Evaluation of the Residential Medication Management Review Program

Main Findings Report

Prepared for

Department of Health and Ageing
GPO Box 9848
Canberra ACT 2601

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Please note that, in accordance with our Company’s policy, we are obliged to advise that neither the Company nor any member nor employee undertakes responsibility in any way whatsoever to any person or organisation (other than the Department of Health and Ageing) in respect of information set out in this report, including any errors or omissions therein, arising through negligence or otherwise however caused.
# Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AACP</td>
<td>Australian Association of Consultant Pharmacy</td>
</tr>
<tr>
<td>Department</td>
<td>Australian Government Department of Health and Ageing</td>
</tr>
<tr>
<td>Division</td>
<td>Division of General Practice</td>
</tr>
<tr>
<td>DoN</td>
<td>Director of Nursing</td>
</tr>
<tr>
<td>DUE</td>
<td>Drug Usage Evaluation</td>
</tr>
<tr>
<td>GP</td>
<td>General Practitioner</td>
</tr>
<tr>
<td>HMR</td>
<td>Home Medicines Review</td>
</tr>
<tr>
<td>MAC</td>
<td>Medication Advisory Committee</td>
</tr>
<tr>
<td>MBS</td>
<td>Medicare Benefits Schedule</td>
</tr>
<tr>
<td>MMR</td>
<td>Medication Management Review</td>
</tr>
<tr>
<td>MPS</td>
<td>Multi Purpose Service</td>
</tr>
<tr>
<td>PBS</td>
<td>Pharmaceutical Benefits Scheme</td>
</tr>
<tr>
<td>PhARIA</td>
<td>Pharmacy Access/Remoteness Index of Australia</td>
</tr>
<tr>
<td>PPSAC</td>
<td>Professional Programs and Services Advisory Committee</td>
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<td>PSA</td>
<td>Pharmaceutical Society of Australia</td>
</tr>
<tr>
<td>QUM</td>
<td>Quality Use of Medicines</td>
</tr>
<tr>
<td>RMMR</td>
<td>Residential Medication Management Review</td>
</tr>
<tr>
<td>RN</td>
<td>Registered Nurse</td>
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<tr>
<td>SHPA</td>
<td>Society of Hospital Pharmacists of Australia</td>
</tr>
<tr>
<td>The Guild</td>
<td>The Pharmacy Guild of Australia</td>
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Executive Summary

Background

The Residential Medication Management Review (RMMR) Program was introduced in 1997 under the Second Community Pharmacy Agreement. The current RMMR Program aims to:

- Improve medication management for older Australians in Aged Care Homes\(^1\), including Multi Purpose Services, thereby reducing the risk of medication misadventure and related adverse events
- Promote the Quality Use of Medicines (QUM) in Aged Care Homes.

There are two major components of the RMMR Program. First, the Review of all medications for an individual resident and second, a separate QUM component for the Aged Care Home itself that includes the provision of education and training for staff, policy development and quality improvement for the Aged Care Home.

There are two types of Reviews: a Pharmacist Only Review and a Collaborative Review. The Collaborative Review entails an Accredited Pharmacist undertaking a Review for a resident in collaboration with a GP. Only one Pharmacist Only Review can be undertaken in a 12 month period.

RMMR Providers receive a fee of $130 for each Review. The Fee includes payment for the QUM component. GPs are eligible to claim a benefit through the Medicare Benefits Schedule for a Collaborative Review. At November 2008 the fee was $96.00 per Collaborative Review. The Medicare Benefits Schedule fee is indexed annually on 1 November.

Campbell Research & Consulting (Campbell Research) was commissioned to undertake an evaluation of the RMMR program in 2009.

This evaluation

This report presents the findings of the Evaluation of the Residential Medication Management Review Program, conducted by Campbell Research on behalf of the Australian Government Department of Health and Ageing (the Department). The evaluation took place between May 2009 and March 2010.

The objectives of the evaluation were to:

- Gain an improved understanding of the RMMR Program
- Inform the benefits of the RMMR Program
- Inform broader barriers and enablers to the RMMR Program – with a particular focus on the current arrangements

\(^1\) RMMRs were first targeted to high care residents in nursing homes. Since that time, through the Ageing in Place Program, Aged Care Homes may now have both high care and low care residents.
• Review the current funding and service model for the RMMR Program – with a particular focus on cost effectiveness, RMMR Program inputs and outputs, and informing future directions

• Review the provision of Quality Use of Medicines (QUM) services.

The methodology comprised consultation with stakeholders; site visits including consultation with Directors of Nursing (DoNs), Accredited Pharmacists, RMMR Providers and GPs across Australia (including remote and rural regions); a publicly advertised Call for Submissions; detailed diary based case studies of Accredited Pharmacists work; surveys of Accredited Pharmacists and GPs who had participated in an RMMR service and Aged Care Homes; and an analysis of RMMR claim data for claims made by RMMR Providers in 2008.

Key findings

1. The RMMR Program is meeting its objectives to improve medication management for older Australians in Aged Care Homes and to improve the Quality Use of Medicines (QUM) in Aged Care Homes.

It was generally accepted by all stakeholders that the RMMR Program has resulted in improved medication management and Quality Use of Medicines in Aged Care Homes. The RMMR Program has been effective in the delivery of RMMRs to residents of Aged Care Homes and for Aged Care Homes to improve the quality of medication care provided to residents. The Program has enabled the provision of the service across nearly all (97%) Aged Care Homes with 79 RMMRs being undertaken for every 100 residents nationally.

Directors of Nursing in Aged Care Homes were particularly positive about the RMMR Program. Accredited Pharmacists and RMMR Providers considered that the individual RMMRs provided a quality assurance process that facilitated the provision of quality medication care for residents of Aged Care Homes. GPs were generally supportive.

Many stakeholders identified opportunities to build on what is generally considered a successful and effective program.

2. Medication Reviews are an appropriate means of achieving quality medication management for residents of Aged Care Homes.

There was a consensus among the professional stakeholders participating in RMMRs (DoNs, Accredited Pharmacists, RMMR Providers, GPs) that Reviews conducted by Accredited Pharmacists were an appropriate means of achieving quality medication management for residents of Aged Care Homes. RMMRs were also considered to be effective in achieving improved medication outcomes for residents, particularly when conducted in collaboration between an Accredited Pharmacist and a GP.

3. Collaborative Reviews are more likely to result in medication changes, positive health outcomes and improved professional relationships.

A cost-effectiveness analysis, undertaken as part of this evaluation, found that Collaborative Reviews even though they incurred a higher cost to government with the MBS fee payable to the GP, resulted in a lower cost per achieved outcome (medication change) and health
outcome. Collaborative Reviews resulted in an estimated cost per medication change of $377 and an estimated cost per health outcome of $554, whereas the cost per Pharmacist Only Review was $433 per medication change and $637 per health outcome. It should be noted, however, that the data available for this analysis was limited.

Where collaboration was practised, GPs, Accredited Pharmacists and DoNs indicated that the collaboration extended beyond the simple Medication Review to include a more general collaborative relationship between the primary health professionals supporting residents of Aged Care Homes.

4. **There is scope to increase the proportion of Reviews conducted as Collaborative Reviews.**

Stakeholders (with the exception of some RMMR Providers and Accredited Pharmacists) agreed that there is scope to improve collaboration with GPs, and that improved collaboration would enhance positive health outcomes for residents.

Almost a third of GPs surveyed would like to have more Reviews conducted as Collaborative Reviews. Analysis of claim data reveal that just under one third (31%) of GPs were identified as participating in a Collaborative Review. Analysis of claim data found that Collaborative Reviews accounted for 38% of all RMMRs conducted.

The site visits, case studies and stakeholder consultations identified that the RMMR Provider, working closely with the Aged Care Home, was the main driver of Collaborative RMMRs. While GPs did refer residents to RMMR Providers, the preparation work to identify residents for RMMRs and notification of GPs was generally undertaken by the RMMR Provider.

The analysis of the diary based case studies found that Collaborative Reviews required 15-20 minutes more time from Accredited Pharmacists. This may act as a potential disincentive to some Accredited Pharmacists to increase the number of Reviews conducted as Collaborative Reviews.

As Collaborative Reviews take longer to perform and achieve better outcomes, consideration could be given to a differential payment model with an incentive of a higher fee for RMMR Providers to undertake more Collaborative Reviews.

5. **The current business rules are flexible and enable a range of models for RMMR providers.**

The current administrative arrangements are flexible, and facilitate a range of business models for RMMR Providers that enable Accredited Pharmacists to conduct the RMMRs. These business models include: pharmacies employing Accredited Pharmacists, owners of Section 90 pharmacies becoming accredited to undertake RMMRs themselves, Accredited Pharmacists operating as independent professionals, and companies established specifically for the purpose of providing Reviews.

Many supply pharmacies, that is, pharmacies with contractual arrangements to supply medications to Aged Care Homes, play an important role in the delivery of RMMR services. Sixty per cent of Accredited Pharmacists surveyed were working in supply pharmacies.
Not all Accredited Pharmacists provide RMMR services. The survey of Accredited Pharmacists identified that 40% had not undertaken a RMMR in the previous year. Existing RMMR Service Agreements were identified as the main barrier to undertaking RMMRs by these Accredited Pharmacists.

6. **The whole-of-facility QUM service is a valuable component of the Program.**

   The QUM component was considered to play an important role in the education and training of staff and the improvement of quality systems in Aged Care Homes. This component of the RMMR Program was particularly valued by DoNs of Aged Care Homes.

7. **Funding provided for QUM does not reflect whole-of-facility QUM services.**

   Views differed about whether the QUM component of the service should be separated from the Medication Review, thus allowing different service providers to conduct RMMR and QUM Services. Supply pharmacies, whether or not they were the RMMR providers were noted as being able to provide QUM.

   Currently, funding for the QUM component of the program is incorporated into the cost of Reviews, meaning notional QUM funding is linked to the number of Reviews conducted rather than the whole-of-facility QUM services that are provided. This could potentially be addressed in future arrangements by separating out a QUM fee from the Review fee. If such an approach was taken, consideration would need to be given as to whether the RMMR provider and QUM provider for a particular ACH would need to be the same entity.

8. **The administrative burden of the RMMR Program could be reduced by creating an online system for claiming, payment and submission of QUM reports.**

   A number of Accredited Pharmacists suggested that the claim process could be improved by allowing online submission of claims to Medicare Australia.

   Each component of the evaluation concluded that the current system of quarterly reporting of QUM activities was considered to be administratively burdensome. It was recognised, particularly by the peak bodies, that reporting was required for accountability of expenditure but it could be streamlined. Reporting could be redesigned to capture QUM services provided and measure any gaps in need.
Acknowledgements

Accredited Pharmacists, RMMR Providers, Directors of Nursing of Aged Care Homes and GPs, provided a substantial amount of support for the evaluation field visits and were open and cooperative. Campbell Research would like to acknowledge all those who gave their time for the purposes of contributing to the evaluation, including the peak bodies which assisted through distributing survey links on behalf of Campbell Research & Consulting. Thanks are also extended to the 67 submitters who put forward their views or those of the organisations and companies they represented, as part of the response to the Call for Submissions for this evaluation.

Professor Jim Butler of the Australian Centre for Economic Research on Health at Australian National University provided advice on the cost effectiveness analysis framework.
1. Background

The Residential Medication Management Review (RMMR) Program was introduced in 1997 under the Second Community Pharmacy Agreement\(^2\). The current RMMR Program aims to:

- Improve medication management for older Australians in Aged Care Homes\(^3\), including Multi Purpose Services, thereby reducing the risk of medication misadventure and related adverse events
- Promote the Quality Use of Medicines (QUM) in Aged Care Homes.

There are two major components of the RMMR Program. First, the Review of all medications for an individual resident and second, a separate QUM component for the Aged Care Home itself that includes the provision of education and training for staff, policy development and quality improvement for the Aged Care Home.

RMMRs for individual residents are undertaken by an Accredited Pharmacist who may be a RMMR Provider or engaged by an RMMR Provider. RMMR Providers may be pharmacies, Accredited Pharmacists or registered pharmacists.

Medication Management is an important element of providing quality care for residents and is one of the 44 Expected Outcomes required for the Accreditation of an Aged Care Home. The RMMR Program met a need for quality improvement in Aged Care Homes. Within a year of its introduction, 52% of eligible care Aged Care Homes had Service Agreements in place with RMMR Providers and the proportion of Aged Care Homes with Agreements has continued to increase.\(^4\)

Collaboration with general practitioners (GPs) has been identified as an important element for achieving effective outcomes. The 1999 evaluation of the RMMR implementation identified that there was a “not unexpected tension from some medical practitioners” and recommended strengthening collaboration between Accredited Pharmacists and GPs.

In November 2004, Item 903 was added to the Medicare Benefits Schedule to enable GPs to claim for initiating, referring and collaborating with an Accredited Pharmacist in a medication Review for an eligible resident of an Aged Care Home, and to prepare/revise a written medication plan for the resident with an Accredited Pharmacist.

There are two types of Medication Reviews currently funded under the RMMR Program:

- Pharmacist Only Reviews undertaken by an Accredited Pharmacist in the Aged Care Home. This type of Review does not require referral from a GP.

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\(^2\) Community Pharmacy Agreements are five year agreements between the Commonwealth and the Pharmacy Guild of Australia that primarily set out the remuneration pharmacists will receive for dispensing PBS medicines. Over time, these agreements have increased in scope to provide for professional pharmacy programs and service. The First Agreement commenced in 1990. The Fourth Agreement will lapse on 30 June 2010.

\(^3\) RMMRs were first targeted to high care residents in nursing homes. Since that time, through the Ageing in Place Program, Aged Care Homes may now have both high care and low care residents.

Collaborative Reviews undertaken by an Accredited Pharmacist on referral from the resident’s GP.

In 2007, the funding and administrative arrangements for the RMMR Program changed to include:

- A shift from a fee-per-bed payment model to a fee-for-service payment model
- Limiting payments for Pharmacy Only Reviews to one per resident per year
- A stronger focus on the requirement for Accredited Pharmacists to provide QUM services to Aged Care Homes. Such activities may include medication-related staff training, advice on specific drugs, and crushing, storing and handling medications.

The RMMR Program continued to be funded under the Third and Fourth Community Pharmacy Agreements. The Fourth Agreement commenced in December 2005 and will continue until June 2010. Funding of up to $66.75 million was initially allocated to the RMMR Program over the life of the Fourth Agreement. However, it is likely that expenditure will exceed this amount and will be in the order of $85 million. The additional expenditure is met through redirecting funding from other Fourth Agreement programs that have had lower expenditure than expected.

The RMMR Program is managed by the Department with payments made via Medicare Australia. RMMR Providers are eligible to be paid $130 for each Review. The payment is not indexed. The payment includes a component for Quality Use of Medicines services including education and training for staff, policy development and quality improvement in the Aged Care Home. RMMR Providers are responsible for payment of the Accredited Pharmacist who undertakes each RMMR.

GPs are eligible to claim a benefit through the Medicare Benefits Schedule for a Collaborative Reviews. At November 2008 the fee was $96.00 per Collaborative Review. The Medicare Benefits Schedule fee is indexed annually on 1 November.

As at December 2009, there were RMMR Service Agreements with 2,705 Aged Care Homes (97% of aged care homes) across Australia.
Evaluation objectives

In 2009, The Department commissioned Campbell Research & Consulting to undertake an evaluation of the RMMR Program. The objectives of the evaluation were to:

• Gain an improved understanding of the RMMR Program – with a particular focus on gathering accurate baseline data on who receives a service, what this service comprises and how it meets identified need/s and contributes to improved outcomes for residents, their carers, staff and GPs; and provide comment on anticipated data needs

• Inform the benefits of the RMMR Program – with a particular focus on identifying the key benefits, who benefits most from a RMMR service, what are the potential gaps, and what are the potential barriers to achieving these benefits

• Inform broader barriers and enablers to the RMMR Program – with a particular focus on the current arrangements, what encourages or discourages participation and collaboration, processes and administration associated with undertaking a Review and areas for potential improvement

• Review the current funding and service model for the RMMR Program – with a particular focus on cost effectiveness, RMMR Program inputs and outputs, and informing future directions

• Review the provision of QUM services – with a particular focus on the number and range of QUM services provided, whether QUM services generally are having an impact, which QUM services have the best impact/s or are most effective and what is good practice in terms of content and delivery.

Specific questions to be addressed included:

• What is the impact of the administration arrangements for Providers who participate in the Program, including a focus on:
  o The best balance between meeting accountability requirements and providing the RMMR services (administrative versus clinical time)
  o The streamlined processes with the new arrangements, such as payments, registration, and contractual relationships between Providers and homes.

• What is the impact of the administration arrangements on building and maintaining partnerships to promote the successful and effective provision of RMMR services, including a focus on:
  o Promoting collaboration and active participation/communication between those who participate in the Reviews – including staff, Providers, general practitioners, and the residents and carers
  o A particular focus on Collaborative Reviews, including barriers and other issues associated with promoting participation.

• What QUM services are provided under the Program, in particular:
o Is there a better definition of a QUM service, including what it does and (what it should) comprise
o How these are currently remunerated
o What comprises a good QUM service, including how this should be defined and what is good practice or acceptable
o What is the burden of QUM reporting, and what is the benefit.

• What is the impact of the administration arrangements on ensuring access and equity issues are addressed, including service provision and funding issues, such as for rural and remote areas and to particular population groups and regions.

These principles and questions have been addressed through a multi stage approach integrating qualitative consultations, surveys and a cost effectiveness evaluation. The evaluation has focused on outputs for the Program. Clinical outcomes of RMMRs have not been included in the scope of the evaluation.
2. Methodology overview

The evaluation has examined the effectiveness of the RMMR Program through stakeholder experience. The focus of this evaluation has been on the extent to which administrative arrangements, including funding and contractual relationships required, have facilitated an appropriate service model to deliver RMMRs by Accredited Pharmacists to residents of Aged Care Homes.

A mixed method approach was used. This approach comprised desktop research, surveys, in-depth consultations with stakeholder organisations and individual professionals involved in delivering RMMR services, a Call for Submissions, analysis of available RMMR Provider claim data and diary based case studies of Accredited Pharmacists’ working weeks.

Further detail on the methodology is provided in Appendix A.

Desktop research

Desktop research undertaken as part of this evaluation involved:

- A Review of background documents including material published on websites of key stakeholders, published literature and evaluations (including unpublished material)
- Analysis of de-identified data provided by the Department for RMMR claims paid to RMMR Providers between March 2008 and February 2009. (Appendix E)

A cost effectiveness analysis of the RMMR Program was undertaken focusing on inputs, the number of RMMRs, and outputs of changes made to medication per Review. The data were analysed separately for Collaborative and Pharmacist Only Reviews.

Qualitative research

Qualitative research was undertaken to provide an in-depth understanding of how the RMMR Program operated in the context of everyday professional practice. Stakeholder organisations were consulted to identify views at a broader level while site visits provided a perspective of everyday practice. A Call for Submission provided an opportunity for considered positions from stakeholder organisations, individual professionals and consumers not included in the site visits or stakeholder consultations. Qualitative research was as follows:

- Seven interviews were conducted with representatives from a range of peak bodies including those representing GPs, Accredited Pharmacists, community pharmacies, Aged Care Home providers and Medicare Australia
- A total of 53 site visits were conducted in New South Wales, Victoria, Queensland, Western Australia, South Australia and Tasmania. Locations included a range of regions and provided exposure to a diversity of models. They included rural, remote and outer metropolitan regions, areas characterised by high and low socio-demographic characteristics and regions with high and low numbers of residents in Aged Care Homes. The site visits included discussions with more than one person. The visits comprised 19
Accredited Pharmacists, 18 Directors of Nursing (or their equivalent) at Aged Care Homes, including four Multi Purpose Services (MPS), 11 GPs, 5 pharmacists from supply pharmacies and companies providing RMMR services.

- A Call for Submissions was advertised in *The Australian* newspaper on 18 July 2009. A total of 67 submissions were received. (See Appendix B)

- Sixteen case studies of Accredited Pharmacists based on diaries to identify actual time and resources spent on RMMRs, supplemented by qualitative interviews with Aged Care Home Directors of Nursing (DoNs) and GPs related to each case study (See Appendix C).

- A case study of Medication Reviews was also conducted in a non-accredited indigenous Aged Care Home.

**Quantitative surveys**

To measure the perceptions of effectiveness of the RMMR Program, outcomes of the RMMR service, benefits and gaps in service provision, the following surveys were conducted:

- An online survey of 338 Accredited Pharmacists drawn from the population of Accredited Pharmacists

- Paper-based self-completion surveys of:
  - 381 GPs who had claimed for a Collaborative Review (MBS Item 903) in the previous 12 months
  - 333 Aged Care Homes completed by the DoN or equivalent.

A more detailed report of the survey results is included at Appendix D.
3. Incidence of RMMRs by state and territory

At 30 June 2008, there were 157,087 permanent residents in Aged Care Homes. In 2008 123,339 RMMRs were claimed (Table 1). At the national level, RMMRs were provided to residents at a rate of 79 Reviews per 100 residents per year. The number of RMMRs per 100 residents varied by State and Territory, with the highest rate reported in Tasmania (90) and the lowest in the ACT (66).

### Table 1: Number of RMMR Providers, Reviews and rates by jurisdiction (2008)

<table>
<thead>
<tr>
<th>State / Territory</th>
<th>Residents in ACHs⁵</th>
<th>RMMR Providers</th>
<th>Total RMMRs</th>
<th>RMMRs per 100 residents</th>
<th>Reviews per RMMR Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>53,593</td>
<td>140</td>
<td>40,061</td>
<td>75</td>
<td>268</td>
</tr>
<tr>
<td>Victoria</td>
<td>40,457</td>
<td>171</td>
<td>33,556</td>
<td>83</td>
<td>182</td>
</tr>
<tr>
<td>Queensland</td>
<td>28,287</td>
<td>62</td>
<td>23,727</td>
<td>84</td>
<td>470</td>
</tr>
<tr>
<td>South Australia</td>
<td>15,393</td>
<td>73</td>
<td>11,492</td>
<td>75</td>
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<td>Western Australia</td>
<td>13,209</td>
<td>38</td>
<td>9,416</td>
<td>71</td>
<td>241</td>
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<tr>
<td>Tasmania</td>
<td>4,172</td>
<td>31</td>
<td>3,745</td>
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<td>Australian Capital Territory</td>
<td>1,597</td>
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<td>1,049</td>
<td>66</td>
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<tr>
<td>Northern Territory</td>
<td>379</td>
<td>2</td>
<td>293</td>
<td>77</td>
<td>147</td>
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<tr>
<td><strong>Australia</strong></td>
<td><strong>157,087</strong></td>
<td><strong>520</strong></td>
<td><strong>123,339</strong></td>
<td><strong>79</strong></td>
<td><strong>237</strong></td>
</tr>
</tbody>
</table>

Source: RMMR claim data for 2008

These data reflect only those RMMRs which were conducted during the calendar year of 2008. These analyses are based on claims data provided by the Department. It is known that there is sometimes a delay between the delivery of RMMR, and lodgement of a claim. Therefore, it is possible that the numbers quoted herein do not truly represent the total number of RMMRs conducted during 2008 as not all Reviews conducted in 2008 may have been claimed in the period covered by the dataset.

A total of 520 RMMR Providers claimed for at least one RMMR during 2008. On average, there were 237 RMMRs claimed per Provider for the 2008 period. The highest average number of RMMRs claimed per RMMR Provider in a jurisdiction was in Queensland (470 RMMRs per...
In Queensland it was identified that a small number of Providers were conducting a substantial number of Reviews.

De-identified data provided by the Department for RMMR Provider claims for the calendar year of 2008, were analysed to calculate the number of GPs identified by Accredited Pharmacists as participating in a Collaborative Reviews\(^6\). These data were also used to calculate and the proportion of RMMRs conducted as Collaborative Reviews (Table 2).

<table>
<thead>
<tr>
<th>State</th>
<th>Collaborative Reviews</th>
<th>% of all RMMRs as Collaborative</th>
<th>GPs participating in Collaborative Reviews(^7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Tasmania</td>
<td>2,727</td>
<td>73%</td>
<td>364</td>
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<td>Northern Territory</td>
<td>175</td>
<td>60%</td>
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<td>Victoria</td>
<td>14,418</td>
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<td>New South Wales</td>
<td>15,951</td>
<td>40%</td>
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<td>Queensland</td>
<td>9,508</td>
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<td>Western Australia</td>
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<td>23%</td>
<td>246</td>
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<tr>
<td>Australian Capital Territory</td>
<td>215</td>
<td>20%</td>
<td>72</td>
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<tr>
<td>South Australia</td>
<td>2,201</td>
<td>19%</td>
<td>337</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
<td><strong>47,407</strong></td>
<td><strong>38%</strong></td>
<td><strong>7,021</strong></td>
</tr>
</tbody>
</table>

Source: RMMR claim data for 2008

It is noted that these analyses do not represent the actual claims made by GPs for Item 903. The data represent the GPs who were identified as part of the RMMR claim by the RMMR Provider where a Collaborative Review was conducted. It is noted that not all GPs claim for Collaborative Reviews. It is also a finding of this evaluation that Accredited Pharmacists are generally the initiator of Collaborative Reviews.

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\(^6\) The data for GPs participating are derived from the RMMR Provider claim data from Medicare Australia. Those data include the de-identified provider number for GPs. From the consultation it was observed that Accredited Pharmacists were initiating many of the Collaborative RMMRs and referral was obtained after the review. The term ‘participating’ has been used rather than ‘referral’ to reflect this finding.

\(^7\) The GP population data was sourced from the Primary Health Care Research & Information Service (PHC RIS 2009).
In 2008, a total of 47,407 RMMRs were recorded as Collaborative Reviews: just under four in ten (38%) of all RMMRs. The proportion of reviews conducted as Collaborative Reviews varied between the states and territories. Collaborative Reviews accounted for as many as 73% of all RMMRs in Tasmania and as few as 19% in South Australia.

In total, 7,021 individual GPs were identified by Accredited Pharmacists as participating in at least one Collaborative Review. This represents 31% of all Australian GPs. Participation varied by state, with the highest proportion of GPs who participated in a Collaborative Review being in Tasmania (67%).

Providers can be segmented by the proportion of Collaborative Reviews undertaken. Half (50%) of RMMR Providers conducted a low proportion (less than 30%) of Reviews as Collaborative Reviews. These included:

- 21% of all Providers that conducted no Collaborative RMMRs at all
- 34% of all Providers that conducted less than 10% as Collaborative

One in three (28%) Providers conducted a high proportion (more than 70%) of their Reviews as Collaborative. These included:

- 15% that conducted more than 90% of their Reviews as Collaborative

There was a large number of GPs participating in a relatively small number of Reviews compared to a small number of RMMR Providers undertaking a larger number of RMMRs. In total, 7,021 GPs participated in a Collaborative Review in 2008. Nationally, GPs participated in 6.79 RMMRs per GP (compared with 237 RMMRs per RMMR Provider).
The majority of all claims for RMMRs were made in Metropolitan regions, with the fewest made in the Remote regions.

- Metropolitan regions accounted for 79% of all claims made
- Metropolitan / Rural regions accounted for 6% of all claims made
- Rural regions accounted for 13% of all claims made
- Rural / Remote, accounted for 2% of all claims made
- Remote regions accounted for 0.1% of all claims made.

Figure 2: RMMR claims by region, state and territory

Source: RMMR claim data for 2008

The distribution of RMMRs closely mirrors the distribution of aged care residents in Australia. Data from the Australian Institute of Health and Welfare\(^8\) show that:

- 68% of residential aged care residents reside in an Aged Care Home in a major city of Australia
- 23% in an inner regional area
- 8% in an outer regional area
- 1% in a remote area
- Less than 1% in a very remote area.

\(^8\) Rural / Remote and Remote regions have been combined as “Remote”.

\(^9\) Australian Institute of Health and Welfare (2009). Residential aged care in Australia 2007–08, a statistical overview. The distribution of residents used in the AIHW is based on the Australian Standard Geographical Classification. Rural, Remote and Metropolitan Areas system used in the analysis of RMMR distribution. While not exactly comparable the broad distribution is similar.
Are RMMRs reaching residents who need them?

The site visits, stakeholder interviews, submissions and surveys identified circumstances when a RMMR was considered to be most beneficial by stakeholders. These were on admission to a new Aged Care Home and following discharge from an acute hospital.

Patients who are transferred to a residential facility, usually following a hospital visit, often miss out on a medication Review because their status is not clearly defined.

(Accredited Pharmacist)

As noted above, there were 79 RMMRs per 100 residents and considerable variation in the coverage of residents by state and region. The survey of DoNs found that RMMRs are, for the most part, reaching residents when they are required. Three quarters (74%) of DoNs surveyed thought that medication Reviews were always conducted when required.

However, close to a quarter of those surveyed considered that at least some residents were not getting an RMMR when they needed one.

One third (34%) of DoNs noted particular types of residents did not get access to a RMMR when they needed one. This included:

- Those recently discharged from hospital, mentioned by 14%
- Those who have recently entered an Aged Care Home, mentioned by 14%
- Residents with complex medication needs, mentioned by 8%.
4. **Understanding the RMMR Program**

The following section provides a review of the operation of the RMMR Program, concentrating on Medication Reviews provided for individual residents. The QUM component is dealt with more fully in Section 9.

4.1 **Service Agreements**

A service agreement is signed between an RMMR Provider and an ACH for the provision of RMMR and associated QUM services. The agreement must be approved by Medicare Australia before RMMRs can be conducted.

Not all Aged Care Homes are involved in negotiating service agreements. Where a Provider of Aged Care services has a number of Homes, the contract for RMMR services will usually be arranged across a number of Homes, often through a tender process. One DoN explained that the contracts were managed by the Aged Care Provider:

> We have a head office that looks into all that kind of thing and negotiates from the power of having 15 or 20 facilities, they do that with our contracts, they do that with our suppliers, in lots of cases it enables us to give the best at the lower price.

*(DoN)*

4.2 **The process of conducting a RMMR**

The administrative requirements of the RMMR Program enable considerable flexibility of business models that can be used to deliver the service. The primary requirement is that the person undertaking RMMRs is an Accredited Pharmacist.

RMMRs are scheduled by the Accredited Pharmacist with the Aged Care Home. Generally, residents eligible for a RMMR are identified by the Accredited Pharmacists from lists provided by the Aged Care Home.

For the most part, GP involvement in Collaborative Reviews is driven by the Accredited Pharmacist, although GPs also on occasion initiate RMMRs. Accredited Pharmacist will generally contact the GPs by fax prior to undertaking the RMMR. The vast majority (75%) of GPs surveyed who had billed for a Collaborative Review considered the RMMR to be valuable to themselves and to their patient.

The Accredited Pharmacists usually undertake a number of Reviews at each visit. The core of the RMMR is reviewing the patient file including the medication chart, dispensing histories, case notes, admission assessment and discharge reports where the patient had been admitted to a hospital.

Generally, when and Accredited Pharmacist undertakes an RMMR they work at a nurse’s station or another room in the Aged Care Home.
4.3 Sources of information used when conducting a RMMR

The information used by Accredited Pharmacists for a RMMR includes medication chart, dispensing histories, admission summaries and hospital discharge summaries from the resident file are reviewed on site. In some cases, the resident’s files are copied and taken elsewhere to be reviewed. Accredited Pharmacists discuss any recent issues relating to the resident with the nurses. Some of the issues considered are: falls, mobility, behaviour, eating patterns and responsiveness.

Where Accredited Pharmacists obtained the dispensing histories for the resident they collaborated with the supply pharmacy. This was more likely to occur when the supply pharmacy was also the RMMR Provider. In the course of the site visits, substantial variation in the approach to the dispensing histories was identified. Not all Accredited Pharmacists contracted through a supply pharmacy seek dispensing histories and many who are not contracted through a supply pharmacy do seek dispensing histories. Accredited Pharmacists reported speaking to the dispensing pharmacist or the GP to clarify a matter when necessary.

Once the Review was completed, the RMMR report is generally given to the nursing staff at the Aged Care Home. Most Aged Care Homes stored the report in residents’ files, taking note of:

- Advice directly applicable to the Aged Care Home eg. resident could benefit from crushed medication, change of process/procedure required to ensure medication is taken with food
- Advice/recommendations for the GP.

Findings arising from the RMMR also informed broader QUM issues for the Aged Care Home, including:

- Identification/delivery of education to the Aged Care Home (as part of the associated QUM service)
- Identification of process issues for discussion in the Medication Advisory Committee meetings which are held at most Aged Care Homes.

As well as the formal Collaborative RMMR, a range of communication channels with GPs was identified. In most cases the report was sent to ACH. The GP was either copied directly by the Accredited Pharmacist or ACH or the report was provided to him/her by nursing staff at his/her next visit.

In some instances the RMMR report was sent directly to the GP by the Accredited Pharmacist, particularly when the Review is Collaborative. Some ACHs and GPs preferred the reports to be available for review at the ACH. Where the Accredited Pharmacist identified action for the GP, some ACH faxed or rang the GP (if urgent) to check if he/she wished to revise medications/management. In settings where the GP and Accredited Pharmacist were well known to each other, the pharmacist also checked with the GP directly via email or phone.

Further details on the processes involved in conducting RMMRs are contained in the diary-based case studies (Appendix C).
4.4 The resident

The Pharmaceutical Society of Australia (PSA)\(^{10}\) Guidelines suggest that assessment of the resident will optimise the identification and resolution of medication-related problems. However, the qualitative research identified that assessment of the resident by the Accredited Pharmacist was not common practice. Accredited Pharmacists who did meet with, or observe, individual residents, indicated that it took more time to conduct those RMMRs. Assessment of the resident was generally done in the context of a Collaborative Review, rather than a Pharmacist Only Review. Even so, only a small proportion of Collaborative Reviews tended to involve the Accredited Pharmacist seeing the resident. Low care residents were more likely to be seen by the Accredited Pharmacist, although some Accredited Pharmacists identified value in observation of high care residents:

If a resident is cognitively impaired, that is an added reason why you should see them when doing their Review, as it can tell you so much.
(Accredited Pharmacist – RMMR Provider)

In a number of the diary-based case studies, Accredited Pharmacists did note that they had met with the residents. However, a patient Review by individual Accredited Pharmacists while considered as ideal was limited in everyday practice by the time required to meet with the resident and the level of remuneration.

The patients in aged care facilities are often more complex than those still living in the community but I cannot afford to allocate the time and effort I would like to give to the task because of inadequate remuneration.
(Accredited Pharmacist – RMMR Provider)

In an ideal world I would like to make a patient interview part of the Review but this is not possible under the current model and remuneration structure.
(Accredited Pharmacist – RMMR Provider)

In the case studies, some Accredited Pharmacists had a policy not to review residents at all, while others would see only low care residents.

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5. Effectiveness of RMMRs

The evaluation has examined the way in which the RMMR Program has met the needs of residents and Aged Care Homes and the extent to which the Program has contributed to improved outcomes for residents through the perspective of GPs who have collaborated with Accredited Pharmacists on RMMRs, DoNs who are responsible for the resident’s everyday care and the Accredited Pharmacists who are responsible for conducting the RMMRs.

Professionals involved in service delivery have found the RMMR program to be effective. This finding has been supported across the stakeholder consultations, site visits, case studies and surveys. It was also found that the RMMR Program has encouraged collaboration between the professionals providing care for the patient. This collaboration frequently involved the supply pharmacist as well as the nursing staff at the Aged Care Home, the GP and the Accredited Pharmacist.

What are the benefits and who benefits most

Aged and Community Services Australia, the peak body representing not-for-profit Aged Care Homes has summarised the key benefits of RMMRs as:

- Improved clinical outcomes for residents, especially where it is a Collaborative RMMR; and enhancing knowledge and skills of staff, where education and training are a key component of the Program, which then has the potential for positive flow-on effects for residents.

  (Aged and Community Services Australia)

Similarly, bodies representing consumers identified a positive role for RMMRs:

- RMMR is an excellent tool for people with dementia or cognitive impairment who are vulnerable, and unable to self manage their medications, seek advice etc.

- Many commonly used medications for common conditions have adverse effects on cognition which exacerbate existing problems and reduce any potential benefit from the Alzheimer medications.

  (Alzheimer’s Australia)

5.1 The GP view

GPs considered that RMMRs were beneficial, but considered that the benefit was reduced without their involvement:

- Our GP members report that where pharmacists initiate a RMMR without significant GP input, clinically relevant information is often overlooked…

  (Australian Medical Association)

GPs who had conducted a Collaborative Review reported that RMMRs led to positive health outcomes, considered their involvement in any medication Review to be important and indicated strong, but not universal, support for Collaborative Reviews.

Most (84%) of the GPs surveyed believed the RMMRs were of some value to their patients and some value to them as a GP (85%), with a third saying they were very valuable. A small
minority (14%) of GPs believed that RMMRs were of no value to them as a GP or the resident. Rural and remote GPs were the most likely to see RMMRs as being of value. Just over two in five (43%) GPs in rural/remote areas believed the RMMRs were very valuable to their patients. In contrast, only three in ten metropolitan GPs (31%) and GPs in regional centres (31%) considered RMMRs to be of value to their patients.

Three-quarters (76%) of the GPs surveyed said that the Accredited Pharmacists had identified adverse drug events for their patients in Aged Care Homes in the previous 12 months. A quarter (24%) of the GPs said that the RMMRs did not identify any adverse drug events for patients in Aged Care Homes. Three in five (60%) GPs agreed that RMMRs had led to positive health outcomes for residents.

RMMRs were considered by GPs to be most useful in providing recommendations around the cessation of medicine, changing the mode of administration of a medicine and decreasing dosage. The least useful recommendations for GPs were those relating to commencing new prescription or non-prescription medications and increasing dosage.

GPs did not consider that RMMRs should take place independently of their involvement. Almost all GPs (95%) believed it was essential that GPs are involved in the Review process.

GPs involved in Collaborative Reviews considered RMMRs to be effective in achieving positive health outcomes for residents.

5.2 The Director of Nursing view

The evaluation found most DoNs (or their equivalent) within Aged Care Homes considered that RMMRs were making a strong contribution to improving medication management for residents. This support was expressed during interviews with stakeholders at the commencement of the evaluation; in qualitative interviews during field visits; in submissions received for the evaluation; in the interviews conducted as part of the diary-based case studies, and in the quantitative analysis of the survey of DoNs in Aged Care Homes.

The DoNs regarded the RMMR Program highly. They valued both the Medication Reviews for individual residents and the QUM component that supported education and training of staff, quality improvement and procedures were valued. In the course of the site visits, DoNs reported that the individual medication Reviews and collaboration between the Accredited Pharmacist and staff at the Aged Care Home led to an ongoing relationship that contributed to improvement in the quality of medication care for residents.

Where RMMRs were conducted thoroughly and with a high degree of collaboration with the Aged Care Home and the GP, Aged Care Home staff considered RMMRs to be an invaluable tool in providing quality medication management for residents.

Most DoNs saw great value in the RMMRs even for Pharmacist Only Reviews when there was little or no GP interaction. The DoNs considered the Reviews themselves contributed to nurse
education on medication management. More specifically the education and training provided to
the Aged Care Home under the QUM component of the RMMR contract was highly valued as a
tool that improved staff competency and quality of care. Some DoNs indicated that the RMMR
Program was not well integrated with Expected Outcomes under the current accreditation
process for Aged Care Homes.

DoNs reported that Aged Care Home staff benefited in the Medication Review reports prepared
by the Accredited Pharmacist. Almost two thirds (63%) rated them very useful for informing the
medication management of residents, and another quarter (27%) rated them as useful. Identification of adverse drug events for residents was a frequently mentioned outcome of
RMMRs. Two-thirds (67%) of staff believed that an Accredited Pharmacist had identified an
apparent adverse drug event in the previous 12 months.

- Almost half (46%) indicated that there had been an adverse drug event
  identified 1 to 5 times in the previous 12 months
- 13% noted an apparent adverse drug event had been identified between 6
  and 10 times

Three in four (75%) DoNs agreed that as a result of RMMRs, changes made to medication
resulted in positive health outcomes for residents. On the other hand, a small minority (7%) felt
that the changes had resulted in negative outcomes.

5.3 The Accredited Pharmacist view

Outputs and, where possible, outcomes of RMMRs were explored through the online survey of
Accredited Pharmacists who had been reimbursed for a RMMR in the previous 12 months. The
survey canvassed the prevalence of adverse drug events (as reported by the Accredited
Pharmacist), recommendations that had arisen from RMMRs, and the resulting reported health
outcomes for residents. The Accredited Pharmacists who responded to the survey indicated
that their experience was that RMMRs identified adverse drug events, provided information for
GPs to act upon and informed changes to medications being used by residents of Aged Care
Homes.

Accredited Pharmacists reported that adverse drug events were commonly identified through
RMMRs. One quarter (24%) of Accredited Pharmacists reported they had identified more than
30 such events from the RMMRs in the previous 12 months through a RMMR. The remainder
reported adverse events less frequently:

- 45% of Accredited Pharmacists indicated that there had been an adverse drug
  event up to ten times in the year
- A quarter (24%) noted an adverse drug event between 11 and 30 times.

Most Accredited Pharmacists considered that GPs acted on their recommendations some (52%)
or most (37%) of the time. Very few (2%) considered that GPs always acted on the
recommendations. One in ten (9%) Accredited Pharmacists believed that GPs rarely acted on
the recommendations following a RMMR.
The most common recommendations of the Reviews reported by Accredited Pharmacists were:

- Cessation of a medicine (34% had recommended this in more than 30 percent of the RMMRs they had conducted and 19% had done so for 10 percent or fewer cases)
- Decrease of a medicine dose (28% had recommended this in more than 30 percent of the RMMRs).

Accredited Pharmacists were overwhelmingly positive about the health outcomes of RMMRs. Almost all (90%) agreed that as result of RMMRs, changes made to medication resulted in positive health outcomes for residents.

**Impediments to achieving RMMR benefits**

Through this evaluation, it was identified that there was some variability in approach taken to RMMRs. There was a proportion of Accredited Pharmacists who offered a far less comprehensive service and tended to take what could be described as a ‘high throughput’ approach, while others took an approach which entailed fewer RMMRs over similar periods of time. The latter had a lower financial return. In general the difference in approaches correlated with the extent to which the Reviews were conducted as Collaborative or Pharmacist Only. The Case Studies identified that Accredited Pharmacists with high proportions of Collaborative Reviews generally took more time conducting the Reviews and offered a service which was more likely to be openly supported by the GP.

The approach taken to RMMRs often varied greatly, even between Aged Care Homes in a small area. The differences were determined by the Accredited Pharmacist in each case. Differences also occurred between the services offered by different Accredited Pharmacists employed by a single RMMR Provider. In other cases, there appeared to be considerable and well-managed consistency where multiple Accredited Pharmacists were employed by a single RMMR Provider.

Quantitative analysis of the RMMR Provider claim data provided for this evaluation, as well as the analysis of the quantitative surveys, revealed a polarisation in the conduct of RMMRs. This mirrored the findings of the qualitative phases of the evaluation, where sharp differences in approach were encountered.

**5.4 Future directions**

The focus of this evaluation has been on the effectiveness of the Program. The clinical effectiveness of RMMR has been identified through the experience of GPs, Accredited Pharmacists and DoNs. The previous evaluation incorporated analysis of clinical outcomes but did not identify any impact on cost savings resulting from medication changes. Nearly all professionals in the current evaluation who were involved in providing RMMRs reported the Reviews were effective in achieving clinical outcomes. The outcomes included changes being made to medications and improved quality of medication care.

Consideration could be given to the development of reporting and data collection tools that would provide a more objective measure of the impact of the Program on resident's health. This may involve linkages to other data sources such as acute hospital admissions from residents of Aged Care Homes.
6. Business models developed under current administrative arrangements

The administrative rules for RMMRs allow flexibility in business models for RMMR Providers to enter into service agreements with Accredited Pharmacists. The Agreements themselves provided a stable business foundation. This stable foundation also facilitated the development of ongoing collaborative relationships between the Accredited Pharmacist, GP and Aged Care Home staff. The business models included Accredited Pharmacists working as independent consultants, pharmacies that supply medications to Aged Care Homes employing Accredited Pharmacists to conduct Reviews, and businesses established by pharmacists specifically to provide RMMR services.

The current administrative arrangements have facilitated a diversity of business models for the provision of RMMRs.

Close to two thirds (64%) of the Accredited Pharmacists surveyed who had conducted a RMMR in the previous 12 months were engaged by a RMMR Provider that was a supply pharmacy:

- Two in five (43%) Accredited Pharmacists indicated that all of the RMMRs that they conducted were for a supply pharmacy RMMR Provider
- One in five (21%) noted that some of the RMMRs were for a supply pharmacy RMMR Provider
- Just over one third of Accredited Pharmacists (36%) were working under a business model that was separate to the pharmacies that were supplying the medications to the Aged Care Homes.

6.1 Access to service provision by Accredited Pharmacists

The limited turnover in Service Agreements between RMMR Providers and Aged Care Homes restricted access to service provision by Accredited Pharmacists. Once a contract had been signed, individual Accredited Pharmacists were not in a position to become a Provider until a contract is open for tender, although they may do so on behalf of an existing Provider. This has resulted in a degree of underutilisation of the workforce.

From the survey data (see Appendix D) it was estimated that four in ten (40%) Accredited Pharmacists had not undertaken a RMMR in the previous year. Those not conducting RMMRs cited existing Service Agreements between other RMMR Providers and Aged Care Homes as the main reason (53%). Lack of time (29%), lack of interest (17%) and RMMRs not being perceived as profitable (16%) were also identified as reasons for Accredited Pharmacists not conducting RMMRs.

The survey of Accredited Pharmacists asked those not providing RMMRs to identify changes required for them to become actively involved in service provision. The main changes identified were for more RMMR Provider agreement opportunities to arise (56%) and for more of their
time to be available for them to conduct RMMRs (50% stated this reason). Just over one third of respondents (35%) mentioned that the payment for RMMRs would have to increase.

For the three in five (60%) Accredited Pharmacists who had conducted an RMMR in the previous 12 months, there was considerable variation in the volume of RMMR work. One in three (33%) of those doing Reviews conducted one a week or less while a further third (34%) reported conducting five a week or more. Those working in regional, rural and remote regions were more likely to report doing a small number of Reviews.

These findings were confirmed by the Analysis of RMMR Provider claim data from the Department.

6.2 RMMR claim and payment processes

Medicare Australia is responsible for processing and approval of payments of claims made by RMMR Providers who have a valid Service Agreement with an Aged Care Home according to published guidelines. Where Accredited Pharmacists are subcontracted by a RMMR Provider it is the responsibility of the RMMR Provider to make payments to the Accredited Pharmacist. The case studies identified the proportion of RMMR fees paid to subcontracted Accredited Pharmacists varied from 73% of the RMMR payment to the entire $130.

Accredited Pharmacists consulted in the course of the qualitative research identified problems associated with the administration of payment of RMMR claims by Medicare Australia. The increased administrative burden was commonly cited by RMMR Providers. More specifically:

- The requirement to confirm details such as the birth date of the resident or the Medicare number
- The rejection of RMMR claims if the resident had received a RMMR within the previous 12 months at the same Aged Care Home, where the previous claim was not able to be determined by the Accredited Pharmacist (often due to the absence of records of Reviews of a previous RMMR Provider, following a change of service agreement)
- The rejection of RMMR claims if the resident had received a RMMR within the previous 12 months, while living at another Aged Care Home.

An analysis of the RMMR Provider claim data identified that 3% of claims were rejected. Accredited Pharmacists that were working independently found the administrative burden of claiming, particularly when claims were rejected, to be frustrating and time consuming.

The most common reasons for claims being rejected related to resident eligibility where:

- The pharmacist had conducted a Review within twelve months of previous RMMR Service (74%)
- The patient had no entitlements on the Date of Service (16%).

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12 Claims are rejected if patient’s Medicare/DVA card is invalid or if the RMMR Provider has provided Medicare Australia with the wrong reference number
Other reasons for rejection included duplicate claims and missing information on claims.

There was very little variation in the rejection rates of 3% - 4% between the jurisdictions. The two exceptions were:

- Queensland, where a relatively high proportion (8%) of RMMR claims were rejected
- Tasmania where only 1% of claims were rejected.

The lower rate in Tasmania could be explained by the higher rate of RMMRs per 100 residents and higher rate of Collaborative Reviews reflecting a well integrated approach to RMMRs across the state, with Accredited Pharmacists and GPs having well established relationships and systems to streamline administration.

Stakeholder organisations and leading Accredited Pharmacists identified two circumstances when there is a case for the authorisation of a RMMR which would require an amendment related to the payment system. These are where, in the absence of a GP to undertake a Collaborative Review:

- A new resident is admitted to an Aged Care Home regardless of the date of any previous RMMR the resident may have had.
- Within two weeks of discharge from hospital, after a stay of at least four days.

These circumstances are driven by clinical need. One submission by an Accredited Pharmacist summarised reason for a Review on admission as follows:

> When a resident is transferred from one facility to another, the record of RMMRs is not always transferred across. Thus the Accredited Pharmacist may conduct a pharmacist-initiated RMMR on admission. The claim may subsequently be rejected as a pharmacist-initiated RMMR has been conducted in the previous 12 months, with no way of confirming this before conducting the medication Review. Residents are usually transferred due to a change in clinical needs or level of nursing care necessary. Hence the Review on admission is justifiable.

(Accredited Pharmacist)

The RMMR Service Agreement document makes reference to these circumstances as follows:

> In situations where the GP indicates that a Collaborative RMMR is not required but may be required in the foreseeable future, for instance, following an anticipated period of hospitalisation for the Eligible Resident, the RMMR Service should be scheduled accordingly.

> Generally an initial RMMR Service should be conducted for all new Eligible Residents as soon as possible and ideally within six to twelve (6-12) weeks of admission into the Aged Care Home. It is recommended that this initial medication Review be conducted as a Collaborative RMMR where possible\(^\text{13}\).

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Stakeholders representing Accredited Pharmacists also indicated some residents would benefit from a Pharmacist Only Review when newly admitted and after hospital discharge. Stakeholders noted that there were circumstances where GPs were not available to initiate a Collaborative Review, particularly in locations with a shortage of GPs.

Accredited Pharmacists suggested that the claim process could be improved by allowing online submission of RMMR claims to Medicare Australia.

For the GPs, the claim process was relatively simple. It was generally managed by the administrative staff of the practice.

### 6.3 Limitations of the current rules

The number of RMMRs for an individual resident which a RMMR Provider is entitled to claim each year is a subject of some debate among Accredited Pharmacists and, to a much lesser extent, DoNs. Many Accredited Pharmacists considered that RMMRs should be allowed more often than once in a 12 month period for some residents, and that this should be allowed without the second Review needing to be a Collaborative RMMR.

In addition, there was a case put within the submissions to this evaluation from a number of organisations and individuals, for authority to be granted to the DoN to authorise a 'facility-initiated Review' within a year if justified. Despite this, the information collected during the course of this evaluation does not support the need for multiple Reviews for most residents without GP referral. It was only in a small proportion of cases where GPs were not available to initiate a Collaborative Review where this option would be of value.

The site visits did not identify a high level of demand for a 'facility-initiated Review'. In practice it was found that the DoN sought a GP referral for a Collaborative Review in these circumstances. This was more difficult in areas with a shortage of GPs.

### 6.4 Travel costs

While travel costs were sometimes substantial when an Aged Care Home was some distance from a larger centre, it was often the case that the Aged Care Home had chosen to sign a service agreement with a RMMR Provider which was in a more distant location, even though a local RMMR Provider may have been available. This situation tended to occur when a RMMR Provider had a service agreement to provide RMMRs for a number of Aged Care Homes which had common ownership and management.

Travel costs which were related to a decision by an Aged Care Home to sign a service agreement with a more distant RMMR Provider do not necessarily warrant the payment of a travel allowance. As this is believed to constitute a substantial proportion of the RMMR Provider arrangements for areas requiring travel, the argument in support of travel allowances is not as strong as it might otherwise be.
7. Collaboration

The RMMR Program funds a service that actively encourages collaboration between the range of health professionals engaged in delivering care to residents of Aged Care Homes. Collaboration is occurring between the nursing staff in the Aged Care Home, the Accredited Pharmacists, the GP, the supply pharmacist and, to some extent, the residents themselves. Where Collaboration occurred all participating health professionals considered it improved the quality of medication care for residents.

7.1 The Accredited Pharmacist perspective on Collaboration

The interviews conducted during the site visits and evidence from the case studies identified that the Accredited Pharmacists were generally the main driver of GP involvement.

The survey found that the vast majority (88%) of Accredited Pharmacists who had conducted RMMRs in the previous 12 months had conducted at least some Collaborative Reviews although the percentage varied greatly, for example:

- 38% had conducted more than 70% of their Reviews as Collaborative Reviews
- 40% had conducted 30% or less of their Reviews as Collaborative Reviews.

The survey findings closely reflect the analysis of data for the RMMR claims in 2008 and confirm a pattern which emerged repeatedly across the evaluation, with a strong polarisation emerging among Accredited Pharmacists in relation to Collaborative Reviews. This polarisation could best be characterised as ‘all or nothing’. Some Accredited Pharmacists seem to put considerable effort into achieving a high proportion of Collaborative Reviews and have a strong commitment to the value of collaboration.

Other Accredited Pharmacists do not appear to actively pursue Collaborative Reviews or place a high level of importance on the role of GPs in relation to RMMRs. These Accredited Pharmacists include some who actively discourage the conduct of Reviews as Collaborative Reviews – a finding reflected in the 9% of survey respondents who conduct none of their Reviews as Collaborative Reviews. This pattern was seen most frequently in Western Australia and South Australia.

Accredited Pharmacists who had done less than half of their Reviews as Collaborative Reviews were asked why this was the case. Over half (55%) claimed that GPs do not respond to their invitations to become part of Collaborative Reviews. Two in five (43%) claimed that GPs were too busy to take part in Collaborative Reviews. Ten percent mentioned not seeking GP involvement as they believed GPs did not value RMMRs, and 8% said they did not see much value to be gained through involving GPs in the process.

Accredited Pharmacists were somewhat divided in their opinion about the statement ‘without the GP’s involvement, there was little point in conducting a Review’ – 31% agreed and 54% disagreed. That is, some Accredited Pharmacists thought the role of the GP crucial in conducting Reviews, though others considered there to be merit in conducting Reviews even when not conducted as a Collaborative Review.
The vast majority of Accredited Pharmacists saw positive benefits of including GPs in the Review process:

- 87% agreed (46% strongly) that involvement of GPs makes change to a medication regimen easier – only 3% disagreed
- 86% agreed (37% strongly) that the GP adds value to the Review process – only 5% disagreed.

The survey revealed a strong desire by many Accredited Pharmacists who had conducted Reviews in the previous 12 months to do more Collaborative Reviews in the future:

- Almost seven in ten (69%) indicated that they would like to do more Collaborative Reviews with GPs
- One fifth (19%) would like to maintain the current ratio of Collaborative Reviews.

Only 3% of Accredited Pharmacists indicated that they would prefer to do fewer Collaborative Reviews in the future.

Survey findings on GP involvement, considered in conjunction with analysis of RMMR Provider claim data, mirrored the findings of the qualitative research, diary-based case studies and submissions received in response to the evaluation. These combined findings confirm the importance of encouraging a higher degree of GP involvement in RMMRs.

Many Accredited Pharmacists demonstrated a high degree of commitment to the residents they reviewed and the Aged Care Homes where the Accredited Pharmacist was the contracted reviewer. When combined with a long period of clinical experience and a good working relationship with the GPs, residents were more likely to benefit from RMMRs than residents in ACH where such relationships between health professionals were not well developed. The greatest benefit of all emerged from a co-operative and collaborative approach among all of the relevant health professionals involved in the care of an ACH resident – nurses, GP, Accredited Pharmacist, and dispensing pharmacist.

7.2 The GP perspective on Collaboration

There was strong, but not universal, support by GPs for collaboration. Six in ten (58%) of the GPs surveyed said they would like all of the Reviews conducted for their patients to be done as Collaborative Reviews. Three in ten (31%) would like to have more of the Reviews conducted for their patients done as Collaborative Reviews.

The GPs who considered the current number of Collaborative Reviews was appropriate, had nearly all (93%) of their patients’ Reviews conducted as Collaborative Reviews. The GPs who would have liked more Collaborative Reviews were those with a lower proportion of their patients’ Reviews conducted as Collaborative Reviews (68%).
7.3 Drivers of GP involvement

In 2008, 31% of GPs in Australia were identified as participating in a Collaborative Review. The AMA supported the provision of RMMRs, but only where GPs were involved.

The AMA supports medication management Reviews where the GP initiates the Review and where there is collaboration between general practitioners and Accredited Pharmacists in providing the MMR.

(AMA)

The qualitative research conducted for the evaluation identified that GPs who have a substantial number of patients at Aged Care Homes preferred for the Accredited Pharmacist to provide them with an opportunity to engage in Collaborative RMMRs, through the Accredited Pharmacist notifying them of a forthcoming visit to their patients in an Aged Care Home. This early notification would enable the GP to identify issues that were of clinical relevance. Without the early input, GPs were less likely to act on the findings, particularly when a report would arrive without notice.

Several GPs interviewed for this evaluation expressed great frustration that Accredited Pharmacists continued to Review their patients in Aged Care Homes without providing any opportunity for these to be Collaborative Reviews. This was a particular source of frustration to GPs who had a strong belief in the value of RMMRs and had matters they would prefer to have discussed with the Accredited Pharmacist before the Review took place. In these circumstances, when the completed Pharmacist Only RMMR report arrived at the GP’s office, they may have been briefly noted but were given far less attention than those done as Collaborative Reviews.

I feel a bit left out of the loop and I know I am much more likely to leave it to one side. I am not going to ignore any important information in it but the process is sub optimal.

(GP)

The Accredited Pharmacist was the primary driver for the involvement of the GP in a Collaborative Review, even when the GP was a strong supporter of Collaborative Reviews.

In some cases, it was the RMMR Provider and Accredited Pharmacist who was the clear catalyst for RMMRs being conducted as Collaborative Reviews as the default.

I thought they had to be Collaborative? (Former RMMR Provider) set us up with that as the expectation, to be Collaborative. He wanted nursing input and he wanted doctor input and he wanted pharmacist input so I didn’t think for a minute they could be Pharmacist Only.

(Director of Nursing, Multi Purpose Service)

In the case of most Collaborative Reviews, it was the Accredited Pharmacist who had instigated some form of notification process to advise the GP of a forthcoming Review visit to an Aged Care Home where that GP had a number of patients. This typically triggered a response from the GPs office acknowledging they would or would not be interested in the RMMRs being conducted as Collaborative Reviews. The likelihood of a GP agreeing to the RMMRs being conducted as Collaborative Reviews appeared to be higher if they had a substantial number of patients at the Aged Care Home.
The evaluators encountered several Accredited Pharmacists in the site visits who actively refused to conduct RMMRs as Collaborative Reviews, to the extent of turning down requests from GPs. Similarly, many Accredited Pharmacists had tried to get GP involvement but had given up.

While the Accredited Pharmacists who did very low proportions of Collaborative Reviews frequently attributed this to a blanket lack of interest in RMMRs on the part of the GPs, other information gathered in the course of this evaluation suggested this was not always the case. Many examples came to light of substantial increases in the level of involvement of GPs, following a change of Accredited Pharmacist conducting the RMMRs. Where a more proactive approach was taken to encouraging Collaborative Reviews, the proportion of such Reviews often increased substantially, reflecting the key role the Accredited Pharmacist plays in generating the collaboration. Even when an Accredited Pharmacist was taking considerable steps to encourage the take-up of Collaborative Reviews, a level of outright resistance by some GPs remained, with few Accredited Pharmacists able to achieve a rate of more than 75-80% of RMMRs as Collaborative Reviews.

7.4 Barriers to GP involvement

The main barrier to GP involvement to uptake identified in the course of the site visits was insufficient advance warning being given by the Accredited Pharmacist that a RMMR was about to take place. Other barriers included:

- Accredited Pharmacists reported that some GPs remained sceptical of the value of a RMMR
- Some GPs considered the RMMR to question their professional capacity
- The quality of the reporting provided by Accredited Pharmacists could be a barrier to GP engagement. Some Accredited Pharmacists provided reports that were bulky computer generated printouts. Some Accredited Pharmacists were pleased about being able to provide a very detailed report while the GPs indicated they wanted to identify potential concerns presented in a short one to two page report
- Where a GP had few patients at a specific ACH the GP was less likely to visit.

Payment was not identified as a substantive barrier for GPs. Seven in ten (71%) GPs considered that the payment for their services (through the MBS) for a Collaborative Review was either sufficient or ‘more than enough’.

7.5 Participation and co-operation with Directors of Nursing

The Director of Nursing is a key enabler in relation to RMMR participation and collaboration. As such, there is potential for enhancement of the benefits of the RMMRs through the role of the DoN. Some were almost entirely unaware of what they could and indeed, should, anticipate from the Accredited Pharmacist and what services they could request – both in relation to the RMMR and in relation to QUM. Where this lower level of DoN awareness existed, residents and nursing staff tended to be receiving a lower level of service, particularly in relation to QUM.
Provision of additional education to the DoNs on the role of RMMRs, best practice, interaction with the GP and how the DoN may be able to assist in achieving improvements in the RMMR service on behalf of their residents, would be likely to produce greater benefits for Aged Care Home residents across the board.

7.6 Participation and co-operation with the supply pharmacy

Across the various components of the evaluation, a picture developed of the arrangements between supply pharmacy RMMR Providers and the Accredited Pharmacists who conducted the RMMRs on behalf of these pharmacies. Ultimately there was no clear and consistent finding for or against this arrangement. High quality RMMRs in a best practice model were being conducted by some Accredited Pharmacists on behalf of supply pharmacy RMMR Providers just as some who worked independently of supply pharmacies were also providing a best practice service. Conversely, independent RMMR Providers were, in some cases, found to be providing a very minimal service which was far from best practice.

A number of stakeholder organisations and individual professionals argued that RMMRs provide an independent quality assurance mechanism and should be restricted to RMMR Providers who had no linkages with the supply pharmacy for a particular Aged Care Home. Separation of the Review as an independent quality assurance mechanism from the supply pharmacy functions, it was argued, would eliminate any potential conflict of interest. However, there was no evidence of any conflict of interest identified in the course of this evaluation.

Other professionals indicated that there were benefits associated with RMMRs being undertaken by a supply pharmacy as the RMMR Provider. The primary benefit was the value added by local knowledge based on an established collaborative relationship between the supply pharmacy and the Aged Care Home, a detailed knowledge of both the Aged Care Home and the residents, as well as established relationships with GPs servicing the home facilitating collaboration.

The pharmacists who were involved in the day-to-day dispensing interactions with the staff at the Aged Care Home were aware of the circumstances and medical history of an individual resident. Many DoNs and GPs noted that they found this to be an invaluable aspect of having the RMMRs conducted by an Accredited Pharmacist at the supply pharmacy. Some DoNs felt that residents and the Aged Care Home had received a higher quality RMMR service once the service agreement moved away from an independent Provider and consolidated with the local supply pharmacy. This was particularly the case in small towns where the local supply pharmacist was an active partner of the Aged Care Home and provided a highly responsive service.

I think that it is much more useful to have someone you know than someone who has come in and is unrelated to that nursing home, although in some ways you could say it could be a conflict of interest, I don’t think there is but some ways you could. I think it’s more useful if someone has an ongoing interest in the centre, rather than someone that is totally cold, external… she (the supply pharmacist) has a real working knowledge (of the residents).

(GP, Multi Purpose Service)
If there’s a query on a script then it gets phoned straight through to the doctor so it’s really cut down time and made it much easier.

(Director of Nursing, Multi Purpose Service)

One GP in a Multi Purpose Service indicated she believed it was particularly beneficial for RMMRs to be undertaken by the Accredited Pharmacist who was also the supply pharmacist when residents were self-medicating low care residents.

Most of the time the charts only have the medication that the nurses have to administer, they have to be charted, now some people don’t have the other things charted, although they would be on the computer so I suppose ...the (supply) pharmacist should still know what is going on...but if the other pharmacist just looks at the drug chart it would be inaccurate.

(Accredited Pharmacist)

In other instances, DoNs commented on their strong preference for maintaining a separation of the roles of the supply pharmacy and the RMMR Provider, as they considered this allowed a ‘check and balance’ on the activities of the supply pharmacy.
8. Cost effectiveness and cost efficiency

8.1 Cost effectiveness

Cost effectiveness analysis can be used to compare programs that aim to achieve similar goals or outcomes. Using this approach, the relative cost of achieving a desired outcome can be compared, and decisions made based on the most cost effective approach.

For the RMMR evaluation, no comparable program exists. Therefore, costs associated with achieving outputs and outcomes are compared:

- With a hypothetical setting where no RMMRs are conducted
- Between the two different primary methods of conducting Reviews: Pharmacist Only Reviews and Collaborative Reviews.

The findings contained in this section are based on data from the diary-based case studies, surveys of Accredited Pharmacists and GPs and Accredited Pharmacist claim data from the Department for 2008. A detailed explanation of how these findings were reached is contained in Appendix F, containing the cost effectiveness analysis.

Cost to government per output and outcome

The cost to government of a Pharmacy Only Review was the $130 fee paid to the RMMR Provider. The cost for a Collaborative Review was the $130 fee to the RMMR Provider plus $96\(^{14}\) where a GP had claimed for an Item 903 service, a total cost of $226.

Outputs have been defined as the change in medication regimen. Outcomes have been defined as a positive health outcome arising from the change in medication. The proportion of the population where outputs and outcomes have been achieved has been estimated from the surveys of Accredited Pharmacists and GPs and the cases studies.

For all RMMRs, both Collaborative and Pharmacist Only, the cost per output and outcome is:

- $402 per output, that is, change in regimen, presumably contributing to a positive health outcome for a resident and one which may not have occurred in the absence of the RMMR Program
- $591 per health outcome that may not have occurred in the absence of the RMMR Program.

While Collaborative RMMRs are more costly per Review, analysis of surveys, case studies and analysis of data provided by the Department for claims made by RMMR Providers, reveals that Collaborative RMMRs are more likely to result in

- Outputs of medication regimen changes and
- Positive health outcomes as GPs are more likely to respond to recommendations where they have participated in the RMMR.

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\(^{14}\) The fee paid for Item 903 was $96 in 2008. It is subject to indexation and was $98.20 in 2009. The fee paid to the RMMR Provider has not been indexed.
The cost per output and outcome is, therefore, lower for Collaborative RMMRs than Pharmacist Only Reviews (see Appendix F).

When costs are compared between Collaborative and Pharmacist Only Reviews:

- The cost output, that is, per medication change for Collaborative Reviews was $377, compared with $433 for Pharmacist Only Reviews.
- The cost per health outcome for residents for Collaborative Reviews was $554, compared with $637 for Pharmacist Only Reviews.

In summary

The cost to government per Review was greater for Collaborative Reviews compared with the cost of Pharmacist Only Reviews. However, the number of medication regimen changes and positive health outcomes achieved for residents was greater for Collaborative Reviews compared with Pharmacist Only Reviews.

Therefore, the cost to government per health outcome was lower for Collaborative Reviews compared with Pharmacist Only Reviews.

To maximise benefits arising from the Program, government could promote and encourage Collaborative Reviews.

8.2 Cost efficiency

Cost efficiency is the extent to which a Provider under a program minimises inputs and maximises outputs. In the case of RMMR, inputs are the funding of Pharmacist Only and Collaborative RMMRs. Outputs are represented by a Review or a change in regimen for a resident.

The evaluation of the RMMR Program used the diary based case studies (Appendix C) including consultation with pharmacists and GPs to determine the level of efficiency of the Program, and the determinants of different levels of efficiency.

Determinants of throughput and cost efficiency

The Accredited Pharmacists who took part in the case studies can be considered as belonging to two groups in relation to cost efficiency: those who provide a high throughput of RMMRs and those who provide a low throughput.

Based on the diary-based case studies: the determining factors that drive the level of throughput of RMMRs achieved by individual Accredited Pharmacists were:

- The overall number of Reviews conducted
- The number of visits required to accumulate these Reviews
- The proportion of Reviews conducted as Collaborative Reviews.

15 It is noted that data identifying the longer term outcomes such as reduced numbers of medications and reduced hospitals admissions have not been available for inclusion in this analysis.
Characteristics of a high throughput Accredited Pharmacist included the minimisation of the number of visits required to attain the maximum number of Reviews – an economy of scale. Travel and administrative expenses were also minimised, with the number of Reviews conducted at each visit maximised leading to greater return. Another common characteristic of high throughput Accredited Pharmacists was the relatively low (or absent) number of Reviews conducted as Collaborative Reviews.

Low throughput Accredited Pharmacists typically conduct fewer Reviews; invest more time in each visit/Review and conduct a far higher proportion of their RMMRs as Collaborative Reviews. Accordingly, cost efficiency for these Accredited Pharmacists was considerably lower, bordering on break-even in some case studies.

From the qualitative research: an additional driver of cost efficiency is whether the Accredited Pharmacist attempts to observe residents during Reviews. Few Accredited Pharmacists were reported to undertake this task.

In summary

Overall, conducting RMMRs was cost efficient for Accredited Pharmacists, insofar as almost all Accredited Pharmacists recover the costs associated with conducting RMMRs (labour cost, travel) via the payment.

The greatest driver of cost efficiency was the throughput of Reviews achieved by Accredited Pharmacists. Accredited Pharmacists who were able to complete a large volume of Reviews in the minimum number of visits realised greater efficiency than those completing fewer or sporadic Reviews. Conducting Pharmacist Only Reviews resulted in a higher level of efficiency compared with Collaborative Reviews.

Some Accredited Pharmacists and GPs questioned the quality of Reviews conducted by ‘high throughput Accredited Pharmacists’, and particularly noted the minimal or absent number of Collaborative Reviews conducted by those Accredited Pharmacists.

8.3 Anticipated data needs: Linking cost effectiveness and cost efficiency

In summary

This evaluation provides evidence that low throughput pharmacists who conduct many Collaborative Reviews provide a higher quality of service than high throughput pharmacists who rarely seek collaboration with GPs.

Government could consider further investigation to confirm the relationship between throughput, collaboration, quality and health outcome using an audit-style approach to confirm the estimations made in this evaluation.

Efficiency, effectiveness and the way forward

The RMMR payment model is based on a fee for service model. Under this model, Accredited Pharmacists are paid the same amount for an RMMR regardless of whether the Review is Collaborative, residents are observed or QUM is provided.
Qualitative research conducted for this evaluation indicates that low throughput pharmacists provide higher quality Reviews than high throughput pharmacists.

Given this known variation in quality coupled with the fixed fee, it is inappropriate to consider the Review to be the unit of service on its own. An economic analysis of the RMMR Program must consider the quality of the RMMRs conducted and ultimately the health outcomes achieved for residents in addition to the number of RMMRs.

This evaluation was limited in its capacity to assess health outcomes arising from Reviews conducted under RMMR given scope and budget. Self-reported data relating to resident outcomes were obtained from surveys of GPs and Accredited Pharmacists and used to estimate cost effectiveness (see Section 8.1). However, quantitative data on Review quality and outcomes for residents was not directly gathered for the evaluation.
9. Quality Use of Medicines (QUM)

The Service Agreements require the RMMR Provider to support the Aged Care Home by providing QUM services. These services include; medication advisory activities, education activities and continuous improvement activities. RMMR Providers are required to provide quarterly reports on the QUM activities.

Nursing staff identified the interaction with the Accredited Pharmacist as contributing to their knowledge of issues that enabled them to improve the management of medications. These findings were supported through the site visits, surveys and submissions. More formally, the QUM component addressing organisational needs of the Aged Care Home would include specific training through short sessions or attending staff training days, provision of written material to support nursing and care staff, and the management of medications such as drugs of dependence. Some Accredited Pharmacists provided Aged Care Homes with monthly newsletters.

Attendance at Medications Advisory Committee meetings with nursing staff, supply pharmacists, GPs and other care staff was highlighted as being particularly valuable by DoNs. The quality improvement activities included reviewing procedures such as emergency drug supplies. Involvement in quality improvement was seen by DoNs to be particularly important when it assisted in achieving accreditation requirements for the Aged Care Home.

Case conferencing was another QUM activity in which some Accredited Pharmacists participated. However, others argued that, while ideal, case conferencing was outside the funded arrangements.

The Australian Association of Consultant Pharmacy (AACP), which represents Accredited Pharmacists, noted that a significant increase in the importance of QUM activities to support quality processes in Aged Care Homes corresponded with a decrease in the number of registered nurses within Aged Care Homes. The need for quality assurance processes such as RMMRs was considered to be important in the context of declining numbers of registered nurses.

Many submissions argued that QUM services should be funded separately to the Review of residents’ medications. Some argued that there were economies of scale that could be achieved when QUM activities were conducted in larger ACHs.

The current quarterly reporting of QUM activities to the Department was considered to be administratively burdensome. Evidence collected through each stage of this evaluation supports this conclusion. The quarterly reporting is currently paper based with Accredited Pharmacists required to submit quarterly reports describing their QUM activities. However, the information provided is at general, high level and the value of the quarterly reports was questioned by some Accredited Pharmacists. No action or follow up from the quarterly reporting was identified.

It was recognised, particularly by the peak bodies, that reporting was required for accountability of expenditure but that it could be streamlined using annual on-line submissions with summary reports being provided to both RMMR Providers and Aged Care Homes. Reporting could include the number of activities conducted annually, the number of staff from the Aged Care
Homes participating in training, the number or type of procedures provided and the extent to which generic information is utilised in the QUM activities. The Pharmaceutical Society of Australia suggested:

Consideration should be given to defining a minimum requirement for QUM services and rewarding outcomes-focused delivery (and) to establishment of a comprehensive national database to compile RMMR and QUM service data and health outcomes.

(PSA)

Along with many other submitters, the AACP supported the separation of payment for the QUM component from that for the RMMR component and suggested the option of a ‘fee for service’ basis for QUM (i.e. per lecture, per audit, etc).

Most submitters expressed strong support for the QUM elements associated with RMMR, including education of nurses and other care staff, medication audits, and MAC meeting involvement. Many also supported a separation of the payment component – though this view was not universal.

The range and frequency of these organisational level QUM services was explored through the surveys of DoNs and Accredited Pharmacists.

9.1 Number and range of QUM services

From the survey of Accredited Pharmacists, the QUM activities most often provided in the previous 12 months included advising members of care staff in Aged Care Homes on medication issues, providing drug information for GPs and/or Aged Care Home staff and assisting facilities to maintain their accreditation standards. More details on the QUM activities follow.

- Advising members of the health care team on medication issues (93% had provided; 36% more than 30 times).
- Participation in Medication Advisory Committees (79%)
- Participation in policy and procedure activities (71%)
- Assisting in the development of nurse-initiated medication lists (64%)
- Drug Use Evaluations (61%).

Further, the vast majority of Accredited Pharmacists had provided education sessions in the previous 12 months. In detail:

- Nine in ten (88%) had provided drug information for GPs and/or staff at the Aged Care Home (29% had done this more than 20 times)
- Eight in ten (82%) had provided in-service sessions for disease state management (16% had done this more than 20 times).

Quality improvement activities included:

- Assisting facilities to maintain their accreditation standards (81% had provided and 17% had done this more than 20 times)
- Assessing the practical requirements of medication management (70% had provided and 13% had done this more than 20 times)
- Conducting medication administration audits and/or surveys (61% had provided and 10% had done this more than 20 times).

Just over half (55%) of Accredited Pharmacists surveyed had not assisted in the development of quality indicators or assessed the competency of residents to self-administer medications.

**QUM as reported by Accredited Pharmacists**

Of the Accredited Pharmacists who had conducted RMMRs in the previous 12 months, the frequency with which medication advisory activities had been provided varied (Figure 3):

- Most (93%) Accredited Pharmacists had advised members of the health care team on medication issues
- Eight in ten (79%) had participated in Medication Advisory Committees
- Seven in ten (71%) had participated in policy and procedure activities
- Six in ten (64%) had assisted in the development of nurse-initiated medication lists
- Six in ten (61%) had provided drug use evaluations.

**Figure 3  Number of times medication advisory activities provided as reported by Accredited Pharmacists**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>1-10 times</th>
<th>11-20 times</th>
<th>21-30 times</th>
<th>31+ times</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advise members of health care team on medication issues</td>
<td>7%</td>
<td>29%</td>
<td>15%</td>
<td>13%</td>
<td>36%</td>
<td>4%</td>
</tr>
<tr>
<td>Participate in Medication Advisory Committee</td>
<td>21%</td>
<td>52%</td>
<td>12%</td>
<td>10%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Participate in policy and procedure development activities</td>
<td>29%</td>
<td>52%</td>
<td>7%</td>
<td>6%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Assist in development of nurse-initiated medication lists</td>
<td>36%</td>
<td>52%</td>
<td>7%</td>
<td>3%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Drug use evaluations</td>
<td>39%</td>
<td>53%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>
Number of times education sessions provided in the previous 12 months

Of the Accredited Pharmacists who had conducted RMMRs in the previous 12 months, the vast majority had provided education sessions to staff at Aged Care Homes in that 12 month period (Figure 4):

- Nine in ten (88%) had provided drug information for GPs and/or staff at the Aged Care Homes (23% had done so more than 30 times)
- Eight in ten (82%) had provided in-service sessions for disease state management (13% had done so more than 30 times).

![Figure 4: Number of times education sessions provided as reported by Accredited Pharmacists](image)

Q39. In the last 12 months, how often have you provided the following services to staff at Aged Care Homes?

Base: Accredited Pharmacists who have conducted RMMRs in the previous 12 months and provided the number of RMMRs n=203

Number of times continuous improvement provided in the previous 12 months

The main areas of quality improvement in which Accredited Pharmacists provided sessions in the previous 12 months (Figure 5) included:

- Assisting facilities to maintain their accreditation standards (81%)
- Assessing the practical requirements of medication management (70%)
- Conducting medication administration audits and/or surveys (71%).

It is of note that more than half of Accredited Pharmacists had not been involved in:

- Assisting in the development of quality indicators (55% had not been involved in the previous 12 months) and
• Assessing the competency of residents to self-administer medications (55% had not been involved in the previous 12 months).

**Figure 5: Number of times continuous improvement provided as reported by Accredited Pharmacists**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>1-10 times</th>
<th>11-20 times</th>
<th>21-30 times</th>
<th>31+times</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assist facility to maintain accreditation standards</td>
<td>19%</td>
<td>52%</td>
<td>11%</td>
<td>14%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Assessed practical requirements of medication management</td>
<td>30%</td>
<td>44%</td>
<td>9%</td>
<td>10%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Conduct medication administration audits and/or surveys</td>
<td>39%</td>
<td>41%</td>
<td>9%</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Assist development quality indicators</td>
<td>55%</td>
<td>30%</td>
<td>6%</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Assess competency for residents to self-administer</td>
<td>55%</td>
<td>31%</td>
<td>6%</td>
<td>5%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Q39: In the last 12 months, how often have you provided the following services to staff at Aged Care Homes?
Base: Accredited Pharmacists who have conducted RMMRs in the previous 12 months and provided the number of RMMRs n=203

9.2 **QUM as reported by Aged Care Home staff**

The majority of Aged Care Homes reported Accredited Pharmacist involvement in medication advisory activities (Figure 6). Participation in the varied activities however varied considerably:

• Most (95%) said Accredited Pharmacists had advised members of the health care team on medication issues
• Eight in ten (81%) had participated in Medication Advisory Committees
• Two-thirds (67%) had provided drug use evaluations
• Over six in ten (64%) had participated in policy and procedure activities
• Six in ten (62%) had assisted in the development of nurse-initiated medication lists.

The activities identified by the DoNs generally reflected the trends reported by the Accredited Pharmacists.
Figure 6: Number of medication advisory activities provided in the previous 12 months as reported by ACH staff

- Advise members of health care team on medication issues:
  - 5% Never
  - 68% 1-10 times
  - 15% 11-20 times
  - 5% 21-30 times
  - 7% 31+ times

- Participate in Medication Advisory Committee:
  - 19% Never
  - 76% 1-10 times
  - 4% 11-20 times
  - 1% 21-30 times
  - 1% 31+ times

- Drug use evaluations:
  - 33% Never
  - 53% 1-10 times
  - 8% 11-20 times
  - 5% 21-30 times

- Participate in policy and procedure development activities:
  - 36% Never
  - 62% 1-10 times
  - 1% 11-20 times
  - 1% 21-30 times
  - 1% 31+ times

- Assist in development of nurse-initiated medication lists:
  - 38% Never
  - 59% 1-10 times
  - 2% 11-20 times
  - 1% 21-30 times
  - 1% 31+ times

Q18. In the last 12 months, how often has an Accredited Pharmacist provided the following services to your Aged Care Homes?

Base: Aged Care Homes who provided a response. In chart order from the top: n=311, 300, 264, 301, 304

It is worth noting that the varying degree of Accredited Pharmacist involvement may be a reflection of the ACH and the DoN. In the course of the site visits it was identified that some DoNs were less demanding of the Accredited Pharmacists, less well organised or unaware of what QUM activities could be provided. Other DoNs identified difficulty in being able to get staff together for training because of rosters and the pressure on staff involved in everyday care.

Number of times education sessions provided in the previous 12 months

The majority of Aged Care Homes reported that they had received education sessions for staff from Accredited Pharmacists in the previous 12 months (Figure 7):

- Nine in ten (89%) had seen an Accredited Pharmacist about drug information for GPs and/or staff (5% had done this more than 20 times in the previous 12 months)

- Three-quarters (75%) had received in-service sessions for disease state management (2% had done this more than 20 times).

Nearly all Aged Care Homes in regional centres (94%) had been provided with these sessions compared to only 67% of rural/remote Homes and 73% of metropolitan Homes.
Figure 7: Number of times education sessions provided as reported by ACH staff

<table>
<thead>
<tr>
<th>Drug information for medical practitioners and/or ACH staff</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>11% 76% 8% 3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In-service sessions for disease state management</th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>25% 71% 3% 1%</td>
<td></td>
<td></td>
<td></td>
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</table>

Q18. In the last 12 months, how often has an Accredited Pharmacist provided the following services to your Aged Care Homes?

Base: Aged Care Homes who provided a response. In chart order from the top: n=295, 312

Number of times continuous improvement services provided in the previous 12 months as reported through the Aged Care Home survey

Accreditation of Aged Care Homes is one of the principle mechanisms for maintaining quality of care in Aged Care Homes. Compliance with Accreditation Standards is required for Aged Care Homes to receive funding from the Australian Government. Standard 2.7 relates to medication management. Compliance with this standard includes demonstrated continuous improvement.

In the previous 12 months, 85% of Aged Care Homes had received support assisting facilities to maintain their accreditation standards. (Figure 8)

Around half of Aged Care Homes’ staff had received support from Accredited Pharmacists for:

- Assessing the practical requirements of medication management (52%)
- Conducting medication administration audits and/or surveys (51%).

Of the areas tested, Aged Care Homes were least likely to receive support through the QUM component of the RMMR Program for:

- Assessing the competency of residents to self-administer medications (13%)
- Assisting in the development of quality indicators (41%).
Figure 8: Number of times continuous improvement provided as reported by ACH staff

Q18. In the last 12 months, how often has an Accredited Pharmacist provided the following services to your Aged Care Homes?

Base: Aged Care Homes who provided a response. In chart order from the top: n=309, 300, 304, 292, 305
10. Conclusion and future directions

The RMMR Program has been effective in enabling RMMRs for the majority of residents in Aged Care Homes as evidenced by the rate of 79 RMMRs per 100 residents. The introduction of the MBS Item 903 in 2004 has actively encouraged participation of GPs in the Program, although it is the Accredited Pharmacist that is the primary driver and initiator of RMMRs whether they be Collaborative or Pharmacist Only.

The cost effectiveness analysis identified that Collaborative Reviews, while costing more, were more cost effective because of the increased likelihood of an effective change in medication regimen.

Findings from each component of this evaluation indicate that if the RMMR is conducted as Pharmacist Only, it is less likely to involve substantial interaction with the GP and recommendations for changes to medication regimens are less likely to be actioned to the same extent as those derived from Collaborative RMMRs. In turn, residents are less likely to experience positive health outcomes if fewer, or no, appropriate recommendations are actioned.

To maximise potential benefits for residents, a higher proportion of Collaborative Reviews would be required.

It is the Accredited Pharmacists, working closely with the care staff of the Aged Care Homes that are the drivers of collaboration. GPs were not identified as initiators of RMMRs. The site visits and case studies have identified a range of approaches with some Accredited Pharmacists seemingly focusing on quality while others focus on throughput. This is not necessarily related to the business model, the variation was observed across all business models.

Collaboration and engagement with the GP and the DoN was identified as the primary factor affecting quality and effectiveness of outcomes for residents. Strategies to improve collaboration suggested by stakeholders included the Accredited Pharmacist providing sufficient notice to enable a GP to identify issues of clinical relevance and the RMMR reports being more concise and focused.

While RMMRs are extensively available, there is some concern that residents in most need are not always getting a RMMR in a timely manner. Separations from acute hospitals and Reviews immediately following admission to the Aged Care Home are identified as particular areas where the qualitative evidence indicates there may be gaps in appropriate and timely service.

The proposal that RMMRs be remunerated at a rate equivalent to that of HMRs is not supported by the findings of this evaluation.

Overall, the findings of this evaluation do not support a higher payment for RMMRs. While a proportion of Accredited Pharmacists (primarily those conducting a higher proportion of Collaborative Reviews) make only a marginal financial return from conducting RMMRs, another
proportion (most often, but not always, those conducting a low proportion of Collaborative Reviews) make a substantial financial return on RMMRs. A process of indexation of the payment for the Accredited Pharmacist similar to that which is applied to GPs would seem appropriate.

The findings of this evaluation support a move to a differential payment for Collaborative Reviews for Accredited Pharmacists, compared with the payment for those conducted as Pharmacist Only. The cost effectiveness analysis, together with analysis of qualitative findings including other components such as the case studies and submissions, suggest that efforts by an Accredited Pharmacist to engage a GP in a Collaborative Review, followed by engagement with the GP subsequent to the Collaborative RMMR, can potentially equate to 15-20 minutes per RMMR.

The separation of the QUM component from the individual medication Reviews has also been proposed by some Accredited Pharmacists.

The current quarterly reporting arrangements for the QUM component do not serve any useful purpose. Accountability requirements associated with public funds is acknowledged by key stakeholder organisations. Redesign of the reporting to identify areas of support provided, measuring gaps in need would improve the usefulness of these reports. An online reporting framework was considered to offer the opportunity of reducing administrative burden and to increase the likelihood for feedback on reports to be made accessible to stakeholders.
References

Aged Care Australia (2007). "Types of care and services."


