives?

The R&D Team uses a Database and other tools to monitor the progress of all projects. A series of notifications alerts the team to milestones and deliverables. Team members assessed the project work in meeting the contracted deliverable and milestones and provided feedback to the grant recipients. Where issues arose, such as changes in methodology, these were dealt with or referred to the EAG appropriately.

Are arrangements in place to recover grant funds when the recipient has not completed with grant conditions?

As payments are only made after milestones are achieved this is not an issue for the current evaluation.

Are management information systems structured to give relevant information?

Most of the general arrangements for monitoring the progress of the Program have been covered in the previous two sections.

Are lessons learned from monitoring incorporated into the grant appraisal process?

The review of the earlier Pharmacy Agreement Projects scheme identified a number of areas for improvement in the administration of the new Program. These issues, subsequently incorporated into the current Program's design, included:

- that operational guidelines be developed
- the research Program objectives be reviewed and redefined to ensure there is consistency with national research strategies and priorities
- consideration be given to identifying separate funding streams for investigator driven research, commissioned research and project work in order that appropriate processes may be developed for each
- the selection, assessment and review criteria be reviewed and more clearly defined in terms of timing of the process, the manner in which it will be conducted and funding exclusions
- a systematic mechanism be developed and implemented for the ongoing monitoring and review of research report results and their implementation
- a specific ongoing funding base for the research Program be identified.

Two other major changes were incorporated into the Program during its term.

The initial processes for assessment of applications set out in the first PDP Agreement (2000–01) were found to be problematic and were amended to require additional steps to be undertaken and the timeframes lengthened.

In the six-monthly report January-June 2003, the Guild proposed that the process for acceptance of final reports by the selection committee under the IIG be modified. It was a contractual requirement that final reports are accepted by the selection committee before final payment is made, however the length of the reports meant that this process could potentially take quite some time to complete. It was suggested that the Research Manager would read the final reports and assume responsibility for ensuring the final reports were appropriate and arrange for external review. Following the external review an executive summary of the report would be provided to the Selection Committee for acceptance within two weeks. Full reports would be made available on request.

4.4.5 Acquittal of grants

Are effective acquittal procedures in place?

See the earlier section about funding agreements on page 34.

There was another issue identified during the process evaluation relating to the Acquittal of Grants. Interviews with Guild R&D staff identified that for grants awarded to Universities, a common issue raised was the contractual requirement for Audited Financial Statements. As Universities are required to prepare Audited Financial Statements under the Auditor General's Act, most University recipients sought, unsuccessfully, to have the requirement for providing

separate audited financial statements removed from their funding agreement during the negotiation phase or at the conclusion of the contract.

4.5 Process Map of the R&D Program

Figure 5 summarises the major steps in the processes undertaken by the Guild in administering the Program.

The processes for the two types of grants are different.

The Investigator Initiated Grants process consists of a two-stage process of Expression of Interest (EOI) and Full Grant Application (FGA). EOI were called for and applicants had to use the application form provided and comply with the Policy and Guidelines for the relevant year. A Selection Committee then short-listed the EOIs and successful applicants were invited to submit a FGA.

The process for Commissioned projects starts with identifying priorities for projects and an open tender process. An EAG is convened and oversees the project progress.

Monitoring arrangements for the projects once they are up and running are largely identical, except that they are governed by different committees (selection committee and EAGs).

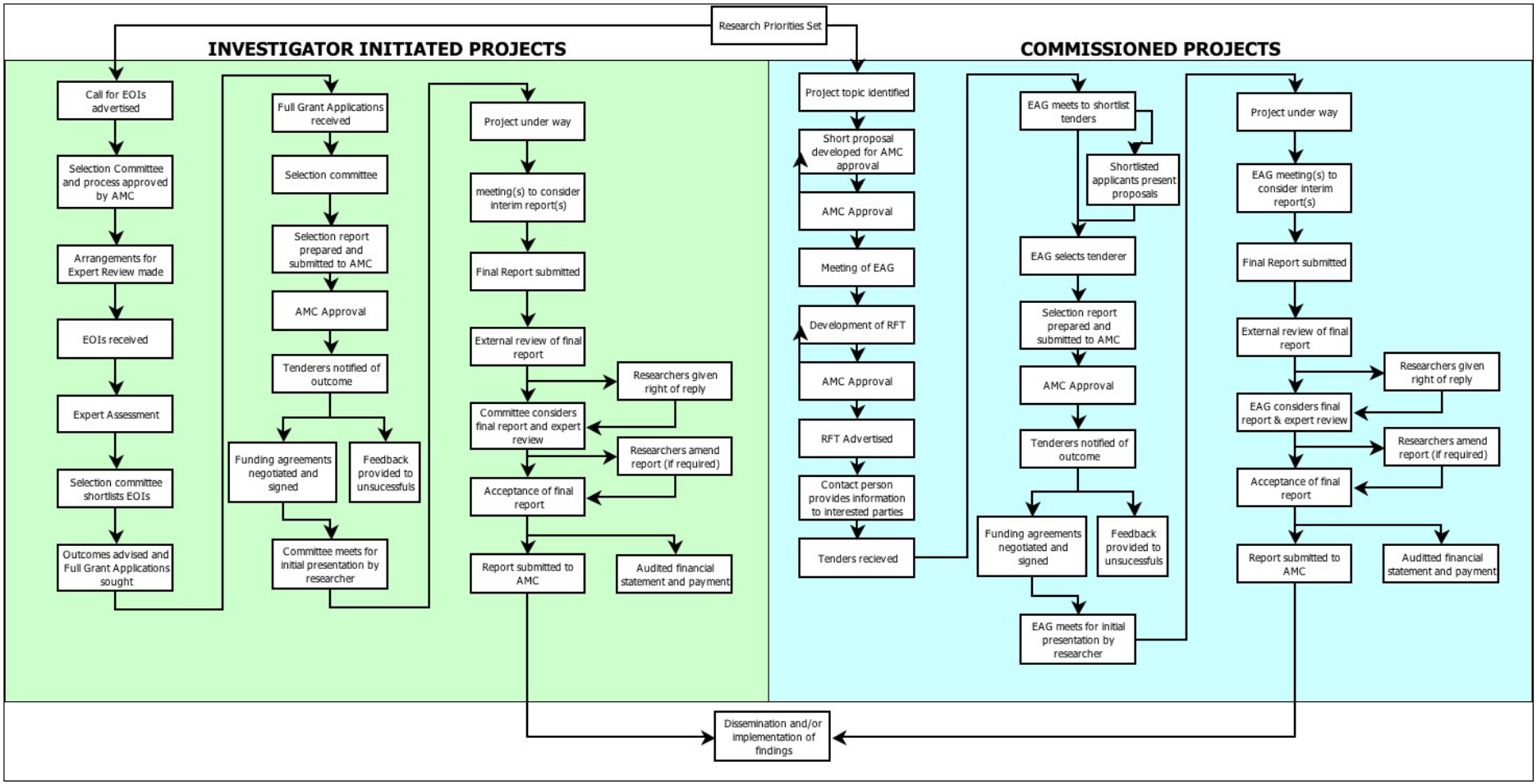
4.6 Overall assessment of performance

The evaluation found that the Program administration and management had:

- good processes and systems in place
- well-documented policies and guidelines (for IIG)
- good documentation
- an impressive database providing easy access to information on the progress and status of all EOIs, tenders and funded projects.
- consistent format of contracts, application forms, RFTs and other documentation.

The Program administration and management generally met or exceeded ANAO standards for the management of a grants Program.

Figure 5. Process map of the R&D Program for both Investigator Initiated Grants and Commissioned Projects



5 Output and Outcome Assessment

The evaluation expert panel reviewed project reports, together with the external evaluator reports, for 31 completed Investigator Initiated and Commissioned projects, and as available and appropriate for 25 ongoing projects, to:

- classify the projects and interventions funded under the Program, where possible, according to the classification system used in the document 'The Value of Professional Pharmacy Services'
- categorise the outputs of the projects in terms of changes in professional practice achieved, effect on health outcomes, economic impact or professional or patient satisfaction
- assess client satisfaction, expectations, recommendations and lessons learnt of the Program
- recommendations and implications for the on-going delivery of the Program
- identify the performance indicators for the ongoing monitoring and evaluation of the Program.

This chapter addresses the categorisation of projects, the outputs of projects in identified changes in professional practice, health outcomes, economic impact, and client satisfaction, particularly professional and patient satisfaction. This chapter also considers barriers and enablers to achievement of research and project objectives and the appropriateness and effectiveness of priorities for the Program and particularly Investigator Initiated projects.

This component of the evaluation is based substantially on review and consideration of the 31 completed projects, with limited capacity to extract applicable information from ongoing projects, with and without interim and progress reports.

5.1 Project classification

Expert reviewers identified the priority or priorities addressed by each project, on the basis of the project report and external evaluation report. A Professional Services Classification also was assigned on the basis of the project report and external evaluation report. For the majority of projects, more than one priority was identified and similarly the majority of projects were considered to focus on or include more than one professional service (refer Table 13).

Professional service types addressed were principally (as could be expected) pharmaceutical care services (36 projects, 23 investigator initiated and 13 commissioned) with most projects addressing more than one professional service type including:

- pharmacist services providing education to patients or consumers (21 projects including 11 investigator initiated)
- medication reviews, either for repeat prescriptions; aged care facilities or both (9 projects, 7 Investigator Initiated)
- monitoring and/or screening (9 projects, 5 Investigator Initiated)
- drug information services (7 projects, 3 Investigator Initiated)
- education services for health professionals (4 Investigator Initiated projects)
- interventions (4 projects, 1 Investigator Initiated)

- pharmacist involvement in non-prescription medicine use (4 projects, 1 Investigator Initiated)
- pharmacist participation in therapeutic decision making, pharmacist advocacy for immunisation services and/or pharmacist administration of vaccines , smoking cessation services and pharmacist clinic services (one or two projects).

It is evident that the program has had a substantial emphasis on a group of professional service types particularly pharmaceutical care services; education to patients or consumers; and on medication review, monitoring and screening and drug information services.

5.2 Project Outputs and Potential

The expert evaluators' panel considered individual project outputs, outcomes and potential, using the completed project external evaluation reports and project reports. This review is presented in Table 13. The expert review panel has identified work that has contributed, or has potential to contribute, to current practice and/or services.

Table 13. Summary of all projects, classification assignment, outcomes and implications and options for future research

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2001-008 Investigator Initiated	Woundcare benchmarking in community pharmacy - Piloting a QA indicator development	Evaluation and development of community pharmacy services and programs /quality assurance strategy	Interventions	Pilot study to implement indicators. Pharmacy recommendations re wound care could be improved; sales data re wound care could be monitored; pharmacist role could be further developed. Pharmacist time constraints limited data collection. Project highlights low rate of pharmacy documentation. Development of quality service indicators to assist community pharmacists with self assessment of quality of wound care services. Demonstrated significant customer satisfaction. Important pharmacy practice, small percentage of total turnover but customers regard the service as highly valuable and there are indicative financial benefits to pharmacy.	Potential. Indicators appear feasible but support is needed to collect data. An intervention study would be useful to test the impact of training on indicator outcomes. Pharmacy Assistants could be seen as change managers. Potential to investigate impact of intervention on changes in indicators.	Research support staff required in pharmacy sites for project of this nature to be successful. Pharmacy assistants as change managers should be considered. Incorporation of education services by commercial providers of wound management products would have potential. An intervention study to increase the role of pharmacists and pharmacy assistants in wound management, particularly in rural and remote settings, is appropriate.
2001-011 Investigator Initiated	Development and evaluation of a computerised system for the provision and documentation of community pharmacists' cognitive services	Facilitating change processes within pharmacy practice to deliver higher quality and cost effective pharmacy professional services	Pharmaceutical care services	Trial of database record of pharmacist interventions to document and increase pharmacist role in prevention of medication error and other cognitive services. Application in Tasmania, but not limited geographically. Community pharmacists' recording of interventions was generally poor. Limited explication of benefits to patient safety. A shift in practice is needed to engage pharmacists in documenting their activities	Potential. To standardise pharmacists role in recording and preventing adverse medicines events. To develop pharmacist record of interventions as a standard pharmacy practice. For development of protocol to coordinate through national monitoring and alert systems for adverse drug events, e.g. TGA. Further development to test potential and strategies to support pharmacist	Test in a larger population in all states. Including development of training for pharmacists in use of the program. Develop and implement campaign to increase awareness of pharmacist role in and value of documentation of interventions Review and improve pharmacy school dispensing programs Test capacity to require documentation as mandatory practice with modest remuneration payment; with routine or periodic audits of documentation

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
				and interventions.	recording of interventions within new cognitive services and enhanced community pharmacy services. Data recollection could support monitoring of economic impacts of services. Implications for undergraduate dispensing courses, and for all pharmacy settings including hospitals.	adequacy and relevance.
2001-028 Investigator Initiated	Pharmacy and general practice disease management collaboration	Continuing care across the health system	Continuity of care services	Shared-care tool to aid communication between GPs and pharmacists in chronic/complex condition management, implemented in GP practices and community pharmacy settings. Low uptake and follow through of share care plan agreements between pharmacist and GP. Communications improved, however, often not consequent upon use of tool.	Potential. Indicates capacity to improve GP and pharmacist communications, through face to face and/or facilitated communication strategies.	Further work to address barriers, develop principles and practices to improve communication and promote collaborative shared client care and transition care between pharmacists and general practitioners. HMR could be incorporated.
2001-036 Investigator Initiated	Community pharmacists providing clinical services for dispensing doctors and depot pharmacies in rural Queensland-tele-pharmacy	Quality use of medicines Development of new cognitive services	Pharmaceutical care service; Education services for health care professionals Drug information services	Videoconferencing was preferred vehicle for information and support to rural practitioners with limited success. Project was limited by failure of telecommunications plans. Efficacy of telephone contact (tele-pharmacy) was illustrated. Issues of privacy of telephone interaction; collaboration between health works and health professionals highlighted.	Potential. Rural/remote services and ATSI services benefit from tele-pharmacy services indicated.	Development potential for new pharmacy services for rural and ATSI communities. Consider pilot in larger centres to develop standards for implementation in remote areas. Methodological approaches based on technologies such as videoconferencing should be trialled prior to substantial research investment in their use
2001-041 Investigator Initiated	Educating community pharmacists to provide quality advice and	Facilitating change processes within pharmacy practice to	Education services for health care professionals	Demonstrated potential value of internet use in education in primary health. Attitude of pharmacists to internet information access improved.	Potential. To develop training program for pharmacists and pharmacy assistants in on line information access and	Controlled study to demonstrate effective training methods, to assess impacts on pharmacist knowledge, skill and practice; and to measure and monitor consumer

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
	information to consumers via the internet	deliver higher quality and cost effective pharmacy professional services			utilisation. Patient outcomes through internet research and information need to be evaluated.	benefits or impacts.
2001-049 Investigator Initiated	Enhancing the value of pharmacists through augmented competency standards and targeted professional practice standards	Evaluation and development of existing community pharmacy services and programs	Pharmaceutical care services	Revision of practice standards for community pharmacy; now widely available and adopted throughout pharmacy sector.	Standards should be continually reviewed and updated. Consumer outcomes should be investigated for inclusion in standards.	Five-year term reviews and updates of standards should be implemented.
2001-052 Investigator Initiated	Mentor support program	Facilitating change processes within pharmacy practice to deliver higher quality and cost effective pharmacy professional services	Education services for health care professionals	High pass rate for pharmacists with professional mentoring prior to accreditation. Included rural pharmacists. Demonstrated flexibility of mentoring as professional development and practice change approach. Limited by methodological issues.	Potential.	Mentoring of all candidates presenting for HMR accreditation should be trialled. Investigate funding options and strategies for mentoring and supervision.
2001-054 Investigator Initiated	The economics of pharmaceutical services for methadone services in a public clinic and community pharmacies	Quality use of medicines Evaluation and development of existing community pharmacy services and programs Harm reduction for drug	Pharmaceutical care services	Limited by methodological issues. Pharmaceutical provision and specialist clinics produced similar outcomes for drug dependent users. Cost is a factor for methadone consumers.	Potential.	Further work to assess value of MMT and BMT services to cost effective and efficient support for drug dependency.

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
		dependent people				
2001-055 Investigator Initiated	Hypertension: improving patient compliance and clinical outcomes through community pharmacist managed care	Quality use of medicines Evaluation and development of existing community pharmacy services and programs Development of new cognitive services Harm reduction for drug dependent people	Pharmaceutical care services Pharmacist services providing education to patients or consumers	Low recruitment, limited study outcomes. Methodology issues identified the burdensome impact of research activities in the small business environment of community pharmacy. Issues include: capacity to remunerate pharmacists for recruitment; inducements for patient participation; potential for research positions in pharmacies; high number of participating sites to reduce recruitment burden at each site.	Potential. Role and value of pharmacy setting for chronic disease management indicated. Potential to consider booked service role for pharmacy to consumers.	DSM service enhancements should be assessed—booked counselling and medication review sessions could be trialled for outcomes in quality use of medicines; in education of consumers; in health outcomes and in cost effective and efficient health services and outcomes.
2001-056 Investigator Initiated	Reference data base of Australia's community pharmacies: analysis of national survey	Evaluation and development of existing community pharmacy services and programs	Pharmaceutical care services Medication review for repeat prescriptions Pharmacist services providing education to patients or consumers Medication review for aged care facilities Drug information services.	Database on community pharmacy operations and services especially re barriers to enhanced services; extent of pharmacy role as information/education service for consumers; immunisation; intervention re appropriate prescribing; medication reviews and aged care services. Relevant to government use as well as to pharmacy sector.	Potential Routine periodic update to monitor trends and international comparisons.	Regular updates would require establishment of rigorous guidelines for database applications; data use, collection and reporting.

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2001-064 Investigator Initiated	Case conferences and care planning–Collaboration between community pharmacists and general practitioners	Quality use of medicines Continuing care across the health system Evaluation and development of existing community pharmacy services and programs	Pharmaceutical care services; Continuity of care services; Medication review for repeat prescriptions Education services for health care professionals Pharmacist participation in therapeutic decision making	High rate of GP acceptance of HMR recommendations at case conference. Lower rate of return of Medication Management Plan by GPs without case conference. Lacked consumer involvement in project design and implementation and did not report on consumer outcomes.	Limited. Complexity and intensity of service for pharmacists and GPs and high investment in GP recruitment and retention.	Potential through further work to test potential of case conferences in therapeutic decision making, in shared care in chronic disease management, and to engage with consumer activity and advocacy in mental health.
2001-070 Investigator Initiated	An investigation into business and professional facilitators for change for the pharmacy profession in light of the Third Guild/Government Agreement	Facilitating change Harm reduction for drug dependent people Pharmacy Workforce	Pharmaceutical care services Medication review for repeat prescriptions Pharmacist services providing education to patients or consumers Medication review for aged care facilities Drug information services.	The project has identified barriers and facilitators to enhancement of Cognitive Pharmacy Services that have potential to be developed to: o provide a facilitator checklist to inform/guide CPS related projects and services; o support a practice incentive or practice change scheme for community pharmacy; o develop the project draft change management model to support pharmacy change processes	Potential. Quantify facilitators to uptake of CPS in pharmacy practice (implemented—refer Project 2003-07); Evaluate existing KPIs for community pharmacy to CPS projects Develop change management model for pharmacy change process planning and management	Further work in this area should be informed by the project investigating consumer expectations (2005-501).

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2001-072 Investigator Initiated	Professional pharmacy services to private hospitals	Continuing care across the health system. Development of new cognitive services	Pharmaceutical care services. Continuity of care services.	Improved satisfaction and decreased numbers of medications. Potential decrease in costs of drugs. New role for private hospital community pharmacists. Improved satisfaction post discharge compared to control.	Potential. New pharmacy education service for patients with good outcomes.	Potential to assess for new cognitive service (as per HMR).
2001-074 Investigator Initiated	Pharmacy Asthma Action Plan - Pharmacists receiving remuneration for addressing the issues for people with asthma in the community	Development of new cognitive services Facilitating change	Pharmaceutical care services Pharmacist services providing education to patients or consumers	Focus on primary care intervention in chronic disease. Small sample size. Limited focus on moderate to severe asthma. Significant benefits in intervention group. Good involvement of general practice. No testing on patient outcomes.	Potential. Appeared to not be connected to the National Health Priority Area work on asthma; which can be expected to have limited the policy relevance and uptake of this project. Larger scale trial approach would require design and testing of capacity to deliver adequate sample size.	Review and undertake further work to assess cost effective and health outcomes benefits of pharmacy based asthma action plan.
2001-075 Investigator Initiated	An integrated model for disease state management (DSM) in diabetes: collaboration of the community pharmacist and GP in continuity of care	Continuing care across the health system Development of new cognitive services Evaluation and development of existing community pharmacy services and programs	Continuity of care services	Preventive health approach for chronic disease management, based in pharmacy with hospital outpatients. Rural component. Strong methodology. HbA1c targets reached. Medications were rationalised. Intervention cost of $51.30 with 0.3% reduction in HbA1c over 6 months. Good collaboration. Could have been strengthened by involvement of all participants in provision of study feedback	Potential. Health outcome benefit versus intervention cost could be further tested. Potential for booked counselling and quality use of medicine information sessions to be tested.	DSM service enhancements should be assessed—booked counselling and medication review sessions could be trialled for outcomes in quality use of medicines; in education of consumers; in health outcomes and in cost effective and efficient health services and outcomes. Further implementation to develop and test costing information.

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2001-501 Commissioned	Pharmacy workforce supply and demand 2000-2010	Pharmacy workforce		Widely published and disseminated resource for the profession	Potential This area of research is important for both the ongoing viability of Pharmacy and the adequate provision of community health care services (via hospital and community pharmacy).	Attention could be given to the development and promotion of re-entry courses for "lapsed" pharmacists (such courses in some States already exist) This issue is effectively outlined in the Summary of Recommendations (Section 3. Wastage Rates) of the project document.
2001-502 Commissioned	Cost benefit analysis of pharmacist only and pharmacy medicines and a risk based evaluation of the standards	Evaluation and development of existing community pharmacy services and programs	Pharmacist involvement in non-prescription medicine use	Ongoing at time of evaluation. Substantial sample size, smaller than anticipated.		
2002-004 Investigator Initiated	Ensuring the appropriateness of topical over-the-counter antifungal agents for clients with self-diagnosed vaginal thrush	Development of new cognitive services	Pharmacist involvement in non-prescription medicine use	Diagnostic flowchart designed but not validated for pharmacist guidance and use in OTC treatment of self-diagnosed thrush. Patient outcomes and satisfaction not demonstrated.	Potential. Diagnostic tool identified as providing some benefit. Further research required to validate instrument.	Further work should be considered to develop, test and validate tool providing assistance for pharmacist diagnosis and treatment.
2002-005 Investigator Initiated	Customised education programs for patients with Diabetes Mellitus - Use of Structured Questionnaires and Education Modules	Development of new cognitive services	Pharmacist services providing education to patients or consumers	Ongoing at time of evaluation		
2002-009 Investigator Initiated	Rural community pharmacists integrating care for people with	Quality use of medicines Continuing care across the health	Continuity of care services Monitoring.	Ongoing at time of evaluation		

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
	complex health needs	system				
2002-013 Investigator Initiated	Improving the quality, effectiveness and sustainability of smoking cessation services, delivered through community pharmacies	Development of new cognitive services	Smoking cessation services	Very low recruitment outcome. Pharmacy satisfaction with training and information resources. Some evidence of increased use of smoking cessation resources by pharmacy customers. Customer reactions were sought—satisfaction not clearly demonstrated—but there were some good outcomes for some.	Potential. Specific purpose training and information resources and services demonstrated benefits in pharmacy skills and capacities in smoking cessation support.	Low recruitment of pharmacy clients requires review of research methodologies in community pharmacy. Specific purpose training and information resources demonstrate some immediate benefit to pharmacy skills and interventions. Research should assess long term impact on pharmacy knowledge and practice and identify sustainable training and information strategies.
2002-020 Investigator Initiated	Developing a sustainable Pharmacy Support Network to address geographical issues associated with quality use of medicines	Quality use of medicines Pharmacy workforce	Pharmaceutical care services	Project objectives not achieved. Some indication of benefits of targeted supported to rural community pharmacy through. a support network of pharmacists including: o inter- and intra-professional connections, o increased awareness of training opportunities, o improved access to training	Potential Some evidence from the study and experience that the establishment of a Network Pharmacist role has the potential to facilitate and raise awareness of continuing professional education opportunities in rural areas. Insufficient evidence to date to support particular strategy such as mentoring.	Further work to identify rural community pharmacy information and skills requirements and to test and develop sustainable practices to maintain contemporary clinical information and professional skills.
2002-022 Investigator Initiated	Pharmacy-based program to tackle coronary heart disease in the Australian community.	Evaluation and development of existing community pharmacy services and programs Development of new cognitive services	Pharmaceutical care services Continuity of care services Screening	Project objectives limited by low uptake of training in screening and assessment techniques, by high impact in time and cost of intervention on community pharmacy, and by low recruitment of patients.	Potential Project objective has merit. Project demonstrates the need to adequately plan for the significant issues in research in community pharmacy including: o customer service and time poor environment of community pharmacy	Research of community pharmacy screening services in chronic disease requires framework of protocols of engagement with general practice. Demonstrated community pharmacy characteristics that provide structural barriers o research strategies and interventions.

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
					o impost on both pharmacist and customer time and availability of research interventions o cost of small scale research interventions o engagement with and support for involvement of general practice and GPs	
2002-024 Investigator Initiated	A community pharmacist delivered therapeutics outcome monitoring service for hyperlipidemia	Quality use of medicines Development of new cognitive services Pharmacy workforce	Pharmaceutical care services Medication review for repeat prescriptions Pharmacist services providing education to patients or consumers Monitoring.	Ongoing at time of evaluation Limitations due to workforce issues; recruitment difficulties and indicates potential for patient incentive payments.		
2002-026 Investigator Initiated	An integrated service, initiated by community pharmacists, for the prevention of osteoporosis	Development of new cognitive services Harm reduction for drug dependent people	Pharmaceutical care services Continuity of care services Monitoring..	Community research in new service development. No GP involvement. No benefits found. No costings.	Potential Follow up study result that indicated that consumers are interested in receiving information about osteoporosis and individual risk and particularly in BMD testing in the pharmacy. However, their uptake of referral in this project was poor.	
2002-027 Investigator Initiated	A community pharmacy based anticoagulant management service	Continuing care across the health system Development of new cognitive	Pharmaceutical care services Continuity of care services	Ongoing at time of evaluation. Limited information re health outcomes. No GP in research team and barrier to project effectiveness of GP resistance and little		Work on improved collaboration could enable further work towards wider implementation

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
		services	Pharmacist clinic services Monitoring	collaboration. .		
2002-028 Investigator Initiated	From hospital to community: a multi-disciplinary "continuity of care" model for cardiovascular patients involving community pharmacists	Continuing care across the health system	Pharmaceutical care services Continuity of care services Medication review for repeat prescriptions	Ongoing at time of evaluation. Cardiovascular Disease topic relevant to National Health priorities. Project experienced difficulty and was limited in seeking and receiving Home Medication Reviews The project included little or no non-pharmacist collaboration. Project limited by difficulties with the multidisciplinary nature of the process.		Better linkages with other disciplines are essential in further work in this area
2002-504 Commissioned	Review of DMMR software	Evaluation and development of existing community pharmacy services and programs	Pharmaceutical care services Continuity of care services Pharmacist services providing education to patients or consumers	Design and testing of a software standard for use by software industry in provision of software to support Domiciliary Medication Management Reviews (DMMRs), a newly funded pharmacy service. Focus on care of chronic/complex conditions in domiciliary settings and on development of pharmacists' role.		Regular update of software standards warranted.
2002-507 Commissioned	The value of pharmacist professional services in the community setting	Evaluation and development of existing community pharmacy services and programs	All	Systematic review of literature of pharmacy based practices. Demonstrated improved health outcomes realised or implied in a significant number of cases. Evidence of lack of study of economic benefit of pharmacy management of S2/S3 medicines and pharmacist intervention in sale of OTC products (none prior to 2002).	Potential. Economic analysis tools and focus need enhancement. Opportunities for development of pharmacists' roles through future research.	Pharmacists' role in the provision of non-prescription therapeutic substances is a research priority.

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2002-508 Commissioned	Community Pharmacy Research Support Centre	Evaluation and development of existing community pharmacy services and programs	n/a	Ongoing at time of evaluation.		
2002-516 Commissioned	Workforce and career path options for pharmacy assistants	Pharmacy workforce	n/a	Identified barriers to role extension.	Development and extension of role of pharmacy assistants in relationship to role/s of pharmacists . Training resources and program for pharmacy staff involved with sale of therapeutic substances is indicated.	
2002-518 Commissioned	Pharmacy Diabetes Care Program	Continuing care across the health system Evaluation and development of existing community pharmacy services and programs	Pharmaceutical care services Continuity of care services Pharmacist services providing education to patients or consumers Screening Monitoring	Ongoing at time of evaluation. Mid project evidence of significant health improvement post-intervention DSM of conditions such as diabetes (as well as asthma, cardiovascular disease and continence care) are developing roles for some pharmacies .		
2002-519 Commissioned	Effectiveness and cost effectiveness of Dose Administration Aids	Quality use of medicine Continuing care across the health system	Pharmaceutical care services Medication review for aged care facilities	A survey of patterns of utilisation and costs of dose administration aids.	Potential The report findings have significant implications for community pharmacy practice. The report and its recommendations should be used to improve the standard of provision of and support for utilisation of DAAs .	Baseline data for future research

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2003-005 Investigator Initiated	Improving medication management of palliative care patients: enhancing the role of community pharmacists	Quality use of medicines Development of new cognitive services	Pharmaceutical care services Continuity of care services	Ongoing at time of evaluation. Publication in Support Cancer Care June 2005. Project addresses continuity of care, national health area of palliative care, needs of frail aged and those with chronic and complex conditions, harm prevention and reduction. Project had good collaboration and strong GP involvement, demonstrated patient satisfaction, links with professional organisations.		
2003-007 Investigator Initiated	Quantification of facilitators to accelerate uptake of cognitive pharmaceutical services (CPS) in community pharmacy	Development of new cognitive services Facilitating change	Pharmaceutical care services; Pharmacist services providing education to patients or consumers;	Significant project, focused on motivations and methods to change practice. Slow recruitment/response rate. Indicated development of pharmacist role. Lacked collaboration outside pharmacy. Measurement of facilitators and values for practice change providing: o information for commissioned project: Change Management and Community Pharmacy (refer Project 2003-530); o Guidance to policy makers and funders on facilitators of change to be promoted in community pharmacies, professional organisations, and trainers, of particular relevance to QCPP, HMR, MIC, and future CPS programs.	Potential. Useful model of iterative research development towards replicable and sustainable change management tools and practices	Facilitators identified should be further developed and assessed.
2003-008 Investigator Initiated	Asthma self-management in the community: pharmacists	Development of new cognitive services	Pharmaceutical care services Pharmacist	Ongoing at time of evaluation Demonstrated improved health outcomes and patient satisfaction.	Potential. Model of care could be considered for implementation and inclusion in QCCP,	Collaboration with general practice and other asthma services requires consideration

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
	facilitating empowerment of patient asthma self-management practices	Facilitating change	services providing education to patients or consumers	Issue of GP involvement and connection with other asthma management services (e.g. asthma educators)	subject to outcomes identified in final report..	
2003-010 Investigator Initiated	3D* Labels (Dandenong Division of General Practice)	Quality use of medicines Continuing care across the health system Harm reduction for drug dependent people	Pharmaceutical care services	Ongoing at time of evaluation. Trial of larger labels to increase consumer information uptake		
2003-013 Investigator Initiated	Medication management and education of osteoarthritis patients: evaluation of a role for community pharmacists	Development of new cognitive services	Pharmaceutical care services Continuity of care services Pharmacist services providing education to patients or consumers Medication review	Ongoing at time of evaluation. Pain and Chronic disease management		
2003-017 Investigator Initiated	Improving Australian's access to prescription medicines: Development of pharmacy practice models	Continuing care across the health system Evaluation and development of existing c'ty phcy services and programs	Pharmaceutical care services Continuity of care services	Ongoing at time of evaluation. Project presented at NPS and APSA 2004. Collaborative project addressing continuity of care for transition from acute to community care in mental health. National health area. Demonstrated health outcomes and economic benefit.	Potential	

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2003-028 Investigator Initiated	Collaboration between CP & mental health care practitioners	Continuing care across the health system Facilitating change	Pharmaceutical care services Continuity of care services Medication review for repeat prescriptions Pharmacist services providing education to patients or consumers Monitoring	Ongoing at time of evaluation. Focus on preventive health strategy for chronic and complex conditions. Addresses national health area.	Potential. Would require medical collaboration and research funding and project time sufficient to assess and demonstrate sustainable model of care.	
2003-504 Commissioned	Community Pharmacy Medication Incident and Reporting Management System (CPMIRMS) (PROMISe)	Quality use of medicines Evaluation and development of existing community pharmacy services and programs Harm reduction for drug dependent people	Pharmaceutical care services Pharmacist services providing education to patients or consumers Drug information services	Community pharmacists research engagement. Categorization/classification system (DOCUMENT) for incidents related to medication safety and subsequent clinical interventions by community pharmacists. Integrated with dispensing software. Most common interventions were education and counselling (31%) and drug selection (12%) and contact with prescriber (25%). Demonstrated improved health outcomes.	Pilot project was appropriately extended in project 2003-519.	
2003-519 Commissioned	Evaluation of Clinical Interventions within Community Pharmacy (PROMISe II)	Evaluation and development of existing community pharmacy services and programs	Pharmaceutical care services Pharmacist services providing education to patients or	Ongoing at time of evaluation		

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
			consumers Drug information services			
2003-524 Commissioned	Facilitating quality use of medicines between hospital and community (Med-E-Support)	Quality use of medicines Continuing care across the health system Facilitating change	Pharmaceutical care services Continuity of care services Pharmacist services providing education to patients or consumers Drug information services	Ongoing at time of evaluation. Application of evidence based medicine in community pharmacy. Preventive health approach to chronic disease (CVD) in pharmacy. Demonstrated improved health outcomes. Achieved limited collaboration.		
2003-526 Commissioned	Pharmacy Asthma Care Program	Quality use of medicines Development of new cognitive services	Pharmacist services providing education to patients or consumers Monitoring.	Ongoing at time of evaluation.		
2003-530 Commissioned	Change management and community pharmacy	Facilitating change	Diverse	Project identifies issues associated with increasing roles of community pharmacy in providing a product/service mix where cognitive services are of increasing importance. Issues identified include: o a uniform set of cognitive services across all pharmacies is not appropriate nor feasible o pharmacists need to be selective in developing specialty' services		External review summary is endorsed, that is: "Overall, this report has broad implications for future directions of research sponsored by the Pharmacy Guild. The authors have competently and comprehensively researched change management within the pharmacy profession. Their conclusions and recommendations should be taken into account when allocating funds for future

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
				appropriate to their pharmacy and the demographic of their clientele. o pharmacy cognitive services will be reliant on information/marketing to the correct audience and particularly to GPs		research."
2004-503 Commissioned	The role of pharmacy in immunisation	Development of new cognitive services Facilitating change	Pharmacist advocacy for immunisation services Pharmacist administration of vaccines	Low pharmacist recruitment, limited GP collaboration.	Role of pharmacists in provision of information to consumers in collaboration with general practice may warrant further collaborative research and development.	
2004-509 Commissioned	Pharmacy Continence Care Program	Development of new cognitive services	Pharmaceutical care services Pharmacist services providing education to patients or consumers Pharmacist involvement in non-prescription medicine use Interventions	Ongoing at time of evaluation Project is to trial education and information for pharmacy staff in providing information and assistance to persons at risk of or with incontinence and to propose standards for incorporation in Quality Care for Community Pharmacy standards.		.
2004-511 Commissioned	Pharmacy Cardiovascular Health Care Model	Development of new cognitive services	Pharmacist services providing education to patients or consumers Intervention	Ongoing at time of evaluation Project proposes to develop Pharmacy Cardiovascular Health Care Model on existing health service and health promotion plans, consistent with the goals of the 'National Strategy for Heart, Stroke and Vascular Health in Australia' and promoting partnership and collaboration		

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
			Monitoring.	across the health care system.		
2004-526 Commissioned	Evaluation of HMR Program	Continuing care across the health system Evaluation and development of existing community pharmacy services and programs Development of new cognitive services	Pharmaceutical care services Continuity of care services Monitoring.	Evaluation findings included: o ¾ HMRs have been provided o people 65+; with 2/3 women. o MMR Facilitators in Divisions of General Practice increased engagement pharmacists and Divisions o Stakeholder satisfaction including consumer satisfaction demonstrated o Pharmacist satisfaction with professional development and customer relationships . o Barriers to uptake and implementation in workplaces, rural sectors and for people of CALD backgrounds, o Indigenous communities and rural and remote. o MMR facilitator support for GP participation support found to be effective. Lack of outcomes data limited other evaluation measures		Development of HMR from community pharmacy as a core competency will require change management strategies for workforce and workflow. Further work to test implementation and sustainability is warranted with particular focus on sustainability of GP engagement and utilisation of HMR..
2004-532 Commissioned	Development, Implementation & Evaluation of Funding Model Options for the Dispensing of Pharmacotherapies for Opioid Dependence in Cm'ty Pharmacy (Addiction Care 1)	Harm reduction for drug dependent people	Pharmaceutical care services Interventions	Ongoing at time of evaluation. Project report to date on evidence base for identification of options for funding approaches to dispensing of pharmacotherapies for opioid dependence, including cost effectiveness of inclusion of community pharmacists		

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
2004-534 Commissioned	Dispensing and Monitoring of Schedule 8 and Schedule 4 (with dependency properties) Drugs (Addiction Care 2)	Quality use of medicines Harm reduction for drug dependent people	Pharmaceutical care services Monitoring.	No information		
2004-536 Commissioned	Effectiveness and cost effectiveness of Dose Administration Aids - phase 3 (DAA phase 3)	Quality use of medicine Continuing care across the health system	Pharmaceutical care services Medication review for aged care facilities	No information		
2005-501 Commissioned	Consumer Experiences, Needs and Expectations of Community Pharmacy	Evaluation and development of existing community pharmacy services and programs	Diverse	No information		
2005-522 Commissioned	Weight Management	Development of new cognitive services	Pharmacist services providing education to patients or consumers Pharmacist involvement in non-prescription medicine use	No information		
2005-531 Commission	Consumer Access to Prescription Medicines	Evaluation and development of existing community	Pharmaceutical care services	No information		

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
ed		pharmacy services and programs				
2005-532 Commissioned	Evaluation of the R&D Program (this report)			n/a		
92001-01 Commissioned	Evaluation of the Quality Care Pharmacy Program	Evaluation and development of existing community pharmacy services and programs Facilitating change	Diverse	Three year evaluation of QCCP demonstrating: o standardised quality assurance system, substantial uptake across independent provider system, and user reported improvements in practice, consumer benefit and business outcomes. o Program potential to recognise other health professionals, consumers and government.	Further work to determine sustainable monitoring of the QCCP program and to identify and trial easily discernible participation facilitators and barriers.	Further investigation of enhancements to QCCP, update of accreditation standards, and promotion of QCCP to other health providers and general community.
92002-04 Commissioned	Evaluation of the Medicine Information for consumers (MIC) program	Quality use of medicines Evaluation and development of existing community pharmacy services and programs Development of new cognitive services Harm reduction for drug dependent people	Pharmaceutical care services Pharmacist services providing education to patients or consumers Drug information services	MIC program has had a measurable impact on the delivery of CMIs by pharmacists, both in terms of the number of CMIs being delivered by pharmacists, and the proportion of consumers in the community aware of CMIs. CMI found to enhance customer satisfaction and pharmacist perception of benefit. Patient satisfaction demonstrated. Barriers to pharmacist participation are time taken to deliver CMIs and time of day at which delivery occurs (i.e., less likely to occur at busy times). Identified minority of y pharmacists implementing changes to business and practice to support CMI	Ongoing information and training methods and capacity for pharmacists as primary source of raising awareness about CMIs; ongoing support to Software standards or development to provide information records for funding that are transparent, equitable and accountable..	The offer of CMI to all patients receiving a prescription item for the first time could be a mandated requirement for QCPP Information management tools to monitor the provision of CMI could be considered.

Project ID Project Type	Project Title	Program Priority	Professional Services Classification	Project Outcomes	Implications for future Research & Development	Evaluation Recommendations
				Most (95%) pharmacies have technical capacity to deliver CMIs with two-thirds using dispensing software 60% of pharmacies were aware of CMI training, only 10% of all pharmacists had attended. CMI delivery influenced by pharmacist's professional judgment., re type of medication, on commencement of chronic medications; by type of dispensing event, socio-demographic characteristics of consumers and diagnosis or not of mental illness.		

5.3 Project Outputs and Potential

5.3.1 Quantifying research outputs

The accepted way to quantify research outputs is by counting publications and research grants. For this evaluation, publication is the most relevant measure.

Whilst the Guild has been advised of 188 publications, including conference presentations and peer reviewed journal articles (for 57 projects over four years[3]) the Guild has also provided the locus of a significant number of those conference presentations. Project reports did not consistently identify publications or presentations and there is no available data on the conversion rate of conference papers to peer-reviewed publications or vice-versa. For a research program of this substance, this presents as limited dissemination of the information and knowledge generated by the research projects. There appears to be limited or no targeted translation of the research outputs into practice information, other than those projects identified for further development because of the particular economic and health benefits that were demonstrated.

Using the project reports, independent evaluator reports, and expert review panel appraisals as presented in Table 13, the NOVA evaluation team has identified work that has contributed or has potential to contribute to current practice and/or services. A summary of the NOVA assessment of outputs, outcomes and potential for further work follows.

5.3.2 Appropriateness and effectiveness of priorities for Investigator Initiated projects

Projects undertaken have encompassed all Program priorities. A number of projects encompassed more than one priority area. In examining all 57 projects:

- 23 undertook the development of a new cognitive service, 15 were Investigator Initiated and eight were commissioned projects
- 21 undertook an evaluation and development of community pharmacy services and programs and/or a quality assurance strategy, nine were investigator initiated and 12 were commissioned projects
- continuing care was a priority focus for 20 projects, with a number also addressing the professional service type continuity of care. Fourteen of the 20 projects were investigator initiated
- quality use of medicines was a priority focus for 16 projects; nine were investigator initiated and seven commissioned
- 13 projects, including nine investigator initiated projects, had a change facilitation focus.

The NOVA evaluation team recommends that priorities for future R&D endeavour should consolidate these priorities to address:

1. Community pharmacy services: quality use of medicines; standards of practice; new cognitive services, continuing care across the health system; chronic disease management
2. Community pharmacy infrastructure: workforce, information management and coordination, change management.

[3] A total of 58 projects was funded. The 57 projects mentioned here do not include this evaluation project which is the 58th project and is not included in the 57 projects being evaluated.

5.3.3 Changes in professional practice achieved

Projects that have undertaken specific purpose training and/or developed or provided information resources and services for pharmacy staff (pharmacists and assistants) for chronic disease management, health promotion and primary health care interventions and services, have demonstrated or indicated measurable consumer benefit (such as smoking cessation, improved wound care, asthma management, adverse events documentation, booked sessions for condition management and consumer information and education uptake).

There is evident potential for further development and continued implementation of specific purpose training and information resources, for specific health conditions, for health promotion and for chronic disease management. Such training and information would need to be available for routine and regular access by pharmacy staff, for update, refresher and new staff. Attention could be given to development by the Program of a standard training and information strategy, with modular information for particular conditions, interventions and services, accessible by multi-media and with professional incentives for initial uptake and routine update.

New cognitive services developed by a number of projects have demonstrated or indicated consumer benefit. Projects to date have shown some demonstrated benefit through collaboration with general practice and other health service providers. There is indicated potential for further work to test effective tools and methods for communication, information, documentation and shared client care arrangements to enhance the role of community pharmacy in primary health care and in health outcomes for consumers.

Consolidation of these project outcomes should be undertaken through larger scale pilot studies to develop and critically test and assess the necessary conditions for collaboration between pharmacy practice and other health services, standards for implementation and quality assurance, and effective and sustainable methods of training and information provision.

5.3.4 Effect on health outcomes

Projects to some extent have indicated health behaviour change or consumer satisfaction. There has been limited focus on measurement, at time of intervention or *post hoc*, of health outcomes using standardised and replicable assessment methods and tools.

In general, the projects that focused on primary health interventions lacked sufficient collaboration with key stakeholders, notably with relevant national priority programs and initiatives of the Department and particularly with general practice and consumers.

The limited inclusion of general practice and general practitioners in projects overall was of particular note, given that the interaction of the consumer and prescriber objectives and expectations are significant in the determination and measurement of health outcomes.

The lack of consumer involvement in designing, implementing and reviewing research and pharmacy practice intended to improve health outcomes does not reflect current policy and practice.

The Program should develop a specific focus on project work that contributes to identification, understanding, measurement or assessment of health gain and cost benefit to consumers and to collaborative engagement of medical practitioners and other health service providers in the determination and enhancement of health gain and cost benefit to consumers.

5.3.5 Economic impact

A small number of projects specifically assessed economic factors or outcomes. The information across projects should be consolidated and further specific research activity to develop standard tools and measures considered.

5.3.6 Client satisfaction

Those projects that identified client satisfaction commonly relied on indication of satisfaction by either the pharmacist, general practitioner and/or the consumer. The measurement of satisfaction, of itself, does not provide significant information. Satisfaction may be an indicator of consumer acceptability of a pharmacy service, intervention or approach, may indicate pharmacist perception of professional and/or business benefit, and may indicate general practitioner perception of professional and/or patient benefit. Further work could be done to develop pharmacy relevant professional and consumer satisfaction indicators and measures for use in future research and development projects.

5.3.7 Workforce development

Workforce issues have been identified as affecting capacity for the pharmacy profession to engage in or support research and to take up, implement and sustain new cognitive services, collaborations with other health providers, documentation and participation in health management.

There is potential to consolidate the information across projects to inform and guide development of workforce research and development strategies addressing significant issues, such as emerging roles, profession retention and re-entry.

5.3.8 Project barriers and enablers

A substantial proportion of studies reported low recruitment and retention rates, of one or more of pharmacies, pharmacists, and consumers. Common reasons given include the busy-ness of the retail environment of community pharmacy and the inability of time-poor pharmacists to sustain consistent participation in a research or service development activity. The time constraints and structural impediments to GP participation in case conferencing and other time-dependent activities were also frequently reported, as was pharmacy staff perceptions of consumer disinclination to spend unanticipated time in the pharmacy.

Lack of collaboration with key stakeholders—particularly general practice and consumers—by individual and a substantial proportion of projects, has been evident. The engagement of general practitioners as health advisers and/or prescribers, and of consumers as the target population of health advice and interventions, is essential if the optimal potential of health improvement and cost-effective service provision is to be achieved.

Further work should include development of supports and incentives to community pharmacy research such as:

- research support staff for pharmacy centre–based research activity
- strategies that demonstrate capacity to facilitate participation of community pharmacy clients (consumers, patients) in research activity
- potential for identified collaborating research pharmacy status to promote professional and community awareness and support, to provide beta sites for pilot projects and trial research, with professional and financial support and incentives to participation and performance.

5.4 Evaluation Summary and Recommendations

A substantial body of useful information has been generated, with a number of projects demonstrating potential for further development and potential implementation. Allocation of sufficient funds to selected areas of focus or priority attention is warranted to support deliberative attention to and intensive development in selected areas.

These should provide the research priorities framework, and should be implemented as focus areas to be progressed through three research streams:

- **Innovative research** for Investigator Initiated and/or small scale commissioned exploratory research, to investigate the potential for new roles and practice of community pharmacy in primary health care.
- **Developmental research**, to further develop and consolidate the outputs of research undertaken to date and to assess the potential for the implementation of identified research project outputs into policy, funding and practice (using ARC standards and guidelines).
- **Implementation research and development**: to guide and evaluate the integration of service and practice models developed through Innovation Research and Developmental Research.

The next phase of development should consider different *methods* of doing research, such as:

- Developing recommendations for recruitment, retention and participation strategies that have been trialled or that can demonstrate confidence in capacity to achieve project targets, such as:
    - placement of research staff in pharmacies,
    - support for pharmacies to offline staff and backfill with requirement that the influence of payment incentives is controlled.
    - quality care points for involvement in research.
- Devolution of research sub-programs to established research units, to implement locally focused studies with national relevance and to resource research infrastructure within and between pharmacies, other health professionals and stakeholder groups. Collaborating research centres could be required to demonstrate and sustain communication and support strategies with all stakeholder groups locally, and to develop sustainable research practices that facilitate participation by community pharmacy, other health professionals and consumers. Research sub-programs should be designed and monitored for replicable, sustainable practice protocols, guidelines, tools, interventions and training that can be implemented within usual practice environments.

6 Stakeholder Assessment of Program Impact

NOVA Public Policy undertook a broad consultation process with a range of key stakeholders to assess the impact of the Program on:

- the practice of community pharmacy and its capacity to improve/maintain the health of Australians
- the engagement of community pharmacy in the primary health care service system and the health service
- the funding and policy environment in which community pharmacy is positioned.

Evaluation participants overall agreed the Program has:

- been effective in meeting the spirit and intent of the Program and should be continued
- produced some valuable and innovative outputs
- demonstrated considerable potential to have a positive impact on government policy and pharmacy practice
- developed greater capacity within itself, through the successive national Community Pharmacy Agreements
- through the Third Agreement Program, undertaken the first consultative approach to the development of research priorities and directions.

Overall, the consultations were remarkably consistent in their assessment of:

- strengths and contributions of the Program
- weaknesses and lost opportunities of the Program
- future potential
- appropriate future stakeholder engagement and governance of the Program.

This Chapter of the Report sets out the views of the evaluation participants' assessment of the impact of the Program and the factors that facilitated and inhibited its achievements.

6.1 Program Effectiveness and Outputs

Evaluation participants, both individuals and organisations, unanimously considered that the Program has produced useful outputs, that these outputs provide a strong enough foundation to now be taken to a consolidation and/or development phase, and that the Program should be continued with a strong emphasis on consolidation and implementation of new cognitive services, of education and training strategies, and of further Investigator Initiated research.

The Program is regarded as the major source of funding for pharmacy practice research. Pharmacy-based stakeholders considered that the Program has generated a significant body of pharmacy practice research and that it has established a strong international profile for Australian leadership in pharmacy research. There has been progressive enhancement of the Program, including streamlined administration and implementation processes.

Whilst the Program under the Second Community Pharmacy Agreement had successes with a suite of Home Medicines Review projects and an Indigenous project, the Program under the Third Pharmacy Agreement was considered by most consultation participants to have established a broad and substantial body of work, with a more rigorous approach to the

evidence base and to the standards and quality of project reports. A number of projects were considered to have been particularly effective. Stakeholders particularly cited projects dealing with quality use of medicines, case conferencing, and home and residential aged care medication reviews.

The general consensus was that the Program was delivering effective and significant research information and knowledge for practice in the particular disease management areas of attention, but that this was developmental and, as summarised in one consultation discussion, heading in the right direction, but '*en route, not there yet*'.

Some stakeholder representatives considered the Program had been an exemplar of a collaborative relationship between the Guild and the Department, but had been restricted by the low profile within the Department of Pharmacy Research as an important component of the role of pharmacy in health service provision.

Stakeholder representatives, overall, generally agreed that neither the Department nor the Guild had used the Program processes and outputs to develop a comprehensive understanding of the results of the Program and of how these could be used to further inform and develop the Program. An overarching Program evaluation approach with an interactive approach to project outputs and their capacity to inform further and future research would facilitate this. The approach should also focus on 'feeding' project outputs and Program outcomes to the various clearly relevant parallel research and/or development or quality use of medicines programs, such as the National Prescribing Service and Department initiatives in primary health care.

A number of consultation participants considered the effectiveness of the Program to have been restricted by limited knowledge of consumers' expectations of community pharmacy and that the Program would have benefited had the project on consumer expectations of pharmacy been commissioned at the outset of the Third Agreement Program and not at its conclusion, so that it could have informed and resourced the remainder of the Program research projects.

Overall, the evaluation has identified that:

- stakeholders have perceived the projects as having been 'siloed' in their design, implementation and outputs so that potential benefits had been limited in their application.
- the establishment of quality measures for the Program should include determination and testing of the relevance of research hypotheses, as well as testing and review of the design of individual research projects, both Commissioned and Investigator Initiated projects. Currently, quality monitoring and measurement is particularly focused on individual projects and provides a stepped approach to quality as performance review, rather than as an integral and iterative component of research project design, development, implementation and monitoring and as an information and development tool for the Program and across the Program.
- the Program has multiple points of emphasis on a range of principles, purposes and objectives, and in greater detail and on a broader canvas on the objectives, purposes and foci of the projects, and in particular on the growth of research capacity and on the seeding of research initiatives to see what emerges. This appears to have been to the detriment of the potential for the research endeavour to be directly focused on capacity building in research endeavour, in community pharmacy practice within the primary health care team, on health outcomes, and on policy and service provision. Capacity building in these priority areas will require the Program to develop a conceptual framework to provide a bridge for all Program research outputs to contribute directly and transparently to Program capacity to inform and influence practice and in policy. A

proportion of projects across the cycle of the consecutive R&D Programs has been effectively translated into policy and into funded practice (lifestyle prescriptions, tobacco-use reduction). The characteristics of these across the cycle of R&D Programs need to be considered. Capacity building in practice should emphasise community pharmacy services and education, training and support of pharmacists for community practice in its increasingly diverse forms

6.2 Relevance to Health Policies and Funding

Evaluation participants saw some direct influence by this Program on health policies and funding and practice implementation. This has affirmed the potential for the Program to achieve more in this direction. Most evaluation participants were able to identify those project outputs that had been applied to practice and policy, including home and residential aged care medication reviews, case conferencing and quality use of medicines. These projects were cited as having provided an important contribution to the practice of community pharmacy to the service development and funding support of innovative roles and services for community pharmacy and to the policy framing the role and function of community pharmacy. Participants identified particular characteristics of the projects considered to have contributed to change in practice or policy:

- strong consultation with the field
- collaboration with government in the design and execution of the projects
- collaboration with GPs in the conduct of the trials
- strong consumer involvement in the conduct of the projects
- appropriate research methodology to the project purpose and practice or policy context, including participation incentives and economic evaluations.

Evaluation participants acknowledged the problem of translating research findings into health policy and practice, and of the difficulty of assessing the impact of the CPA R&D Program in this context. Translation of research to policy and practice is almost unanimously regarded as a complex and confounding barrier that is larger than the particular issues identified as particular to the Program.

There was a general view among evaluation participants that the Department in particular does not have a structure or culture that actively facilitates the translation of research into policy information.

Several participants acknowledged that the Department needs to be more actively engaged in projects from the time of inception. The lack of engagement of a wider cross-section of the Department in relation to research issues of concern to a range of Departmental primary health care programs and others is considered to have contributed to a narrow focus in the research agenda on pharmacy role and practice, and not on the connections between and integration of pharmacy roles and practice within the primary health care system as a whole.

Departmental representatives expressed particular concern that the Program should engage with a broader range of areas of the Department, and acknowledged that this could be improved by both the Program structural arrangements and by the internal consultative and Program management arrangements within the Department.

6.3 Relevance to the primary health care sector

A significant proportion of stakeholders emphasised the need for pharmacists to see themselves as members of a primary health care team, and for community pharmacy to

recognise itself, and be recognised, as an important member of the primary health care sector.

However, there was a widespread view among evaluation participants that the Program has not taken account of developments in the wider health care system and that the research projects, both commissioned and investigator driven, have generally been conducted in isolation from other relevant research and programs. Some projects that had become publicly controversial could have benefited from early recognition and investigation of the stakeholder and sectoral interests in the research issues.

There was also a shared perception that the Program has been too narrowly focused, particularly a focus on pharmacies rather than on the role and contributions of the profession to primary health care. The view was expressed that the research focus on the "retail environment" of community pharmacy, ignores the significant roles of other models of pharmacy including the increasing number of pharmacists who practise outside the retail area, who provide services on a contract basis, or who work with medical practices on a sessional basis, as is emerging internationally.

The overarching view was that the Program was designed initially in isolation of the current and emerging issues for primary health care, for both other health service providers and consumers. Rather, the focus has been on the particular role of community pharmacy in health care condition support and management, or on community pharmacy capacity and competency, without connection between these and the wider primary health care service system. The Program has given some stakeholders the impression that it is focused not on capacity building, but on role extension.

There was a particular view that the Program could be strengthened, and primary health care research could benefit from the linking, or combining, of Pharmacy Research planning and research activities with general practice research and development funding streams.

The 3D* Labels Project (number 2003-010) was cited by some consultation participants as an exemplar of an appropriate approach to collaboration within the primary health care sector. They suggested that this project could be used as a case study to identify the most effective methods for community pharmacy practitioners and researchers to engage with Divisions of General Practice.

6.4 Information to and engagement with, and of, other stakeholder groups and organisations

Stakeholders uniformly agreed that the Guild had demonstrated commitment and effort to engage with a range of stakeholders in the conduct of the Program. The payment of sitting fees to stakeholder representatives on the EAGs was one indication of that commitment. However, some of the organisations working collaboratively with the Guild considered that their role in the Program placed requirements on their respective organisations to participate as required, rather than effectively, and this was onerous in both time and salary costs, and was not considered by these organisations to have provided mutual benefits.

These organisations considered their involvement in the Program, despite the imposts and costs they identified, was necessary for them to acquit their responsibilities to their constituencies, and to represent the knowledge base and concerns of their constituencies. However, it fell short of providing opportunities for joint identification of, attention to, and action towards, research questions of mutual interest or concern to their organisation or constituency.

Evaluation participants generally agreed that consultation has been undertaken through the Program whereas collaboration is what is needed.

Evaluation participants emphasised the benefits to all parties and to the outcomes if the Program were more effectively linked to the various general practice and primary care funding programs.

Evaluation discussions considered the potential for multi-disciplinary expert advisory groups to review project proposals, oversight project activities, review project outcomes and identify linkages between projects and with external initiatives, and to provide expert input into the major research priorities for projects to be developed through Expressions of Interest and those to be competitively tested through Requests For Tender.

Overall, the NOVA evaluation team considers that:

- a purposeful and effective communication and engagement strategy is needed to facilitate and support better collaboration
- engagement with consumers and other providers of primary health care needs to be explicitly structured and supported as a collaboration of equals
- engagement should be based on full recognition of the roles and contributions of other primary health care providers—that is, collaboration should be based on the premise that the shared task is to continue development of the definitions and understandings of the primary health care team and the distinct, complementary and collaborative roles for each health professional
- the Program should establish an overall framework and calendar that enables and promotes effective participation by all stakeholders, with advance planning of meetings and activities and agreement to equitable principles for reimbursement and acknowledgement of the costs and contributions of all participating organisations and individuals.

6.5 Communication of research outputs

Evaluation participants perceived that low level dissemination of the outputs of the Program had limited the Program's impact –particularly that the publication of lengthy research project reports on the website, accompanied by evaluator reports on those reports, had limited capacity to inform community pharmacy practitioners, who were time-poor and as a sector not yet fluent with electronic information transfer and uptake. These reports may have been accessible to and useful to researchers, but were considered to have had limited usefulness and application to academic education and to policy information as they were segmented sources of information.

As discussed earlier, the accepted way to quantify research outputs is by counting publications and research grants. It is also the vehicle for dissemination of research outputs to research peers and to the profession as a whole. To a lesser extent, for practitioners, it is an authoritative source of information on current research issues within practice and on research outputs relevant to these. Whilst the Pharmacy Guild has been advised of 188 publications, including conference presentations and peer reviewed journal articles, evaluation participants expressed concern that this is a low level of publication for a substantial research program (for 57 projects over four years) and that there is limited evidence of targeted translation of the research outputs into accessible practice information other than through the Guild website.

All stakeholders identified the need for much more active dissemination of information and research outputs. The Program newsletter (*R&D Update*) is considered to be a useful development and tool, and has established a profile with pharmacy trade publications. However, there has been no promotion to a wide audience of the 'good news' stories of the Program and of the project outputs. Some stakeholders also consider that *R&D Update* is

less than effective, as it seems to be assumed that other stakeholders will look for information in it and beyond it. An example of a more active information outreach cited is the PHCRIS email alerts to subscribers and stakeholders on their database.

The overall view was that the Program would be considerably enhanced if there were an active communication and dissemination strategy, within the Guild, across the pharmacy profession, and to all relevant stakeholder networks, with regular email bulletins and an active website.

Overall, the evaluation team has established that:

- there is a low level of dissemination of findings through peer-reviewed publications
- there is no regular information to non-funding parts of the Department on specific projects relevant to other areas of the Department programs and initiatives (e.g. continence)
- the lack of direct contact between researchers and the Department is a barrier to active awareness of and potential timely uptake by the Department of the project information and outputs
- there needs to be a mechanism for routine information and feedback on all projects, and particularly on the research and policy implications that projects may highlight, to all relevant and potentially relevant areas of the Department and to other stakeholder areas of interest
- the Guild needs to identify and redress the extent to which the Program is isolated from information and relevant work in train in the Department and elsewhere
- the Program needs a deliberate multi-disciplinary, multi-sectoral communication strategy, providing news and information to major stakeholder groups (e.g. General Practice and Divisions of General Practice) that is tailored to the interests, concerns and information needs of these groups.

6.6 Program structure and approach

Evaluation participants expressed significant respect for the management and administration of the Program. Participants valued the substantial amount of work and planning that had gone into the selection and management of 58 research projects over a five-year period, and the efforts that had gone into streamlining the Program processes.

However, consultation participants consistently saw aspects of the Program structure as inhibiting the actual and potential impact of the Program on community pharmacy practice and the role of community pharmacy in the primary health care environment.

All consultation participants agreed that the very detailed management required of the Program and project administrative processes was a problem, although there were different perspectives on the source of that problem and on the purpose of micro-management. Comments included:

- the Program management was under-resourced. Currently, support and administration of the Program is provided by a program manager and two administrative staff within the Guild and one almost full-time staff member of the Departmental branch with funding responsibilities. The onerous nature of the administrative structure and processes meant that staff were focused on administration, and not on knowledge identification, collation and dissemination.
- whilst considerable improvements had been made to Program and project administration throughout this Agreement cycle, there were still shortcomings in the project tender brief

process,including agreement on project purposes or outcomes, identification of deliverables, standards of performance and product presentation.

- time management has been an issue—very short timelines for non-government stakeholders, with a perceived contrast to long timelines required by government stakeholders. Some stakeholders cited the short time for provision of papers to the Project Management Committee
- the lack of delegation of decision making from the Department to the Guild imposes a non-productive layer of bureaucracy and administration. The Department's expectations and requirements could be focused on ensuring effective Program management that is designed to maximise both outcomes and the wider engagement of major stakeholders across the primary care field, and contemporary standards and expectation of delegated Program management and accountability should apply.

The size and cost of projects was of concern to some stakeholders. There was particular concern about the size of the IIG grants that were considered to be too small to deliver evidence of cost effectiveness of the aspect of pharmacy practice being studied. Some stakeholders considered a small number of commissioned grants to be costly.

Overall, evaluation participants generally were able to identify model projects or strategies that effectively addressed concerns about the Program that they had raised. These projects or activities were cited as demonstrating the potential for the Program to consistently achieve these performance levels or outputs across the Program. The consultation participants unanimously considered the Program had demonstrated potential to investigate, inform and communicate innovation and improvement in the contribution of pharmacy practice to primary health care.

Overall, the NOVA evaluation team considers that:

- the future structure of the Program should reflect a joint commitment of the Guild and the Department to the Program as the joint major stakeholders in the Program
- the structure should enable improved collaboration between the Guild and the Department through clarification of roles and responsibilities, provide direct engagement of a range of areas within the Department with the Program planning and monitoring
- the structure should provide for greater collaboration between the Program and all relevant major stakeholder organisations and service providers. The existing Program involvement with stakeholder groups should be further developed to provide multi-disciplinary involvement in, and commitment and contribution to, program planning, implementation, quality assurance, monitoring and evaluation and to project design, development, quality assurance, monitoring and evaluation.

6.6.1 Project Expert Advisory Groups

Evaluation participants considered that Expert Advisory Groups had provided supportive and informative guidance for the conduct of Commissioned Projects. However, commentators from stakeholder groups involved in the EAGs considered that the potential of the EAGs to provide a mechanism to enhance the development, implementation and outcomes of the projects had not been fully realised.

In addition, the number of EAGs and the administrative support this has required were considered to have added significant time and financial cost imposts to the Program. The common view was that the EAGs should provide research expertise and relevant content knowledge and be based on advisory and governance protocols with responsibility for determining the continuation and funding of projects. Research rigour could be provided through either:

- adoption of NHMRC standards and guidelines
- allocation of a funding stream through the NHMRC innovative research program, or
- establishment of a Program technical/research reference group to work closely with the Program management to determine and then develop project purposes and project briefs for commissioned research, and to review and supervise investigator initiated (innovative) research.

The EAGs had been chaired by the Departmental representative to the Program. While this was not a requirement under the Agreement, this arrangement had been a Guild preference to facilitate a collaborative approach, the coherence of approach across the Program and within projects, and to access the technical expertise and critical thinking of the Departmental representative. Whilst this arrangement was unanimously recognised as having added significant value to the present Program, there was a universal view that this did not harness Guild leadership and commitment to the Program, and did not facilitate a broader collaboration in this Program. Pharmacy commentators felt that the Guild should be recognised as the instigators and owners of the Program, and considered that EAGs for future projects should be convened by a senior member of the Guild to promote recognition of the Guild's investment in this Program by both the Guild leadership and membership.

Overall, the evaluation team considers that:

- the Program would benefit from the establishment of a Program Management Committee that is multi-disciplinary and multi-sectoral and that provides strategic direction and governance of the Program
- the Program Management Committee should establish a technical or expert reference group to provide research expertise and rigour to review project proposals, oversight project activities, review project progress and outcomes and identify linkages between projects and with external initiatives.

6.6.2 Project Evaluation

The broad consensus was that the evaluation arrangements were a thorough and comprehensive approach that had fallen short of their potential. There was a general view that the investment in evaluation by the Program had not been effective, as the evaluation requirement was principally focused on evaluation of research methodology and on an internal Program quality assurance role, and had not been designed to identify and evaluate the products and outputs of the individual projects nor the knowledge development and dissemination of the Program overall.

Evaluation participants observed that the evaluation approach and arrangements were most effective in supporting the Investigator Initiated research projects because of the periodic contact between the evaluation provider, the research projects and the Guild. There were structured points of interaction that had enabled critical review of research methodology and then of progress. Given that the Investigator Initiated projects were most directly beneficial in the development research capacity and could be considered to be most likely to benefit from critical appraisal at significant project milestones, this was the most beneficial aspect of the external evaluation arrangement.

Commissioned research projects, however, were generally more broadly focused on implementation of a practice enhancement strategy or new cognitive service, and were less likely to be pure research than to be undertaking an action research strategy or an evaluation of a practice intervention. The *post hoc* external evaluation generally provided a

narrow assessment of the methodology used in the commissioned research projects, and was not required to, nor was appropriate to, evaluate the project outcomes.

6.7 Future research

Evaluation participants were unanimous in the view that the Program should continue and that the next generation of the program should consolidate the work undertaken to date, and that this could be achieved by a multi-disciplinary and multi-sectoral assessment of the Program outputs and outcomes in the context of current primary health care policy, program and service initiatives, issues and innovations.

Evaluation participants were unanimous that the retention of innovative research was necessary, that it should be based on contemporary standards of rigorous research methodologies; that it should be broader than the NHMRC approach with a consultative peer-review process to identify areas for research attention, and that it should develop research proposals. Also unanimous was the strong view that the research program should be led by a multi-disciplinary and multi-sectoral stakeholder group.

Evaluation participants generally expressed the view that innovative research should be undertaken at experienced researcher level, to optimise the potential benefits of research to practice and to policy and to develop the research leadership and breadth of practice specialists in Australian pharmacy education and research, with young and emerging researchers working in research teams, as appropriate. Some considered that innovative research should also be structured to promote and develop the body of researchers and the engagement of practising pharmacists in research, using national research standards for selection and supervision.

In particular, a number of evaluation participants thought that the Guild should consider the NHMRC structure and establish a research development and advisory committee that would make annual recommendations to the Guild and/or the Program management on the forward priorities for research over the life of the Program, would develop project briefs, review and select proposals, and would review and advise on project progress.

Some participants thought that the future Program could also draw on the model provided by the National Medication Safety Collaborative. In the Collaborative approach, small teams work together, undertake a small study of a particular problem or area, take action based on that data, and then measure whether there has been an improvement. The expert workshop participants proposed that particular priority areas that could benefit from a breakthrough collaborative approach were case conferencing, chronic disease management, and different practice models.

The NOVA evaluation team proposes that:

- a multi-disciplinary, multi-sectoral program structure and administration is indicated, explicitly designed to maximise collaboration between the Guild and the Department, and between the Program, relevant professional and consumer association and major players in primary health care services, such as the Divisions of General Practice
- the Program should be focused on community pharmacy practice, education and research, and community pharmacies should be explicitly identified as one among a number of practice environments
- the Program should continue to provide for innovative research to some level in parallel with a research focus for the next phase of the Program, which should be particularly on consolidation and implementation of the significant and specific outputs to date
- the Program structure should be led by a technical/research development and advisory committee that would make annual recommendations to the Guild and/or the Program

management on the forward priorities for research over the life of the Program; would develop project briefs, review and select proposals, and review and advise on project progress

- adoption of the breakthrough collaborative approach could be considered for specific practice and policy issues, including case conferencing, chronic disease management, and practice models.

7 Assessment of Achievements and Recommendations for the Future Pharmacy Guild Research and Development Program

This chapter presents the NOVA evaluation team's assessment of achievements and weaknesses of the Program, identifies key barriers and enablers to the Program's success and provides the team's comments on the appropriateness and effectiveness of the original objectives.

Evaluator assessments have been formed on the basis of the process, outputs and outcomes and the assessment of impact as described in the previous chapters.

Our overall assessment is that the Program should be continued and re-focused to consolidate the outputs and outcomes of the Program to date, and to invest more significantly in implementation and service development strategies, whilst retaining and enhancing the capacity for innovative research.

Specifically, the evaluation has determined that:

- the Program has been performing as well as possible, given some structural and cultural barriers that have inhibited its ability to reach its full potential.
- the Program has a robust administrative and accountability structure and has been effectively and comprehensively managed
- the Program has resulted in a number of significant outcomes and has demonstrated substantial potential to investigate, inform and communicate innovation and improvement in the contribution of pharmacy practice to primary health care
- the Program has contributed some significant initiatives in enhanced roles for community pharmacy in primary health care
- the Program has gained national and international recognition as the principal source of funding in Australia for research in community pharmacy. A number of the high profile research projects have been presented at international conferences and in peer-reviewed publications
- the Guild has fostered the relationship of the pharmacy academic and research field with this Program and has achieved a high level of respect and engagement. With occasional exceptions, there has been strong collegiality in the academic and research field associated with the Program
- there has been some direct influence by this Program on health policies and funding. This has illustrated the potential for the Program to achieve more in this direction.
- the Program has produced some notable research projects that have informed professional practice and policy, and that have been effectively developed as practice initiatives. The successful translation from the research outputs of these projects into policy, funding and practice, was attributed particularly to economic assessments, which identified the capacity to generate savings
- the Program has contributed to the development and application of best practice professional management standards in community pharmacy through a number of projects, particularly its evaluation of the Quality Care Pharmacy Program
- the Program is considered to have been the source of growth of research capacity and expertise in community pharmacy within Australia

- there has been limited attention to the potential for multi-disciplinary and multi-sectoral engagement with and through the Program which has restricted the potential take-up, support and implementation of the Program outputs and achievements.
- there is potential to consolidate the outcomes of the Program and to identify areas of future research that build on the achievements of the Third R&D Program.

However, the Program's potential has been restricted by:

- the time and labour intensive processes applied to the commissioning of research and required Program administrative arrangements that are weighted towards accountability and acquittal rather than identification and application of research outputs and developments
- the lack of an integral program strategy to identify, extract, profile and apply research knowledge and project outputs to research consolidation and leadership and to policy and practice information
- policy and administrative structures and arrangements within government programs that provide for parallel but disconnected quality use of medicine initiatives, and that emphasise accountability and acquittal and not capture and translation of research outputs to policy information and service development and enhancement.

Section 7.2 of this Chapter describes the major barriers, as well as the key factors that have facilitated the Program's achievements.

7.1 The Program objectives

The NOVA evaluation team was asked to assess the appropriateness and effectiveness of the original objectives and if they remain so.

Our overall assessment is that the intent of the objectives is appropriate, and they have served as a guide for the Program. However, the wording of the objectives is too broad and imprecise. It does not recognise the role that the Program can effectively play and what a research program can reasonably be expected to achieve within the environment that it operates.

At best, the objectives in their current wording, are a guide to the general direction of the Program. For example, Objective 1 *Improve/maintain the health of Australians through the delivery of quality pharmacy services* could be described as 'aspirational' rather than something the program could realistically endeavour to achieve. It would be more appropriately worded to focus on enhancing the capacity of community pharmacy and community pharmacists to contribute to the health of Australians.

Similarly, *Objective 2: Deliver cost effective pharmacy services using best practice professional and management standards* is too broad to be achieved by a research program. Clearly, it is not possible for this Program alone to deliver cost-effective pharmacy services, rather its role is to provide and disseminate research knowledge that informs the development of best practice professional and management standards and processes for delivery of cost effective services.

Chapter 8 provides recommendations for some re-wording of the Objectives for the future Program.

7.2 Key barriers and enablers which impact/impacted on the implementation and effectiveness of the Program

Through the process and outputs and outcome evaluation, and assessment of impact of the program, the NOVA evaluation team identified a range of factors that had helped or hindered the implementation and effectiveness of the Program.

7.2.1 Enablers

Government and stakeholder support

The Program undoubtedly benefited from support from Government and a range of individuals and stakeholder organisations. The high level of support for the Program was demonstrated through the evaluation consultations and through the amount of time and effort that has been provided to the Program by the Government, individuals and stakeholder organisations.

The support has given the Program access to advice and expertise that informed and enriched the Program and the individual projects through the EAGs. It was notable that consultation participants identified successful collaboration with government and other stakeholders as a strong factor in projects that consultation participants considered particularly successful.

Good management systems and processes.

The Program has successfully commissioned and managed 58 individual project grants over a five-year period. This represents a considerable workload, and it is a tribute to those managing the Program that so many projects were undertaken within the timeframe, and that they established effective management systems and processes.

The evaluation benchmarked the systems and processes against the Australian National Audit Office standards/requirements set out in the Australian National Audit Office publication *Administration of Grants: Better Practice Guide* (see Chapter 4) and found that generally the Program administration and management met or exceeded national standards for the management of a grants program.

Increased research capacity in the pharmacy sector

The Program is now undoubtedly benefiting from increased research capacity in the pharmacy sector. While the Program is obviously, at least in part, responsible for generating this increased research capacity through its funding, it is also now able to draw on, and benefit from, the expertise available in the sector. This also means that the Program is now well positioned to benefit from the research accomplished so far, and to move into a new phase of consolidation and development.

Enablers of individual successful research projects

Through the consultations and the analysis of project outputs, NOVA has identified a number of factors that underpin those research projects that were identified as being the most successful. They are:

- strong collaborations:
    - with the field relevant to the project
    - with other health professional bodies and individuals, particularly with general practitioners

    - with consumers in the design, development and measurement of information, interventions and services
- appropriate research methodology, recognising environmental factors, both barriers and facilitators, to participation by community pharmacies, by pharmacists and assistants, by other health professionals, particularly general practitioners especially in the conduct of trials, and by consumers, particularly in the context that community pharmacy customers are accessing a commercial service.
- validated research tools applicable to community pharmacy application, for assessment of change in practice, in health outcomes and economic outcomes.

Where there was criticism, from those consulted during the evaluation, of the Program or the projects it funded, it was often due to the absence of one or all of these features. They are in fact critical to the success of a research program of this nature, and the NOVA Public Policy team considers that these criteria should be built into the future structure of the Program, as well as intop individual research projects.

7.2.2 Barriers

Translation of research into policy and practice

Evaluation participants expressed disappointment that knowledge generated through the R&D Program had had limited uptake in government policy and programs. This is a concern that has been encountered by the NOVA evaluation team on a number of occasions, and our experience suggests there is a broadly held and unrealistic expectation that research results will translate readily into effective policy.

This issue was recognised in the consultation meeting with representatives of the Department of Health and Ageing (see Appendix 3), where it was noted that much of the research has been conducted in 'somewhat of a vacuum', without taking adequate account of existing programs, particularly linkages to them. In other consultations, participants considered this to be, in part at least, a consequence of a lack of technical expertise and leadership in the translation of research to policy and practice within and across the Department.

The difficulty of linking research to policy and practice is also recognised in a paper produced by the Public Health Information Development Unit and funded by the Department of Health and Ageing, on linking research, policy and practice in relation to children and health inequalities. The paper acknowledges unrealistic expectations about the ease with which research evidence can be translated into effective policy. It also points out that many policy makers do not see research findings as fundamental to their decision-making, in spite of rhetoric about the need to be 'evidence based' (Hetzel and Glover 2003).

There is now an increasing recognition by governments that using research to inform policy and practice is not a simple one-off event, but rather a long-term process involving dialogue between researchers, policy makers, service providers and communities. Some government bodies nationally and internationally are starting to establish special mechanisms to facilitate the greater uptake of health research into policy and practice.

For example, in the United States the Agency for Healthcare Research and Quality has estimated that it can take up to two decades before the findings of research are translated into routine clinical practice. It has therefore established a program to Translate Research into Practice (Agency for Healthcare Research and Quality (undated)). In Australia, the Department of Health and Ageing has established the National Institute of Clinical Studies as a mechanism to encourage the greater uptake of research evidence into clinical practice.

In Canada, the Canadian Health Services Research Foundation (CHSRF) works with health system decision makers to support and enhance their use of research evidence when addressing health management and policy challenges. They have a particular focus on effective processes for transferring and using research knowledge in developing policy, and are working on the emerging notion of 'knowledge brokers' and planning to run some demonstration projects to evaluate the impact of 'knowledge brokering' within the health system. The CHSRF is well resourced to undertake these tasks[4].

Relationship between the Program and program and policy areas within the Department

The Program is funded by, and accountable to, the Pharmacy Development Section of the Access and Quality Branch within the Medical and Pharmaceutical Services Division of the Department. The Division has responsibility for providing policy advice and for programs that provide access through Medicare to cost-effective medical services and medicines to all Australians.

The Pharmacy Development Section of the Medical and Pharmaceutical Services Division is the formal point of contact between the Program and the Department. However, many of the topic areas of the research covered by the Program go beyond the responsibilities of the Division within which the Program funding is located. One of the major barriers affecting the effectiveness of the Program in terms of its relevance to and impact on government health policies and programs, is that it has not been able to develop relationships with other program and policy areas. In some cases this has led to insufficient liaison at the point of identification of research need and the development of projects, and insufficient input from other policy and program areas during the course of the project. Consequently, the knowledge generated by the research is not always useful to, or is used to, inform government policies and programs.

Evaluation participants consistently commented that whilst the health sector and health authorities are moving towards the concept of primary health care teams with defined roles and responsibilities, the Department does not provide a cross-program, whole-of-portfolio, involvement with this or other research and development programs to support the development of a comprehensive approach to primary health care. Therefore facilitation of the interaction and cross-fertilisation of the outputs of research and development initiatives in different areas of the primary health care system often does not occur. This was summarised in one consultation discussion as a consequence of the Department 'throwing single lines' (of funding) to stakeholders to achieve service development and system reform—rather than 'throwing a net'. As a direct result, the stakeholders remain silos in focus and endeavour—attached by the narrow funding line and not connected to anything else.

The NOVA evaluation team considers that lack of direct contact between researchers and the many policy and program areas of the Department is a barrier to active awareness of, and potential timely uptake, by the Department of the project information and outputs. This problem was acknowledged by the Department in the consultation meeting (see Appendix 3), where participants saw the need for more comprehensive and formal engagement by the relevant sections of the Department with this Program. Therefore, this should be able to be addressed in future arrangements between the Guild and the Department of Health and Ageing.

7.2.3 Structure of the Program and the administrative arrangements

Through the Program a total of 58 projects have been funded and managed. The NOVA evaluation team's examination of the conduct of the processes and systems found that the

[4] Canadian Health Services Research Foundation Website: www.chsrf.ca

Program administration and management had complied with, and followed the requirements of, its contract, and in every respect. The administration and management generally met or exceeded the benchmarks set by the ANAO's *Grants Administration—Better Practice Guide* for the administration of a grants program.

However, evaluation participants were critical of the staff time required by these administrative procedures. The basis of this criticism was that the administrative requirements are too cumbersome and have inhibited the potential for the Program to promote innovative research, to develop a capacity to apply research outputs to policy and practice information, and to develop a comprehensive and effective communication and dissemination strategy. The accountability and acquittal requirements had required that the management of the Program concentrate its resources on meeting contractual requirements for the Department, at the cost of identification and application of the knowledge arising from the research.

The cumbersome nature of the administrative processes, most of which were prescribed by the agreement, was illustrated in the process evaluation, which identified long lead times required to evaluate IIGs: about seven months. This had meant that IIG were not sought in years four and five of the agreement, as reported in the Program's six monthly report Jul-Dec 2002 (p.25) and in the six-monthly report for Jan-Jun 2003.

It also appeared from reviewing files and other documents that there were some delays resulting from AMC processes.

The NOVA evaluation team recommends that Program administration should be reviewed and streamlined to maintain accountability and acquittal standards with improved capacity to resource an active information and dissemination strategy.

The lack of a multi-disciplinary approach

A consistent theme throughout the evaluation process was that improvements in primary health care and public health require more than good process and information flow management. In particular, achievement of the Program Objective of enhancement of the role of the community pharmacist as a member of the health care team would require the engagement of the Program leadership, and of projects individually, with key primary health care stakeholder groups and organisations. Evaluation participants emphasised that pharmacy and pharmacist services cannot be developed in isolation from the health care system, but the Program has not had a multi-sectoral, multi-disciplinary leadership or framework and has not achieved an effective engagement with significant stakeholders groups and organisations in primary health care

The NOVA evaluation team considers that the Program's effectiveness has been hampered by the lack of collaborative arrangements within the Program structure. While efforts have been made to engage with stakeholders through the EAGs for individual commissioned projects, those stakeholder organisations should be engaged in a 'whole of Program' approach. In future, the Program needs a multi-disciplinary, multi-sectoral and coordinated approach, bringing together the relevant range of stakeholder groups to facilitate collaboration and promote inter-sectoral developments and implementation. We note that consumer engagement has not been well resourced or understood, but has been strongly positive when it has been in place.

We also note that the Guild has experienced some difficulties in collaboration with one major stakeholder, who has been publicly critical of some aspects of the Program. However, in the course of this evaluation we found a significant amount of support and readiness to collaborate, on the part of other major stakeholders, and we suggest that the future Program is structured to capture and nurture this good will, and to build strong collaborative

arrangements that will recognise the role that pharmacy and pharmacists can play as part of the health care team.

Lack of cost-effectiveness analysis

It is notable that those research projects that have informed professional practice and policy, and that have been effectively developed as practice initiatives, have had a number of consistent characteristics, including demonstrated health service delivery savings to the health budget.

A consistent theme throughout evaluation consultations was that the capacity for the Program projects to demonstrate the cost effectiveness of innovative pharmacy services has been restricted by a number of factors. They include:

- the lack of technical expertise available to the Program management, planning and monitoring
- the Program structure and approach, which contributed to short project timelines inhibiting the capacity for projects to monitor cost outcomes
- the low levels of recruitment of pharmacies and consumers to the projects
- the weight of emphasis on investigator-initiated research rather than on consolidation and development of earlier research outputs.

Evaluation participants considered that the Program emphasis appears to have been on identifying the role and benefits of particular services without consistent parallel emphasis on long-term sustainability issues.

The tight timeframes for projects, and the relatively small size of the IIG grants, has not allowed for effective economic evaluations because controlled trials have not been possible, and cost comparisons have been the alternative.

The NOVA evaluation team considers that cost-effectiveness analysis is a prerequisite for demonstrating the applicability of research findings to policy and practice, and that the future research program must incorporate the resources to enable such analysis and potential application.

Communication of research findings

The Guild has provided the sector and other stakeholders with regular information about the Program and individual projects through the publication, *R&D Update*. This has raised awareness of the Program and has provided regular reports on project initiatives and outputs. The *R&D Update* publication of the Program has provided a professional vehicle for providing information on projects, research outputs and findings. In addition, the Pharmacy Guild has been advised of 188 articles and conference presentations communicating the research project and/or the findings of the research.

However, evaluation participants agreed there needed to be a more substantial emphasis on information and communication of research activity and outputs to inform community pharmacy practitioners and policy makers and to influence practice change.

The NOVA evaluation team considers that the lack of a specific outreach communication strategy has been a barrier to the engagement of community pharmacies in the research projects.

Engagement of community pharmacies

A substantial number of projects reported difficulties in recruiting pharmacies to participate in the various programs. Consultation participants considered that this low level of

recruitment is probably influenced by the fact that community pharmacies are 'time poor' and focused on managing their day-to-day health and retail business. As discussed in Chapter 5, different *methods* for undertaking research should be further trialled and resourced, including:

- placement of research staff in pharmacies
- support for pharmacies to offline staff and backfill with the requirement that the influence of payment incentives is controlled
- quality care points for involvement in research.

Definition of 'community pharmacy'

Evaluation consultations identified a consistent view that the Program scope has been directly or indirectly applied as a narrow frame to community pharmacies and those other aspects of community pharmacy have not been sufficiently included in the program. The objectives of the Program should articulate the current and developing breadth of community pharmacy practice and services, including patient and professional consulting services and contractual services.

8 The future Program

The NOVA evaluation team is of the firm view that the program should continue. Further work should now take a strategic approach, establishing a strong pathway from academic research and publication to development, trial and implementation of service models and pharmacy practice evidence-based information.

Recommendations are proposed for an improved structure and focus for the Program to consolidate the achievements of the Program, identify future research gaps and priorities, and develop strategies and programs for the application of research to community pharmacy practice.

It was clear from the three aspects of this evaluation that the Program has laid a good foundation for a research program that informs government policy and program and enhances pharmacy and pharmacist practice and their contribution to primary health care services and health outcomes. There was a high degree of unanimity in our consultations with a range of stakeholders, representatives of the Department of Health and Ageing and staff of the Guild that the next stage of the Program should focus on consolidating the gains made and on further development of areas that had demonstrated potential to enhance the role of community pharmacy and pharmacists.

The Program structure and approach set out in this Chapter emerged from our consultations. The recommendations presented were discussed with a range of individuals and stakeholders and there was broad agreement with the directions proposed by the NOVA evaluation team.

8.1 Program Structure and Approach

The two parties to the Third Agreement see the Program somewhat differently. It is regarded by the Department as an outsourced research program and is considered by the Guild to be a commitment of the Guild's to apply a portion of Agreement funding to research and development. These two views are not irreconcilable but are perceived as different and somewhat oppositional by the organisations.

The NOVA evaluation team considers that an agreement between the two parties as to the purpose, objectives and structure of the Program in the context of the Fourth Community Pharmacy Agreement should reconcile these perspectives. The parties should articulate a joint commitment to research and development that is multi-sectoral, multi-disciplinary, and focused on the following three areas of research and development in the practice and knowledge of community pharmacy in primary health care:

- *innovative research* focusing on pharmacy practice within primary health care
- *development* of identified priority research outputs and outcomes to date, as trial or pilot models, through project work in two or more States and Territories
- *implementation* of research outputs and outcomes to date.

There is a need for better links within and across all Divisions of the Department for this Program, as well as between the Department and the Guild. There is a need for a formal mechanism, with all relevant sections of the Department, from the outset of each project and throughout the Program. This could be addressed in the Schedule to the next Agreement, stipulating that there be a formal policy information process established between the Guild and the Department.

8.2 Recommendations

The NOVA evaluation team makes the following recommendations:

Recommendation 1: Program administration, structure and processes

The Program management and administration structure and processes should:

- maintain the quality and effectiveness of Program operation, project development and implementation, and funding acquittal and accountability, and should streamline and reduce the administrative burden of these requirements
- maintain the rigour of the research focus, capability and deliverables of the Program in respect of innovative research
- promote and support collaboration in primary health care with all major stakeholders in policy, service provision and practice
- establish and sustain clarity of focus on the roles and practice of community pharmacy and pharmacists in primary health care.

Recommendation 2: The Program focus

The Program should develop a sub-program structure to provide three areas of research and development focus. The three areas should be funded with program budget allocations based on a 20:40:40 apportionment:

I. *Innovation Research* for investigator initiated and/or small scale commissioned exploratory research, to investigate the potential for new roles and practice of community pharmacy in primary health care.

   Innovation Research would be required to meet NHMRC or similar standards, guidelines and be based on standardised research budgets and time periods.

II. *Developmental Research*, to further develop and consolidate the outputs of research undertaken to date and to assess the potential for the implementation of identified research project outputs into policy, funding and practice (using ARC standards and guidelines).

   Developmental Research would be required to meet ARC standards and guidelines and would be based on standardised budget guidelines and time periods.

III. *Implementation Research and Development* to guide and evaluate the integration of service and practice models developed through Innovation Research and Developmental Research.

   Implementation Research and Development would be required to meet Departmental guidelines and standards, and be based on standardised budget guidelines and time periods.

Recommendation 3: Program structure

The Program Structure should be redeveloped to comprise:

I. *Program Management Committee* with broad stakeholder representation; reporting to the Agreement Management Committee, and with responsibility to provide guidance and governance of the research objectives and activities of the Program.

II. *Technical Reference Groups* for each research stream (sub-program): Innovation, Development and Implementation. Technical Reference Groups would guide and govern the research objectives and activities of each sub-program or research stream; determine

the research topics to be commissioned; guide and govern the development of research briefs, mentor and monitor individual research activities and project teams. Technical Reference groups ould comprise:

- a convenor from the Program Management Committee
- research and evaluation experts from pharmacy, general practice, other primary health care and consumer health sectors
- relevant Department areas of research and development.

III. *A Critical Reference Group* of major stakeholders to meet annually with the Program Management Committee to inform and support the Program.

IV. *Project Advisory Groups*, to guide and support individual projects.

V. *Program evaluation* that is integrated within the Program and that provides for ongoing and iterative evaluation of

- project outputs and outcomes to identify the extent to which the objectives of the Program are achieved; and to inform the Program progress and activities
- the immediate and longer term applications and potential impacts of the Program projects and outcomes including the economic sustainability and consumer benefits of consolidation of outputs through further research and/or implementation strategies.

This structure would support the recommended sub-program approach to the Program and the research focus as follows:

Stream 1: **Innovative Research—**would be commissioned on the advice of the Program Management Committee following consultations on priority areas for innovative research relevant to the enhancement of pharmacy practice in primary health care

Stream 2: **Development**—would be commissioned on the advice of the Program Management Committee to address the principles of the Quality Care Pharmacy Program and build on previous R&D outputs and outcomes relevant to the continued enhancement and support of the role of pharmacy in primary health care in local communities.

Stream 3: **Implementation**—would be commissioned on the advice of the Program Management Committee and would build on findings of prior R&D projects as appropriate, and of the outputs of Stream 2 Development projects to augment, support and strengthen the capacity of pharmacy as a primary health care service and service provider within the primary health care service network. This Stream should also include an awareness campaign and an evaluation integral to the Program.

Recommendation 4: Program goal and objectives

The Program goal is appropriate.

The Objectives for the Program should be:

Objective 1: Enhance the capacity of community pharmacy and community pharmacists to contribute to maintaining and improving the health of Australians.

Objective 2: Develop and inform best practice professional and management standards and processes for delivery of cost-effective services.

Objective 3: Enhance and develop the role of the community pharmacist as a member of the health care team.

Objective 4: Develop and support skilled research expertise that focuses on community pharmacy in the health care team.

Recommendation 5: Program priorities

Research priority streams should be:

I. **Community pharmacy services**—quality use of medicines; standards of practice; new cognitive services, continuing care across the health system; chronic disease management.
II. **Community pharmacy infrastructure**—workforce, information management and coordination, change management.

The research priorities and questions within these priority streams should be developed through consultation with the recommended Critical Reference Group (Recommendation 3.iii) providing advice to the Program Management Committee; and direction from the Program Management Committee (Recommendation 3.i) to the sub-program Technical Reference Groups (Recommendation 3.ii), using the findings of this evaluation and the review of the Project Outputs and Contributions (see Chapter 5) as the background information and discussion framework.

Recommendation 7: Policy information process

A formal policy communication protocol and process should be established between the Guild and the Department, providing guidelines through which the Guild can liaise and engage with relevant areas of the Department in the identification of research need, the commissioning of research, and the research process and outcomes.

Recommendation 8: Communication strategy

A proactive communication strategy should be developed to communicate the work of the Program to all stakeholders, including the Department of Health and Ageing, community pharmacies, and pharmacists and health professional and consumer organisations.

9 References

Agency for Healthcare Research and Quality ((undated)). *Translating Research Into Practice (TRIP): Fact Sheet*.

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Hetzel, D. and J. Glover (2003). 'Is it working… together? Linking research, policy and practice in relation to children and health inequalities in Australia.' *Occasional Paper Series No. 3. Public Health Information Development Unit, Adelaide.*

National Public Health Partnership (April 2002). 'Schema for evaluating evidence on public health interventions: version 4 ' Retrieved June 2005, http://www.nphp.gov.au/workprog/phpractice/schema.htm.

Roughead, L., S. Semple and A. Vitry (undated). *The Value of Pharmacist Professional Services in the Community Setting - a systematic review of the literature 1990-2002*. A report commissioned by and prepared for the Pharmacy Guild of Australia by, Quality Use of Medicines and Pharmacy Research Centre, School of Pharmaceutical, Molecular and Biomedical Sciences, University of South Australia**:** p202.

Appendix 1. Documents Examined for Process Evaluation

Agreement Management Committee minutes and papers

Third Community Pharmacy Agreement between the Commonwealth of Australia and the Pharmacy Guild of Australia

Deed of Agreement between Commonwealth of Australia and the Pharmacy Guild of Australia for the Administration of Program Initiatives under the Pharmacy Development Program [2000-01]

Deed of Variation 6 August 2001

Deed of Agreement between Commonwealth of Australia and the Pharmacy Guild of Australia for the Administration of Program Initiatives under the Pharmacy Development Program [2001-02]

Deed of Agreement between Commonwealth of Australia and the Pharmacy Guild of Australia for the Administration of Program Initiatives under the Pharmacy Development Program 2002-03

Deed of Agreement between Commonwealth of Australia and the Pharmacy Guild of Australia for the Administration of Program Initiatives under the Pharmacy Development Program 2003-04

Pharmacy Development Program Agreement 2003/2004—Variation of Agreement (letter A. Rennie to S. Greenwood 28 April 2005)

Deed of Agreement between Commonwealth of Australia and the Pharmacy Guild of Australia for the Administration of Program Initiatives under the Pharmacy Development Program 2004-05

Variation to Pharmacy Development Program Agreement 2004/05 (letter A. Rennie to S. Greenwood 28 April 2005).

R&D Update: *Taking community pharmacy into the future*, Issue 1, June 2004

R&D Update: *Community pharmacy R&D delivering*, Issue 2, January 2005

R&D Update: *R&D produces results for community pharmacy*, Issue 3, March 2005

R&D Update: *Yet another step closer*, Issue 4, May 2005

Confidential contracts

Process for Commissioned Projects document

Program Plan: Research & Development (R&D) Grants Program (CPA R&D) [2005]

Health Economics Division Research and Development (R&D) Grants Standard Operating Procedures [2005]

Third Community Pharmacy Agreement Year 1 Report [15 August 2001]

Report on the Administration of the Program Initiatives under the Pharmacy Development Program—2001-2002 [August 2002]

Third Community Pharmacy Agreement Research and Development Program—2001-2002 Report

Progress Report on the Administration of the Program Initiatives under the Pharmacy Development Program—July to December 2002 [February 2003]

Third Community Pharmacy Agreement Research and Development Program—Six Monthly Report July—December 2002

Progress Report on the Administration of the Program Initiatives under the Pharmacy Development Program— July to December 2003 [February 2004]

Progress Report on the Administration of the Program Initiatives under the Pharmacy Development Program—2003-2004 [August 2004]

Third Community Pharmacy Agreement Research and Development Program—Six Monthly Report January—June 2003

Third Community Pharmacy Agreement Research and Development Program—Six Monthly Report July—December 2003

Third Community Pharmacy Agreement Research and Development Program—Six Monthly Report January—June 2004

Progress Report on the Administration of the Program Initiatives under the Pharmacy Development Program—July to December 2004 [February 2005]

Appendix 2. List of organisations and individual consulted as part of the evaluation

Individual Organisations	People
Australian Divisions of General Practice	Kate Carnell
	Rachael Yates
Consumers' Health Forum of Australia	Helen Hopkins
	Melanie Cantwell
Department of Health and Ageing	Round table (see below)
University Pharmacy Schools	Expert workshop (see below)
Pharmaceutical Society	Kerry Deans
Australian Association of Consultant Pharmacy	Bill Kelly
Health Technology Advisers	Adele Weston
	Sarah Norris
Pharmacy Guild of Australia	Dr. Lance Emerson
	Stephen Greenwood
	Wendy Phillips
	Jenny Bergin
	Dr. Simone Jones
	Erica Vowles
University of Sydney School of Pharmacy	Assoc. Professor Charlie Benrimoj
DoHA	John Primrose, DoHA rep. to R&D PMC and EAGs;
	Jacqueline Millard, Pathology Section
Experts Workshop	
University of South Australia	Professor Andrew Gilbert
University of Queensland	Professor Sue Tett
Pharmacist, NSW	Steve Carter
Chief Clinical Adviser, Metropolitan Health and Aged Care Services Division, Department of Human Services, Victoria	Helen Leach
Australian Divisions of General Practice	Mark Elliot, Senior Policy Officer
Pharmacist, NSW	Phil Dibbin
Consultant panel members:	
University of Canberra	Assoc. Prof. Gabrielle Cooper
University of Sydney	Prof. Shane Scott
Pharmacist and University of Sydney;	Rebekah Moles
Pharmacist	John Bell
NOVA Public Policy consultants	Mark Minford (Economist)
	Kate Moore (Project Manager)Rosemary Calder (Principal Consultant)
DoHA Round Table	
Pharmaceuticals Adviser	David Pearson
Pharmacy Development Section	Allan Neate
	Lanfeng Davis
	Diana Trionfi
Pharmaceutical Access and Quality Branch	Craig McGregor
Pathology Section	Jacqueline Millard
Food and Healthy Living Branch	Peter Innall
Special Needs Strategies Section	Fiona Campbell
NOVA Public Policy consultants	Kate Moore (Project Manager)
	Rosemary Calder (Principal Consultant)

Appendix 3. Summary of proceedings of roundtable with DOHA representatives

It was noted that while Departmental participants represented a range of Government programs and areas in which the Research and Development Program had funded projects—such as weight management, continence and pathology—several areas were not represented, and particularly areas of the Department managing the National Health Priority Areas such as asthma and diabetes.

Overall knowledge and perceptions of the Program

Participants reported a diversity of experiences of the Research and Development Program. Some of the research funded through the Program had been of high quality, provided good outcomes and had been useful in terms of policy and program development. However, in some projects there had been poor communication and liaison with the relevant area of the Department about the proposed research, and this had led to considerable problems. There needs to be stronger engagement between the Research and Development Program and the areas of the Department in which projects are funded.

The group considered that there is considerable potential to develop the role of community pharmacy with respect to many of the health programs conducted by the Department. There was some concern as the small business retail nature of community pharmacy could present a conflict of interest for pharmacies as some of the Departmental programs were aimed at changing lifestyles and did not involve the sale of products.

The Program generates a considerable workload for the Department. One staff member spends approximately 90% of their time on managing the contract, while other Departmental staff are concerned with particular aspects of the Program. In addition, one Departmental Medical Adviser has chaired all the Expert Advisory Groups (EAGs).

The Program's processes

Participants raised a number of issues in relation to the Program's processes. They suggested that:

- The Department needs to be more actively engaged in projects from the outset. The lack of engagement with the Department in relation to the research issues of concern to the Department has allowed the research agenda to be narrowly focused on pharmacy role and practice and not on the connections between and integration of pharmacy roles and practices within the primary health care service system
- Problems arise when there is no early interaction between the relevant Departmental area and a proposed project
- The Governance of the Program has not engaged with nor been effective in establishing connections with critical stakeholder services and organisations in the primary health care service system
- The EAGs need to be more actively engaged with projects in order to maximise their utility
- Stakeholder groups need to be broadened, and there need to be better consultative processes
- The processes around the drafting of Requests for Tender need to be strengthened. There were concerns that some of the RFTs were drafted too quickly, lacked rigour, and suffered from insufficient engagement with the relevant

areas of the Department. It was suggested that timing constraints may affect the quality of the RFT

- Papers are often late in coming, the Guild asks for responses within very short timeframes and Departmental changes to documents have sometimes not been incorporated
- Departmental officers are not kept sufficiently informed about the progress of particular projects. This is a particular problem in those projects that have relevance to an area of the Department that is not providing the funding for that project. There is a need for more regular progress reports, Expert Advisory Group meetings and a mechanism for regular feedback, such as email updates
- The Guild has one formal point of contact with the Department, through the Branch and the Department needs to provide better links within the Department for this program and between the Department and the Guild
- There are concerns at the extent to which a few projects have had very substantial budgets and others much smaller budgets without apparent assessment of relative benefit for the investments.

Outputs of the Program

Participants acknowledged that while a few projects had been very problematic, there had been some very good outputs from projects funded through the Research and Development Program. A number of issues were raised in relation to the outputs:

- The Department is not getting full benefit from the outputs of the Program. There is a need for more comprehensive and formal engagement by the relevant sections of the Department with this program and greater exchange between the Department and Guild.
- The Guild's main focus is on benefits for their members, i.e. community pharmacies, rather than on improving health outcomes of consumers.
- The usefulness of some projects is limited. For example, the Dose Administration Aids projects concentrated only on the aged care sector, when DAAs were likely to be very relevant and useful in other sectors such as Aboriginal and Torres Strait Islander populations.
- The research needs to broaden into areas such as hospital pharmacy in its role vis a vis patient admission from and discharge to the community
- Some reports are exceptionally useful, but the utility could be improved through better budgeting and better use of EAGs.
- The potential is there for beneficial outcomes, but poor communication hampers awareness, understanding and take-up.
- The focus should be on the role of pharmacy as part of the primary health multi-disciplinary team.

Impact of the Program

Departmental staff are aware of concerns by some health professions about the adequacy of training in some of the projects—in particular whether following training, pharmacists and pharmacy staff were providing correct advice. There was also a concern that what is missing is an assessment of the sustainability of the programs.

There was also discussion about barriers to the translation of research evidence into policies and programs. It was noted that much of the research has been conducted in a sort of vacuum, failing to take adequate account of existing programs, particularly

linkages to them. Projects must take account of existing Government priorities, policies, programs and national health priorities. Research that does not take adequate account of these factors is of limited value as it does not address issues regarding the policy formation and decision making process. The existing role of other players in the health sector must also be adequately taken into account and addressed at the time proposals are being formulated. It is also essential to consider implementation issues and funding implications.

Purpose of the Program

There was discussion about the purpose of the Program, and whether it is meeting the Department's objectives. Participants were not clear as to whether the Department's view was that the primary purpose was to inform and enhance the quality and evidence base of pharmacy practice, or whether it was a research and development program to change the function of community pharmacy.

The consensus was that the Program should be about both the quality of pharmacy practice, and the function of pharmacy in the community, but that the purpose needs clearer articulation. Its purpose is to skill the sector—to inform people working in the community. It should be gathering evidence of what works and on knowledge, skills and strategies required to enhance the capacity of community pharmacy as an integral component of the primary health care system, as well as on the development of user-friendly tools to put research evidence into practice.

The Pathology R&D Program has distinct and articulated purposes. Further information about this is to be provided to NOVA.

It was noted that while participants represented a range of Government programs and areas in which the Research and Development Program has funded projects such as weight management, continence and pathology, several areas were not represented and may be worth following up separately. They include the National Health Priority Areas such as asthma and diabetes.

Appendix 4. Summary of Proceedings of the Experts Workshop

A small group of representatives of key stakeholder organisations and sectors (listed in Appendix 2) were invited to attend an expert workshop, to assess the outcomes and impacts of the R&D Grants Program under the Third Community Pharmacy Agreement. The workshop was held in Sydney on 29 June 2005.

The impact, output and processes of the Program

The workshop started with a wide-ranging discussion about the processes, outputs and impact of the program.

Although there were some useful outputs of the Program, the workshop concurred that the impact of the program was inhibited by a number of factors:

- A lack of effective engagement with other stakeholders. Engagement with other stakeholders is considered essential if pharmacy is to be recognised and included as part of health care teams. The multi-disciplinary approach must be addressed because new pharmacy services cannot be developed in isolation from the health care system.
- The Program does not take account of developments in the wider health care system, and research is often conducted in isolation from other relevant research and programs. For example, the Program has funded a number of projects related to asthma that have not had further application. There is a need to consolidate this work, with key stakeholders, to turn it into practice.
- The Program needs to engage with relevant areas of the Department of Health and Ageing. It is funded out of the PBS Program, but its relevance is much broader. Greater efforts are needed to work across other program areas of the Department.
- The Program processes do not allow for effective collaboration, with the Expert Advisory Groups being too community pharmacy focused.
- The priority topic areas have been put together without appropriate consultation with other key stakeholders, including governments and consumers.
- The Program does not have a conceptual framework that provides a bridge from the research to implementation.
- There is a lack of dissemination of findings through academic publication.
- The results of the research are not reaching community pharmacies.
- The Program processes limit the outcomes from the projects. The timeframes for the research are too tight, and there is a level of micro-management of the projects that inhibits the flexibility that is necessary for good research.

Participants agreed that insufficient attention had been paid to economic evaluations of the research. The tight timeframes for the projects had not allowed for proper economic evaluations, because controlled trials had not been possible. Therefore, only cost comparisons had been undertaken.

There was agreement that it would be useful to look at the factors that had led to research funded through the Program being effective and leading to the development of government programs. Good examples of such research are the Home Medicines Review and the Schedules 2 and 3 research projects. These projects worked with the government, there was strong collaboration with other stakeholders, a strong consumer focus, appropriate methodology, incentives for pharmacy, and economic evaluation. They also resulted in financial savings to the health care budget.

Participants also discussed the current model of community pharmacy, and questioned whether the retail model provides too narrow a framework and if other models of pharmacy should be included in the program. They pointed to an increasing number of pharmacists who practised outside the retail area, or who provided services on a contract basis, or who worked with medical practices for a few hours each week, as in the UK.

It was suggested that future research could draw on the model provided by the National Medication Safety Collaborative. In the Collaborative approach, small teams work together, do a small study of a particular problem or area, take action based on that data, and then measure whether there has been an improvement. The teams come together in 'learning sessions' where they are able to learn from other teams, and receive support to develop their projects.

Participants saw the Breakthrough Collaborative model as being a potentially useful model for taking small pieces of research and working collaboratively with other stakeholders to turn the research into action.

Given that the Third Agreement has concluded, workshop participants agreed that there is now a need for a strategic compilation of research, and a consideration of whether there is support from other stakeholders, including government. They emphasised that what is now needed is a focus on implementation of the work relevant to the development of the role of the pharmacist in the health care team. Workshop participants regarded the particular priority areas as case conferencing, chronic disease management, and different practice models.

The future focus of the Program

Participants all considered that the next stage of the Research and Development Program should focus on consolidation of the research undertaken. The workshop recommended that the findings of all research conducted in the program to date be brought together and consolidated and further work be undertaken in three streams:

I. Innovative Research—focusing on pharmacy practice within primary health care
I. Development—of identified priority research outputs and outcomes to date, as trial or pilot models, through project work in two or more States and Territories
II. Implementation—of research outputs and outcomes to date that are capable of implementation and the outputs and outcomes of Development projects in health services such as HMRs, and to include critical implementation issues such as IT and software systems, policy and program frameworks.

Participants emphasised that both the Development and Implementation streams of the future Program should be conducted collaboratively with all relevant stakeholders and should be underpinned by an effective communication strategy.

Establishment of the Development stream priorities and work plan would require assessment of the research projects and outputs of all R&D Programs to date, to identify the outputs and outcomes that are capable or able to contribute to a second stage of developmental work. Participants envisaged that the work would focus on case conferencing and enhanced primary care, and would broaden to involve disease management and models of pharmacy practice.

Gaps in the knowledge base generated by the R&D Programs to date would be identified through this process and would provide the basis for a multi-disciplinary and multi-sectoral consultative process to identify a focused set of priorities for the Innovative Research stream. Workshop participants considered that a high priority would be to continue innovative research in the pharmacy role in continuity of care.

The Implementation Stream would consolidate and implement existing work through collaborative, multi-disciplinary and multi-sectoral approaches, to build capacity in pharmacy to engage in and participate in national health priority programs and in the primary health care system and as a primary health care service provider.

Participants identified two possible planning and structural options for the next Grants Program.

OPTION 1

Under this option, one of the three R&D Streams would be established in partnership with National Health and Medical Research Council (NHMRC) and all streams would be conducted contemporaneously through the term of the Program:

Stream 1—Innovative Research—would be commissioned by the Pharmacy Guild through the National Health and Medical Research Council (NHMRC) to focus specifically on high quality, academic and clinical best practice, rigorous research, and to:

- ensure a collaborative and multi-disciplinary framework to research
- provide the pharmacy program with academic rigour through the national benchmark program in clinical health research
- facilitate and promote the engagement of new and emerging researchers.

Stream 2—Development—would be underpinned by the Quality Care Pharmacy Program and would commission research and development projects that would build on previous R&D outputs and outcomes relevant to the continued enhancement and support of the role of pharmacy in primary health care in local communities.

Stream 3—Implementation—would build on findings of prior R&D projects as appropriate, and of the outputs of Stream 2 Development projects to augment, support and strengthen the capacity of pharmacy as a primary health care service and service provider within the primary health care service network. This Stream should also include an awareness campaign and an evaluation integral to the program.

OPTION 2

Under this option, the Pharmacy Guild would establish and support a multi-disciplinary and multi-sectoral Program Management Committee, representing all key stakeholder sectors and organisations, with Terms of Reference establishing three priority streams to be conducted contemporaneously through the term of the Program. The Program Management Committee would conduct a collaborative stakeholder consultation to review the knowledge generated by the Program so far for relevance and application to other services and stakeholder organisations in the primary health care system, and to identify the main areas for attention in each of the three Priority program streams.

> Stream 1—Innovative Research—would be commissioned by the Guild on the advice of the Program Management Committee following consultations on priority areas for innovative research relevant to the enhancement of pharmacy practice in primary health care.
>
> Stream 2—Development—would be commissioned by the Guild on the advice of the Program Management Committee, would address the principles of the Quality Care Pharmacy Program and build on previous R&D outputs and outcomes relevant to the continued enhancement and support of the role of pharmacy in primary health care in local communities.
>
> Stream 3—Implementation—would be commissioned by the Guild on the advice of the Program Management Committee and would build on findings of prior

R&D projects as appropriate, and of the outputs of Stream 2 Development projects to augment, support and strengthen the capacity of pharmacy as a primary health care service and service provider within the primary health care service network. This Stream should also include an awareness campaign and an evaluation integral to the program.

For both options, funds would be allocated at the outset of the Program to each of the three Streams, and the Program Management Committee would be provided with Terms of Reference that required a focus on a limited number of significant, consolidation projects in all three Streams. All work would be conducted through a collaborative, open and transparent process.

The Terms of Reference for the Program would be to:

- review all outputs and outcomes of previous R&D programs and other relevant research
- identify gaps and recommend new research, and
- identify work to progress to consolidation through further development and through pilot implementation.

Conduct of the Program

Participants agreed that the first step in developing the Research and Development Program would be a time limited, multi-sectoral and multi-disciplinary consultation to identify a maximum of three to five significant areas for consolidation through development and implementation (Streams 2 and 3).

The Program would be overseen by a Program Management Committee which would involve representatives of all significant stakeholders, including government, consumers and general practitioners. The Committee would report to the Agreement Management Committee. It could also establish working groups to oversee the three to five areas to be developed and implemented through Streams 2