Home Medicines
Review Program
Qualitative Research
Project
Final Report

Prepared for

Department of Health & Ageing
Medication Management & Research Section
GPO Box 9484
Canberra ACT 2601

DECEMBER 2008
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Executive Summary

From late 2007 until mid 2008, Campbell Research & Consulting conducted a multi-staged research project on behalf of the Department of Health & Ageing, canvassing and analysing a wide range of views and experiences of the Home Medicines Review Program.

The key questions underlying this research were: what is HMR achieving and what is it meant to achieve? To consider these questions, we revisited the objectives of the HMR Program, in summary:

- Assist consumers to maximise the benefits of their medication and prevent the harmful consequences of medication misuse
- Achieve safe, effective and appropriate use of medications
- Improve quality of life and health outcomes
- Improve the consumer’s and health professional’s understanding about medications
- Facilitate cooperative working relationships between members of the health care team
- Target people living at home who may be at risk of medication misadventure

Following on from the HMR Program objectives, the objectives of this research project were to:

1. Identify gaps in access to the Program & the reasons for these gaps in access
2. Determine what drives participation in the Program, including identifying barriers & enablers relative to different target groups

Risk factors are therefore relevant to the findings of this research, and include suspected non-compliance or inability to manage medication-related therapeutic devices; attending a number of different doctors and discharge from a hospital in the last four weeks.

Wide range of views

The study included review of more than 75 articles (since 2005), including ‘grey’ literature. It involved 31 in-depth interviews with stakeholders from peak medical and pharmacy bodies through to consumer and carer groups and research and other government organisations. A publicly advertised Call for Submissions phase was subsequently undertaken and led to receipt and review of 84 submissions. Full copies of all submissions were subsequently forwarded to the Department.

The final and key phases involved extensive qualitative research at the grassroots level with health professionals and consumers respectively. The 109 health professionals interviewed one-on-one around Australia included GPs, community pharmacy owners and managers and accredited pharmacists in community pharmacies as well as those working independently. The health professionals’ interviews included those participating in the HMR Program as well as those not participating. A small number of other relevant health professionals were also interviewed, including palliative care nurse practitioners, the Royal Flying Doctor Service and staff in Aboriginal Health Services.

The additional qualitative component encompassed 28 in-depth interviews with consumers who had received a Home Medicines Review and some carers, as well as focus group discussions with 100 consumers (and some carers) who would have been clearly eligible, but who had not received a HMR.

Senior CR&C researchers conducted research in Townsville, Rockhampton, the Sunshine Coast, Bankstown, bayside Melbourne, Dandenong, mid-North rural South Australia, Geraldton and Carnarvon, Launceston, and across the wheatbelt communities of Western Australia. The range of locations were based on GP Divisions and were selected by the Department to represent a broad cross-section of Australian consumers and health professionals in areas with higher and lower levels of uptake of the HMR Program. The locations also enabled some coverage of Indigenous and multicultural consumers and coverage across all states.
Phase One: Literature Review

The review of Australian and international literature since 2005 confirmed a widespread occurrence of adverse medication events impacting on health services as a result of issues arising following discharge from hospital – clearly seen as a key time for medication management and a time when consumers are disappointed with medication information.

The literature revealed a dearth of evidence identifying drivers of participation in HMRs by health professionals, but identified numerous barriers.

Research contained in recent literature does not provide strong evidence for effective outcomes or cost effectiveness of programs aimed at reviewing medication, however it confirmed that medication reviews continue to be supported as an important tool in the repertoire of GPs and pharmacists.

Phase Two: Stakeholder Consultations

The HMR Program was highly valued by many of the stakeholders interviewed for this study. They generally considered the Program to be an effective tool with the potential for meeting its objectives but agreed the HMR Program could be strengthened.

Stakeholders considered there was strong anecdotal evidence to suggest HMRs are improving quality use of medicines but noted a lack of hard evidence. They were anxious to see evidence that the current HMR model improves patient outcomes significantly, particularly in relation to reducing medication error and hospitalisation. Most believed that increased uptake of the HMR Program would have the potential to reduce medication misadventure and hospitalisation if conducted within the first ten days after discharge from hospital.

Phase Three: Public Call for Submissions

Many submissions included substantial detail and extensive data, while others presented the findings of studies undertaken by submitters within a specific setting (for example, within one GP Division, a regional area or a hospital). Submissions confirmed that studies measuring clinical effectiveness are lacking and that there is a strong demand for such information.

Submissions also revealed that those in greatest need of a HMR are the least likely to receive one and that solutions are required for post-hospital discharge to enable HMRs to assist high risk patients and prevent unnecessary hospital re-admissions.

A number of submissions detailed the reasons why the current model of HMRs is inappropriate for Indigenous consumers while emphasizing the need for the Program to be adapted so that it can effectively address an extremely high level of need among Indigenous consumers, who suffer from very high rates of medication misadventure and its damaging after-effects.

Many submitters outlined why they supported an option of direct referral to accredited pharmacists to address access gaps for many consumers. A number of peak bodies expressed opposition. Those supporting the direct referral pathway supported it as an additional option and not as a replacement of the existing model.

The inadequacies of the current travel allowance arrangements were clearly documented. Concerns around travel allowances emerged not only in remote and some rural areas, but also in metropolitan areas. The core concern was that travel allowances currently relate to the distance of the consumer from the community pharmacy whereas the problems arise with the distance of the consumer from the accredited pharmacist, who is often not located at the local community pharmacy.
Phase Four: Qualitative Research with Health Professionals

The 109 health professionals interviewed for this research included those who had and those who had not referred for HMRs. The GPs who agreed to be interviewed were predominantly those who were more positive about HMRs. Others tended to refuse to participate despite repeated requests and reasonable incentives. For this reason, the findings of this research among health professionals could be considered to be ‘as good as it gets’ in relation to GP views of the HMR Program.

GPs are the gatekeepers of the Program and are critical to participation and access. Most GPs were ambivalent about HMRs and considered them ineffective in producing substantial improvements in a patient’s health. GPs generally favoured a highly selective approach with a focus on high risk patients. Their ambivalence appeared difficult to overcome, although evidence of clinical outcomes may assist.

Money is not the answer for GPs on HMRs - most considered current reimbursement adequate.

GPs who described themselves as ‘supporters’ of HMRs often reflected ambivalence through the sheer numbers of HMRs referred in a period of time, for example, six referrals in two to three years.

Most community pharmacy business owners or managers were ambivalent towards HMRs and even some GPs considered local pharmacists to be ambivalent.

The ambivalence of community pharmacies was closely related to them receiving no profit from HMRs, finding them time-consuming and encountering a lack of interest from local GPs, with a flow-on effect: little GP demand meant few referrals and so the pharmacies had little interest in the Program.

Most community pharmacies saw little or no value for customer loyalty as the customers tended to be loyal already. They provided HMRs because they wanted to offer a full service but did not actively seek them out. A number of community pharmacy interviewees believed that HMRs should be restricted to higher need patients and that beyond this they could be ‘a waste of Government money’.

Problems with travel allowances are clearly affecting delivery of HMRs in some rural, remote and metropolitan areas. The rules inherent in the PhARIA classifications were often not considered appropriate - problems arise with the distance of the accredited pharmacist from the consumer as the local pharmacy often must source a provider from outside the area. In very remote areas, suggestions included linking in with Section 100 provisions to offset distant related costs.

Phase Five: Qualitative Research with Consumers

Most interviews with HMR consumers were conducted face-to-face, in their homes, sometimes with a carer present. Consumers were recruited through a range of methods rather than a central source.

The 28 HMR consumers interviewed were over 65, (the oldest 90) and taking an average of eight medications a day, (and up to 20). They were suffering from serious conditions, such as diabetes, cardio-vascular disease, emphysema, arthritis, and asthma. They were on the high end of apparent compliance with their medications and typically presented as alert and highly aware of their range of medications. They demonstrated ways in which they systematically managed their medication regime and most had no prior hospital admissions due to medication issues. All HMR consumers claimed to have consistently attended one GP and one community pharmacy and had been unaware of HMRs before one was suggested by their GP or community pharmacy.

The views of consumers eligible for a HMR but who had not received one, were canvassed through ten focus groups – eight with those aged over 60 (oldest participant 94) and two groups with consumers aged 40-60. These ‘eligible’ consumers were recruited through a random community-based approach and not through health professionals.

All ‘eligible’ consumers had multiple serious health conditions, several attended with their oxygen bottle. A number were organ transplant recipients and some had suffered five or six heart attacks. On average they were taking eight different medications a day (with one taking 18). Several were carers of...
eligible consumers. ‘On paper’ the consumers appeared to be ideal candidates for HMR. Few had any prior awareness of HMRs.

Trust and confidence in GPs was overwhelming among both HMR & ‘eligible’ consumers. Change of GP had rarely occurred and only due to retirement, relocation of either the GP or the consumer, or the inability to obtain appointments.

Trust and confidence in community pharmacy was very strong, particularly for those over 60, with many having attended the same pharmacy for more than 30 years. Some younger consumers tended to be less loyal. All were satisfied with the staff advice and vigilance received at their local pharmacy.

Consumers who had received a HMR were positive about their experience and avidly praised the professionalism and thoroughness of the pharmacist who conducted the review, however most felt they were already in control before the visit. Although they found the HMR interesting and informative, it was considered ‘nice but not really necessary’ as they did not believe it had made a significant difference to their health. Some felt better about their health and were reassured that their own systems of managing their medications were working well.

Some HMR consumers recounted how a problem had been resolved such as the elimination of nightmares or nausea through adjusting dosage timing. For a few, the visit alleviated confusion.

‘Eligible’ consumers tended to be: systematic in management of their medication and strong believers in their own independence and valued it highly. Most presented as being on the high end of compliance with their medication and on the low end of apparent risk, careful to follow the GP’s and pharmacist’s advice and demonstrated how they did so. They took measures to avoid problems with generic brands.

Most ‘eligible’ consumers felt they were coping and did not need the HMR as they were already being well monitored through their GP and community pharmacy. Resilience and independence helped them cope and for some it appeared that a HMR could undermine this. Some also coped best by not knowing details of their medication, but were careful to take it as prescribed.

Post hospital was a time when ‘eligible’ consumers could see it might be necessary and participants in areas with more familiarity with in-home care services, such as the Sunshine Coast, were more receptive to HMRs overall.

Generally the younger consumers (in this research, those aged 40-60) were against the idea of a HMR and perceived it as something for older people. They were ‘not ready for the white coats to come in yet’. They were uncomfortable with the concept of a home visit while still physically able to attend a pharmacy.

Cost concerns had led some younger consumers to make conscious decisions to abandon certain medications even though they were aware of the likely consequences.

GPs also saw little relevance for HMRs with younger patients and rarely referred them for HMRs.

**Enablers and suggestions for improvement**

The interviews with health professionals and consumers around Australia led to the consolidation of a number of specific suggestions for improvement.

Current ‘business’ rules were identified as a barrier to participation and where HMRs work well, it was often in spite of the system rather than because of the system. Often those who had not found ways to modify the model were not participating.

There is a need for the flexibility necessary for practical implementation to be recognised and reflected in the Program itself.

Some health professionals had identified solutions such as direct referral to a preferred accredited pharmacist, who then liaised with the community pharmacy.
There was strong support for (and some opposition to) direct referral to consultant accredited pharmacists, with all those who supported the option agreeing on the need to inform and involve the community pharmacy. Where supported, direct referral was seen as an option and not to replace the existing pathway from GP to community pharmacy, as this is seen as the primary and preferable pathway where possible.

Supporters of the direct referral option believed it would address barriers to participation presented by the current Program rules, especially where local pharmacies had no accredited pharmacists.

There was also some support for referral by a small number of other health professionals, in specified circumstances, such as palliative care nurse practitioners.

Many GPs felt that ‘on paper’ eligibility does not necessarily mean a HMR is appropriate and this was confirmed by feedback from some accredited pharmacists and consumers. Blanket screenings are considered likely to capture many consumers who would not be in great need of a HMR. Clinical decision making and assessment of high risk patients was widely supported, especially by GPs.

Access gaps

Overall the research confirmed that those in greatest need of a HMR are the least likely to receive one and the greatest gap in access to HMRs is for those consumers at highest risk of medication misadventure including:

- certain patients in the period after hospital discharge
- Indigenous consumers
- culturally and linguistically diverse consumers
- palliative care patients; and
- non-compliant or non-adherent consumers.

It appeared to be rare for a useful and appropriate HMR to have been conducted for any of these types of consumers.

Access gap: post hospital discharge

Of all areas where HMRs were widely considered to be of value, it is the period post hospital discharge which received the most widespread support.

There was strong support for hospital doctors and senior hospital pharmacists to refer patients directly for a HMR rather than having to go through the patient’s GP, as long as the patient’s GP and community pharmacy were informed. The need for a ‘rapid response’ HMR for post hospital discharge was the major reason for support for an option of referrals being made by the hospital. It is essential that all possible barriers are removed to enable post hospital HMRs to occur within approx 10 days of discharge (earlier if possible) and under the current model this is known to be close to unworkable.

Only those patients considered to be at imminent risk of medication misadventure would be referred and it would be an opportunity for enhancing links between the acute and primary sectors. Hospital based respondents suggested they would be well placed to monitor the effectiveness of HMRs under revised arrangements, as high risk patients typically ‘bounced back’ due to medication problems.

Access gap: Indigenous consumers

The extremely high incidence of medication misadventure, non-adherence and resulting hospitalisation among Indigenous consumers as well as the flow-on effects such as organ damage and amputations were matters of grave concern to those respondents who work with Indigenous consumers. The co-morbidities because of the lack of adherence to medications were considered to be as high as three to four times that of non-Indigenous consumers.
Overall it is clear that thousands of Indigenous consumers are not currently able to readily access HMRs. As an example, two of Australia’s largest regional Aboriginal Health Services, included in this research, with a combined total of 17,000 patients (and at least 1700 diabetic patients) do not currently refer patients for HMRs – but expressed a strong interest in options which would enable them to do so.

For Indigenous consumers in remote areas, a key barrier to access is the required link to a community pharmacy, when most remote Indigenous consumers never set foot in a community pharmacy as it is perhaps 1000kms away and prescriptions are filled through the local Aboriginal Health Service.

HMRs – under redesigned models – were considered to be potentially a valuable tool for education and reassurance. Suggestions for alternative models included linkages to the chronic disease register and pooled funding via the Aboriginal Health Service, so that in-clinic sessional services could be provided in regional cities or regular visits made to remote communities by experienced pharmacists.

The key request was for recognition of the importance of time to build rapport as part of an effective HMR and that multiple HMRs would enable gradual education and follow-up over time.

Despite the inherent difficulties, there was still a preference for HMRs for Indigenous consumers to be provided by pharmacists rather than other health workers wherever possible, as the medication issues were often complex and also because other staff were already struggling with huge workloads.

Access gap: culturally and linguistically diverse consumers

There is a need for the HMR System to incorporate CALD workers and community centres if the Program is to effectively target this high risk group. Taking into account the overall findings of the study, it appears that CALD access to HMRs varies depending on whether the CALD consumer consistently attends the same GP (these consumers tend to have equal access to HMRs) and whether they are able to access a GP or other health professional who speaks their language – if not, they are highly unlikely to be reached by a HMR.

Access gap: palliative care patients

Concern was expressed that many terminally ill and dying patients missed the potential impact on comfort levels that could be achieved through a timely HMR. The unpredictable and short time periods between the terminal and dying phases often meant the GP referral model was inadequate. A HMR during could help eliminate medicines that had become irrelevant and were causing discomfort. Multiple HMRs may be necessary over a short period of time in the palliative care phase.

Access gap: non-compliant/non-adherent consumers

Perhaps by definition, the most difficult consumers to reach with a HMR are those who are the least compliant and the least adherent to their medication regime. Views on this group ranged from ‘nothing you can do, it’s like shutting the door after the horse has bolted’ to others who believed compliance could be improved with education & reassurance. ‘There is a lot of non-compliance, but some of it is wise <because of side effects>, some of it is mistaken, some of it is accidental’.

Findings vs Program objectives

Based on the views of GPs, accredited pharmacists, consumers and information gathered through the stakeholder and call for submissions phases, as well as observations made during the course of this research, most of those receiving HMRs present as:

- Unlikely to misuse their medication
- Using their medications in a safe and appropriate way
- Requiring few if any changes to their medication regimen as a result of the HMR
- Experiencing no substantial change in their quality of life or health outcomes as a result of the HMR
Consumers receiving HMRs did demonstrate an improved knowledge and understanding of their medication as a result of the HMR.

Health professionals did not report an improvement in their understanding of medications as a result of HMRs. Members of the healthcare team did not appear to have increased co-operation as a result of HMRs, even though where these existed they made the path for HMRs much smoother.

HMRs did not appear to be effective in reaching people most at risk of medication misadventure.

Many GPs and pharmacists – including those participating in the Program - consider HMRs to often be ineffective, used inappropriately and implemented inefficiently. Regardless of the actions that can be taken to address Program uptake, it will remain low without a change in the level of support for the Program by GPs. While there are a number of strategies that could be employed to achieve incremental improvements in GP response, a substantial change in their level of interest is unlikely to occur until they can see clear evidence that it is producing substantial benefits for patients.

Participation and interest at the pharmacy level is mixed. Some are enthusiastic. Most are ambivalent. Some are quite negative.

Reported HMR outcomes included providing reassurance to the patient, educating the patient on the importance of a medication and how to take it properly and possible side-effects. Reducing adverse drug events associated with polypharmacy was reported to be rare.

Increasing participation by health professionals and access for consumers requires change to the Program rules to enable flexibility and direct referral, evidence of effectiveness and maintaining the participation of the community pharmacy, GP and accredited pharmacist.

Consumers are unlikely to drive change on HMRs.

‘HMRs are a good idea…but’

There are two different avenues for change:

1. The first involves keeping the current model but making adjustments. This would potentially lead to greater uptake.

2. The second involves changing to a more effective model with a clear focus on consumers who are most in need of a HMR. This would potentially lead to substantial uptake of a more effective service.
Options for Consideration

Context

A number of options for consideration for changing the HMR Program model have been suggested, drawing from the findings of all stages of the qualitative research project.

Three types of options have been identified:

1. **Major structural changes** including suggestions, made by stakeholders and drawn from the research findings, which are aimed at refocusing the HMR Program to: increase access by patients who are considered to be of most need but not currently receiving HMRs; encourage marketing and promotion by consultant accredited pharmacists; and to improve efficiencies to focus on outputs that can improve outcomes for patients and enhance the contribution to general practice management of patients.

2. **Minor adjustments to rules** that would provide incentives for pharmacists, reduce some cumbersome requirements, and reduce areas of dissatisfaction that are currently contributing to non-participation by health professionals in the HMR Program.

3. **Considerations for data collection** including performance monitoring, review of key elements and future research.

The options suggested for consideration indicate a major overhaul of the structure of the HMR Program. Consideration should be given to identifying the extent to which the original model (suggested in the early South Australian trials) differed from the current implementation and what, if any, lessons can be learned from the translation of the early trials into practice at the wider community level. In some instances, where major changes may be considered, it is strongly suggested that pilot programs be established with a built-in structure for evaluation to provide convincing evidence, or otherwise to encourage participation in the Program.

It is noted that, apart from GPs providing HMR type functions within already overburdened general practices, no other programs were identified that would substitute for the HMR Program.

Options for major structural changes

**Option 1. Develop a strategy for a highly selective and targeted approach to HMR**

Overall views and evidence gathered through the course of this research project, demonstrate the need for a highly selective and targeted approach to HMRs - amendments or redirection of the HMR Program need to take account of these concerns if high-risk consumers are to benefit.

**Rationale**

*We need to identify who is … at risk and which patients benefit and whether much value is added in a HMR. It may be better to do less of them, but to fund them better.* (Stakeholder - Medical organisation)

Concerns that consumers who are the most in need of a HMR are currently missing out on the service, were prevalent throughout the 84 submissions received for this research. These concerns were backed up in detail throughout the Qualitative Research with Health Professionals component of this research.

**Option 2. Allow direct referrals to accredited pharmacists**

The option to allow direct referrals to consultant accredited pharmacists was identified *in addition to* the current referral system. Direct referral can facilitate access where patients do not have a relationship with a single community pharmacy, where community pharmacies do not participate or are indifferent.
to participation in the HMR Program, or where the GP strongly prefers a direct referral relationship. In rural areas where there was a dearth of health professionals, direct referrals were identified as a solution to overcome barriers to access resulting from workforce shortages.

**Rationale**

While referral from the GP to the community pharmacy is the ideal model, it does not always work. Currently, the sole reliance on this referral pathway is a barrier where:

- a patient does not regularly attend a community pharmacy (particularly the case for marginal consumers)
- the community pharmacy has a negative or ambivalent response to HMRs and is disinclined to participate or will delay referrals
- the consumer’s GP has a strong preference for a direct referral relationship.

Support for a direct referral option was widely supported throughout the various phases of the research, specifically including Stakeholder Consultations, Public Call for Submissions and the Qualitative Research with Health Professionals.

**Qualification/consideration**

Direct referral processes must ensure participation of, and payment (of a component of the rebate) to, community pharmacies. All stakeholders identified the important role of community pharmacies in continuity of medication advice and continuing education of the patient, as well as quality assurance on dispensing. This is particularly the case where consumers have established relationships with community pharmacies.

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**Option 3. Allow accredited pharmacists to claim fees directly for services**

**Rationale**

Consultant accredited pharmacists argued that direct referrals together with direct claim for services provided would allow for development of a viable business proposition. It would also address barriers at the community pharmacy level (such as the delay in referral and delay in claiming for payment).

Delays and erratic payment by community pharmacies were seen as a significant disincentive and led a large number of accredited pharmacists to call for payment to be made directly to them. Indeed, this was one of the strongest arguments presented across many submissions, including from some peak bodies. The administrative burden of sending reminders and ‘chasing up’ community pharmacies was also highlighted. A compromise payment scheme was also proposed, whereby the fee could be split between the community pharmacy business owner/managers and the accredited pharmacist.

**Qualification/consideration**

A separate payment would be required for work undertaken by the community pharmacy therefore the suggestion is for a ‘split payment’.

Submissions by consultant accredited pharmacists argued for this group to be eligible for a Medicare provider number to facilitate direct payment.

Many community pharmacies were openly supportive of the option to allow accredited pharmacists to invoice directly and receive direct referrals.
Option 4. Broaden the referral base – hospital discharge

Develop structures for hospital medical officers and senior hospital pharmacists to refer patients for a HMR, either through a community pharmacy, or direct to a consultant accredited pharmacist.

Rationale

When a patient comes out of hospital, the referral pathway is even longer than the usual HMR referral pathway, precisely when it needs to be the most streamlined and occur most urgently.

Stakeholders consistently identified the value of a HMR within approximately 10 days of hospital discharge, preferably earlier. This is not happening with the current model due to delayed referral by GPs, by community pharmacies and the variable linkages between hospitals and GPs. Direct referral will enhance appropriateness and access to HMRs for a group of consumers who are clearly seen as being at imminent risk of medication misadventure, and possible hospital readmission due to medication problems.

Implementation could commence with a pilot in a number of different regions to test approaches, develop performance reporting (including process outputs such as measuring changes made to medications, education advice given, and follow-on outputs – informed GPs, inclusion of community pharmacies, long-term measurement of adverse events and hospital readmission due to medication issues).

Facilitating access to HMRs immediately on discharge was widely supported by all stakeholders. However, direct referral was not supported in the submission by the Guild national representative.

Planning for HMRs was widely considered to be an element which could be incorporated into the broader discharge planning process.

Qualification/consideration

It is essential to note that it is not proposed that all patients of a certain age leaving hospital on multiple medications would require a HMR. Instead, the Program would be used selectively, and be aimed at targeting those patients who were assessed as being at high risk of medication misadventure or confusion in the post discharge period. The approach would be used on a case-by-case basis, similarly to many other post discharge processes that are assessed in this way as part of discharge planning.

Consider introducing pilot programs to thoroughly test implementation.

Aspects of the Medicare Act may be an impediment if payment is to be made to acute hospitals for the work undertaken in preparing a referral.

If the referral is made directly from the hospital to consultant accredited pharmacists, mechanisms for inclusion of the GP and community pharmacist will be necessary.

Option 5. Broaden the referral base – palliative care nurse practitioners, community nurses

Develop structures for a small number of other health professionals, including palliative care nurse practitioners, health professionals making home visits, Aboriginal Health Workers and others, to refer patients for a HMR either through a community pharmacy or direct to a consultant accredited pharmacist.
Rationale

There are a range of health professionals who come into contact with patients who may benefit from a HMR, where formal mechanisms could be established to refer patients to a GP. Medical specialists and palliative care nurses in particular were identified for this broader referral role.

In other cases, a regular GP or community pharmacy may not be involved in the HMR referral. For example, those in Indigenous communities, persons receiving treatment for HIV/AIDS who did not want their community pharmacy to know about their condition, or people living a marginal existence who do not have access to a GP or regular community pharmacy (perhaps relying on Emergency Departments for their primary medical care).

Where HMRs currently assist some of the highest need consumer groups, it is typically through adaptation of the model to include some of these other health professionals as a core component.

Qualification/consideration

Payment arrangements become a consideration where other health professionals are to be substantially involved in HMRs.

There is a need for a clear definition under which health professionals could refer, and under what circumstances.

The GP and, wherever possible, the community pharmacy must be informed of the referral and its outcomes.

Option 6. Nurses to undertake home visits where alternative unavailable

Rationale

Where consultant accredited pharmacists are unavailable in the local area, allow practice nurses to conduct the home visit component of HMRs, followed by later consultation (by email of a draft report) with a HMR accredited pharmacist.

Qualification/consideration

While this is a departure from the primary model, a number of stakeholders and professionals identified this approach as the only way the service could be delivered to some remote communities. In some areas this adapted model is already being used, as it is the only viable service delivery.

In numerous cases, this is the only way HMRs occur in these areas at present – as part of an adapted model.

Workforce issues and availability of appropriately trained nurses (nurse practitioners) will limit implementation.

Consider limiting practice nurse involvement to those areas where consultant accredited pharmacists are not available.

Option 7. Indigenous – Explore alternative mechanisms for medication review services within Indigenous communities

Rationale

There has been very little use of HMRs among Australia’s Indigenous population, where the incidence of medication non-compliance and misuse is known to be significant. (Consultant accredited pharmacist, NSW)
Referrals to a 'community retail pharmacy' via a GP are so impossible for this population. Indigenous clients who use an Aboriginal Health Service (AHS) generally do not ever set foot into a community pharmacy. They receive all of their medications directly from the AHS. (Consultant accredited pharmacist, NT)

In short, HMRs are unsuited to many Indigenous communities on two key criteria: they have to link in with a community pharmacy and they are meant to occur in the consumer’s home.

HMRs for Indigenous Australians are not being undertaken, and a range of alternative approaches have been suggested, not least of all, alternatives which do not have to take place in a house (given that this is in itself problematic in some communities) and which take a shape and form much more in line with other health services provided in Indigenous communities.

Some city/town based Aboriginal and Islander Health Services supported the option of an accredited pharmacist conducting medication reviews at the health service premises, in line with similar services that Indigenous patients are familiar with (such as podiatry, dieticians, diabetes educators).

Other suggestions include enabling automatic HMR referral for all those on the community’s chronic disease register; and allowing up to three HMRs a year as standard to allow maximum flexibility to respond to need.

Qualification/consideration

Development of HMR services for remote Indigenous communities requires a different approach, including funding for travel substantially beyond the current parameters.

One-off services were identified as inappropriate for many Indigenous Australians.

Minor modifications

Option 8. Modify requirement for GP telephone communication with accredited pharmacist on HMR completion

Rationale

Telephone communication between the accredited pharmacist and the GP post HMR is considered inconvenient and does not achieve its goals. At present, it rarely happens and when it does occur the communication is not necessarily effective. Scheduling the call at a time appropriate for the GP and accredited pharmacist is difficult.

Qualification/consideration

Effective written communication, preferably using e-health communication, would be more effective for GPs and pharmacists. Information would continue to be provided to community pharmacists as well.

Option 9. Allow more than one HMR in a year

Rationale

Hospital pharmacists identified the need for more than one HMR to take place after hospital discharge for high-need, high-risk patients. This provision would be used only sparingly, but the follow-up effect was thought to be ideal for teaching and the reinforcement of medication patterns.

Pharmacists working with Indigenous populations identified multiple visits as appropriate for providing an education function and continual building of knowledge and understanding of medications.
Qualification/consideration
Protocols specifying criteria for multiple visits would be required.

Provide maximum flexibility around the timing of the second and/or third visits, so that they can be of most direct benefit to the patient (e.g. a palliative care patient moving from the terminal phase to the dying phase, where timeframes are unpredictable).

Where multiple visits are required for consumer education, a different model focused on education may be appropriate.

Option 10. Review remuneration for accredited pharmacists and participating community pharmacies
Review remuneration for the ‘pharmacy side’ including likely impact on HMR provision if there is an increase in remuneration.

Rationale
There was widespread agreement that the remuneration for work undertaken by pharmacists and community pharmacies was often insufficient to cover costs.

Some community pharmacies chose to pass the full HMR payment amount on to the accredited pharmacist.

Qualification / consideration
Generally stakeholders and respondents identified $220 as the minimum level of reimbursement for both accredited and community pharmacists. This amount was considered to cover both the community pharmacy component and the accredited pharmacist component.

It was suggested at times during the qualitative phase that a payment of approximately $40 to the community pharmacy would be a reasonable amount, if it becomes necessary to define a stand-alone payment for the community pharmacy’s involvement.

Option 11. Change travel allowance arrangements
Rationale
The cost incurred by accredited pharmacists to travel to patient’s homes in Rural, Remote and some Metropolitan areas is not covered by current travel allowances. It is suggested that reimbursement of travel needs to be based on the actual distances required to conduct a HMR, rather than the distance of the patient from the community pharmacy. Reviewing these travel allowances is an important measure to address cost burdens that are limiting access. PhARIA regions associate the location of a community pharmacy in relation to a patient, but not the location of the accredited pharmacist, so may not be an appropriate reference point.

Qualification/consideration
The cost of addressing travel allowance concerns is considered minor because of the small numbers involved. Substantially higher costs would be incurred for rural and remote communities.

If an accredited pharmacist is available locally, consider a requirement that this service be accessed to prevent costs associated with travel from another city.
Option 12. Address issues involving ready availability of interpreting services

Rationale

The issue of access to free interpreters arose repeatedly in the study, at different phases of the research. While such services may be available, they are either not widely known or cannot be easily accessed or to do so requires time-consuming arrangements involving the GP (in some states/territories). It is clear that there is variation among states but that this is an issue of concern for many consultant accredited pharmacists.

Considerations for data collection

Option 13. Establish minimum data set to provide performance monitoring

Rationale

A lack of evidence of the value of HMRs was identified as barrier to participation in the Program. A structured system of identifying inputs (reason for referral), processes (time taken for each of the six stages), outputs (changes made to medication, education advice provided) and outcomes (immediate health benefits, risks avoided, hospital admissions avoided) is required. The introduction of a minimum data set could be undertaken with all stakeholders to ensure relevance and value and to identify appropriate reporting mechanisms.

Qualification/consideration

Any minimum data set would be used to collect only the information which is clinically useful, will minimise administrative burden for professionals and can be used in reporting.

Facilitators could assume the role of managing reporting with support from appropriate organisations.

Option 14. Review MMR accreditation

Rationale

Pharmacists consulted throughout the project consistently put forward a strong case that the requirements for accreditation and re-accreditation were substantial barriers, particularly when the demand for HMRs from local GPs was low. The accreditation training did not impact GPs’ views of the HMR Program.

GPs identified concern about competencies of pharmacists to provide useful reporting that informs the GP’s practice in a clinically meaningful way. A ‘communications’ module in training has been identified as an option for improvement.

The recognition of prior learning was identified as an issue requiring change.

Qualification/consideration

Review of medication management accreditation to be undertaken by pharmacy educator of standing and informed by general practice outcomes.

The number of accredited pharmacists has been shown to increasing. Qualitative research identified that a number of experienced accredited pharmacists expressed intention not to re-accredit, or had already allowed accreditation to lapse due to the training barriers. (Qualitative research identified this emerging trend but did not quantify the extent of the issue.)

Consideration of RMMR requirements is important.
Option 15. Encourage further research

Rationale

Participation by GPs would be enhanced if there is strong evidence for the effectiveness of the Program.

Qualification/consideration

Research would be a long term proposition and should be based on an implementation which is timely (especially in referral and feedback times) and with an established team to reduced the effect of team establishment as a confounding factor. Most importantly, any research should be transferable to real life practice.
1. Introduction

1.1 Background

In October, 2001 the Australian Government through the Department of Health and Ageing (the Department) introduced the Home Medicines Review (HMR) Program. The HMR Program is designed to help those people living at home to maximise the benefits of their medication regimen and prevent the harmful consequences of medication misuse. The objectives of the HMR Program are to:

- achieve safe, effective and appropriate use of medications by detecting and addressing medication-related problems that interfere with desired health outcomes
- improve the consumer’s quality of life and health outcomes using a best practice approach, that involves cooperation between the general practitioner, pharmacist and other relevant health professionals and the consumer (and where appropriate, their carer)
- improve the consumer’s and health professional’s knowledge and understanding about medications and
- facilitate cooperative working relationships between members of the healthcare team in the interests of consumer health and wellbeing.

The HMR Program encourages general practitioner (GP) and pharmacist cooperation with the aim of providing a ‘comprehensive review’ of an individual’s medication regimen via a home visit made by an accredited pharmacist and is ‘central in the development and implementation of an agreed medication management plan.’

During the HMR visit the HMR accredited pharmacist will assess patient use of medication in his/her environment as well as review issues such as medicine storage practices, discuss medicine regimes with the individual and provide feedback to the GP with the ultimate aim of improving compliance and/or modifying the treatment regime. The steps in the HMR process are:

- a GP assesses the consumer’s need for a HMR in an initial consultation and asks the consumer to nominate their preferred community pharmacy. The GP then provides the pharmacy with relevant clinical information
- the community pharmacy then arranges for a home interview to be conducted by an appropriately qualified pharmacist to assess how the consumer is using his or her medicines in their own environment. This also provides an opportunity for the pharmacist to assess the consumer’s medicine storage practices
- the accredited pharmacist will prepare a written report based on the home interview and discuss the findings and any suggested management strategies with the consumer’s GP
- the GP will then develop a medication management plan for the consumer, taking into account any relevant findings from the home assessment. The GP will then discuss the findings with the consumer and make any necessary changes to the consumer’s medicines or dosages
- the GP will ensure that the consumer understands the reasons for any changes to their medicine regimen and that they are comfortable with these changes

1 Department of Health and Ageing, Home Medicines Review Program Research Brief, 27 September 2007
the GP, pharmacist and consumer implement the new medication plan with follow up and monitoring.

The HMR Program is only available to people living at home in the community setting. It does not apply to in-patients of a hospital, day hospital facility, or care recipients in residential aged care facilities, or those who have received a HMR in the past 12 months (unless their treatment regime has been significantly altered or their condition has changed).

Consumers most likely to benefit from an HMR are those for whom quality use of medicines may be an issue, or who are at risk of medication-related problems. Risk factors known to predispose people to medication-related problems include:

- taking five or more regular medications or more than 12 doses of medication per day
- significant changes in medication treatment regimen during the previous three months;
- taking medication with a narrow therapeutic index and/or requiring therapeutic monitoring (e.g. warfarin or digoxin)
- symptoms suggestive of an adverse drug reaction
- sub-optimal response to treatment with medicines
- suspected non-compliance or inability to manage medication-related therapeutic devices
- literacy or language difficulties, dexterity problems, impaired sight, confusion/dementia or other cognitive difficulties
- attending a number of different doctors, both GPs and specialists
- recent discharge from a facility or hospital (in the last four weeks).

Both pharmacists and GPs are incentivised to participate in the scheme. The HMR Program operates under Business Rules developed in conjunction with the Pharmacy Guild of Australia and Medicare Australia. Payments to GPs and pharmacists for their involvement in the conduct of a HMR are facilitated through two separate mechanisms:

1. payments to GPs are made through Item 900 of the Medicare Benefits Schedule (MBS). The fee is indexed annually and from 1 November 2006 the fee was $134.10 per service. This fee is only payable on completion of a medication management plan following receipt of the report from the Accredited Pharmacist

2. payments are made to pharmacies via provisions in the Fourth Community Pharmacy Agreement (2005-2010). Please note, while HMRs are conducted by accredited pharmacists only appropriately registered community pharmacies are eligible to receive payments under the HMR Program. Payments can not be made directly to accredited pharmacists. This fee is indexed on 1 July each year and at the commencement of research was set at $183.60 per review, which covers costs relating to the community pharmacy’s role and the services of the accredited pharmacist who conducts the review.

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2 An accredited pharmacist is an experienced pharmacist who has undertaken specified education programs or examinations, as approved by the Australian Association of Consultant Pharmacy or the Society of Hospital Pharmacists of Australia, and undertakes specified continuing professional education and re-accreditation.

3 Registered community pharmacies are established under Section 90 of the National Health Act 1953 and also approved to provide HMR services.
1.2 Research

A number of evaluations of the HMR Program have already been undertaken and some of the issues raised by these have since been addressed and the Program enhanced in these areas. The evaluations were:

- The Evaluation of the Home Medicines Review Program – Pharmacy Component, prepared for the Pharmacy Guild of Australia (funded by the Department) in 2005

However, the Department required further research to complement existing knowledge (and inform future policy) in relation to the HMR Program, in particular to:

1. identify the appropriate target population(s) that would most benefit from the Program
2. identify gaps in access for people and the reasons for these gaps in access, considering but not limited to, gender, cultural/ethnicity, geographic location and workforce issues
3. determine what drives participation in the program, including identifying barriers and enablers relative to different target groups and geographic locations across Australia.

Two separate (but complementary) research projects have been undertaken to address these objectives, consisting of an internal data analysis and a qualitative research program. The findings of the quantitative research, as detailed below, addressed objective one while the qualitative research undertaken by Campbell Research & Consulting (CR&C) addressed the second and third research objectives and is reported herein.

The quantitative analysis by the Department of HMR service data (i.e., claims against MBS 900 and pharmacy service payments) and investigation of leading Australian summary studies indicated that those at greatest risk of medication misadventure are consumers of multiple medications aged 65 or over. On this basis, estimated per capita service provision to the over 65 population was used to compare HMR uptake across Divisions of General Practice (Divisions).

The quantitative analysis by the Department was used to inform the selection of Divisions for the qualitative research.

To make the qualitative sample broadly representative, Divisions were selected to represent a range of states, geographical regions (according to the rural, remote and metropolitan areas <RRMA> classifications system) and HMR service levels. Based on the estimate the Divisions were ranked and divided into 20 percentile bands.

In order to investigate variations in HMR service levels, pairs of Divisions that differed by service level were selected. These pairs were also selected so that they had:

- the same RRMA classification; and
- similar socio-economic (SE) ratings, and similar CALD or indigenous presence, as reflected in measures applied and reported by the Public Health Information Development Unit (PHIDU).

After analysing the list of Divisions with these considerations in mind, three pairs of Divisions and four single Divisions were recommended for intensive investigation during the qualitative research. These included three from Queensland, two each from Western Australia and Victoria, and one each from New South Wales, Tasmania and South Australia. In terms of RRMA classifications, four were metropolitan Divisions, four were rural and two were rural/remote. The Divisions selected as pairs were:

- Dandenong and Bankstown, located in Melbourne and Sydney respectively. Both are RRMA metropolitan Divisions with a low socio-economic rating and a high CALD
presence. In terms of HMR service provision to those aged 65 and over, Dandenong ranked as very high and Bankstown at the lower end of medium.

- Capricornia and Townsville, both of which are Divisions that include rural North Queensland cities. These Divisions have a similar socio-economic rating and a relatively high indigenous presence. Comparative analysis of HMR service provision to the over 65 population indicated Capricornia ranked as high and Townsville as very low.

- Mid West and Central Wheatbelt, both of which are rural/remote WA Divisions. Both have a similar socio-economic rating and a relatively high indigenous presence. They differ in service levels with Mid West having very high levels and Central Wheatbelt very low.

In each of the first two pairs above, the Division with a higher uptake of HMR had a significantly lower presence of accredited pharmacists (per capita for the 65+ age group) than the Division with lower HMR uptake.

Four single Divisions were also selected:

- Mid North was included to represent low service levels, as well as rural Divisions and South Australian.

- Central Bayside, a Victorian Division was included to investigate an urban/metropolitan upper socio-economic Division with very high HMR service levels. Other urban Divisions with a high socio-economic rating tend to provide low levels of HRM services.

- GP North, a Tasmanian rural Division was included to represent Tasmanian Divisions and/or those with medium service levels.

- Sunshine Coast, a rural Queensland Division was included to allow close investigation of the factors that enabled high levels of service provision without the use of a Medication Management Review (MMR) Facilitator.

1.3 This report

This report presents the findings from the HMR Program qualitative research project conducted by CR&C. It is based on a series of qualitative interviews with representatives from peak bodies and stakeholder organisations; a review of available literature on medication management programs; submissions received via a public call for submission process; a series of in-depth interviews with grass roots health professionals; together with focus groups and in-depth interviews with consumers.

The report is structured to present findings from each phase of research separately and sequentially, although the overall findings of this research are based on the balanced assessment of views sourced throughout the entire project.

Qualitative research deals with relatively small numbers of people and is used to gain in-depth insight into people's attitudes, behaviours, feelings, concerns, motivations and value systems. Qualitative approaches to data collection involve direct interaction with individuals on a one to one basis or in a group setting. The exchange of views and experiences is relatively open and free flowing, and as a result provides rich data that is broadly characteristic of the range of views held by the population of interest. The findings are not analysed with statistical techniques, and while indicative of the population's views, they cannot be assigned to a proportion of the population. Rather, qualitative findings are interpretive in nature.

Appendices 1 and 2 provide details of the acronyms, abbreviations and terminology used in this report.
1.4 Disclaimer

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 Australian Government 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.

2. Methodology Overview

In collaboration, CR&C and the Department developed a multi-faceted methodology to access a wide range of views, from peak bodies and stakeholder organisations through to grass roots health professionals and consumers. This approach sought to maintain the independence of the research, ensuring that no single group or stakeholder had any significant influence on those recruited to participate, or on the research findings. The key research stages (Figure 1) included:

- a review of available literature since 2005 on medication management and the HMR Program (the Literature Review)
- consultations with stakeholder organisations and peak bodies (the Stakeholder Consultations)
- a publicly advertised invited call for submission (the Call for Submissions)
- qualitative research with grass roots health professionals and consumers (the Qualitative Research).

The earlier stages of the project were used to inform subsequent stages and provide hypotheses to be tested.

Figure 1: Key stages for the project
2.1 Literature Review

CR&C conducted a review of available recent literature relating to the efficacy and participation in the HMR Program and other medication management programs. The review succeeds a similar review conducted for the Pharmacy Guild of Australia (the Guild) completed in 2004 (Urbis Keys Young 2005). With some minor exceptions, documents in this review were published, or otherwise made available, after 2004. Specifically, the Literature Review examines the following areas:

- incidence of adverse outcomes and hospital admissions
- drivers of consumer and health professional participation
- barriers to access and participation
- other models of medication review in Australia and overseas
- outcomes as a result of participation in HMR and comparable programs and
- information gaps and hypotheses for further testing.

Materials were obtained from a range of sources including information compiled by the Department, online searches of the academic literature and health organisation websites in Australia and overseas, materials submitted by stakeholders during the course of the consultation and literature sourced through the Call for Submission phase of this project.

The Department sourced 76 published and unpublished materials in the English language from 2005 onwards. The search was conducted in November 2007 and included the Department’s library catalogue, computerised bibliographic databases and websites of the Pharmaceutical Society of
Australia and the Pharmacy Guild of Australia. CR&C also conducted a variety of searches in January 2008.

The databases searched were: OvidMedline (health and medicine); Embase (health and medicine); Cochrane Database of Systematic Reviews, CiNAHL; AMI (Australasian Medical Index); Social Services Abstracts; Expanded Academic ASAP (Gale); APAIS; and Catalogue of the Health and Ageing portfolio libraries. The search terms used were: Home Medicines Review; medication review; medication management; home medication management; community medication review; medication regimen review; domiciliary medication review; domiciliary medication management; and general practice. The words pharmacist/pharmacy, general practitioner, discharge, population and outcome were appended to these terms to narrow the search results to specific articles.

Online searches of government and non-government health organisation websites in Australia and overseas were also conducted. These sites included Pharmaceutical Society of Australia; the Pharmacy Guild of Australia, websites for Division of General Practice and the AGPN; websites for state and territory health authorities; the Department of Health and Ageing websites; and health departments overseas.

During the course of the stakeholder consultations and call for submissions, participants provided materials that were also relevant for the literature review. During the consultation three papers detailing randomised control trials of HMRs and like programs were received, and during the calls for submission five unpublished or grey documents were added to the literature review.

In total, 121 documents were sourced for the review. Following an initial appraisal of the available materials, 53 documents were included in the Literature Review. Documents were incorporated if they were deemed to be directly relevant or related to the HMR Program; original research; published after 2004 or provided evidence.

Please note that this component of the project is not a literature review in the strictest academic sense. The findings presented are drawn from a range of sources in addition to peer-reviewed papers. These include online resources published by a range of organisations (as above); and editorial comment and content published in relevant periodicals. The source of information and considered level of evidence is noted in the text.

2.2 Stakeholder Consultations

The objective of the Stakeholder Consultation stage was to capture a range of views from persons with experience of different aspects of the HMR Program to add depth to the Department’s understanding of professional and community perceptions of, and experiences with, the HMR Program.

Over December 2007 and January 2008, thirty-one in-depth interviews were conducted by senior CR&C consultants, Dr Leanne Rowe and Stephen Campbell with stakeholders from a range of organisations and disciplines including:

- GPs (2)
- Divisions of General Practice (Divisions) (2)
- Medical organisations (5)
- Pharmacists/pharmacist associations/pharmacy associations (3)
- HMR Facilitators (2)

4 Materials considered to be a weak form of evidence (e.g. a letter to the editor) were excluded from the review.
Consumer and carer associations (6)
- Peak bodies (6)
- Research organisations and other health and government organisations (8).

A full list of participating stakeholder organisations and groups is included in Appendix 3 to this report.

The lines of enquiry for the Stakeholder Consultations (Appendix 4) were developed to address the project objectives, with a primary focus on stakeholders’ awareness and perceptions of the HMR program. Specifically, the consultations aimed to explore stakeholder perceptions of:
- how well the HMR Program is currently targeted, including access gaps
- factors driving consumer and health professional participation in the HMR Program (Sections 4.1.1 and 4.1.2)
- how participation of consumer and health professionals could be enhanced (Section 4.2)
- what optimum utilisation of the Program looks like (Section 4.2)
- the benefits and disadvantages of participation in the HMR Program (Section 4.2)
- the effectiveness and usefulness of HMR
- the level of consumer and health professional awareness of the HMR Program (Section 4.1.3 – covers consumer awareness, not professional awareness)
- recent enhancements to the HMR Program (Sections 4.1.1)
- preferred medication management approaches, as well as alternative or comparable medication management review services (Sections 4.1.2 and
- the effects of complementary programs on the HMR Program (Section 4.1.2 – though touched on only briefly when discussing other Medicare items).

Stakeholders organisations were sent a primary approach letter, introducing the qualitative research project and advising them that the person in the organisation most knowledgeable about the current implementation and/ or practice of conducting HMRs would be invited to participate in an interview. Follow up calls were made by CR&C staff to secure interviews with appropriate stakeholders.

Most interviews were conducted via telephone (a small number were conducted face-to-face when timing and location permitted). Interviews were approximately one hour in length. Stakeholders were asked for permission for recording of the interview and were reassured about confidentiality of the interview.

<table>
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<th>Table 1: List of Stakeholder Organisations Consulted</th>
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<td>Aged and Community Services Australia – National, NSW and Victoria (teleconference)</td>
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<td>Alzheimer’s Australia</td>
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<td>Australian Association of Consultant Pharmacists</td>
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<td>Australian Commission for Quality and Safety</td>
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<td>Australian General Practice Network</td>
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<td>Australian Medical Association</td>
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5 Please note that the interview numbers do not add up to thirty-one, as some participants represented more than one stakeholder group
Table 1: List of Stakeholder Organisations Consulted

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<td>Australian Mental Health Consumer Network</td>
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<td>Australian Primary Health Care Research Institute</td>
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<td>Carers Australia</td>
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<tr>
<td>Consumers Health Forum of Australia</td>
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<tr>
<td>Council of Ageing</td>
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<td>Department of Veteran’s Affairs (MATES Program)</td>
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<td>Diabetes Australia</td>
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<td>Heart Foundation</td>
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<td>Mental Health Council of Australia</td>
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<td>National Association of People Living with HIV and AIDS</td>
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<td>National Prescribing Service</td>
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<td>Northern Division of General Practice (SA)</td>
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<td>Pharmaceutical Society of Australia</td>
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<td>Pharmacy Guild of Australia</td>
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<tr>
<td>Quality Use of Medicines &amp; Pharmacy Research Centre, Sansom Institute, University of SA</td>
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<tr>
<td>Royal Australian College of General Practitioners</td>
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<td>Royal District Nursing Service</td>
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<td>Rural Doctors Association of Australia</td>
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<td>Rural GP/Alliance of Aged Care</td>
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<td>The Australian Council on Healthcare Standards</td>
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An important component of the stakeholder consultations was the advance notice of the Call for Submissions, together with the facilitation of communication to the constituents of the stakeholders consulted of the Submission process. Stakeholders foreshadowed their intention to submit a more detailed and considered submission through the Call for Submissions process.
2.3 Call for Submissions

The third phase of the project (see chapter 5), the Call for Submissions aimed to expand on the views identified in the Stakeholder Consultations and Literature Review, to facilitate attributable, detailed and considered input by stakeholders, interested parties and the community beyond those explicitly invited or recruited to participate.

On 26 January 2008 the Call for Submissions was advertised in the national press (The Australian newspaper) through the Department website and as a pdf attachment through Stakeholder channels. The stakeholder organisations distributing the call for submissions advertisement included: Australian Council on Healthcare Standards; Australian General Practice Network; Australian Healthcare and Hospitals Association; Australian Mental Health Consumer Network; Department of Veteran Affairs; Mental Health Council of Australia; and The Guild.

Submissions were accepted by CR&C in digital or hardcopy format over a period of three weeks. Over this period 84 submissions were received, from a range of stakeholder groups including: Academics (8); Accredited pharmacists (31); Community pharmacy business owners and managers (5); Divisions (21); Division Facilitators (20); Health Services (6); Peak Bodies (7) and The Guild (9).

The analysis for the Call for Submissions was largely conducted using the NVivo (V7) software program, which assisted CR&C to identify key themes and salient issues, which were then manually reviewed in light of the project objectives.

Figure 2: Advertisement for the Call for Submissions
2.4 Qualitative research with health professionals and consumers

The final component of the project was qualitative research amongst health professionals and consumers, referred to as Phase 4 and Phase 5 respectively in this report. The objective of the qualitative research stage was to provide grassroots views on existing practice, gaps in access to the HMR Program and reasons for these gaps, as well as to determine what factors influence HMR participation amongst these health professionals and consumers. This stage included:

- 109 in-depth interviews with health professionals
- ten focus groups with consumers who met the criteria for a HMR and exhibited a range of risk factors, but who had not received a HMR (described as ‘eligible consumers’ throughout this report)
- 28 interviews with HMR consumers and, where necessary, their carers.

Fieldwork was conducted throughout March 2008 and a small number of follow up telephone interviews were conducted in April 2008. In developing the discussion guides for the qualitative research, issues and hypotheses were drawn from the findings of the earlier three phases of the research (see Appendices 6 and 7 for Discussion Guides).

Divisions were used as the sampling units for the qualitative stage to simplify and focus the multi-faceted nature of the project and to facilitate triangulation. As detailed in Section 1.2, the Department undertook an extensive analysis of HMR data and selected ten Divisions as locations for the qualitative research (Table 2; Figure 3). The ten selected Divisional areas provided a good spread of states, size of Division, region, and extent to which HMRs had been taken up in an area (measured by HMR pharmacy claims). Table 3 outlines the locations of research within Divisions by participant type.

Prior to the commencement of the qualitative research, a primary approach email was sent to the 10 Division CEOs, advising them of the upcoming qualitative research within their Divisions.

Analysis of the qualitative data from consultations with health professionals and consumers followed a systematic process. Notes and recordings from all interviews and groups were reviewed, summarised and collated. A thematic analysis approach was applied.

Initial sampling was based on the pairing of Divisions with contrasting levels of HMR uptake, despite otherwise reasonably comparable demographics. In addition to the paired Divisions, a number of others were included to provide research coverage across all major states. Once analysis commenced however, it became clear that the key issues of substance tended to apply across the broad range of Divisions and small elements which applied to individual Divisions became less significant. As such, the findings have not been reported according to the original pairing of Divisions identified by the Department.
<table>
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<tr>
<th>Division</th>
<th>Region</th>
<th>State</th>
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<tr>
<td>Bankstown (DGP 205)</td>
<td>Metro</td>
<td>NSW</td>
</tr>
<tr>
<td>Central Bayside (DGP 313)</td>
<td>Metro</td>
<td>Vic</td>
</tr>
<tr>
<td>Dandenong (DGP 315)</td>
<td>Metro</td>
<td>Vic</td>
</tr>
<tr>
<td>Capricornia (DGP 419)</td>
<td>Regional</td>
<td>Qld</td>
</tr>
<tr>
<td>Townsville (DGP 412)</td>
<td>Regional</td>
<td>Qld</td>
</tr>
<tr>
<td>Sunshine Coast (DGP 418)</td>
<td>Regional</td>
<td>Qld</td>
</tr>
<tr>
<td>Central Wheatbelt (DGP 615)</td>
<td>Rural</td>
<td>WA</td>
</tr>
<tr>
<td>MidWest (DGP 612)</td>
<td>Rural/Remote</td>
<td>WA</td>
</tr>
<tr>
<td>Mid North Division of Rural Medicine (DGP 506)</td>
<td>Regional</td>
<td>SA</td>
</tr>
<tr>
<td>General Practice North</td>
<td>Regional</td>
<td>Tas</td>
</tr>
</tbody>
</table>
Figure 3: Map of Divisions of General Practice selected for the qualitative research
<table>
<thead>
<tr>
<th>Division (State)</th>
<th>Health Professionals</th>
<th>HMR consumers</th>
<th>Eligible Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dandenong (VIC)</td>
<td>Dandenong, Bangholme, Dingley, Oakleigh, Endeavour Hills, Narre Warren</td>
<td>Dandenong, Bangholme</td>
<td>Narre Warren (≥60 years)</td>
</tr>
<tr>
<td>Bankstown (NSW)</td>
<td>Bankstown, Yagoona, Edensor Park, Milperra, Greenacre, Condell Park, Randwick</td>
<td>Bankstown, Yagoona</td>
<td>Bankstown (≥60 years)</td>
</tr>
<tr>
<td>Mid North Division of Rural Medicine (SA)</td>
<td>Port Pirie, Peterborough, Crystal Brook, Clare, Jamestown</td>
<td>Peterborough, Crystal Brook</td>
<td>Port Pirie (≥60 years)</td>
</tr>
<tr>
<td>Capricornia (QLD)</td>
<td>Rockhampton, North Rockhampton, Gracemere, South Gladstone</td>
<td>Rockhampton, North Rockhampton</td>
<td>Rockhampton (≥60 years)</td>
</tr>
<tr>
<td>Sunshine Coast (QLD)</td>
<td>Maroochydore, Currimundi, Aroona, Dicky Beach, Sippy Downs, Morayfield, Nambour, Caloundra, Noosaville, Gympie</td>
<td>Maroochydore, Currimundi, Aroona</td>
<td>Marcoola (≥60 years)</td>
</tr>
<tr>
<td>General Practice North (TAS)</td>
<td>Launceston, North Launceston, Youngton, South Norwood, Newstead, Kings Meadows, Prospect, Scottsdale, West Launceston</td>
<td>North Launceston, Youngton, South Norwood</td>
<td>Launceston (≥60 years)</td>
</tr>
<tr>
<td>Mid West (WA)</td>
<td>Geraldton, Carnarvon, Brockman, Kalbarri, Northampton</td>
<td>Geraldton, Carnarvon, Brockman</td>
<td>Geraldton (≥60 years)</td>
</tr>
<tr>
<td>Wheatbelt (WA)</td>
<td>Northam, Toodyay, Corrigan, York, Beverley, Kellerberim, Bolgart</td>
<td>Northam</td>
<td>Northam (≥60 years)</td>
</tr>
<tr>
<td>Central Bayside</td>
<td>Hampton, Cheltenham, Brighton, Bentleigh, Chelsea, East Brighton, Elwood</td>
<td>Hampton</td>
<td>Cheltenham (40-60 years)</td>
</tr>
<tr>
<td>Townsville (VIC)</td>
<td>Townsville, Condon, Kirwan, Thuringowa, Douglas, Garbutt, Cranbrook, Hermit Park, Currajong</td>
<td>Condon, Kirwan, Thuringowa</td>
<td>Townsville (40-60 years)</td>
</tr>
</tbody>
</table>

### 2.4.1 Qualitative research with health professionals

The primary target groups were those professionals most directly involved in the HMR Program: GPs, community pharmacy business owners or managers, consultant accredited pharmacists and accredited pharmacists who worked within community pharmacies. CR&C also consulted with a range of other allied health professionals, including hospital pharmacists, practice nurses, practice managers, a palliative care practitioner, Aboriginal Health Workers and Culturally and Linguistically Diverse (CALD) community workers.
CR&C recruited health professionals with a range of experience with the HMR Program within each Division including: those who did not participate in the HMR Program at all; those who had participated in the programs and had since discontinued their involvement; those with a little experience; those who were very familiar with and experienced with the HMR Program; and health professionals who were wanting to participate in the HMR Program but were currently unable to do so. However, most GPs with no involvement or interest in HMRs tended to decline to participate in this research. As a result, the views of GPs who participated in this research are likely to be more positive than would be expected if a broader range of GPs were involved.

Recruitment of health professionals was conducted by experienced recruiters and researchers at CR&C (refer to recruitment screener in Appendix 5 to this report). To ensure the independence and integrity of the qualitative research, a range of recruitment methods were used to select health professionals to participate in the project. Over 50% of participants were recruited via cold calling; 27% were recruited via onwards referral from other health professionals; and 17% were recruited via contact lists provided by Division Facilitators.

The in-depth interviews with health professionals explored perspectives of the HMR Program hands-on (or hands-off) professionals who participate, or choose not to participate, or were currently unable to actively participate, in the HMR Program at a local level. The majority of interviews with health professionals were conducted face-to-face with the remainder followed up via telephone due to time and distance constraints. On average, interviews lasted around 40 minutes, with some substantially longer and a number of shorter duration, for example when a GP was unable to allocate any additional time or when the health professional had very few comments to make about the Program. Each interview involved a general discussion about the HMR Program, and went on to specific areas of discussion, as per the discussion guides (see Appendices 6 and 7 to this report), including:

- experience of the HMR Program, including examples of where HMR works and where it does not work
- benefits of participating in the HMR Program (for the health professional and consumers), and problems encountered in participation
- identifying areas of gaps in access to HMR
- identifying options for how the HMR Program could be enhanced, and ways to improve participation amongst consumers and health professionals.
Table 4: Health Professionals Interviewed

<table>
<thead>
<tr>
<th></th>
<th>Metropolitan</th>
<th>Regional</th>
<th>Rural</th>
<th>Rural/Remote</th>
<th>Regional/Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accredited Pharmacists</strong></td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>GPs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HMR</strong></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Non-HMR</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Community Pharmacies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HMR</strong></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Non-HMR</strong></td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Aboriginal Health Worker</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>&amp; Managers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CALD Health Workers</strong></td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other - Healthcare Professionals</strong></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Hospital</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clinic Nurse Manager</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pharmacist</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Divisional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MMR/QUM Facilitators</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>11</td>
<td>11</td>
<td>12</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
2.4.2 Qualitative research with consumers

The qualitative research with consumers targeted two main groups: those who had received a HMR and those who were considered to be eligible consumers, that is, consumers who met the guidelines and exhibited a number of risk factors but who had not received a HMR. See Appendix 8 for Eligible Consumer Screening Questions for recruitment purposes.

The views of eligible consumers were obtained via a series of focus groups and primarily explored participants’ perceptions and attitudes relating to GPs and community pharmacies, and experience with taking multiple medications. (See Appendix 9 for a Moderator’s Guide to Eligible Consumer Focus Groups). Specific areas of discussion included:

- trust and longevity of the participant’s relationship with their GP and community pharmacies, and patterns of use
- information about medication use including: prior experience of adverse reactions to medications, where people go for help/information on medications and who people expect to provide clarification on medication

One focus group was conducted in each of the ten Divisions, and groups were stratified by age:

- eight groups with participants aged over 60 (described as older participants)
- two groups with participants aged 40-60 (described as younger participants).

A tabulation of the focus groups by age group, state, Division and location of the focus group venue is provided in Table 3 above. The perspective of Aboriginal and Torres Strait Islander peoples and those from CALD backgrounds were included to a limited extent through involvement in groups in relevant Divisions.

Each focus group comprised between six and 12 participants (including, in some cases, accompanying carers), lasted approximately 90 minutes and was audio recorded with the permission of participants. Written informed consent was obtained from all group participants, and all participants were reimbursed between $60 and $70 to cover any expenses incurred through their participation in the groups.

Participants were recruited by an independent IQCA accredited field company based in Melbourne using a combination of cold-calling and onwards referral, and contact with local seniors groups. Participants were selected based on their responses to a recruitment questionnaire canvassing their use of medications and general health (the screening questionnaire used by recruiters is provided in Appendix 8 to this report). Characteristics of the participants who attended the focus groups included:

- an even representation of females (41) and males (43)
- eligible consumers aged from 41 (the youngest participant in the 40-60 years groups) to 98 years of age (the oldest participant)
- twelve carers attended the groups
- the lowest reported number of different medications that an individual was taking was five a day, whilst the highest reported number was 44 different prescription medications – not all taken daily however - (for an individual who was a kidney transplant recipient and also suffered from related conditions). It appeared that, on average, eligible consumers were taking around eight prescription medications a day.

Focus group participants also reported a range of medical conditions and having received a range of medical procedures including: organ transplants (e.g. liver, lungs, heart); heart conditions (including heart failure; multiple heart attacks, heart bypass surgery and high blood pressure); chronic health conditions (such as diabetes or arthritis); emphysema; and degenerative neurological conditions. Table
5 provides some specific examples of the health conditions and medication behaviours amongst this group.

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Illness/Eligibility for HMR</th>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>67</td>
<td>Female</td>
<td>Lung transplant recipient, as a result of emphysema; diabetes and kidney complications (10 prescription medications).</td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>Female</td>
<td>4 chronic degenerative neurological conditions; collapse of the spine; quadruple bypass; losing eyesight; chronic pain. Registered as frail (10 prescription medications)</td>
<td>Professional carer support package in the home</td>
</tr>
<tr>
<td>67</td>
<td>Male</td>
<td>Parkinson’s; high blood pressure; heart attack sufferer (20 prescription medications).</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Female</td>
<td>4 heart attacks; needs but is not eligible for heart transplant (11 prescription medications).</td>
<td>Indigenous</td>
</tr>
<tr>
<td>84</td>
<td>Male</td>
<td>Heart attacks; blood pressure; stroke; gout (13 prescription medications)</td>
<td>Carer wife also attended</td>
</tr>
<tr>
<td>60+</td>
<td>Male</td>
<td>Kidney transplant recipient (44 prescription medications, not all taken daily).</td>
<td>CALD</td>
</tr>
<tr>
<td>76</td>
<td>Male</td>
<td>Quadruple bypass; Fitted with a defibrillator; 15 different prescription medications.</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>Female</td>
<td>Hip operation, complications; knee operations; and chronic pain (17 prescription medications, 13 daily).</td>
<td>Carer for husband, who had a stroke</td>
</tr>
</tbody>
</table>

The views of consumers who had received a HMR were obtained via in-depth interviews and most were conducted in the consumer’s home. As with non-HMR consumers these interviews explored perceptions of and relationships with GPs and community pharmacies, and their experiences with taking multiple medications. Experience of HMRs and the Program were also explored (see Discussion Guides in Appendices 6 and 7), including:

- how the referral was initiated – by the consumer, GP, pharmacist or carer
- the consumer’s recollection of the visit and what was discussed
- any changes made to medication use as a result of the visit
- perceptions of their management of their medication before and after the visit
- perceptions of whether medication use had been or was currently affecting the consumer’s health
- information gained and other benefits of the program, as well as any concerns
- follow-up with GP and community pharmacy.

CR&C interviewed between two and three consumers within each of the ten Divisions visited. The majority of interviews were conducted in-person in the HMR consumer’s home, although a small number were conducted by telephone. Each interview lasted approximately 45 minutes and audio recorded with permission. A tabulation of the location of interviews conducted with HMR consumers by state, Division and location is included in Table 3 above.

Recruitment of HMR consumers was conducted by CR&C using a combination of onwards referral from consultant accredited pharmacists, community pharmacies and GPs. Respondents were selected based on their recent experience of a HMR, which, for most respondents, was within the previous three
months (the screening questionnaire used by recruiters is provided in Appendix 8 to this report). Most of the HMR consumer respondents were over 65 years of age and taking an average of eight different prescription medications daily.

During the course of the research, most HMR consumer respondents presented to the researchers as:
- on the high end of compliance with their medication
- quite systematic in the way they had set up their own systems to assist in managing their multiple medications and this systematic approach appeared to pre-date receiving the HMR
- unlikely to have had prior hospital admissions as a result of medication misuse, although one respondent did report such an experience

The researchers noted that a number of the HMR consumers did acknowledge that they had out-of-date medication in their cupboards prior to the HMR. However they did not appear to have been actively using that medication even though they had not discarded it.

Storage of medications did not appear to have been a matter of concern for the HMR consumers canvassed for the research.

Table 6 provides some specific examples of the health conditions and medication behaviours amongst the HMR consumers who were interviewed for this research.

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Illness/Eligibility for HMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>Male</td>
<td>Polimyelitis (Degenerative muscle condition), more than 12 prescription medicines</td>
</tr>
<tr>
<td>90</td>
<td>Female</td>
<td>Heart problems, 6 prescription medicines</td>
</tr>
<tr>
<td>81</td>
<td>Female</td>
<td>Rheumatoid arthritis, 5 prescription medicines</td>
</tr>
<tr>
<td>69</td>
<td>Female</td>
<td>Diabetes, high blood pressure, 3 prescription medicines</td>
</tr>
<tr>
<td>61</td>
<td>Female</td>
<td>Emphysema, 5 prescription medicines</td>
</tr>
</tbody>
</table>

2.4.3 Not an evaluation

It is important to note that this qualitative research project was not designed as an evaluation, although the findings provide a number of important questions to be addressed in a formal evaluation of the HMR Program.
3. Phase One: Literature Review

This chapter presents the key findings of the Literature Review stage of the project. This review of available literature since 2005 (on medication and management and the HMR Program) was conducted over December 2007 and January 2008. A number of revisions and additions were made over March and April 2008, and December 2008 and January 2009, in light of findings identified during the later stages of the research project, including the Call for Submissions.

The literature review commences an examination of recent and additional evidence relating to adverse drug events (ADEs) and hospitalisation related to these adverse events. Data relating to populations most at risk are examined - including those at risk and not receiving HMRs. There was no evidence identified regarding populations accessing the program but for whom benefits are limited.

Drivers of participation by health professionals and consumers are reviewed, together with descriptions of similar programs in Australia and internationally. Finally, recent research examining effectiveness and cost savings of medication reviews is examined.

3.1 Incidence of Adverse Drug Events - the need for HMRs

Australian and International estimates regarding the incidence of ADEs and resulting hospitalisations are explored in this section. The exploration of specific populations affected by adverse medical events is then provided in the following sections.

3.1.1 Incidence of ADEs in Australia

Estimating the frequency and seriousness of ADEs among the general population is notoriously difficult, largely due to methodological problems inherent in such studies, and inconsistencies in formal incident reporting rates.

In Australia, numerous estimates of the incidence of ADEs in hospital settings have taken place. Information from hospital studies come from multiple sources, ranging from small studies of hospital admissions data to analyses of national data sets. In contrast, studies into ADEs in the community have been researched less extensively (Australian Council For Safety And Quality In Health Care 2002). The main sources of information concerning ADEs in community settings are reviews of medication management services, emergency department presentations (without subsequent admission to hospital), and self-reports by general practitioners and community pharmacists (Australian Council For Safety And Quality In Health Care 2002).

Differing approaches taken to the measurement of ADEs, and extrapolation of study findings, have led to vigorous debate in the literature, notably between Miller (from the University of Sydney) and Roughead (from the University of South Australia). These differences of opinion will be reviewed in the following sections.

Hospital admissions studies of ADEs

Runciman, Roughead and colleagues examined drug-related hospital admissions as part of their 2003 systematic literature review and meta-analysis of ADEs and medication errors in Australia (Runciman, Roughead et al. 2003). As part of this comprehensive research, they examined events drawn from the 'Quality in Australian Health Care study, drug-related hospital admission studies, routine data collections, including the mortality data collection, the national and state hospital morbidity data collections, drug utilisation data from the Pharmaceutical Benefits Advisory Committee, the Australian Council for Health Care Standards indicator reports, studies of medication errors, the Australian
Incident Monitoring System, annual surveys of general practice activity, and the quality use of medicines in the community implementation trial’ (Runciman, Roughead et al. 2003).

According to their review, 2-4% of all hospital admissions are medication-related; among patients aged 75 years and over, this figure rises to >30% of unplanned hospital admissions (Runciman, Roughead et al. 2003). Based on the findings of their review, the authors estimate that between 32% and 77% of these admissions were potentially preventable (Runciman, Roughead et al. 2003). The authors postulate that if we accept that 2.5% of hospital admissions are related to medication, then there would be 150,000 such admissions per year in Australia (based on 1999-2000 hospital admissions figures (Runciman, Roughead et al. 2003).

However, drug-related hospital admissions studies tend to be undertaken in single hospitals, with relatively smaller sample sizes ($n < 1000$); they also typically depend on a doctor or pharmacist to determine whether admissions were related to ADEs (Australian Council For Safety And Quality In Health Care 2002). As such, they may not fully reflect the true incidence of ADEs in hospital settings.

The Australian Institute of Health and Welfare (AIHW) reported that 4.8% of hospital admissions were classified as ‘adverse events’ in 2004 (2005, p.47), remained constant in 2005 (2006, p.56) but rose slightly to 5.8% in 2006 (2007, p.48). Nevertheless, the classification used by the AIHW (referred to as an ICD-10-AM diagnosis\(^6\)) also encompasses adverse events resulting from falls or infections arising from medical procedures. Therefore, this definition is considerably broader than a mere ‘Adverse Drug Event’.

Studies of ADEs in community settings

Miller and colleagues recently investigated the frequency, cause and severity of ADEs among general practice patients (Miller, Britt et al. 2006a). Three sub-samples comprising 852 patients were drawn from the BEACH (Bettering the Evaluation And Care of Health) program, a large, continuous, national cross-sectional study concerned with general practice encounters in Australia. Unlike typical hospital admission studies, the classification of patients’ health problems is completed by GPs in conjunction with their patients, and hence more likely to be accurate. Hospitalisation and preventability questions were recorded for patients in the second and third sub-samples respectively.

Miller and colleagues’ research revealed that among patients presenting to a GP in the previous 6 months (Miller, Britt et al. 2006a):

- 10.4% of patients had experienced an ADE
- Those most at risk of experiencing an ADE were:
  - Patients aged over 45 years (compared to those aged under 45 years)
  - Children aged 1-4 years (compared to other children)
  - Female patients (versus male patients)
- Whilst the majority of patients in this sample had experienced only one ADE, one in six had experienced multiple events.

Miller and colleagues classified ADEs according to the severity and preventability of the event. They found that (Miller, Britt et al. 2006a):

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\(^6\) ICD-10-AM is the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification.
Among 551 patients for whom GP severity ratings were given, over half were given a ‘mild’ rating, a third were rated as ‘moderate’, with a ‘severe’ rating assigned to 10% of those experiencing an ADE (NB. Severe events were defined as a reaction resulting in hospitalisation and/or limitations of daily activities).

7.6% (out of 223 patients surveyed) had been hospitalised due to their most recent ADE

Among the 327 patients for whom GPs judged the preventability of the ADE, almost one-quarter of ADEs were considered preventable.

The authors cite Medicare Australia data which reveals that there were 96.3 million GP consultations in Australia during 2003-2004. (Miller, Britt et al. 2006a). The extrapolated results of their study thus suggest that if 10.4% of these GP consultations were with patients who had had an ADR in the previous 6 months, then GPs would have had over 10 million consultations with such patients during that year (Miller, Britt et al. 2006a).

Miller and colleagues state their study contained a number of limitations and potential sources of bias which could have limited the generalisability of their findings (Miller, Britt et al. 2006a). GPs participating in this study were constrained by time and the number of questions they could ask patients. Certain groups of patients are more likely to visit GPs due to their age and morbidity status; as such patients are more likely to have been selected to participate in this study, it is not possible to extrapolate the frequency of ADEs in patients attending GPs to a period prevalence of ADEs in the community. The study design prevented any grading the probability of causation, the identification of the individual drugs causing the ADEs, nor the period of exposure or dosage. The denominator in this study was all patients attending their GP, irrespective of whether they were receiving drug therapy. As a consequence, this study is likely to have underestimated the frequency of ADEs among patients taking medications. Finally, as the questions relied on the patients’ and GPs recall of events over the preceding 6 months, recall bias may have occurred.

In an editorial in the *Medical Journal of Australia*, Roughead and Lexchin (2006) have subsequently extrapolated Miller and colleagues’ (2006, p. 315) finding ‘that 10.4% of patients attending general practice experience an ADR’ to assert that almost 2 million Australians have an ADE annually (Roughead 2006; Roughead and Lexchin 2006). Furthermore, they state that around 1 million of these ADEs are ‘moderate’ or ‘severe’, with 138,000 requiring hospitalisation (Roughead 2006; Roughead and Lexchin 2006).

However, Miller and colleagues (Miller, Britt et al. 2006b) disputed this figure on the grounds that this calculation is based on all general practice patients having an equal chance of being in the sample. In their study they found that those most likely to experience an ADE were older people, the very young, and females. After adjusting for age and sex differences, Miller, Britt and colleagues (Miller, Britt et al. 2006b) estimated that 1.6 million people experienced an ADE in the previous 6 months, not in the preceding 12 months. Furthermore, they state that the annual incidence of ADEs is in fact likely to be higher than the figure proposed by Roughead and Lexchin, although they do not propose an alternative estimate.

The most recent estimate of consumer reported incidence of adverse events remains the population-based consumer survey conducted by Clarke (2001), who found that 6.5% of the Australian population reported experiencing an adverse event in the previous 12 months. Medication errors were the most commonly reported type of adverse event, reported by 36% of those who reported an adverse event (p41). Therefore, this consumer-based report estimated that around 2% of the Australian population over 18 years of age experienced a medication related adverse drug event during the previous 12 months. Whilst Clarke’s estimate of 2% is markedly lower that the 10.4% proposed by Miller (2006a), it is worth noting that these figures apply to different populations and time frames. Clarke’s (2001) study applies to the general Australian adult population over a 12 month period, whilst Miller’s (Miller, Britt et al. 2006a) estimate is
confined to general practice patients with a much higher attendance rate than the general population over a 6 month period; this explains why the estimate is much higher in the latter study compared to the former.

### 3.1.2 International estimates

International studies reflect the incidence of ADEs and associated hospitalisation reported in Australian studies. Pirmohamed and colleagues (Pirmohamed, James et al. 2004) estimated that up to 6.5% of hospital admissions could be attributed to an ‘adverse drug reaction’ in the UK and that the reaction directly led to admission to hospital in 80% of these cases. Pirmohamed concluded that ‘the burden of Adverse Drug Reactions on the National Health Service is high, accounting for considerable morbidity, mortality, and extra cost’ (Pirmohamed, James et al. 2004, p.15).

In the US, drug-related problems are frequent amongst older people receiving outpatient care, with 50.1 ADEs occurring per 1,000 person-years observed (Gurwitz, Field et al. 2003). It was estimated that 27.6% of ADEs were preventable (Gurwitz, Field et al. 2003). It is, however, difficult to compare this ‘person/year’ approach to incidence with the proportionally-based approach adopted in the Australian context.

Also in the US, Cannon and colleagues (Cannon, Choi et al. 2006) investigated the prevalence of inappropriate medications and dangerous interactions for a population of elderly patients receiving healthcare. Inappropriate medications were identified for 31% of consumers, and interactions were identified for 10% of consumers. The incidence of both were noted to increase for consumers receiving complex polypharmacy.

### 3.2 Populations at particular risk of Adverse Drug Events

A number of factors associated with an increase in the probability of an Adverse Drug Event were identified in the literature. Factors typically relate to age, cultural background, psychological health, recent hospital discharge and changes in medication regime. Further risk is noted when these factors interact - for example, the case of an elderly person with a complex medication regimen being discharged from hospital.

#### 3.2.1 The elderly

Medication-related illness is a significant problem for an elderly population.

Chan and colleagues (Chan, Nicklason et al. 2001) estimated that three in ten (30.4%) hospital admissions for elderly people may have been the result of an ADE based on an Australian study a survey of 219 patients. Of these ADEs, half were associated with reactions to a single drug (46% of ADE admissions) and one-quarter were associated with interactions between multiple drugs (25%). A similar study of ageing Australians was conducted in 2003 and concluded that a similar proportion of hospital admissions (26%) were attributable to ADEs (Runciman, Roughead et al. 2003).

Based on qualitative research with consumers, the Consumer Health Forum (2001) concluded that:

> Consumers, and particularly older consumers, often struggle to cope with complex regimens of multiple medicines and/or frequent changes in their medicines … the standard doctor-patient consultation is not always conducive to good communication about medicine issues (p.1).

Limited recent Australian data could be obtained for ADEs and admissions for specific populations. Research conducted before 2005 remains the only available reference point.

#### 3.2.2 People from Culturally and Linguistically Diverse backgrounds

Patients from a Culturally and Linguistically Diverse (CALD) background have twice the medication error rate than people for whom English is a first language (Fejzic and Tett 2004). Ajdukovic and...
colleagues drew two key conclusions regarding CALD communities and medications (Ajdukovic, Crook et al. 2007). Firstly, that these communities are at particular risk of misadventure and hospital admission due to language barriers together with differences in cultural approaches to medicine. Secondly, interventions aimed at reducing medication misadventure in CALD communities must use trained interpreters to ensure that the purpose of the intervention is clear, and that the consumer fully understands the requirements of their medication regimens.

3.2.3 People living with mental illness

No available studies have explored the relationship between ADEs and people living with mental illness in the community. Maidment and colleagues, however, reviewed research into the incidence, causes and harms of medication error in UK mental health care services, with a primary focus on psychiatric inpatients and prescriptions dispensed by hospital pharmacists (Maidment, Lelliott et al. 2006). The study reported few errors that resulted in actual serious harm to patients but noted adverse events involving psychotropic drugs were common, and patients with mental health or cognitive disorders (e.g. dementia) were at higher risk of medication misadventure because of their diminished capacity. Maidment considered these patients ‘may be less articulate and less likely to question a prescription, a change in the medication regimens, potential side effects or whether monitoring is required’ (Maidment, Lelliott et al. 2006, p.412) It was also suggested that persons with age related cognitive disorders such as dementia were similarly exposed to risk. Whilst this group is clearly susceptible to ADEs, it is worth noting that Maidment’s study focused on inpatients, a population outside the scope of HMRs.

3.2.4 People recently discharged or transferred from hospital

Many studies have cited the importance of discharge from hospital, including transfer to another facility, as a period that poses a high risk of medication misadventure.

Notably, patient satisfaction surveys identify the information provided to patients on discharge, particularly information about medications, to be the areas of lowest satisfaction with hospital services (Victorian Government Department of Human Services 2008). Consumers are more dissatisfied with information about medications on discharge than any other aspect of their hospital experience.

In the US, one study examining the prevalence of medical errors related to the discontinuity of care from an inpatient to an outpatient setting found that after hospital discharge 49% of discharges experienced at least one medical or medication error (Moore, Wisnivesky et al. 2003). Furthermore, between 19% and 23% of discharges suffered an adverse event, most commonly an ADE (Moore, Wisnivesky et al. 2003). From the consumer’s point of view, this high incidence of ADEs was attributed to changes to the medication regimen, new self-care responsibilities that may stress available resources, and complex discharge instructions.

In the UK, Brown and colleagues reported that the period immediately following discharge from hospital is characterised by significant changes to medication regimens, inaccurate, incomplete or uncommunicated medication information and a time of great stress for the consumer (Brown, Raue et al. 2006).

In the US, Foust and colleagues also demonstrated levels of elevated risk during discharge or transfer. The study concluded that for older adults, the increased likelihood of an ADE post-discharge is characterised by an abrupt shift in responsibility for medication management (Foust, Naylor et al. 2005, p.106). It was also estimated that ADEs were the most frequent type of medical injury following hospital discharge (Foust, Naylor et al. 2005).

A review by Sorenson and associates identified a number of additional ADE risk factors including; a strong relationship between the number of medications taken and the incidence of ADEs; and the storage of medication in multiple locations (Sorensen, Stokes et al. 2005).
3.2.5 Specific risk factors

In addition to the general factors described above, a number of specific risk factors in relation to ADEs have been documented. These specific risk factors have been identified by the Pharmaceutical Society of Australia, and are based on Australian pharmacists and GPs notes from HMR visits (Pharmaceutical Society of Australia 2002). These specific risk factors include:

- Patients with three or more medical conditions
- Patients living alone, or who were housebound
- Patients with dexterity problems
- Patients taking more than 12 doses per day
- Patients with a newly diagnosed condition requiring new medications
- Patients on medications with a narrow therapeutic index requiring therapeutic drug monitoring
- Patients who were newly trained in the use of medication equipment (inhalers, compliance aids, etc)
- Patients with a history of inadequate or altered therapeutic response.

These risk factors reflect the criteria for an HMR.

In summary, the literature indicated that older persons, those living with a mental illness and those from CALD backgrounds are particularly at risk of ADEs. Discharge from hospital and complicated drug regimes are also identified as indicators of a heightened risk of an ADE.

3.3 Barriers to participation in the HMR Program

Studies have revealed a number of factors that present a barrier to effective access to HMRs. Consumer awareness of the program is of primary concern. A lack of integration into business practices together with professional and time-related frustrations were reported to be a common concern for professionals.

3.3.1 The GP perspective

Tatham (2007) describes the many frustrations that GPs experience in conducting HMRs, but does not cite references nor document how these views were obtained. Nevertheless, these frustrations are said to include:

- A feeling that community pharmacists are too busy to effectively participate in the HMR process
- A lack of training and qualification of pharmacists in medication management of this nature
- An ‘agnostic’ and ‘flippant’ supply of some medications by some pharmacists
- An inappropriate supply of information by pharmacists, who were reported to sometimes supply irrelevant or unhelpful information as part of HMRs
- A lack of control over who completes the review
- The amount of time required for the review
- Confusion about the HMR process.

Amongst a small (n = 16) purposive sample of six pharmacists, six patients and four GPs, Morris (2007) qualitatively explored factors contributing to low uptake of HMRs for GPs. Key concerns from the GP’s perspective were:
A lack of time for HMR initiation during consultation and difficulty in remembering to recommend a HMR in the first place the variable timeframe for completing HMRs and recall systems.

Difficulties associated with information flow, including patient not taking referral to pharmacist, difficulty in providing relevant patients history to contracted pharmacist and the nature of pharmacists report.

The complexity of the HMR process, in particular the paperwork and long chain of people and steps involved.

No availability of accredited pharmacists, inability to choose conducting pharmacist and lack of relationship with accredited pharmacist.

Furthermore, Yu and associates pointed to low levels of awareness of the specific details of HMR requirements among providers (Yu, Nguyen et al. 2007). In particular, this study suggested that while GPs are willing to make a HMR referral, many were unfamiliar with the referral process.

### 3.3.2 The pharmacist perspective

Some commentators reported that the HMR Program is currently not integrated into the business models of many pharmacies. Gowan reported in the *Australian Journal of Pharmacy* that time and reporting requirements associated with HMRs are not part of normal pharmacy businesses (Gowan 2005a). For many, HMRs are an ‘add on … after-hours’ activity (Gowan 2005a). This finding was supported by Roberts and colleagues who found:

\[
\text{… a large number of pharmacies do not appear to be integrating HMRs into their practice by using a staff pharmacist to undertake review, instead using external consultants … the lack of complete integration may have implications for future services (Roberts, Benrimoj et al. 2005, p.808).}
\]

In an editorial piece in the *Australian Journal of Pharmacy*, Smith (2004) describes the very high cost and time barriers associated with pharmacist participation in HMRs. Smith estimates that between 40 and 50 hours of time is required for pharmacists to complete the extra course-work and competency test required for accreditation. As Smith herself puts it: ‘no-one has an extra 40 hours hidden in their back pocket’ (Smith 2004).

Similarly to the findings reported for GPs, (Morris 2007) identified a number of barriers from the pharmacists’ perspective. These barriers include:

#### Time and resource constraints:

- Informing patient about HMR adds time to the review when GP did not explain initially
- Travelling time
- Conducting and/or writing review outside work hours
- Lack of resources
- Quality of report compromised due to time constraints
- Remuneration inadequate due to variable workflow

#### Communication issues:

- Poor communication between GPs and pharmacists, in particular lack of face-to-face communication and lack of professional relationship
- Expectations from GPs
- Lacking confidence in making clinical recommendations to GPs
- Detail lost between conducting and accredited pharmacists
- Unreceptive patients due to their lack of understanding
Administrative issues:
- Logistically complex - many steps involved prior to conducting HMR
- Prolonged and variable timeframe for completion of entire HMR process
- Accreditation process: too tedious, time-consuming, paper work
- Accreditation process: lost clinical knowledge since university
- Uncomfortable interviewing strangers in an unfamiliar environment - safety

Other issues:
- Requires a lot of discipline
- Pharmacists not proactive in referrals
- Older pharmacists feeling they have lost clinical knowledge
- Community pharmacies mainly concerned with primary care.

3.3.3 Consumer perspective

There is evidence from the literature of low levels of awareness of HMRs among consumers, as well as low rates of participation among certain populations, some of whom have an increased risk of medication misadventures compared to the general population.

Urbis Keys Young’s evaluation of HMR program (pharmacy component) commissioned by the Pharmacy Guild in 2005 cited a lack of awareness of HMRs amongst consumers as a key barrier to participation. The absence of an awareness, education or communications campaign was also noted (Urbis Keys Young 2005).

Several smaller studies also found low levels of awareness. An informal small-scale Australian study found low levels of awareness amongst pharmacy consumers, with 74% of customers unaware of HMRs (Baldock, Kaufman et al. 2006). Yet 84% of these customers would be happy to take part in a HMR if it were offered. While Kyle and Nissen concluded that very few elderly Australians are aware of the existence of HMRs and how it could be of benefit (Kyle and Nissen 2006). The finding was based on a focus group study that investigated the feasibility of a nurse referral system to promote uptake of HMRs.

Barriers also exist for consumers who are aware or are offered an HMR. Based on qualitative consumer consultation, the Consumer Health Forum (2001) listed a number barriers to participation in HMRs, including a fear of being ‘checked up on’ and radical change to medication regimens. Other attitudinal factors that limited consumer uptake of HMRs were characterised as:
- A feeling that a review was not needed
- Feeling competent to manage the prescribed medication regimen
- A fear of being found out to be doing something wrong
- Concerns over possible cost implications.

The study concluded that:

*Very often, the patients who had refused the service had the most need of it* (Consumer Health Forum 2001).

The Morris (2007) research also listed barriers from a consumer perspective. These barriers included a lack of awareness, a fear of being policed and concerns over security. The list of issues included:

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7 The exact sponsor or source of funding for the study was not reported in the article, nor was the size of the sample.
Unaware the service is available
Patients scared as they think they will be policed
Safety concerns of particular patient groups, e.g., elderly ladies living alone
Not interested/ignorant
Stockpilers or medication hoarders may not want a health professional entering their home
In denial about their illness or condition
Extent of GP relationship
Embarrassed by their health condition/s and don’t want to discuss sensitive issues.

The literature has identified a number of barriers to accessing HMRs among specific populations. Specific populations with particularly low access to the HMR Program include people from CALD backgrounds, males, the aged, and Indigenous Australians. Both people from CALD backgrounds and the elderly have previously been identified as groups experiencing high relative rates of hospitalisation due to medication misadventure. A limited number of studies regarding access to HMRs for specific populations conducted after 2004 could not be sourced for this review. Further, much of the evidence presented in this section is qualitative and/or anecdotal in nature.

People from Culturally and Linguistically Diverse backgrounds

As previously described, CALD communities demonstrate a high need for HMRs due to high rates of medication misadventure and hospital admissions. One barrier resulting in a potential gap in access for CALD communities in Australia relates to language. The need for trained interpreters to overcome language barriers for particular consumers when conducting HMRs was stated in the previously mentioned Australian paper by Ajdukovic and colleagues (Ajdukovic, Crook et al. 2007). The need for interpreters was further emphasised by Martin (2006) in relation to pain management:

_Funding is also needed for interpreters … more than 50 languages are spoken in Australia and in order to meet this requirement and make HMRs more efficient, this problem needs to be addressed _ (Martin 2006, p.44).

Men

Men were also reported to have lower participation rates compared with women. In Australia, Gowan (2005b) concluded that:

_Males in Western society are less inclined to take an active role in maintaining their own health and are less likely to seek professional help _ (Gowan 2005b, p.831).

This tendency was described by Gowan using notions of ‘strength in silence’ and a propensity to feel ‘invulnerable’.

The impact of this finding was compounded by the fact that men have a significantly greater incidence of a number of medical conditions with complex medication requirements (cardio-vascular disease etc). The findings of the study are supported by later examination of HMR uptake data which concluded that ‘a greater number of women are having this service compared with males’ (Gowan 2007, p.69).

The elderly

A trial of a nurse referral system for HMRs identified key barriers relating to the way in which HMRs are ‘sold’ to consumers. Focus group research with elderly people who might benefit from a HMR (Kyle and Nissen 2006) suggested that a number of barriers lead to reluctance to take part in an HMR, including:
Many older Australians did not follow through with a review due to ‘information overload’ and the written and verbal information exchange required for an HMR was seen as daunting for some older Australians.

Many of the elderly consumers interviewed became confused and the volume of information and consent process was thought to limit consumer interest in a HMR.

Some elderly Australians felt that they may lose control of their medication management as a result of an HMR.

Some elderly Australians had sufficient trust in their GP, and saw the HMR process as being unnecessary.

**Indigenous Australians**

Indigenous Australians face significant barriers accessing HMRs. Issues affecting this population, which were identified in the (Urbis Keys Young 2005) evaluation of the HMR program, include the following:

- Lack of access to medications or inappropriate use of them are significant problems in Indigenous communities. Nevertheless, basic environmental health problems (for instance, overcrowding and poor sanitation) may in fact overshadow the need for individual medication management. HMRs may thus not be perceived as a high priority by under-resourced Aboriginal Health Services.

- Indigenous people may use ‘bush medicines’, with which accredited pharmacists are not well acquainted.

- Indigenous people may not feel comfortable about being visited at home by a non-Aboriginal pharmacist not known to them.

### Other barriers

Ponniah and colleagues identified a number of specific barriers (Ponniah, Shakib et al. 2008). Using a qualitative methodology featuring interviews with GPs and pharmacists, some of the key barriers identified included:

- The time-consuming nature of HMR facilitator involvement in the process
- The intensive workload for pharmacists
- Difficulties in the timing of HMRs due to unpredictable discharge times
- Frustrations for all parties involved due to delays in the completion of the HMR process.

Peterson and associates concluded in an editorial piece that the organisation of a HMR should receive the same urgency in community pharmacy practice as dispensing a prescription (Peterson, Jackson et al. 2006).

Similar systemic and organisational barriers have been reported overseas. In America, Cameron (2005) listed a number of factors that influence uptake of HMR-like programs, including the use of overly strict criteria for individuals who are authorised to provide services; limiting the number of eligible participants (both provider and consumer); and providing levels of payment that do not cover expenses incurred.

Another American study that examined nurses’ roles in home medication management highlighted a similar difficulty in communication channels between nurses, pharmacists and GPs. This lack of communication was reported to impede the conduct of effective home review and to significantly increase rates of medication duplication, and drug interactions (Kovner, Menezes et al. 2005).

In summary, a wide range of barriers to participation in HMRs and similar programs have been identified both in Australia and overseas. Key barriers include time pressure and inter-professional
communication. For consumers, a lack of awareness and understanding were identified as barriers to communication.

3.4 **Drivers of consumer and provider participation**

The literature describes a number of factors that drive participation in HMRs. These include professional recognition, acknowledgement of HMRs as best practice and a general willingness to undergo a HMR for consumers. Notably, most literature has been produced by pharmacist and MMR facilitators, and little generated by GPs.

3.4.1 *The GP perspective*

MMR facilitators (Clifopoulos 2007) report that the key motivating factors that drive GP participation in HMRs include:

- Improving patient awareness of their medications
- Decreasing polypharmacy and costs to all
- Gaining a second opinion on prescribing trends
- Gaining a more complete understanding of the patient and their attitude towards their health and medications
- Assessing whether patients see other health care professionals, and whether they acquire medications from any other sources
- Providing an easy medication template for referral and medico-legal purposes.

3.4.2 *The pharmacist perspective*

Freedman (2005) describes the uniqueness of the Australian HMR Program, and states that pharmacist participation in the process is a privilege that is not available overseas. Freedman's editorial article in *Australian Journal of Pharmacy*, stated:

*The concept of being paid to provide a professional service is a privilege that few pharmacists in the world have ever achieved* (Freedman 2005, p.324).

In another editorial article in *Pharmacy News*, Roberts (2006) describes HMRs as ‘the best loyalty club in pharmacy’ and a very effective means to ‘generate customer loyalty while at the same time increasing business’ (Roberts 2006, p.8). Roberts explains the potential to reap business benefits from HMRs and likens HMR consumers to ‘frequent flyers’.

Historically, remuneration provided for HMR services was seen by some practitioners to be insufficient to cover the cost of the review. However, recent articles report that the increase in remuneration in November 2006 has gone some way in addressing this barrier.

Annabel (2006) reports in the *Australian Journal of Pharmacy* that $220 per HMR is required to make the review profitable for pharmacists. It was estimated that when combined with accreditation incentives, pharmacists were remunerated at around $220 per HMR.

Improvements to funding of HMRs for community pharmacy owners are further emphasised in an editorial article by Peterson and associates (2006) in the *Australian Journal of Pharmacy*. They stated:

*There should no longer be any financial impediments to community pharmacy owners and individual pharmacists embracing HMRs* (Peterson, Jackson et al. 2006, p862).
3.4.3 The consumer perspective

An evaluation of the HMR Program commissioned by the Pharmacy Guild in 2005 concluded that consumers are happy to undergo a HMR, and recognise the benefits arising from the process (Urbis Keys Young 2005). Specific health benefits arising from HMRs cited by consumers included reductions in symptoms and side effects, an increased sense of wellbeing, and indirect benefits arising from better management of their health (such as improved diet and cholesterol management). Other general benefits of HMRs reported by consumers included:

- Reassurance and improved confidence related to medications
- An improved relationship with the pharmacist and/or GP
- Increased knowledge and sense of control over their medication and health
- Increased understanding of the importance of compliance with medication regimes. (Urbis Keys Young 2005).

These findings are reflected in later editorial content in *Pharmacy News*, with one commentator stating that: *Needless to say, the public think that HMRs are fantastic* (Freedman 2005, p.325).

Consumer consultations conducted by the Consumer Health Forum (2001) led to the conclusion that many consumers are more than willing to take the opportunity to discuss and review their medications. The outcomes of taking this opportunity were also reported to be positive. The study concluded:

... many consumers are particularly attracted by the opportunity (offered by home-based medication reviews) for detailed discussion and information exchange on medication matters of importance to consumers. This in turn can give consumers greater control in managing their medicines and a greater sense of control over their medications and conditions (p. 1).

3.5 Best practice in the conduct of HMRs

Many commentators have documented consideration of ‘best practice’ in the conduct of HMRs. These include effective communication, collaboration, provision of information to consumers, and appropriate remuneration for physicians.

Communication between all parties to the HMR was seen as essential to the review process. In an editorial article in the *Australian Journal of Pharmacy*, Rigby (2007) states:

... good communication skills have a significant positive impact on patient understanding and satisfaction leading to positive outcomes and improved adherence (Rigby 2007, p.34).

In an article published in the *Journal of Pharmacy Practice and Research*, Blennerhassett and colleagues describes the need for close and effective collaboration, including collaboration with hospital staff during the high-risk period of discharge and transfer (Blennerhassett, Cusack et al. 2006). In summarising consumer pathways and communication during discharge, Blennerhassett and colleagues concluded:

*GP*, community pharmacists and accredited pharmacists reported that collaboration between community liaison pharmacists and the medication management review facilitator improved the hospital and community link and Home Medicines Review implementation (Blennerhassett, Cusack et al. 2006).

Blennerhassett reported that effective communication should be promoted by strong procedures and protocols for hospital and community-based practitioners. The role of the HMR facilitator was seen to be essential to the effective implementation of these systems.

Collaboration with other interested parties and stakeholders, such as caregivers, is also crucial to HMR best practice. The importance of this approach was highlighted in a study of medication reviews amongst people living with Alzheimer’s or dementia in American communities and study concluded that:
... interaction with beneficiary caregivers is essential for medication regimen reviews ... Care-givers, sometimes with the aid of special packaging, have a central role in ensuring compliance with drug regimens (Medicare Rights Centre 2007, p.90).

In an observation study amongst the Australian veteran community (n = 89,497) and their GPs (n = 15,014), Roughead (2007) highlighted the benefits of notifying and educating doctors who treat veterans that meet the HMR criteria and of informing consumers of the availability and benefit of HMRs. The study was conducted as part of the Medicines Advice and Therapeutics Education Service (MATES), the HMR Program funded and conducted by the Department of Veterans Affairs specifically for the Veteran community (discussed in more detail in Section 3.6.1). The study documented a fourfold increase in the number of veterans who received an HMR and an increase in the number of GPs providing referrals amongst those who received the intervention. While the duration of the effect was not sustained over time Roughead concluded that:

Patient specific feedback provided to GPs supported by education materials increased HMR rates for targeted veterans and increased GP participation in the delivery of HMRs (Roughead 2007, p.797).

3.6 Other models of medication review

A number of approaches to medication reviews and other measures for improving medication safety have been adopted in Australia and overseas. An overview of these approaches and possible implications for the HMR Program is provided in this section.

3.6.1 The Australian context

A number of other medication management services are available in Australia including general nursing care, medication management for patients with specific conditions and care for specific populations such as veterans and palliative care patients.

The Royal District Nursing Service (RDNS) offers the Hospital in the Home (HITH) Program in Victoria, whereby the hospital purchases domiciliary nursing services on a fee-for-service basis. Hospital staff make contact with the service prior to the patient being discharged. HITH provides general nursing care in addition to medication management such as monitoring post-operative recovery, intravenous therapy and pain management (Royal District Nursing Service 2008). A search of health departments in other states did not yield information about similar State-based programs outside of Victoria.

The University of Queensland, a Brisbane community nursing service and DGP conducted a study looking at community nurse identification of patients at risk of medication misadventure, and developed and tested an approach for community nurse HMR referral. The HMR model has a provision whereby anyone who is concerned about the risk of medication misadventure can request a HMR from the patient’s GP, and given the high level of care provided in-home and the primary care and triage skills of community nurses they were identified as a logical professional to request a HMR referral. Although the uptake of HMRs was low, this study identified problems related to research processes, delays in Program delivery, as well as consumer resistance. Nevertheless, GPs and other healthcare professionals recognised and supported the benefit of the referral of patients for HMRs by community nurses (Kyle and Nissen 2006).

The Department of Veteran’s Affairs Veterans MATES program identifies members of the veteran community who are living at home and at risk of medication misadventure by using data from prescription claims. The program provides information targeted at assisting and improving the management of medications by the veteran community (Department of Veterans Affairs 2008). The program places veterans’ and their GP are at the core of the program and aims to create collaborative team that includes veterans, their carers, their community pharmacists, other medical specialists and health practitioners. A chief component of the MATES program is to educate veterans about managing
their chronic medical conditions and to promote better communication between veterans’ and their healthcare team. MATES is delivered through clinical modules every 3-4 months. Each module focuses on a specific aspect of medicines management, for example: diabetes, caring for your heart, heartburn and antidepressants. There is also a separate module available for GPs and pharmacists.

In addition to the HITH program discussed previously, the Royal District Nursing Service operates a Palliative care and Bereavement support program, which provides care to palliative patients including medication management and other nursing support (Royal District Nursing Service 2008).

The Hospital Admission Risk Program Chronic Disease Management (HARP) was established by the Victorian Government in 2001-2002. The program was designed to address continuous increased demand on the hospital system by targeting frequent hospital attendees including people with chronic heart disease, chronic respiratory disease, diabetes and those with complex psychosocial or age related needs. HARP offers client targeted interventions such as education, medication review and individualised action plans. In a similar manner to the MATES program, HARP provides a core healthcare team approach. According to the Program’s website, HARP was reported to have met its key objective: reducing avoidable hospital use in the Victorian hospital system (Victorian Government Health Information 2008).

The Commonwealth government, with the Pharmacy Guild, established the Patient Medication Profiling Program in May 2008. The program intends to reduce the risk of medication-related adverse events by assisting people to better understand and manage their medications, including prescription, over the counter and complementary medicines (Pharmacy Guild of Australia 2008, online), as well as increasing the patients’ awareness about the medications they are taking, how they should be taken, what they do and how to identify them. Unlike HMRs, this program takes place in-pharmacy, and involves provision of a list of medicines and information about these medicines.

The Department of Health and Ageing established the Residential Medication Management Review (RMMR) funded under the Medicare Benefits Schedule (MBS) for permanent residents residing in aged care homes, including veterans. Similar to the HMR, the RMMR is specifically aimed at residents of aged care homes for whom quality use of medicines may be of concern, or those who are at risk of medication misadventure due to their medical condition or medication schedule. In this program, a GP conducts the review in collaboration with the pharmacist, allowing the GP to provide medical information to inform the pharmacist’s part of the review (Department of Health and Ageing 2008). These reviews can be collaborative, involving both GPs and pharmacists, or they may be conducted by an accredited pharmacist alone. The collaborative approach, however, is regarded as best practice. Such reviews also incorporate quality activities such as education of staff in aged care facilities, but do not extend to discussions with patients.

Video telepharmacy shows some promise as an alternative delivery method, with an unpublished study amongst nine consumers reported to be particularly useful for people in remote locations with complex medication regimens. Those consumers who had undergone an HMR remotely using video conferencing equipment reported that the process was satisfying and useful (University of Tasmania 2006), and the study concluded … the trial was a success and telepharmacy is a practical alternative in the situation where distance makes it difficult to conduct a medication review.

3.6.2 Medication management approaches employed internationally

A number of different approaches to medication management are employed internationally, including the use of internet technologies and comprehensive education packages. An overview and the impacts and outcomes of the different approaches to medication management are discussed in the following sections.

A UK based company has designed a computer program that consumers can download: the program E-Pill Pal (E-PillPal 2008). The program works by reminding patients when to take their medication -
using technologies such as mobile phones, PDA or pagers. A person’s full medication history can be uploaded to a PC. The company also markets a range of digital watches with alarms and pill dispensers. According to the manufacturer, these programs are reported to be of added benefit in lowering the risk factors for those whom quality use of medicines may be of concern or those who are at risk of medication misadventure in conjunction with medication reviews (E-PillPal 2008).

The Institute for Safe Medication Practices (ISMP), an independent American not-for-profit healthcare organisation, maintains a number of medication management materials, programs and systems aimed at increasing medication safety. Using a range of error reporting tools, ISMP bridges the gap between practitioners, patients and pharmaceutical companies in the promotion of safety and effective management. A 2003 evaluation of the effectiveness of the 194-item ISMP Medication Safety Self-Assessment for hospitals revealed that participating organisations had implemented a wide variety of medication safety improvements (Lesar, Mattis et al. 2003) although this tool’s effectiveness in reducing medication error has not yet been established in Australia (Hughes 2008). Further, the ISMP produces a range of information products and programs, including teleconferences on current medication use issues; offering posters, videos, patient brochures, books and other resources (Institute for Safe Medication Practices 2008).

The PILL (Pharmacokinetics Involves Lifelong Learning) program in America is an intervention very similar to the HMR Program. PILL was an all-inclusive medication management pilot program trialled in Los Angeles, and based on a collaborative approach to client care. Eligibility for the service was confirmed through an assessment procedure, and all clients were referred to PILL by the Southeast Area Social Services Funding Authority. On confirmation of eligibility, the client was referred to a pharmacist who visited the client in their home and carried out a comprehensive in-home review. The pharmacist made note of all medication information, in addition to undertaking a review of the clients’ understanding of each medication, including the clients’ ability to read the instructions and open the containers that the medication was stored in. On completion of the pharmacist’s assessment, an individualised care plan is devised. The pharmacist also assisted clients with medication management and education and referral to additional services where necessary (Beck and Rodman 1995).

Other forms of medication review programs were identified in the literature pertaining to health outcomes for participants. The findings and limitations of studies that evaluated these alternative models are discussed in Section 3.6. The following alternative models under evaluation included:

- **The HOMER Program in the United Kingdom (UK)**
  Under this program, recently discharged patients were referred to a ‘review pharmacist’ for a home visit to assess the patient’s ability to adhere to medication regimens and appropriately self medicate. The pharmacist then provided education and information, and when necessary adjusted the patient’s regimen. When risk of an adverse event was identified the GP was notified and corrective action taken. An evaluation of this program concluded that the intervention had little effect over quality of life, and actually increased the likelihood of a hospital admission and called for further research to identify more effective methods of medication review (Holland, Lenaghan et al. 2005; Holland, Desborough et al. 2008).

- **The POLYMED program in the UK**
  The POLYMED program targeted people aged over 80 living in their own homes. Selected participants had their patient and medication information reviewed by a pharmacist prior to the scheduling of a home visit. As with the HOMER program, the review pharmacist educated where necessary and removed medications that were unnecessary and/or risky. The pharmacist and GP also meet to discuss the medication regime with corrective action taken as necessary. A follow-up visit was conducted six to eight weeks after the initial home visit. Like the HOMER trial, no impact on clinical
outcomes or quality of life was noted but an overall reduction in the number of medications prescribed was demonstrated (Lenaghan, Holland et al. 2007).

- **Brown Bag check-ups in the US**

  Under the US Brown Bag check, all prescription, over-the-counter and herbal medications that are used by the patient are taken to their pharmacist in a brown bag for review. The review can take place at the pharmacy, in the community, or in specific settings such as community housing. The pharmacist examines medications in the hope of identifying unnecessary medications, improper drug selection or dosing, poor compliance and the need for additional drug therapy. The involvement of a GP is not noted in the literature. A study of these reviews concluded that they are of value in the identification of Medication Related Problems (MRPs). The Brown Bag approach has been utilised in Denmark and Canada, and in the UK Nathan and associates note that some smaller scale projects have also been set up (Nathan, Goodyer et al. 1999).

3.6.3 **Implications for the HMR Program**

The review of related medication review programs revealed that the HMR Program stands alone in Australia in providing Home Medicines Reviews at home for the general population. However, many of the services outlined complement HMR and indicate further augmentation could see considerable gains to HMR as a whole.

The University of Queensland study endorsed the use of community nurses and described them as ‘...a largely untapped resource for identifying people at risk of medication misadventure based on assessments made in their home environment’ (Kyle and Nissen 2006, p329). The study also supported an open referral process for healthcare professionals and argued that open referral could minimise confusion and delays. The importance of this is further highlighted within the PILL pilot program which permits referral by case managers.

The educative components of MATES could further contribute to HMRs achieving its objective to “improve the patient's, and health professional's knowledge and understanding about medications”. Although it is noted that during the HMR a pharmacist often provides health promotional material, MATES provides clinical modules of education at regular intervals during the year. The education component of MATES not only raises awareness of chronic health issues and gives patients control of their health, but also creates a community of health professionals that are better informed about the need for medicines review, risk factors for medication misadventure, HMR, its benefits and how to access the services.

Collaboration as described in the MATES and PILL programs could be advantageous to HMR, and while it does exist to some degree already, there could be room for further development. The individualised care plan used in PILL could benefit members of the population in cases where patients have multiple services and providers involved. It is acknowledged that HMR has some provision for this currently and there are privacy issues that can make communication between services difficult. However, consideration could be given to more collaborative models for particular members of the community.

Program specific (E-PillPal 2008) and broad studies about the use of information technology in medication safety and management suggest that these systems can be effective in the identification of medication errors (Bates, Scott Evans et al. 2003) and the reduction of ADEs (Kaushal, Barker et al. 2001). However, these studies point out that limited data is available for specific packages. An evaluation specifically focusing on medication management technology for use in the home could not be sourced for the review.
3.7 Outcomes of participation in HMR and comparable programs

The literature on outcomes of HMRs and other medication review processes provide inconsistent evidence of efficacy. A number of studies from Australia and overseas are presented below. Most international interventions bear similarities to the program, but do not use the HMR model of service delivery and caution is urged in the over-application of findings research to the Australian context (Rigby 2007; Kelly 2007a; Kelly 2007b).

Medication review outcomes described in the literature can be broadly classified into two types:

- ‘Primary outcomes’ such as the identification of medication-related issues, changes to regimens and increased understanding of medication requirements
- ‘Secondary outcomes’ such as reductions in hospital admissions and health system costs, improved health and quality of life.

It may seem reasonable to assume that the former ‘primary’ outcomes would logically lead to the latter ‘secondary’ outcomes. The review of the literature revealed evidence that HMRs were affecting primary outcomes; however, evidence for secondary outcomes were limited and, at times, contradictory.

3.7.1 Outcomes and evidence of efficacy

Australian studies looking at efficacy of the HMR Program reported that the program is successful in the identification of medication related issues and in suggesting alternatives to problematic regimes.

Based on a non-controlled study of one Australian practice (n = 49), Quirke and associates (2006) concluded that HMRs were effective in identifying issues and affecting regime change (Quirke, Wheatland et al. 2006). Following a HMR, the study found that 20% of consumers discarded some of their medications and a further 25% changed their medication regimen. Moreover, Quirke felt that … HMR may improve delivery of appropriate medicines and relationships between GPs, pharmacists and patients (Quirke, Wheatland et al. 2006, p.266).

In a study of a pilot program of HMRs for recently discharged patients, Nguyen and colleagues concluded that the intervention was effective in identifying clinically significant issues (Nguyen, Yu et al. 2007). In 21 reports, 98 issues were identified and of these 90% were described as clinically significant and 2 cases were potentially life saving (Nguyen, Yu et al. 2007, p.111).

Meanwhile, in 2006 Bell and associates concluded that HMRs are an effective mechanism to facilitate pharmacy-led investigation into medication use among people receiving treatment for mental illness in a community setting. The study examined HMR documentation from a sample of home visits in Sydney (n = 49) and found that a high incidence of drug-related problems and of overall drug use was identified and documented during the HMRs (Bell, Whitehead et al. 2006, p.415). The study also noted that recommendations made by the pharmacist were often accepted by the GP. For instance, when a non-drug treatment was recommended, the GP acted upon this advice 41% of the time, whilst when a new drug treatment was recommended, the GP heeded this advice in 49% of cases (Bell, Whitehead et al. 2006).

Based on a survey of consumers who had undergone a HMR, the Consumer Health Forum (2001) concluded that a number of positive outcomes were apparent following a HMR; these included...
improved medication management and an enhanced relationship with GPs and pharmacists. The study also noted that almost half of these consumers reported improvements in their health. However, the authors of this survey are quick to state that this finding should be interpreted with caution.

The *Australian Journal of Pharmacy* anecdotally reports a range of direct and indirect benefits arising from HMRs. These included: facilitation of identification of medication issues by GPs; implementation of skills and knowledge by pharmacists; increased opportunity to discuss medication needs for consumers; and facilitation of consumer follow-up for pharmacists (Sorensen, King et al. 2004).

International studies that showed evidence for medication management program efficacy also tend to report that medication reviews conducted by community pharmacists with reports to general practitioners were likely to have had a direct impact on medication usage.

In 2006 Burkiewicz and Sweeney (Burkiewicz and Sweeney 2006) found pharmacists’ reviews of medication usage amongst seniors of a US community housing centre identified 119 Medication Related Problems (MRPs). On examination of the pharmacists’ notes, Burkiewicz and Sweeney identified high levels of unnecessary medications, low levels of consumer compliance and the need for further medication management. The majority were referred to another health care professional to resolve the problem identified.

A similar program conducted in the US state of Iowa also concluded that medication reviews by community pharmacists were effective in promoting improvements in medication regimens. In the Medication Therapy Management (MTM) program, community pharmacists assessed medication use of ambulatory patients with chronic illness, pharmacists then made written recommendations to the patient’s physician, and the physicians subsequently responded (Doucette, McDonough et al. 2005). Following a review of data gathered from 150 patients, Doucette and associates found that physicians accepted 47% of the 659 recommendations to alter medication use made by pharmacists, with the highest rates of agreement to stop or change a medication.

### 3.7.2 Secondary outcomes: limited evidence for efficacy

Ponniah and associates conducted a meta-analysis of seven Australian studies evaluating outpatient or post-discharge medication reviews for heart failure patients (Ponniah, Anderson et al. 2007). The study concluded that there was some evidence of health-related benefits for these patients as a result of the review and that “in six of these studies, positive outcomes, such as decreases in unplanned hospital readmission, death rates and greater compliance and medication knowledge were demonstrated” (Ponniah, Anderson et al. 2007, p.343). However, in the course of analysis the study also assessed the quality of the evidence under review, and noted that each demonstrated a potential for bias.

Also in the Australian context small-scale studies and anecdotal feedback (typically reported in editorial pieces) suggest that HMRs may lead to positive health outcomes. A study by Vowles (Vowles is an employee of The Guild) suggested a range of both clinical and fiscal outcomes could be realised as a result of medication reviews (Vowles 2007). Vowles suggested that those who had been subject to a medication support program (similar to HMR, although few details were provided) were slightly less likely to experience a hospital readmission and medication discrepancies at discharge, but showed higher levels of compliance and knowledge when compared to those who had not. Vowles estimated that the support program involving pharmacists visiting patients on Warfarin post-discharge had the potential to save up to $10m per year in reduced bleeding costs if implemented nationally (Vowles 2007).

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8 The sample size and methodology were not reported in the article sourced for this review.
Internationally, most studies showed limited robust evidence on this subject. In 2005 Holland and associates conducted a randomised controlled trial of ‘Home-Based Medication Reviews’ as part of the UK based HOMER study (as described in Section 1.6.2) (Holland, Lenaghan et al. 2005). The key outcome under consideration was the incidence of hospital readmission for those who had and had not been subject to a review. The study tracked health outcomes for 872 patients. Counter-intuitively, the HOMER trial increased both hospital admissions and GP visits and was not associated with a positive impact on quality of life or mortality. Holland and colleagues subsequently followed up the HOMER trial with a systematic review and meta-analysis of 32 studies looking at the effects of pharmacist-led medication review on hospital admissions and deaths in older people (Holland, Desborough et al. 2008). They concluded that there was insufficient evidence to suggest that medication reviews were effective in reducing hospital admissions (‘no significant effect on all-cause admissions’) or mortality (‘trials found no significant benefit for mortality’) (Holland, Desborough et al. 2008). They did, however, conclude that medication reviews could improve knowledge and adherence, and may slightly decrease the number of drugs prescribed.

A similar randomised controlled trial conducted by Lenaghan and associates in the United Kingdom reached the same conclusion (Lenaghan, Holland et al. 2007). The trial of the POLYMED intervention (as described in Section 1.6.2) was conducted to assess the impact of reviews for at-risk older people on hospital admissions. Following a review of 136 patients receiving two home visits by a community pharmacist, the researchers detected no significant effects at 6-months post intervention in hospital admissions, care home admissions or deaths. They concluded: “No positive impacts on clinical outcomes or quality of life was demonstrated” (Lenaghan, Holland et al. 2007, p.293). However, they did note that the intervention appeared to reduce the number of medications prescribed, and thus might represent a modest reduction in costs.

In regards to cost outcomes, recent cost studies in the Australian healthcare system could not be sourced for this review. However, two UK studies identified small or insignificant financial gain as a result of medication reviews.

In 2007 Pacini and associates compared medication and hospital costs for those who received a medication review as part of the HOMER trial, and those in the control group who had not received a review (as discussed above). The researchers concluded that the intervention resulted in “…a small, non-significant gain in quality of life, no reduction in hospital admissions and a low probability of cost effectiveness” (Pacini, Smith et al. 2007, p.171).

In contrast, another randomised controlled trial and cost-minimisation analysis concluded that medication reviews did not necessarily lead to cost-savings. After analysis of health cost data for 1,480 patients who had (intervention group) and had not (control group) taken part in a community pharmacist-led medicines management service for patients with coronary heart disease, Scott and associates observed that “The cost of the intervention outweighed the observed reduction in the cost of drugs in the intervention group” (Scott, Tinelli et al. 2007, p.398) and that “…the greater cost in the intervention group largely reflects the additional cost of the pharmacist training and the time taken to deliver the intervention” (Scott, Tinelli et al. 2007, p.398).

3.8 Information gaps and hypotheses for further testing

The review of the literature readily available since 2005 leaves a number of questions and avenues for further consideration.

Primarily, the variability in outcomes resulting from HMRs and other community based medicine reviews warrants further examination. Specifically, the discrepancy between primary and expected secondary outcomes resulting from HMRs (discussed in sections 3.7.1 and 3.7.2) could be further explored.
Investigation of whether hospital admissions are a negative outcome of medicine reviews should be considered. It is possible that admission could be a positive aspect of a HMR. For example, an admission may have been triggered by a review and act in a preventative manner, circumventing a longer term and more serious problem that may have arisen in the absence of a HMR.

Several articles included in the literature review indicated that technologies and alternative approaches demonstrate a potential for integration into the HMR model. In particular:

- The information and education packages provided by MATES in Australia, and to a lesser extent the ISMP in the US
- The inclusion of other health professionals in the referral process such as nurses
- Modern technology including internet and telecommunications devices could also play a role in the further promotion of effective medication management.

Since 2005, much of the research and anecdotal reporting has centred on enablers, barriers and uptake factors relating to health professionals (pharmacists, GPs etc) participation. Little work has been undertaken to provide evidence from the consumer perspective since the Urbis Keys Young report of 2005, prepared for The Pharmacy Guild. The qualitative component of the HMR research reported herein will contribute to filling this gap in knowledge.

### 3.9 Conclusions arising from Literature Review

The available research identifies the widespread extent of adverse medication events and the resultant impact on health services. Key populations identified as having the potential to benefit from appropriate medication management interventions include the elderly and persons from culturally and diverse backgrounds. Discharge from hospital was also identified as a key event at which time medication management is important, as well as a time when consumers are disappointed with medication information they receive.

There was a dearth of evidence identifying drivers of participation in HMRs by health professionals, with only anecdotal or editorial material available on the subject. However, numerous barriers were identified. Much has been published in the form of editorial opinion indicating levels of professional concern with the issue.

New research does not provide strong evidence for effective outcomes or cost effectiveness.

Nevertheless, medication reviews continue to be supported as an important tool in the repertoire of GPs and pharmacists in raising awareness of medication safety and ultimately reducing adverse events and unnecessary hospital admissions.
4. Phase Two: Stakeholder Consultations

This chapter presents the key findings from the stakeholder consultations phase. Interviews were conducted with a range of stakeholder organisations by senior CR&C consultants, Dr Leanne Rowe and Stephen Campbell, in December 2007 and January 2008. (See Table 1 for a List of Stakeholder Organisations and Appendix 4 for Lines of Enquiry for Stakeholders.)

Overall, the stakeholder consultations found that the HMR Program was highly valued by stakeholders as an effective tool with the potential for meeting its objectives. There was a high level of awareness of the HMR Program from stakeholders representing health professionals involved in delivery of the program (GPs, pharmacists and pharmacies). Although ‘top of mind’ awareness of the detailed objectives was low, when prompted, most professional stakeholders were familiar with the specifics. Stakeholders representing consumers, on the other hand, had low levels of awareness of the program but immediately identified the program as valuable for their constituencies.

All stakeholders felt that the HMR Program could be strengthened, and have provided a number of suggestions for how this could be achieved.

Stakeholders felt there was strong anecdotal evidence to suggest the HMR Program was meeting a number of its objectives, including maximising a consumer’s benefit from their medication, but stakeholders representing professionals noted that there was a lack of hard evidence to show that the current HMR model improves consumer outcomes significantly - particularly in relation to reducing medication error and hospitalisation.

Stakeholders tended to agree that the HMR Program improved patient education and compliance, reduced confusion - especially around generic medications - and facilitated relationships between GPs and pharmacists. Most stakeholders believed participation in the program by health professionals was being inhibited by the current HMR model, and that it could be more effective if the HMR processes were implemented consistently and the feedback loops completed.

While the interviews with stakeholders were generally positive about HMRs, some medical organisations reported that many GPs believe the accredited pharmacist usually makes only minor recommendations, which are often not clinically relevant. The quality of some of the accredited pharmacist reports also contributed to a perception amongst GPs that HMR recommendations could be immaterial or inappropriate. Those representing pharmacists, on the other hand, identified a reluctance of GPs to involve pharmacists in the HMR Program as a barrier to participation.

Most stakeholders believed that an increased uptake of the HMR Program would have much greater potential to reduce medication misadventure and hospitalisation, particularly within the first ten days after discharge from hospital. This view was often based on the research evidence of studies undertaken by the Quality Use of Medicines and Pharmacy Research Centre, University of South Australia. One stakeholder noted that the current HMR model bears little resemblance to the model evaluated in the original research study (however the detail of the technical differences in models would be best provided directly by those involved in the original research study).

Stakeholders were able to identify recent changes to the HMR Program which were generally considered to be improvements. These included:

- Better remuneration including compensation for training, accreditation, and rural loading

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9 This material was provided by the Quality Use of Medicines and Pharmacy Research Centre as part of the Call for Submissions.
Many stakeholders also commented that a number of initial difficulties with the HMR Program had now been resolved.

It was noted that a number of new medication initiatives and research projects were due to commence. Stakeholders believed these would further add to the understanding and the uptake of medication review. The Department of Veterans’ Affairs (DVA), was seen as a ‘whole of health payer’, holding complete patient data (except for data relating to Accident and Emergency presentations and GP consultations), and some stakeholders noted that this potentially put DVA in a position to measure the impact of HMR on hospital admission.

Based on qualitative evidence reported by stakeholders representing professional associations, the HMR Program was seen to be meeting its stated objectives but most stakeholders believed that the program had the potential to achieve greater patient outcomes. However, all stakeholders agreed that the program should undergo an evaluation to measure what was referred to as ‘patient outcomes’. The outcomes identified included the number of medication problems identified and the number of accredited pharmacist recommendations acted on by GPs and patients.

During the course of the consultation, stakeholders identified ways that their organisations could further support the HMR Program in its existing form. For example, many consumer groups and health foundations suggested that it would be helpful if they promote HMR more actively through their websites and newsletters. Medical organisations were able to identify practical ways to encourage GP uptake of the HMR Program.

4.1 Barriers and enablers to participation by health professionals in the HMR Program

The lines of enquiry and initial framework for analysis explored the barriers and enablers to the HMR Program identified by stakeholders along with issues around access to HMRs and ways in which the Program could potentially be strengthened.

4.1.1 Enablers of health professionals participation in the HMR Program

In general, stakeholders had difficulty in specifically identifying the enablers for participation by health professionals in the HMR Program, yet they were able to identify that where the HMR Program was working well:

- GPs had positive experiences of the Program
- there was no shortage of accredited pharmacists
- relationships between the community pharmacist, accredited pharmacist and GP were based on mutual respect
- the general practice managers set up systems to identify eligible, at risk patients
- there was a strong network of support from Divisions and Facilitators.

A number of enablers that emerged throughout the consultations are considered in more detail below.
Remuneration

The remuneration for GPs and pharmacists was generally described as adequate. The increase in remuneration in March 2006 was considered, by most stakeholders, to have taken the amount to an adequate level, where it was believed to have previously been unreasonably low. The introduction of remuneration for accredited pharmacists who attend training was also identified as an enabling factor.

Network of support between Divisions, Facilitators, pharmacists, GPs and other health professionals

The team is important, where there’s good governance, mutual respect and face to face contact, where there has been relationship development between the Royal District Nursing Service, GP divisions and hospitals, it works. (Other health organisation)

The network of support between Divisions, Facilitators, pharmacists, and GPs was viewed very favourably by most stakeholders. The HMR Program tended to work better when there were mutually respectful relationships between professionals. Professional stakeholders described the initial governance of the Facilitator program as complex and a barrier to encouraging participation. However, those stakeholders reported that these issues were now settled.

The Facilitators are seen to have adopted a more streamlined approach to reporting, work across different Divisions to share information about HMR and to support each other. Medication Management Review (MMR) Facilitators sometimes have multiple roles in GP Divisions including working with the National Prescribing Service (NPS) and Residential Medication Management Review (RMMR) programs. Stakeholders reported that the multiple roles of Facilitators are helpful in the coordination of medication management programs.

Divisions actively promote the HMR Program to GPs and a number run HMR training for GPs. Practical information on the HMR Program is available to GPs through the Australian General Practice Network website. Practice managers receive training and support from Divisions, particularly around systemic identification of eligible patients.

Stakeholders reported that most pharmacists and GPs are now aware of the HMR Program through Facilitator and Division promotion and support. Stakeholders representing pharmacists are reporting a greater level of professional satisfaction from being involved in HMR and being recognised as a professional.

HMR recognises the counselling role of the pharmacist. (Pharmacist organisation)

It is clear from the consultations that good relationships between the GPs and pharmacists are essential to the success of the HMR Program - and that a collaborative approach is critical. GP feedback to the reviewing pharmacist has been identified as one of the most valuable parts of the HMR process, however, stakeholders reported that GP feedback rarely occurs.

Accredited pharmacist training

The Australian Association of Consultant Pharmacists (AACP) is owned by the Pharmaceutical Society of Australia and the Guild. The AACP is responsible for the training of accredited pharmacists and has addressed many of the issues related to accreditation training. While the training has been described by some stakeholders as onerous, the clinical content of training and the quality of HMR reports were generally recognised as important enablers of the HMR Program.

However, stakeholders representing GPs noted that the quality of some reports provided by accredited pharmacists were not clinically useful. The length of the reports, the manner in which the material was presented and their wordy, lengthy nature were identified as problematic. These negative experiences were identified as a barrier to GP participation in the HMR Program.
Positive patient feedback and outcomes

Stakeholders representing GPs reported that they (the GPs) were more likely to participate in HMRs if their patients reported positive experiences of the Program. For example: although the home visit for the HMR can be time-consuming, stakeholders identified that patient feedback indicated they (the patients) prefer the relaxed environment where they feel they have the time to ask questions about their medicines.

Although community pharmacists receive very little remuneration, they recognise the positive benefits of HMR for the patients and recognise HMR as a ‘consumer loyalty’ program.

GP champions

In 2003, a GP champions program was implemented through the Australian General Practice Network to encourage GP uptake of the HMR Program. Formal and informal GP champions are seen as very important in leading the professions’ opinions about HMR. Some stakeholders reported that HMR uptake was less in areas where GP opinion leaders had a negative view of HMR. Participation of an opinion leader was reported as having a huge impact on difference in uptake of HMR between regions.

Other stakeholders cautioned against recruiting champions from different professions. For example, a pharmacist would not be able to act as a champion in a GP audience.

Systematic identification of eligible patients

GPs who identified eligible patients systematically initiated a higher number of HMRs. In most cases, it was reported that systematic identification was facilitated by the practice manager and practice nurse. Stakeholders noted that medical software could also be used to assist with the identification of patients who were taking over five medications.

There could be alerts on prescribing software for patients who are at risk <and> who would benefit from an HMR. (Research organisation)

Where hospitals notified GPs immediately on the discharge of their patients, it was possible for GPs to refer patients for an HMR immediately. However, stakeholders indicated that this rarely happened.

The Quality Use of Medicines and Pharmacy Research Centre reported a study that found GPs rarely used this opportunity unless they were contacted by the hospital directly or unless the practice nurse or practice manager was involved.

Promotion

The HMR Program was considered by professional stakeholders to have been effectively promoted to pharmacists and GPs. However stakeholders believed that very few carers and consumers are aware of the HMR Program or its benefits. The Margaret Fulton campaign was mentioned by many, but criticised as limited. TV advertisements in ACT and Tasmania were mentioned as positive.

Consumer stakeholders representing high risk groups (those with HIV, Alzheimer’s, mental health issues) identified value in promoting the HMR to their constituents. Promotion of the HMR was identified as facilitating professional participation through consumer demand. However, others believed promotion directly to consumers could have a negative effect by attracting ‘low risk’ people to the Program or by overloading an already overworked health system.

Most stakeholders believed it would be more beneficial to target high risk groups in the promotion of the Program and provided examples where this method had worked well. For example, the DVA MATES program (See section 3.6.1) contacts veterans with a personal letter informing them of the
benefits of HMR and encourages them to visit their Local Medical Officer (LMO). DVA has conducted a broad awareness campaign including distribution of a brochure promoting medication reviews (Department of Veterans’ Affairs, 2008). The MATES program alerts LMOs where veterans may be at risk of medication misadventure and encourages the use of HMRs (Department of Veterans’ Affairs, 2008). Representatives from DVA reported that the MATES program has resulted in a significantly higher uptake of HMR amongst veterans.

4.1.2 Barriers to participation by health professionals

The barriers limiting successful uptake of the HMR Program are complex. Stakeholders identified a number of barriers which have been grouped into five main categories relating to:

- the complexity of the HMR Program
- medical and pharmacy workforce issues
- communication and collaboration between GPs, pharmacists and other health professions
- remuneration
- access and participation of consumers and carers.

Each of these five categories is explored in further detail in the following sections.

Complexity of the HMR Program

Stakeholders reported that there are some problems with reporting lines for HMR Facilitators. This is regarded as a complex governance arrangement. For example, in Victoria, Facilitators report to individual GP divisions, the state Facilitator (Pharmacy Guild) and General Practice Divisions Victoria.

Stakeholders were also concerned at the complexity of training for accredited pharmacists and considered this to be a significant barrier limiting participation in the HMR Program.

The main complexity of the HMR Program identified as a point of concern was the number of steps involved in the HMR process.

Complex requirements for payment were also identified as an issue, particularly for GPs.

Steps of the HMR process

Stakeholders identified seven steps that are involved in a single HMR (these steps are summarised in Figure 4):

1. Patient visits GP
2. GP refers eligible patient to community pharmacy
3. Community pharmacy contacts accredited pharmacist
4. Accredited pharmacist contacts patient and visits at home
5. Accredited pharmacist reports to GP and community pharmacist
6. Patient returns to visit GP
7. GP writes plan for patient and discusses with community pharmacist.

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11 LMO is usually the GP
Figure 4: Steps to the HMR process (as identified by stakeholders)

HMRs are a complicated process for all parties involved (the GP, the community pharmacist, the accredited pharmacist and the patient). The HMR guidelines prepared for GPs by the Department outline twelve steps to the process, incorporating:

- Identification of an eligible consumer and their community pharmacy
- Discussing appropriateness with the consumer
- Obtaining consumer consent
- Notification of the accredited pharmacist by the community pharmacy to the GP
- Discussion of the pharmacist report between the GP and reviewing pharmacist
- Agreement of medication management plan between consumer and GP
- Implementation of agreed actions and appropriate follow up and monitoring.

Barriers identified during the stakeholder consultations to take up of the HMRs were associated with the complexity of the HMR process and include:

- GPs tend to identify patients opportunistically rather than systematically. This is not efficient as GPs can find it difficult to remember the patient guidelines for HMR. GPs have a myriad of Medicare items to understand, all with different eligibility criteria or guidelines.
- The HMR tools (referral forms, management plans) usually appear in a different section of medical software from other Medicare items such as care planning and case conferencing. This means that the GP may not be automatically prompted to order a HMR when reviewing a patient with a complex disorder.
- To initiate a HMR, the GP is required to assess the patient and to refer the patient to the community pharmacy, during their consultation for another matter. At this initial stage, the GP does not receive payment for this service stage and may never receive
payment unless all the steps of the HMR are undertaken. The pharmacists and the patient determine whether the other steps are completed. The complexity of the payment process was identified as resulting in under-reporting, as well as a barrier to GP participation.

- On average, stakeholders reported a wait of about ten days between the GP referral and the visit by the accredited pharmacist to the patient. Some indicated that even longer delays were not uncommon. Many stakeholders believed that even a ten-day delay was unacceptable for a patient at risk of medication misadventure. The delay is particularly detrimental for patients after hospital discharge, as most medication misadventure occurs in the first ten days post hospital discharge.

- The feedback loop often does not happen. Stakeholders attributed this to the patient not understanding the significance of returning to the GP, and the GP not communicating with the accredited pharmacist by telephone as required by the HMR guidelines. It is not a requirement of the HMR Program for the GP to communicate with the community pharmacy, which is seen as a negative by community pharmacists who are providing the ongoing care to the patient.

- Most stakeholders agreed that overall remuneration was adequate, particularly since the rural loading and payment for accreditation training have been introduced, but some identified circumstances when it was less than adequate. Views expressed that remuneration may not be adequate for GPs who are unable to charge the Medicare Benefits Scheme item unless all HMR steps are completed. Others identified that generally community pharmacies receive very little remuneration as they pass most of the payment to accredited pharmacists. Remuneration for accredited pharmacists in rural areas may not be adequate if there are long distances involved in travel to patient homes.

- If a GP initiates a case conference with the pharmacist and another health professional, the pharmacist does not receive any remuneration.

Some stakeholders reported that the initial involvement of the community pharmacy may unnecessarily complicate the HMR steps. GPs preferred referring to a known accredited pharmacist and felt there would be more benefit in communicating with the community pharmacy after the HMR. Community pharmacies, run by those who see themselves as business people, were reported as sometimes reluctant to become involved in complex training and accreditation requirements for HMR. Some stakeholders, including those representing pharmacists, suggested that direct referral and payment to the accredited pharmacist without the community pharmacies involvement, could be considered. Others noted that the community pharmacy was an important point of contact for consumers.

Situations where consumers have multiple GPs or multiple pharmacists were seen to increase the complexity of governance arrangements.

**Lack of systematic identification of appropriate eligible patients**

Despite the complexity of the HMR steps, many professional stakeholders reported the success of HMR was largely a function of how individual GPs manage their practices. These stakeholders suggested that GPs need assistance with structure around HMRs. Related to this concern was the perception that GPs do not know how to identify appropriate patients, and some have difficulty following the HMR guidelines. Stakeholders reported that it was even more difficult to identify the most at-risk groups systematically as they were a very diverse group. Overall these views demonstrated support for a highly selective approach to HMRs.

*We need to identify who is ... at risk and which patients benefit and whether much value is added in a HMR. It may be better to do less of them, but to fund them better. There could be a reinvestment of funds*
or a remodelling of items where you use less for more money, but there’s no evidence to back it up. (Medical organisation)

Some stakeholders felt that a HMR should be mandatory after discharge from hospital, and also for anyone who has reached the Medicare Safety Net. In theory, it should be easy to identify these patients.

HMR is difficult to do within the first week post-discharge because you can’t get an appointment with the GP and it involves having the patient drop in the referral to the pharmacist. They physically can’t do it post-discharge. (Medical organisation)

Although HMR guidelines are similar to that for other Medicare items like care planning and case conferencing, diabetes annual cycle of review, asthma management plans, and mental health care plans; it sits in isolation rather than in parallel. Stakeholders noted that these Medicare items compete for the GP’s attention and look and feel different.

**Medical and pharmacy workforce issues**

The GP and pharmacist workforce shortages limit the uptake of HMRs, particularly in rural areas. Stakeholders mainly identified the lack of availability of accredited pharmacists. HMR was not seen as being high on the list of priorities for GPs due to the competing demands for GP time. There is also limited time for communication between GPs and pharmacists.

In rural areas, the availability of accredited pharmacists was identified as a barrier to participation in the Program by pharmacists, particularly those who could not leave their practice. The low uptake in the Northern Territory was attributed to workforce issues. Together, the high workforce turnover, difficulty in recruitment, high workloads, and the perceived inappropriateness of the HMR for Indigenous Australians was reported to result in very few HMRs being claimed in the Territory.

Stakeholders from medical organisations stated that growth in HMR needs to be commensurate with the medical workforce. Other stakeholders believed that recruiting more pharmacists as Facilitators may contribute further to the pharmacist workforce shortage, and questioned whether this role could be undertaken by another health professional group.

If there were more HMRs there may be more accredited pharmacists as the model suits some pharmacists and requires volume. For example, pharmacists who are young mums may enjoy being accredited pharmacists. (Pharmacist organisation)

It was suggested that a small number of pharmacists are developing a practice around medication reviews, including reviews in residential aged care facilities. The emerging workforce is relatively small, estimated to be about 200 – 300 nationally, and developed primarily around provision of RMMRs. The business model for such an enterprise is still developing. Payment through community pharmacies for HMRs was identified as problematic for this group because of delays in receiving payment.

Stakeholders highlighted that there are fewer accredited pharmacists in rural areas, and therefore lower participation in the HMR Program in rural areas and amongst Indigenous communities. Poor compliance with medication was seen as particularly problematic in rural and remote areas.

Despite the workforce shortage, many stakeholders believed that the uptake of HMR would improve with increased promotion of the Program and a greater understanding of the real barriers limiting the participation in the HMR Program. The following quotes reflect some of the lack of awareness and negative attitudes about the HMR Program:

There are different levels of awareness – GPs are aware of HMR, but they don’t know which patients benefit or how to do them. They are not ‘aware’ of HMR when a patient at risk is sitting in front of them. (Medical organisation)
Most pharmacists are aware of HMR but when asked why they don’t do it, many community pharmacists say they don’t know. (Pharmacist organisation)

Providers have new program wariness – fancy names come and go and they are cynical whether or not this <HMR> will make a difference. (Research organisation)

Doctors will say that red tape, money and workforce are the barriers, but these are often not seen as a problem when a program is seen as of value. For example, the team care arrangement also has an issue with red tape, but there are obvious benefits of being able to fund allied health professionals. (Medical organisation)

Communication and collaboration between GPs, pharmacists and other health professions

Communication and collaboration were identified as crucial to the success of HMR by stakeholders. Stakeholders identified issues with inconsistent quality of reporting between GPs and pharmacists, clinically inappropriate pharmacist reports, and poor communication from GPs about the HMR plan as particular barriers to effective communication and collaboration. To complicate the HMR process further, the patient may visit multiple GPs and community pharmacies. Although it is a stated objective of the HMR Program to improve collaboration between different professions and the Program’s business rules state that other health professionals can be involved although no payment is allocated, other professionals are largely excluded by the HMR process (e.g. nurses and medical specialists). A number of stakeholders believed that inclusion of such groups could improve HMR uptake and assist with identification of eligible patients.

Different reporting systems and inconsistency in quality of reporting

Stakeholders representing GPs highlighted inconsistencies in the level of reporting by the accredited pharmacists. From a GP perspective, a HMR could be problematic if the pharmacist did not understand the clinical context of prescriptions, or where pharmacist suggestions may ‘interfere’ with the GP’s management of the patient’s medication. Others indicated that the communications training for accredited pharmacists could be improved to overcome these shortcomings.

Building relationships between the accredited pharmacist and the GP was considered to be an enabler to participation by medical stakeholders. Direct referral was considered to be more in line with the usual referral relationships used by GPs and other health providers including specialists and allied health providers.

The required ‘conversation’ between GP and pharmacist on completion of the HMR was not always possible. An electronic communication strategy has been suggested as a way of overcoming this barrier.

GP and pharmacist relationship

HMR is very much dependent on the relationship between the GP and the pharmacists, particularly the accredited pharmacists. If the relationship is not working, the HMR will not work. The quality of the relationships between GPs and pharmacists was identified as a reason for the variability of uptake in HMR in different areas. The inter-professional relationships will be a primary focus of the grassroots qualitative research.

From a pharmacists’ point of view, the HMR initiative is a new professional challenge. The GP sometimes sees it as further encroaching of others into their (the GP’s) space. Protection of professional territory was identified as a barrier to participation by pharmacy stakeholders.

Stakeholders reported that some GPs are resistant to the idea that pharmacists can contribute to medical management. Some stakeholders representing GPs noted that historically, GPs and pharmacists have not communicated well and the two professions have worked in silos. A more
negative view expressed by medically focussed stakeholders is that the patient perceives the GP to be responsible for their overall care, while pharmacists are currently perceived as shop-keepers.

**Broadening the referral base**

A number of stakeholders suggested the HMR could be strengthened by broadening the referral base to include medical specialists, hospital-based doctors, nurses (particularly district nurses who visit patient’s homes) and carers. This list is slightly broader than what is recommended in the literature, which recommends nurses but not carers. There was an indication from some stakeholders that health professionals other than GPs are in a position to identify a need for HMR and would like to be involved yet, at present, they cannot participate in the HMR Program.

**Limited access for those who are marginalised and at high risk**

Stakeholders representing professionals who worked with marginal consumers argued that many people who are marginalised have a need for HMRs, but have limited access due to their limited access to GP services. Homeless people, recent migrants, people with mental illness and Indigenous Australians were identified as groups who may not have a regular GP or pharmacist, yet have complex medical needs including multiple medications. Such people may use hospital emergency departments as their main source of medical care. Concerns around the difficulty or lack of access to HMR for those with complex needs were also a feature of findings from the Literature Review conducted for this research project. See section 3.2

The impact of HMR on use of emergency services was identified as an area that required further research to identify the extent of the issue and this was not an area in scope for this research project.

Home carers who attend older patients, or those living with a disability in their homes, were identified by stakeholders representing community-based services as persons who could observe problems with medication management. However, the lower skill levels of these workers was recognised and their inclusion in the referral process was recognised as complex and requiring review by trained workers before it would be appropriate to make onwards referrals to a GP.

Concerns for those at high risk of medication mismanagement were prevalent among stakeholders (and later, also among submitters and health professionals interviewed for this project) and these concerns echoed those found in the literature review. There was however disagreement from one stakeholder.

> The high risk, and low risk assumptions about medication management need to be challenged because medication error is everywhere. (Other health organisation)

**Multiple HMRs**

A single HMR visit was seen by a number of stakeholders as not always addressing the complete range of medications issues for patients with complex conditions, particularly where medications and circumstances are changing. Monitoring was considered to be important and a number of stakeholders felt this role could also be taken on by a nurse to some extent, particularly in situations where the patient had a chronic condition(s). While more than one HMR in a 12 month period is understood by the authors to be permissible in certain specified circumstances, stakeholder views reveal that this is clearly not well recognised and not part of the way HMRs are currently conducted. This lack of awareness of the option for multiple HMRs within a year, also emerged throughout the remaining phases of this research.

**Remuneration**

It was noted above that stakeholders representing GPs and pharmacists identified the increase in remuneration to what was widely regarded as an ‘adequate’ level as an enabler of participation in HMRs. Development of the workforce of accredited pharmacists was also facilitated by remuneration
incentives for training, although the financial return for accredited pharmacists was not sufficient to support pharmacists through HMRs alone. The emergence of medication review specialists was seen, by some stakeholders representing pharmacists, to enhance the role of pharmacy in the health system. However, these stakeholders also noted that the current business rules did not support an attractive business case to encourage pharmacists to work in the area of HMRs as a full-time or part-time proposition. (Issues and options around remuneration are explored in subsequent phases of this research project.)

In the context of perceived workforce shortages, (noting that DoHA quantitative data analysis provided for this research, found no clear link between the presence and availability of accredited pharmacists and uptake of HMRs) stakeholders felt that with the complexity of the model and competition for demand for health professionals’ time, ‘adequate’ remuneration is unlikely to develop the momentum of participation, support a continued development of a workforce of accredited pharmacists, or establish the Program as a priority for GPs and community pharmacists.

The key remuneration issues that were seen by stakeholders to act as a barrier to participation, based on the range of stakeholder consultations undertaken for this project are:

- Community pharmacies were considered to be currently making a loss when conducting HMRs (Note that stakeholders did not provide detailed calculations to support their views, as the consultations were specifically aimed at seeking their views and perceptions of the Program, rather than seeking the financial data.) The loss was reported by stakeholders to be a function of the time-intensive nature of the steps involved in an HMR, whether or not it included outsourcing the conduct of the HMR.
- The complexity of the processes for GPs where there is a risk of no remuneration for the first consultation if the patient does not return, or the claim is not made at the second consultation.
- Travel is not sufficiently remunerated in both rural and metropolitan regions.

Stakeholders noted that the GP had to perform too many steps and wait a considerable amount of time before Medicare Benefits Schedule Item 900 could be charged. This delay was considered a barrier. In addition, the way in which community pharmacies were remunerated was also seen as a barrier with most of the payment being passed on to accredited pharmacists. While this was based on the accredited pharmacist requiring an average of about three hours to complete an HMR, the amount of effort for little return has been identified as a barrier to participation by community pharmacies. Pharmacist payment is now supplemented by a loading in rural areas, which was acknowledged as an enabler.

4.1.3 Access and participation of consumers and carers

It was generally agreed by all stakeholders that consumers and carers had received very limited information about HMR. Stakeholder organisations representing consumers had a low level of awareness of the HMRs but, when provided with a summary of the Program, immediately saw the usefulness and were able to identify how they could promote the Program among their constituents. Marketing campaigns were mentioned in the stakeholder consultation but were considered to have been limited until now. Recall of specific campaigns was not high and limited to comments such as ‘the Margaret Fulton campaign was not the right message. It is not about cooking’.

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12 Payments to GPs for HMR services are made through Item 900 of the Medicare Benefits Schedule (MBS).
However, some stakeholders expressed concerns that a broad public awareness campaign may result in a huge demand for HMR from people who did not require the service. This issue will be investigated in the grassroots qualitative research with consumers and professionals.

Furthermore, some at-risk communities were expected to not be responsive to the promotion, because a home visit may be viewed as inappropriate by cultural norms (for example, Indigenous communities or Vietnamese communities).

In general, consumers expected to benefit most from a HMR are those who take more than five medications on a regular basis, patients taking multiple generic medications and patients who have recently been discharged from hospital. Stakeholders, including those representing key consumer groups, reported that HMR has not been effective at targeting high risk groups including:

- homeless consumers
- patients with disability (such as hearing loss or a visual disability)
- people with Alzheimer’s disease (who may experience difficulties with compliance, poor social inclusion, co-morbid disorders and multiple medications, interactions and side effects, poor access to health treatments and late diagnosis)
- people with asthma, diabetes and co-morbid disorders
- children with newly diagnosed chronic diseases including diabetes
- people living with HIV (HMR could be used to improve access for medication in their community).

Note that the literature review revealed considerable expectation that HMRs had the potential to assist some of these high-risk groups but little evidence to confirm outcomes and effectiveness in doing so.

Stakeholders noted that consumer attitudes can sometimes limit the uptake of HMR. Consumers may have a perception that they are managing their medication well or do not want to upset their carer. They may not understand the importance of the follow-up appointment with the GP after the pharmacist visit. Some GP attitudes contribute to this confusion. A number of stakeholders believed GPs were overconfident of their own prescribing habits and that others may feel threatened by HMR. These attitudes were then conveyed to their patients who did not want to upset their GP.

One GP who saw many HIV patients suggested that persons living with HIV would not want their community pharmacy to be aware they had HIV. They can often obtain HIV drugs from a specialised service who may not have the expertise to review other medications. The combination of privacy concerns and specialist expertise was said to make HMRs difficult to implement.

4.2 **Strengthening the HMR Program**

Stakeholders identified a number of ways to strengthen HMRs by:

- streamlining the HMR process
- increasing the number of accredited pharmacists
- improving collaboration and communication
- increasing consumer and carer awareness
- communicating the positive benefits of HMR to consumers, carers, GPs and pharmacists.

These suggestions for improving the HMR Program are explored in further detail below.

4.2.1 **Streamline the HMR process**

* Anything that can be done to simplify HMR would help. (Research organisation)
Stakeholders identified a number of ways to streamline the HMR process. The main strategies included systematic identification of eligible consumers and at-risk groups, reducing the number of steps in the HMR process, improving electronic communication between GPs and pharmacists, and involving other health professionals. Stakeholders also suggested a number of practical ways to streamline the process.

Streamlining through systematic identification of patients was also identified as providing opportunities for improving GP participation and while it was known to be occurring in some instances, for the most part, identification of patients by GPs was regarded by some stakeholders as being 'ad hoc', while others considered it to be due to the GP's preference for a highly selective approach. Suggestions included community pharmacists identifying eligible patients and sending a list to GPs on a monthly basis. Practice managers or nurses could also use the GP medical software functions to create lists of patients, who are taking five or more medications, have chronic conditions or have recently been discharged from hospital. The practice manager or nurse could then place a flag on the patients' files to prompt the GP to consider HMR at the next consultation.

Routine flagging of patients at specific events was considered an opportunity for streamlining the HMR process. Examples were at:

- the 75+ health assessment
- an assessment for a patient with intellectual disability, care plan or case conference
- at the time of other enhanced primary care item (mental health care plan, asthma management plan and diabetes cycle of care).

The practice manager or nurse could also set up a recall system to ensure patients regularly receive HMR, by sending reminders (similar to the identification system used by the DVA MATES program).

Some stakeholders – not all - believed that all patients on multiple medications, not just those determined to be at high risk, should be required to have a HMR following hospital discharge, yet the consultations also uncovered potential logistical impediments to this for some patients. A small number of other stakeholders believed that all patients who reached the Medicare Safety Net could be encouraged to have HMR.

Some stakeholders supported GPs, hospitals, the Royal District Nursing Service and perhaps consumers and carers themselves, referring directly to an accredited pharmacist on a list within the Division. If a particular accredited pharmacist is not available, another pharmacist on the list may undertake the HMR. However, some stakeholders believed that these changes may alienate community pharmacies and some GPs. It should be noted that referrals by consumers and carers directly was not widely supported by stakeholders.

Divisions could be funded to coordinate ‘flying pharmacy locum services’ in remote areas of Australia. It was suggested that in some areas, where there were severe shortages of accredited pharmacists, non-accredited pharmacists could be permitted to undertake HMRs. Note, current business rules do allow non-accredited community pharmacists to conduct the interviews for the HMR in the consumer’s home, and then liaise with an accredited pharmacist remotely. It is known that this approach is already occurring in a number of regions.

Some stakeholders stated that it should be the responsibility of the accredited pharmacist to communicate with the GP and the community pharmacist (rather than the current step that requires the GP to contact the accredited pharmacist), before payment is claimed by the accredited pharmacist. This step is one of the most important parts of the HMR process but seems to be the one most likely to be omitted.

Most stakeholders noted that the Guild ‘insisted’ that GPs refer to community pharmacies as a first step of the HMR process. However, most stakeholders also believed that this step hindered the uptake of HMR, as many community pharmacies did not want to be involved in the program. For example, an
eligible patient may be identified and referred to the community pharmacy, but if the community pharmacy did not offer HMRs then the HMR did not proceed or it proceeded after much delay while other arrangements were made – either way significantly reducing the timeliness and effectiveness of the HMR, even if it was able to eventually occur. This is frustrating for both the GP and patient. Some stakeholders believed that the National Prescribing Service should take over the governance of the HMR Program, as the Service is an independent organisation which could work across all stakeholder groups.

Some stakeholders suggested nurses could be trained to perform HMRs. The inclusion of nurses in the HMR Program may have several advantages. Not only may nurses be able to offer HMR on a more timely basis, but they may also be able to offer HMRs more regularly to those at-risk patients who require ongoing monitoring. The Royal District Nursing Service often undertakes a medication review within the first week of hospital discharge, and has developed a medication assessment tool for this purpose. It could be argued that in some cases HMR is an unnecessary duplication of what the Royal District Nursing Service are already providing. Some stakeholders believed that nurses may not have the skills to provide HMR, while others believed that nurses were very capable of encouraging compliance, reviewing patient medication lists, checking for duplication of generics and disposing of old medicines. It was noted that since the HMR Program commenced in 2001, practice nurses have become much more involved in general practice, though their role in HMR has largely been ignored.

The Quality Use of Medicines and Pharmacy Research Centre at the University of South Australia has trialled a program where ‘heart failure’ nurses work with hospitals and GPs to identify patients with heart failure who would benefit from HMR on discharge from hospital. They reported that this program has been very successful and felt its application to other chronic disease should be explored further.

Most stakeholders believed that the home visit was necessary for the success of HMR as it allowed the patient to ask questions in a comfortable, unrushed environment and for all medicine bottles and packages to be checked, including complementary medicines. However, there were a smaller number of stakeholders who believed that the home visit was time-consuming, probably limited the uptake of HMR, was not cost-effective and had not been objectively evaluated. It should be noted that there are complementary programs delivered in-pharmacy that provide medication management services such as Dose Administration Aids and Patient Medication Profiling. Whilst not as comprehensive as a formalised HMR, these programs help patients to better manage their medicines.

Although most stakeholders believed remuneration for pharmacists and GPs was adequate, a number commented that the GPs should be able to charge a Medicare item for the initial assessment and referral for HMR. On balance however this did not emerge as a major issue. Some stakeholders believed that pharmacists in community pharmacies should receive payment for case conferencing, however this too did not emerge as central to the discussion on the barriers to HMRs.

Patients who require case conferencing or care planning are usually also eligible for HMR. A number of stakeholders suggested that medical software should set up close links between the templates for other Medicare items to help prompt GPs to refer patients for HMR. Currently all the Medicare items for chronic disease management look and feel different and it would help to minimise some of the differences between the items.

4.2.2 Increase the number of accredited pharmacists

The limited number of accredited pharmacists who are undertaking substantial numbers of HMRs is seen by stakeholders as limiting participation by GPs and access by consumers to HMRs, particularly in rural areas. Often there will be no accredited pharmacist available across a very large geographic region so the GP would need to work around these issues if they wanted to take part. Access by consumers was also seen to be limited by these factors. Some stakeholders felt there would never be enough accredited pharmacists to respond to community need for HMR.
To recruit more accredited pharmacists, pharmacists needed to be convinced about the business case for HMR. Many believed that if there were more HMR referrals, there would be more accredited pharmacists - as accreditation would then be ‘worth their while’.

Stakeholders also felt that it would be helpful if the Program was promoted as an opportunity for professional development and greater professional satisfaction, yet this is already occurring in many regions and has been a component of the Guild’s promotion.

A number of stakeholders believed that HMR affirmed the counselling role of pharmacists. While a number of stakeholders described accredited pharmacist training as onerous, many agreed that it was important for accredited pharmacists to receive training to improve HMR reporting to GPs. If pharmacists are equipped with training in specific disease states, there is an improvement in the quality of HMR. The Quality Use of Medicines and Pharmacy Research Centre at the University of South Australia has developed a number of tools to assist the accredited pharmacist with particular chronic diseases – the heart failure checklist, the diabetes check list, the ischaemic heart disease check list and the arthritis check list were seen as worthy of further exploration as they assist the pharmacist remember important clinically relevant information.

Certain groups of pharmacists were identified as more likely to consider becoming an accredited pharmacist. Young pharmacists were more likely to consider training as a career opportunity. Pharmacists with young families were believed to be more likely to appreciate the flexibility of the work.

It was acknowledged by a number of stakeholders that the AACP had resolved many of the initial barriers working against accreditation. While pharmacists undertaking accreditation were required to become a member of AACP (or SHPA), this did not prove to be a barrier. Some stakeholders believed that the AACP could work more closely with the National Prescribing Service to improve training for accredited pharmacists to the National Prescribing Service standards.

Facilitators were also considered to have worked constructively to promote accreditation for HMR to pharmacists and to assist GPs understand the HMR process including referrals. There was strong stakeholder support for the continuation of the Facilitator program.

4.2.3 Improved collaboration and communication

While many stakeholders agreed that the HMR Program had increased the collaboration and communication between GPs and pharmacists, it was acknowledged the HMR process excluded other professions because no payment was involved for their participation.

Stakeholders believed that pharmacy and medical workforce shortages were a problem, they considered a team-based approach including other professions as crucial. As the required telephone call to the reviewing pharmacist by the GP was often omitted, stakeholders suggested that this step could be replaced with a case conference where necessary.

To improve communication between health professions, an electronic communication strategy should be developed. Currently the HMR process is largely a paper-based exercise, which is not viewed as reliable. The community pharmacy could also be contacted electronically by the accredited pharmacist as a part of the HMR and by the GP after the plan is finalised. Other health professions such as the Royal District Nursing Service could also receive electronic communication about their clients. While this was suggested by stakeholders, subsequent phases of this research revealed that electronic communication concerns were not the major barrier to effective uptake and conduct of HMRs, even though improvements could be made and would be of some value.

It was seen of benefit if the Facilitator in the GP Division coordinated the HMR, National Prescribing Service and Aged care programs (RMMR). In this case, the pharmacist worked well across many other professions and with general practice.
Stakeholders agreed there could be more promotion of the HMR Program to practice nurses to encourage better identification of eligible patients. The practice managers often needed to be convinced about the financial model of HMR before they would become involved. Most stakeholders agreed it was important to involve other practice staff to take the burden away from the GP.

The Quality Use of Medicines and Pharmacy Research Centre at the University of South Australia indicate their research has confirmed the benefits of a collaborative approach for community care and team care in promoting the uptake and the outcomes of HMR. All stakeholders confirmed that the team-based approach to the management of patients with special needs and chronic disease was essential for good patient care.

4.2.4 Increased consumer and carer awareness

All stakeholders agreed that the HMR Program should be promoted more to consumers and carers. They noted that the Margaret Fulton campaign was limited but that TV advertising has now commenced in some States.

Stakeholders suggested a number of innovative ways to target at-risk groups. For example, one stakeholder suggested promoting HMR in places where older people meet, such as libraries. Another example is where consumers in high risk groups received personal letters promoting the benefits of HMR and encouraging them to visit their GP (similar to the DVA MATES program). Consumer organisations and health foundations were willing to assist by promoting HMR on their websites and in newsletters.

Other consumer organisations enlisted the support of peer educators to assist with information about HMR. This was a particularly important strategy for people from culturally and linguistically diverse backgrounds. This strategy has worked in older Vietnamese and Chinese communities. The use of ethnic radio stations is also helpful in promoting the HMR Program to people from culturally and linguistically diverse backgrounds.

Aboriginal Health Workers were considered to be crucial in the implementation of HMR in Indigenous communities. Stakeholders agreed that HMR had very limited uptake in Indigenous communities - not only because of the lack of acceptance of the home visit, but because compliance was an enormous problem linked to the inability to pay the co-payment. These issues will be further investigated in the next phase of this project.

4.2.5 Communicate the positive benefits of HMR to consumers, carers, GPs and pharmacists

While stakeholders confirmed anecdotal evidence of positive patient outcomes with HMR, most agreed that the positive benefits needed to be quantified to convince consumers, GPs and pharmacists of their value. Stakeholders suggested a number of ways to achieve this through case discussion, audits of pharmacy reports and GP plans, and measuring the impact of HMR on preventing hospital admission.

Stakeholders acknowledged the GP champions program and believed that both formal and informal GP champions increased the uptake of HMR by GPs. Stakeholders believed that there could be greater promotion of the benefits of HMR by Facilitators to practice nurses.

Many GPs were impressed by the National Prescribing Service newsletter and believed that this organisation could highlight the HMR Program in articles and case presentations. The HMR Program could be specifically promoted to GP registrars and international medical graduates, who were likely to find the Program useful.
Above all, it was noted that if patients reported positive experiences of the HMR Program, it was more likely to be embraced by GPs and pharmacists. Carers were also a very important, but often overlooked group, who could also encourage HMR uptake.
5. Phase Three: Public Call for Submissions

This chapter presents the key issues that emerged out of the public Call for Submission process. The objective of this third phase of the project was to expand on the views identified in the Literature Review and Stakeholder Consultations, to facilitate detailed and considered input by other interested parties. (A List of Submitters is attached at Appendix 3. The advertisement for the Call for Submissions is shown as Figure 2 in this report.)

5.1 Key findings from the Call for Submissions

The following section presents the key findings from the submissions. This section has been grouped according to the recurring themes that emerged.

5.1.1 Awareness, engagement and participation

A number of professional issues were reported to be inherent in the current HMR process, including a lack of engagement of GPs and pharmacists.

Many of the barriers to the uptake of HMRs were attributed to a lack of interest by pharmacy owners in facilitating HMRs. Some MMR Facilitators and consultant accredited pharmacists viewed community pharmacy owners as, not only disinterested in HMRs, but at times neglectful of their role in the process. (MMR Facilitator VIC; and consultant accredited pharmacist, VIC)

... if I wasn't providing this service, then probably nobody would - the local pharmacy has shown no interest in doing HMRs since the Program started many years ago, and even now, barely manages to acknowledge my presence. They even asked me to stop emailing copies of the HMRs to them because they never read them anyway! (Consultant accredited pharmacist, VIC)

Submitters claimed that the lack of interest shown by community pharmacy business owners or managers in facilitating HMRs was due to two reasons. Firstly, there is a perceived lack of immediate financial reward for the community pharmacy business owner/manager. Secondly, it is a time-consuming and costly process for the community pharmacy business owner/manager to either personally undergo accreditation training or have a staff member do so.

A number of accredited pharmacists and consultant accredited pharmacists reported that while they were willing and able to conduct HMRs, their efforts to promote the HMR service to GPs were not successful. Attempts to engage GPs in the process did not result in HMR referrals. However, the requirement for a community pharmacy to be involved in the process was reported to be a factor for consultant accredited pharmacists who perceived that pharmacy owner/managers may be unwilling to facilitate HMRs, thus rendering the promotion of HMRs to GPs a fruitless exercise. (University submitter, QLD)

Many submitters reported that a general lack of understanding between the parties involved in the HMR process impeded the successful and timely completion of HMRs. GPs were reported to lack an understanding of the needs of community pharmacies and accredited pharmacists and vice versa. This lack of understanding was reported to be particularly severe in relation to the level and type of information required by each party. Overall, these factors were seen to contribute to the low value of some HMRs.

Strategies to increase GP engagement

A number of submitters thought that visits to GPs by facilitators to promote HMRs were not productive, however the use of real-world case studies was thought to enhance the value of the MMR
Facilitator's role, and to be an effective tool in demonstrating the value of HMRs to promote participation.

The provision of case studies was supported by both MMR Facilitators and Divisions. These submitters believed that real case studies would provide evidence to GPs of benefits to the patient. (MMR Facilitator, NSW)

The lack of measurement of aspects of the HMR Program was reported to affect the uptake of the Program by GPs, as they were not convinced of the benefits of the Program. Therefore, submitters recommended an assessment of the Program be conducted to boost Program credibility. To address this issue, some submitters recommended that the Program be reviewed annually - with clearly defined measures of effectiveness and uptake – so that the results can be communicated to GPs and pharmacists.

Promote Program evaluation: a collective, transparent, evaluation of the service describing how and why it works would provide an evidence base and broader support for the initiative among health professionals. Hard clinical data and an assessment of the findings with recommendations will add further credibility. (National authority)

Linking HMRs in with National Prescribing Service (NPS) facilitation program for GPs was considered a valuable strategy to raise the status of the HMR Program with GPs.

**Strategies to increase community pharmacy engagement**

There were some suggestions of a need to increase promotion of the HMR Program to community pharmacies with the aim of improving the slow uptake of HMRs, however there was little supporting information to indicate that this would be any more successful than previous attempts. The Guild was expected to play a vital role in this promotion, and both GP and pharmacy-based submitters called for greater action by the Guild.

Some submitters criticised the current strategy and communications campaign employed by the Guild (in some parts of Australia). These submitters suggested that the campaign (based around Margaret Fulton) is outdated, and misses the target audience of HMRs. Submitters suggested that the Guild revise its advertising and reconsider its target audience. (Regional DGP, WA)

**Strategies to increase consumer engagement**

Nearly half of the submissions received mentioned the need for an enhanced consumer awareness campaign in order to drive uptake of HMRs, however few submissions addressed the question of whether such an approach was appropriate or whether the consumers reached would be those in greatest need of a HMR.

Many submitters reported that the great majority of consumers who would benefit from a HMR were not aware of the Program, so would be most unlikely to ask for a referral from their GP. This lack of awareness was demonstrated from both personal experience and from research conducted in the area. (QUM Officer, Regional DGP, SA)

… Four out of six patients interviewed had no prior awareness of the HMR service. (MMR Facilitator, Regional DGP, Qld)

Further, it was reported by one submitter that awareness of HMRs appeared to be decreasing rather than increasing, despite the promotional efforts to date.

NPS' annual survey shows that 29% of consumers were aware of HMRs in 2005 compared with 32% in 2004 and 31% in 2003. The question was not asked in 2006 and NPS is currently examining 2007 results. (National authority)
One submitter who supported the need for additional efforts by The Guild to generate demand for the HMR service by consumers quoted the Urbis Keys Young report of 2005 to back up their suggestion.

Some submitters were critical of the consumer education and awareness campaigns that had been implemented to date by The Guild.

*I believe the HMR Program needs to be marketed to the public much better than it has been. After close to a decade of operation, very few people are aware of it, and that shows that the marketing to date has been woeful.* (Consultant accredited pharmacist, VIC)

Mixed feedback was received about the consumer campaign which featured Margaret Fulton. One submitter indicated that the campaign sent many wrong messages about HMRs to consumers, while another suggested that the entire campaign was outdated.

A revised national advertising campaign for consumers was suggested by almost half of submission respondents. The campaign was thought to require two key components: raising awareness of the Program; and prompting a call to action for consumers to ask their GP about a HMR.

Many submitters felt that messages for a national campaign should focus on a self-empowering model for the patient, so they do not feel that a HMR is ‘checking up on them’ but will be empowered to self-manage their medications. The benefits of the Program and absence of out-of-pocket expense for consumers were considered to be important messages to convey.

While support for a mass media campaign was strong, other submitters (Consultant accredited pharmacists, VIC) advocated a more targeted approach, and suggested promotion through specific consumer support groups.

* NPS, in partnership with Council of the Ageing, runs a peer education Program which has delivered 1,000 sessions to approx 23,000 senior Australians per year. Seniors attend a community education session for 1 hour, which promotes HMR and provides written information for participants to take away. There is scope for an integrated approach to promoting the service through some of the Programs that NPS or other organisations currently run. (National authority)

**Strategies to boost numbers of HMRs**

The submissions contained arguments for and against the introduction of universal screeners and automatic triggers for HMRs. Those who argued in favour of such screeners and triggers saw them as a clear means of increasing uptake of HMRs, while those against this approach felt they would encompass many consumers who did not necessarily need a HMR – that is, boosting numbers of HMRs regardless of the level of risk of medication misadventure would be inefficient and inappropriate.

Many submitters supported the introduction of blanket screenings or universal triggers for HMRs, although these appeared to be predominantly submitters related to pharmacy peak bodies.

A pharmacy peak body suggested that a HMR request should be automatically generated for patients who are aged over 65, who are taking four or more medications, who have been discharged from hospital or who have reached the Pharmaceutical Benefits Scheme Safety Net limit.

A pharmacy peak body also suggested that for chronic disease patients, automatic referral for HMR could be categorised into four categories - with four triggers for the initiation of a review. (Note, further discussion about HMR linkages, with reference to Indigenous consumers with chronic disease, is included at Section 5.1.4)

*I believe that the HMR Program should be integrated into the numerous chronic disease management and preventative health Programs being rolled out by the Department of Health & Ageing … HMRs are seen as yet another MBS item number with its own unique qualifying criteria…*  

**HMR as part of an over 75 year old Health Assessment**
A consultant pharmacist suggested that the HMR trigger and administration process could be amended for patients with chronic diseases. Rather than an annual review, this stakeholder suggests that the trigger for a HMR could be integrated into existing diagnostic and screening procedures.

For chronic diseases such as COPD asthma, heart failure and chronic pain, consideration could be given to allowing a 2-3 staged review instead of restricting HMRs to an annual intervention. This would allow identification of issues, collaboration with the GP and follow-up where outcomes could be measured to determine effectiveness (Consultant accredited pharmacist, WA and GP, WA)

Provisions which exist within the detail of the current business rules allow for more than one HMR per year under certain rules, including a new referral from the GP and following assessments of continuing clinical need. The comments by submitters indicate however that there is very little awareness of this provision and it is clear that it is not how HMRs are being delivered at present.

To establish which risk factors are being used by GPs to identify HMR candidates, one academic (VIC) suggested accessing some of the GP networks such as the Health Communication Network.

### 5.1.2 Gaps in access for potential service recipients

A large number of submitters identified that post-hospital discharge should act as a vital trigger point for a HMR but noted that at present this is not occurring. The weeks immediately following hospital discharge were seen as the most crucial for patients in learning to manage their medications. Often patients discharged from hospital may not see their GP for some time, or the GP may not be aware they have recently been hospitalised, so they may not be given a HMR referral for some time.

…currently, I feel the system fails in this area, as hospital discharge protocols should include post-discharge review by a pharmacist (MMR Facilitator, WA)

When a patient comes out of hospital, the referral pathway is even longer than the usual HMR referral pathway, precisely when it needs to be the most streamlined and occur most urgently. (DGP, VIC and Regional Health Service, VIC)

The referral pathway is complex: Referral to GP, then community pharmacy, then accredited pharmacist, then review and proposal for consideration/action undertaken. (Peak body)

A number of accredited pharmacists reported in their submissions that they had often arrived to conduct a HMR without being advised that the patient had a limited grasp of English, causing difficulties in the conduct of the review. At present, in some states and territories, accredited pharmacists are unable to directly arrange free interpreting services, but instead must make this arrangement through the GP’s office. Submitters indicated that such an arrangement is rarely made, or is cumbersome to arrange and the problem is compounded by the lack of pre-notification that the patient had limited English. (Consultant accredited pharmacists, VIC and NSW)

Both pharmacy and GP-based submitters recommended that the community pharmacist should be able to arrange interpreter services for a HMR, free of charge, just as the GP can. Both parties viewed the effective provision of interpreter services to be a matter of equity in access to the HMR Program. (Pharmacy peak body)
5.1.3 Reaching those at highest risk of medication misadventure

Concerns that many people who are most in need of a HMR are currently missing out on the service, were prevalent throughout the submissions. Many submitters provided recommendations on how best to reach these high risk consumers.

Access for residents of Supported Residential Services

Residents of Supported Residential Services are automatically considered suitable candidates for HMRs, however it appears that some GPs may not be aware of this. One stakeholder suggested that an educational campaign could focus on this area to raise GPs’ awareness.

Many residents in Supported Residential Services and Community Residential Units are eligible for HMRs; however there is confusion among GPs about this. This has arisen because of the distinction between RMMR and HMR for residents in Commonwealth-funded beds in aged care facilities. (DGP, VIC)

One stakeholder described a pilot project that promotes medication reviews in Special Residential Services. The liaison with management and the conduct of HMRs at these facilities was thought to be of great value.

These centres are the homes of many people with serious health problems, disabilities etc., and are staffed by people with generally minimum medication management skills. Assistance with administration of medicine is greatly valued using a HMR with the resident and the carer. In federally funded Aged Care Homes, an annual Residential Medication Review can be initiated by the pharmacist or a collaborative one by the GP. This should occur in <Supported Residential Services> and <Community Residential Units>.

5.1.4 Access for Indigenous consumers

There has been very little use of HMRs among Australia’s Indigenous population, where the incidence of medication non-compliance and misuse is known to be significant. (Consultant accredited pharmacist, NSW)

In addition to the remote location issues related to many Indigenous communities, accredited pharmacists described a range of specific challenges associated with conducting HMRs with these consumers, where they had very little exposure to western medicine.

A very different model of care is needed. There is an assumption that they understand the western biochemical health model, but many do not. In other words, many do not even understand what it really means when you say ‘Take this white tablet three times a day’, so you have to start at such a basic level … and it takes a lot of time and many visits to ensure the basic information is given and understood. … Even the concept of ‘Home’ in Home Medicines Reviews is mostly irrelevant. I’m just as likely to be talking to patients under a tree in the dust out the back of somewhere, surrounded by lots of others, who will also listen to what you’re saying, which means you are also educating a number of people at once, so there is that flow-on benefit as well. In this setting, the Aboriginal Health Worker acts as a cultural broker really, and will translate as well for health professionals who do not know the local languages, but then the pharmacist can do their job. (Locum pharmacist, very remote area, WA)

Access to a GP for remote Indigenous patients is extremely difficult, and secondly, health workers in these areas were reported to be occupied with acute or high priority health matters rather than referring to, or taking part in HMRs.

I visit some remote communities in the region, none of which have a resident full-time GP. The communities range in size between 80 and 400 people and have a health clinic staffed by nurses or Aboriginal Health Workers. The GP operates mainly by telephone communication with these staff and make regular visits. On the regular visits, they are usually flat out with urgent things that relegate things such as HMRs to the bottom of the pile. (Academic submitter, NT)
All respondents who tabled issues regarding remote communities agreed that the current HMR model is largely unworkable for remote areas. Workforce shortages in very remote areas severely limit consumers’ access to HMRs, and most consumers are Indigenous and are typically facing multiple healthcare challenges. Importantly, many communities in very remote areas do not have a community pharmacy to dispense medications let alone undertake HMRs.

Referrals to a ‘community retail pharmacy’ via a GP are so impossible for this population. Indigenous clients who use an Aboriginal Health Service (AHS) generally do not ever set foot into a community pharmacy. They receive all of their medications directly from the AHS. (Consultant accredited pharmacist, NT)

A submitter (Locum pharmacist, WA) with extensive experience with remote desert communities, stressed the need to build rapport and continuous engagement with Indigenous consumers in order to gradually make a difference on medication compliance. He emphasised that a HMR process with this population ideally would involve up to three medication discussions a year, with the first visit solely related to building rapport and basic education about medicine and tablets. This would be followed up several months later with a little more information and again later, each time gradually adding to the knowledge and reconfirming the important messages. He claimed that a one-off visit by a pharmacist they’d never met, and without any follow-up, would be ineffective.

I have heard of some pharmacists who have gone into Indigenous communities in the northwest and just done as many HMRs as they possibly can in one day (as that was the only way they could get them done under the current funding model) and this means they can spend very little time with each individual. The patient would have no idea what they were talking about most of the time and so it would all be a complete waste of time. (Locum pharmacist, WA)

In order to target more Indigenous Australians for a HMR, a number of submitters recommended that all Indigenous patients on the chronic disease register be automatically referred for a HMR. Automatic referral for a HMR for those on the chronic disease register would enable easier access for a visiting pharmacist, as they would know that a certain pool of reviews could be conducted in any one visit, avoiding problems dealing with a transient population who might move from community to community every few months. Using the register in this way was also seen to reduce complexities associated with the referral process.

Anyone on a chronic disease register <in an Aboriginal community> should be <referred>, because the doctor has put them on there in the first place with a diagnosis, so they should be <considered to be referred for a HMR> simply because of that.

All Aboriginal health services are dealing with extremely high rates of chronic disease, and most adults in the community will be on the chronic disease register, so this provides a means to manage a model of the HMR Program which could work for these communities. (Locum pharmacist, WA)

The inclusion of the AHS in the HMR process was thought to address two significant barriers to uptake in remote areas: the lack of GPs and the absence of community pharmacies.

There is a need for special arrangements with accredited pharmacists that are doing HMRs, so they can work directly with the doctors in charge of AHSs and not have to go through a retail pharmacy … The need for AHSs to have available the pathology results that are needed for the HMR pharmacist and make these available to the AHW <to forward> to the HMR pharmacist. The case for direct contact between an accredited pharmacist and an AHS will be greater as AHSs move more towards having their own pharmacist employed by the AHS – an ideal that many aspire to, especially the regionally based ‘health boards’ and the larger urban-based health services. (Consultant accredited pharmacist, NT)

One submitter recommended that Aboriginal Health Services be empowered to make HMR referrals, and also suggested the use of telemedicine to further expedite the process.
...modifications to the business rules for undertaking HMRs need to be made to encourage greater usage of the HMR service amongst Indigenous people. For example, the business rules should be changed to allow referrals for a HMR for an Indigenous person to be made by an Aboriginal Health Worker (AHW)/nurse employed by an Aboriginal Medical Service (AMS) or over the phone by a medical practitioner working for/ in AMSs. (Peak body)

Some suggested that the parties involved in the HMR process need to include medical practitioners who are in remote locations, including those from the Royal Flying Doctor Service (RFDS) and registered nurses, as opposed to relying on practitioners, like GPs or community pharmacies, which are not located in these areas. The authors note that the Department advises that in fact RFDS medical practitioners would already be able to refer for HMRs but they are not eligible for any rebate. It appears that the options for RFDS involvement are either not known or poorly understood by many of those who work in remote health, including, as demonstrated in the quote below, some MMR Facilitators.

I have several towns in this situation … Why <can’t] there be provision for a registered nurse, such as those practicing in rural nursing posts … to apply to Medicare for permission to refer for a HMR? If a patient living in a <remote] town … requires a doctor, they will generally see a doctor from the Royal Flying Doctor Service (RFDS) in a clinic. However, RFDS doctors are unable to claim MBS item numbers (such as Item #900 for HMR) due to the service’s funding structure; therefore, they are reluctant to refer as the process does require time and labour without further remuneration for the organisation. The result of this is no usage of HMRs in these towns. (MMR Facilitator, Regional WA)

### Access for rural/remote consumers

A number of submitters reported that in some rural areas a cluster of issues combine to make HMR work less attractive to consultant accredited pharmacists. In turn, the shortage of practitioners limits consumers’ access to HMRs in those areas.

Submitters pointed out that some small towns do not have their own community pharmacy. Under the current HMR model, this prevents access to HMRs for consumers living in those areas.

Many rural areas do not have a pharmacy, but have dispensing nurses and GPs, therefore there is no way an accredited pharmacist can be contracted in this situation. (Consultant accredited pharmacist and academic, Qld)

Submitters also reported a chronic shortage of accredited pharmacists in some rural and regional areas. This shortage meant that consultant accredited pharmacists travel long distances to reach patients. (Consultant accredited pharmacists, QLD and VIC; pharmacy peak body; and the CEO of a Regional DGP, VIC were among the submitters who discussed this issue.).

In a number of submissions, supporting information was presented to describe strong relationships between health professionals leading to an effective HMR Program in those rural areas. The approach succeeds through the rapport established between hospital discharge staff, GPs and community pharmacy business owner/managers in these areas.

### Access for CALD consumers

Submissions regarding CALD consumers tended to correspond with the findings of the literature review and indicate a desire for accredited pharmacists conducting HMRs to be authorised to arrange free interpreting services for patients directly, rather than via the GP’s office. The issue of access to free interpreters arose repeatedly in the study, at different phases of the research. While such services may be available, they are either not widely known or cannot be easily accessed or to do so requires time-consuming arrangements involving the GP (in some states/territories). It is clear that there is variation among states and that this is an issue of concern for consultant accredited pharmacists. The current arrangements often lead to no interpreter being used at all, an approach widely acknowledged as sub-optimum. As some submissions described CALD patients as being among those at high risk of
medication misadventure, this interpreting issue is of particular concern. Often the lack of language skills is seen to contribute to low levels of understanding of medications.

5.1.5 The HMR process

The following section looks at submitters’ views on procedural and practical aspects of the HMR Program, including referral pathways, conducting HMRs and reporting.

Referral pathways

Submitters reported a number of issues in relation to the HMR pathway that exists between GPs, community pharmacies and accredited pharmacists. The delays associated with the required pathway between these submitters were also raised as an issue.

Numerous submitters expressed the view that some GPs are uncomfortable with referring to an unknown pharmacy or pharmacist to conduct the HMR review.

In response to this, submitters recommended that there should be an option for GPs to refer directly to the accredited pharmacist rather than going through the community pharmacy business owner. This approach was advocated by a wide range of respondents including GPs, community pharmacy business owners, government and peak bodies, Divisions, academics and MMR Facilitators. However, it should be noted that even with this direct model, most submitters advocated for the community pharmacy maintaining some level of involvement, for example the GP should supply a copy of the HMR report to the patient’s nominated community pharmacy or the community pharmacy business owner/manager could charge a fee for providing information and acting on reports if nominated by a consumer as their regular pharmacy.

On the other hand, not all submitters advocated changes to the referral pathway for HMRs. One, in particular, advocated for the HMR service delivery model to remain unchanged as they saw the current model as the one to provide the greatest value and best clinical outcomes for consumers. This view that the model should remain unchanged- was strongly contested within the submissions. In particular, the assumption that continuity of care is embedded in the current model, where the GP refers the patient to the community pharmacy of their choice, was disputed by a number of submitters. However, there was support for retention of the community pharmacy’s role in the HMR referral pathway because they have the patient’s dispensing history, know the patient’s background and can offer advice the next time the patient orders medication.

As already noted, several submitting organisations felt that nurses should be able to make referrals for HMRs in certain circumstances, in order to relieve the burden on GPs and thereby improve access for some patients. While many Practice Nurses are understood to already actively identify patients in need of a HMR and make a recommendation to the GP for a referral, several submitters believed that the Practice Nurse should have the ability to undertake a great deal of the referral and recall process unaided. However, the majority support the use of a Practice Nurse to initiate the referral system under the supervision of a GP.

One submission from a nursing organisation indicated the use of nurse practitioners in the HMR referral process is supported given their role in relation to medications is now somewhat closer to that of medical practitioners. The submission stated that, in their ability to provide patients with additional services known as ‘extended practice’, nurse practitioners are ideally placed to identify issues of medication mismanagement and recommend patients for HMR referrals.

Nurse Practitioners are often faced with issues of poly pharmacy, misuse and mismanagement of medication particularly in the community setting … <they> are ideally placed to identify elements contributing to mismanagement and/or misuse of medicines.
Some submitters considered medical specialists should also be able to initiate HMR referral. It was suggested that for some people with highly complex conditions, the relevant specialist is the medical practitioner who has overall say on any and all aspects of their medical treatment. In these cases, a GP was seen to be highly unlikely to be involved or to feel comfortable recommending a HMR. However, there is no consistency in the submissions on the question of whether specialists should be able to refer for HMRs. While some submissions proposed that medical specialists should be able to initiate HMRs, others recommended that specialists only be able to recommend a referral, not actually refer.

Patient self-referral was seen by a number of pharmacy based submitters as providing a direct way to increase the numbers of HMR referrals. The appropriateness of such an option however was a matter of debate. While a small number of submitters recommended investing certain patients with the ability to self-referral for a HMR, there is little overall support for this approach.

Conducting HMRs

Government legislation in many parts of Australia requires that at least one community pharmacist be present in pharmacies during opening hours. However, the HMR process necessitates that accredited pharmacists work off-site, thus depriving some pharmacies of one staff member. Submissions indicated that in situations where the community pharmacy business owner/manager is the only available accredited pharmacist, many felt forced to either conduct reviews after pharmacy hours (a personal burden) or employ another pharmacist to undertake reviews (a burden on the pharmacy as a business). Even where the community pharmacy owner/manager undertook the interviews, this led to the same dilemma of absence from the pharmacy and resulting need to work on this outside normal hours.

A range of submitters expressed concern about the length of time between each step in the HMR process. Throughout the phases of this study, significant concerns were raised at the excessive delays in HMRs being undertaken. Regardless of the range of reasons for this, the effect was one of HMRs frequently being conducted in a timeframe which was far from ideal for the consumer. Submitters reported that logistical issues contributed to prolonged and variable time frames at all stages of the HMR process, from initiation through to follow-up. HMR guidelines recommend that the review process be completed within 2–3 weeks. However, respondents reported that significantly longer timeframes are the norm. For example, a small study undertaken by one submitter (Ph.D candidate (Qld)) concluded that the whole HMR process commonly takes 11 weeks or longer to complete. This timeline was consistent with findings of the qualitative phases of the fieldwork but was in contrast to the apparent lack of awareness or possible underestimation by many of the stakeholders, about the extent of delays.

Submitters recounted a range of factors that contribute to delays, including the complexity of the referral process and the potential for the process to ‘break down’ if one of the parties to the HMR did not complete the required actions (GP, patient, community pharmacy etc).

Both GP and pharmacy-based submitters identified that ‘blockages’ and delays associated with the referral process were often due to a lack of action by pharmacies. (CEO, Regional DGP, VIC; Consultant accredited pharmacists, VIC). Concerns of this kind were certainly borne out in the qualitative fieldwork with health professionals. These substantial delays were reported to have a flow-on effect that limited uptake of the HMR Program. Some pharmacy and GP-based submitters questioned the clinical effectiveness of HMRs due to the delay in implementing medication regime changes as a result of the HMR. Further, one Division Representative(Qld) reported that delays and systemic blockages caused some GPs to cease using HMRs altogether.

*GP frustration with time lag between referral to receipt of report from pharmacy discourages continued use of the item number.* (Peak body; Statewide DGP, NSW and Regional DGP, Qld)


**Referrals and Reporting**

Submitters reported considerable variation in the quality and overall usefulness of referrals from GPs. From an accredited pharmacist’s point of view, submitters reported that GPs did not always provide sufficient detail about why a HMR is required, or the medical history of patients. Further, it was often reported that the referral to the pharmacist provided insufficient information, or large amounts of irrelevant information. These factors were reported to impact on the pharmacist’s ability to effectively conduct the HMR, or provide a useful and meaningful report back to the GP.

*Communication of reasons for referral by doctor e.g. ‘symptoms of adverse drug reaction’ but often no information is provided in the referral as to what symptoms may suggest adverse reaction or if there is any idea which drug may be involved. What made the doctor think there was an adverse drug reaction?* (Consultant accredited pharmacist, WA)

The use of an electronic system was also proposed to generate standard referrals that could be filled in and sent to the community pharmacy electronically. The same software could generate a standard reporting format that could be sent electronically back to the GP. Such a system was suggested as a means to simplify the referral required by the GP. (MMR Facilitator, Regional DGP, Qld)

Conversely, both GP and pharmacy-based submitters expressed dissatisfaction with the quality of the pharmacist’s report back to the GP. (CEO, Regional DGP, VIC). One submitter reported that GPs are at times dissatisfied with the standard and style of the reports they receive from accredited pharmacists. The report was described to be in a format incompatible with their software, and may not have effectively addressed the issues that were outlined in the referral.

**5.1.6 Payment and Remuneration**

Issues around inadequate remuneration for HMRs related almost entirely to the ‘pharmacy’ side of the HMR equation, rather than the GP side. There were substantial concerns at what numerous submitters described as the inadequacy of payment for both the community pharmacy component as well as the accredited pharmacist component. This study did not include a financial assessment of the figures involved as such, because that was not within the project scope, however many submitters did provide justification for their concerns and these were supported in other phases of this research. Submitters (and later, pharmacists interviewed for the qualitative research) noted that typically they would take about three hours to undertake a HMR. Submitters noted that community pharmacies tended to retain around $40 of the HMR fee. This leaves a payment of close to $150 for the accredited pharmacist, which equates to around $50 an hour. Submitters considered this to be below a reasonable hourly rate for a qualified pharmacist.

Note, while the time taken to conduct a HMR clearly varies depending on circumstances, many submitters cited a period of up to three hours. This was justified on the basis of factors including: scheduling, travel to and from the consumer’s home, and the fact that often there were no economies of scale as other HMRs were not necessarily required in nearby locations. In order to achieve economies of scale, many submitters noted that some HMRs are deliberately postponed, so there can be an accumulation of HMRs in the one area, further adding to the lack of timeliness.

While one element of the literature referred to the rates being reasonable based on the consideration of the Accreditation Incentive Scheme, submitters (and later health professionals at the grassroots level) clearly did not include consideration of these incentives in assessing the adequacy or otherwise of the HMR payments. Some community pharmacy business owners or managers and accredited pharmacists, did however comment favourably on the Incentive Scheme and were appreciative of its introduction.

The perceived inadequacy of the payments appears to be a major factor contributing to the low retention rate of accredited pharmacists.
Pharmacists were, on average, taking more than 3 hours to complete each review. For $150 I collect the referral and dispensing history, arrange the appointment, write letters, prepare and research the material, drive to the patient’s residence, spend up to an hour with the patient, write the report and communicate it to both the pharmacy and GP, prepare invoices and receive feedback from the GP. This typically takes more than 3 hours. This is probably about half what I pay a plumber to change a leaking tap washer. (Consultant accredited pharmacist, Qld and former peak body Board member)

Submissions consistently called for an increase in the remuneration rate. Most suggested an amount between $220 and $250 per review for the combined community pharmacy and the accredited pharmacist components. Many submitters believed that this amount would cover the costs associated with HMRs (including time for administration, conducting the review, on-costs etc) and represented a more realistic hourly rate for accredited pharmacists. One consultant accredited pharmacist (WA) cited research conducted for the Third Community Pharmacy Agreement that supported an increase of this magnitude. Another submitter (Pharmacy peak body, TAS) advocated a far higher (in fact, the highest) increase to a payment of $260 per HMR, while the general consensus was for an increase to a minimum of $220.

… unless a fee of at least $220 (indexed) per service delivered in the home is available, there will continue to be insufficient justification from a business case perspective to achieve large scale participation by community pharmacies in the provision of HMRs. (Pharmacy peak body)

Consultant accredited pharmacist submitters reported that the issue of inadequate payment is exacerbated by slow payment from the contracting community pharmacy. One consultant accredited pharmacist (VIC) reported it is not unusual for consultant pharmacists to wait months for payment from the community pharmacy. Delays and erratic payment by community pharmacies were seen as a significant disincentive and led a large number of accredited pharmacists to call for payment to be made directly to them. Indeed, this was one of the strongest arguments presented across many submissions, including from some peak bodies. The administrative burden of sending reminders and ‘chasing up’ community pharmacies was also highlighted. A compromise payment scheme was also proposed, whereby the fee could be split between the community pharmacy business owner/managers and the accredited pharmacist.

I would recommend a set fee paid to pharmacists for HMRs service – paid directly to the accredited pharmacists and another fee paid to the local pharmacy for their part of the HMR service. (Consultant accredited pharmacist, Qld)

Claims process for GPs

Very few submissions made any negative comments about remuneration levels for GPs. Where a small number of submitters did comment, rather than the level of remuneration for GPs – which is widely regarded as adequate – GP and Division-based submitters reported that the administrative process of claiming is considered complicated for GPs. The primary issue related to the timing of the process: GPs can only bill at the end of the process, so if the HMR is blocked by the patient or the community pharmacy business owner, then the GP does not receive payment. A number of submissions called for the claiming method to be altered so that the GP can claim a part-payment for both parts of the HMR process, rather than one claim at the end of the procedure. The first stage of this recommended payment schedule was typically at the commencement of a HMR, when a patient first provides consent, or at the time of referral. This view was expressed by both GP and pharmacy-related submitters who considered it to introduce additional ‘red-tape’.

Lack of critical mass of HMRs

Without a ‘critical mass’ of HMRs to conduct, some accredited pharmacists - both those in community pharmacies and those who are consultants - suggested that many pharmacists are unwilling to adopt
HMR as part of their practice. This problem also meant many pharmacists were reported to be unwilling to make the investment required to become accredited.

*The workload is erratic. Looking at the workload, and hence income, it is not difficult to see why many young pharmacists would not find this a viable full-time career path.* (Consultant accredited pharmacist and former pharmacy peak body Board member, Qld)

*Pharmacists are taking a gamble that they will get sufficient HMR referrals to make it worth their while to become accredited. This is a vicious circle – GPs don’t refer if there aren’t accredited pharmacists conveniently located, and pharmacists don’t want to become accredited if there aren’t the numbers of referrals.* (QUM Program Officer, Regional DGP, SA)

### 5.1.7 Accreditation and training

Submitters reported that, overall, accredited pharmacists view the accreditation training as burdensome, expensive, difficult and time consuming. (MMR Facilitator, Qld) Given these high demands, and the limited rewards for most consultants conducting HMRs, many submitters perceived the accreditation process as a barrier to the recruitment, retention and, ultimately, participation in the HMR Program.

*The guidelines for gaining and maintaining accreditation are difficult and expensive to complete.* (CEO, Regional DGP, VIC)

The process of accreditation is seen as especially arduous for rural pharmacists, as they also have to travel long distances for training, increasing both the time and financial requirements. In addition to travel, workload and professional support were also reported to hinder participation in accreditation:

*Young, clinically interested pharmacists … find it hard to go through the accreditation process due to long working hours, a lack of peer support and the need to travel to most educational events.* (QUM Program Manager, Qld; and CEO, Regional DGP, VIC)

Several submitters (including a pharmacy peak body and an MMR Facilitator) suggested that the concept of medication reviews should be introduced into undergraduate pharmacy degrees. (Note, the authors understand that this may already be occurring in new degree courses).

A number of consultant accredited pharmacists signalled that the feedback on HMR reviews they have conducted is a valuable self-education tool. As noted by one accredited pharmacist, few accredited pharmacists have a mechanism whereby their own performance can be reviewed, and the impact of the HMR can be assessed. Many accredited pharmacists stated a desire to improve their practice through structured feedback from GPs, but they often did not receive this feedback from the GP or community pharmacy business owner/manager.

### 5.1.8 The roles of the Pharmacy Guild and MMR Facilitators

#### The role of the Guild

Many submitters expressed strong views that the role of the Guild had led to an over-representation of the interests of pharmacy businesses rather than a balance between the interests of consumers, accredited pharmacists, GPs and community pharmacies.

The role of the Guild in the HMR Program was seen by a number of respondents as presenting a conflict of interest, and an inappropriate monopoly over the process. Both of these factors were thought to negatively impact the ultimate goal of the HMR Program: the appropriate and effective use of medicines in the community.

*Currently the Pharmacy Guild is the chief negotiator for HMRs … <and given> equity of health care access is Government policy, the prime, and indeed only, consideration should be delivery of the service to those most likely to need and benefit. It is not about returning dollars to community pharmacy owners. The*
monopoly that has been created does not allow models to meet the needs of individuals. (Consultant accredited pharmacist, Qld and peak body representative)

The point of greatest contention regarding the role of the Guild was their requirement for the involvement of community pharmacies in the HMR referral pathway. Many submitters perceive that the current model which allows no option other than referral through a community pharmacy is thwarting the process, as it appears many community pharmacies do not want this work, and only add to the time delays in the process.

Under the current model, … the customer should be referred to the community pharmacy of their choice so that their pharmacy can provide appropriate continuity of care. However, the reality is that a significant portion of the HMR-approved providers employ or contract an external accredited pharmacist to conduct the reviews; and that the non-accredited dispensing pharmacists don’t even read the final HMR report, and rarely see a management plan come back from the GP! This results in a very small percentage of eligible HMR recipients receiving the ‘appropriate continuity of care’; but large numbers of eligible people not even receiving a HMR in the first place because of an archaic, self-serving, restrictive push by the Pharmacy Guild to retain control for their members over HMR payments. (Consultant accredited pharmacist, NSW)

Some respondents believed that while community pharmacy business owner/managers were generally receptive to the idea of direct referral, it was the Guild which continues to strongly lobby for the continuation of current practice (with few exceptions). One academic submitter (Qld) recommended that the Pharmaceutical Society was the appropriate body to take charge of the HMR process to overcome issues of self-interest.

5.1.9 The role of MMR facilitators

While not the focus of this research study, many submitters nevertheless reported mixed views on the functioning and efficacy of MMR Facilitators. Given that many of these submission comments relate directly to impacts upon the effectiveness of the HMR Program, it was considered important to include a range of these comments in this study. (The authors understand that a separate review of the Facilitator program is underway under the auspices of the Department.)

Some pharmacists were sceptical of the usefulness of the MMR Facilitators’ role in the HMR Program, suggesting that the role of Facilitators needs to be reviewed.

My recollection of the evaluation of the Community Pharmacist HMR Program was that more funds were spent on the facilitator program than actually paid to accredited pharmacists. The effectiveness of the facilitator program needs to be urgently addressed and either redesigned or funds allocated to more effective enhancers of HMR delivery. (Consultant accredited pharmacist and former pharmacy peak body representative, Qld)

However, some accredited pharmacists perceive that this lack of efficacy is due to inadequate funding, while others felt those recruited for the positions were often not well suited to the task. (Consultant accredited pharmacist, VIC)

In other phases of this research, there has been discussion about the importance of GPs as champions for HMRs, and that they are more important proponents than Facilitators, with some stakeholders commenting that only GPs can effectively be champions to other GPs. Despite this belief however, even where one GP is actively championing the benefits of HMRs, this has not necessarily translated into higher uptake of HMRs among his or her colleagues. (See section 6.10.3 and 6.10.5)

Some MMR Facilitators are employed part-time, and are also self-employed as accredited pharmacists. Some submissions provided information that indicated that this had enhanced uptake of HMRs in the region, while others expressed concern that this posed a potential conflict of interest.
MMR Facilitators are funded and encouraged to promote HMR by prescribers in their area. It is of concern however, that some MMR Facilitators are actually operating a business as HMR contractors. This presents them with a conflict in that while they are supposed to be helping community pharmacists develop a business for HMR provision, at the same time they are building their own business. (Consultant accredited pharmacist, NSW)

This concern of conflict of interest was echoed in another submission:

In fact, there appears to be conflict of interest if an accredited pharmacist takes the role. (Pharmacy peak body).

In Phase Four of this study, Qualitative Research with Health Professionals, specific examples related to this issue arose and comments are found in Section 6.10.5 of this report.

MMR Facilitators and representatives of Divisions suggested that revised strategies are required for approaching and promoting the HMR Program to GPs. Specifically, these submitters pointed out that repeated practice visits serve little value in the promotion of HMRs.

The function of practice visits to inform GPs on home medicines reviews is wasted after the introductory visit to existing and new practitioners. GPs and pharmacists alike are extremely busy people and do not want repetitive detail. (CEO, Regional DGP, VIC)

To better resonate with GPs, this respondent recommended that the title of ‘MMR Facilitator’ be changed to ‘Quality of Use of Medicines Facilitator’ as it was a title more consistent with the role of facilitator with the NPS Programs. The NPS Program was seen to lend greater credibility for the HMR Program in the minds of GPs.

Divisions work with a number of other Programs with specific targeted and coordinated Programs. For example, the National Prescribing Service runs a predetermined series of clinical updates and audit Programs for GPs that the HMR Program could also target. (Statewide DGP, Vic)

5.2 Conclusions arising from Public Call for Submissions

There were a number of key themes arising from the Call for Submissions phase of research which required exploration during the qualitative phase, for the purpose of assessing their validity, these included the call for a consumer awareness campaign; the call for increased remuneration for the ‘pharmacy side’; the call for alternative referral pathways; and the stated ambivalence of many community pharmacies and GPs (just to name a few, as there were indeed many more issues canvassed as part of the Qualitative Research with Health Professionals).

There were however a number of issues where substantial supporting information was provided within the submissions, even though additional material also emerged during the subsequent qualitative research phase. Substantial supporting information was provided on a range of matters, including, but not limited to, the failure of HMRs to reach and assist high risk consumers; travel allowance inadequacies; issues affecting remotely located Indigenous Australians; issues affecting CALD consumers; payment arrangement inadequacies; and the long delays associated with many HMRS.

Of all the issues that emerged from the Call for Submissions, the following were the most prominent and information to support these issues was provided in the submissions.

High risk consumers least likely to receive HMRs

It emerged from an analysis of the submissions that under the current model, high risk consumers tend to be those least likely to be assisted through the HMR Program, thereby substantially decreasing the potential value of the Program. Material provided in many of the submissions provided substantial detail to confirm these concerns and extrapolate on issues which arose in the literature review and...
stakeholder consultation phases of this research. Information contained in submissions elucidated the arguments around lack of provision of HMR to many high-risk consumers.

Given the scale of the problems around failure to reach high risk patients which is so clearly laid out in many submissions and which is supported by some of the literature and stakeholder consultation outcomes, the authors suggest that any studies aimed at revealing the clinical effectiveness of the HMR Program will be highly likely to reveal limited clinical evidence, until such time as the Program can be reconfigured to reach those consumers most at risk and who would benefit most from an ideal HMR process.

Findings on this matter contained within the submissions reflected some of the concerns raised through the previous two phases – Literature Review and Stakeholder Consultations – however it was information provided during the Public Call for Submissions phase which initially and graphically illustrated the concerns about how rarely HMRs were provided for those at high risk of medication misadventure. Later phases of this research, namely the Qualitative Research with Health Professionals and Consumers, provided additional confirmation of the genuine concerns on this issue.

**Post-hospital discharge**

The majority of submitters felt that the HMR program needed to find solutions for patients immediately after hospital discharge if the HMR Program is to meet one of its key aims of assisting high risk patients and preventing hospital (re)admissions due to medication misadventure.

The submissions received provide clear supporting material to confirm that this is a key point at which the current model fails high risk patients in many regions at present, particularly due to the consistent pattern of considerable delays in the provision of the HMR due to a combination of factors (including examples such as waiting three months for a total of four HMRs to accumulate, before the consumer receives the service).

Formalising of links with hospital pharmacists and hospital-based community health services were among the solutions put forward by submitters. At present, these links appear to be dependent on the goodwill and personal approach taken by individual MMR facilitators or hospital pharmacists. As such, the degree of effectiveness of these links varies enormously from one Division to another.

Formal linkages with chronic disease management clinics in hospitals have been shown to lead to more productive and timely arrangements for HMRs. For example, the Heartlink Program at the Prince of Wales Hospital in Sydney, described by one submitter. This one hospital has 106 such clinics, so these can be a major source of screening for referrals when linkages are fully established, including MMR facilitator education workshops on site at the hospital.

It was strongly suggested that there is an urgent need for a formal system of links, as well as specific referral pathways for high risk patients in the post-hospital discharge period, given the widespread agreement and concern that this is often a period of greatest need for a HMR but a period when the current arrangements are least likely to be effective or timely.

There is no strategic, program-wide concerted effort being made to address the gaps that inevitably allow high risk patients to fall through the cracks in the HMR system when they are likely to be in most danger: that is, in the period following hospital discharge.

**Barriers to access for Indigenous consumers**

In remote Indigenous communities where medicines are provided through the Aboriginal Health Service and the nearest community pharmacy is perhaps 1,000 kilometres away, the potential HMR patient never sets foot inside a community pharmacy.
Submitters reported that HMRs are so impractical in remote Indigenous communities at present that they are rarely able to be pursued at all. Moreover, submitters felt HMRs are highly unlikely to be effective even when they do occur in these communities, based on the current model.

Specific models for major overhaul of this aspect of the HMR Program were put forward by submitters (and later explored to some extent in the qualitative research with grassroots health professionals in Phase Four). However, further research specifically focusing on Indigenous communities and/or a pilot program would be desirable as an adjunct to this research.

**Direct referral**

Submissions strongly held that the fact the GP cannot refer to an accredited pharmacist of their choice (a model much closer to their current familiar and longstanding arrangements of referrals to specialists) can be a barrier to GP participation. Reference to this as a barrier emerged throughout each of the first three phases of research conducted for this project, and this was identified as requiring further exploration in the qualitative research amongst health professionals at the coalface of HMRs.

The need for overhaul of the referral pathways was put forward in the submissions, specifically to allow, as an option, for referrals to be made directly to an accredited pharmacist (from the GP) and not necessarily via the community pharmacy. Submissions provided supporting material (not included as a document or article reference in this study due to issues around identification of submitters, unless that material was already fully and publicly available) to confirm that the community pharmacy link does not apply for all patients and is inappropriate and indirect for others, for example:

- where an area does not have a community pharmacy
- where a small town has only two pharmacies and one community pharmacy business would need to refer patients to the other, who has an accredited pharmacist, in order to have a HMR take place – causing concerns about loss of custom to the competition
- in suburban areas where several large local community pharmacies service ‘super-practices’ involving many GPs and servicing thousands of patients (often including a high proportion of older patients). Submissions described the disinterest in HMR by some of these community pharmacies and believed this was believed to contribute to the inaction on HMRs by local GPs, thereby disenfranchising hundreds of patients whose health may have been improved through HMR support.

The HMR business rules appear to be at the core of the concerns for many. There was considerable accumulated supporting information at this point of the research, that the business rules – namely the perceived narrow provisions that allow only a community pharmacy to arrange a HMR – were restricting the potential effectiveness of the Program and may need to be altered in order for uptake to substantially increase and to assist more patients. Many examples were provided in the submissions of how the HMR business rules are having a negative impact on uptake of the Program.

**Travel allowances**

The submissions provided adequate and clear supporting material to confirm that travel allowances were, in some cases, a genuine and specific barrier to the conduct of HMRs, regardless of the need of the patient.

At present the formula for travel allowance is calculated on the distance of the consumer’s home from the community pharmacy, rather than the actual distance travelled by the accredited pharmacist conducting the HMR. Submissions demonstrated the need for a revision of travel allowances to accurately reflect the time involved and the distance travelled by the accredited pharmacist, rather than the current system of allowances based on PhARIA regions. (Detailed financial calculations were not included in the scope of this research study however numerous submissions do provide examples to support this argument, ie, consultant accredited pharmacists having to travel up to 40kms each way to
conduct a single HMR, yet being unable to secure any travel allowance as the region is metropolitan). The current system appears to provide a major disincentive for the conduct of HMRs in some rural and remote areas, and also within parts of metropolitan areas, under certain circumstances.

The current travel allowance arrangements result in considerable pressure on accredited pharmacists to wait until they have accumulated a larger number of HMR referrals across a geographic area. Invariably this prevents timely HMRs for patients at high risk, as it may for example take 8 weeks or as long as 4 months for sufficient referrals to accumulate. In many other cases, a ‘profitable’ number may never eventuate.

**Payments for accredited pharmacists**

Considerable supporting material provided with submissions confirmed that the current indirect payment approach for consultant accredited pharmacists presents an unreasonable burden.

Based on the many detailed examples provided, arguments for payments to be made directly to the consultant accredited pharmacist to enable a fair and reasonable business approach appeared to be valid. The current payment arrangements for consultant accredited pharmacists were shown to be onerous and unwieldy for many providers.

**Precedence of community pharmacy business interests over those of consumers**

There was considerable concern expressed by a broad range of submitters that the very constitution of the Pharmacy Guild means that they have a conflict of interest in their current ‘monopoly’ of the HMR system. Submitters argued that the primary driver for the HMR Program arrangements must be solely, the best interests of the patient and that this needs to drive a range of changes to current arrangements.

In addition, the submissions clearly showed that the business interests of community pharmacy proprietors are often taking considerable precedence over the interests of consultant accredited pharmacists and GPs. The priority granted to community pharmacy business owners frequently leads to the patient missing out on any chance of a HMR.

The submissions revealed that the precedence given to the community pharmacy’s business interests has become a source of widespread resentment by consultant accredited pharmacists. Consultant accredited pharmacists argue that they are best placed to bring about a change in the attitudes of GPs towards HMRs, yet they see no benefits from any initiatives they may otherwise be willing to pursue in this regard. It would appear from the supporting information provided in the submissions that accredited pharmacists could become the ideal ‘free’ source of ongoing promotion and education regarding HMR among GPs, if the disincentives of the current restrictive practices were able to be changed.

**Major differences in GP receptiveness to HMR**

Widely differing levels of GP receptiveness to HMRs were documented and reported in the submissions. While many reasons were cited as to why this may be the case, the dominant reasons that were explored further in the qualitative phase included:

- **The effect of lack of evidence:** The fact that a GP is unlikely to have seen evidence of direct and clear advantages to his/her patient’s health as a result of HMRs, due in part to its current lack of connection to the post hospital discharge ‘danger’ period. Future documented evidence of positive clinical outcomes for patients as a result of HMRs conducted with a much higher proportion of high risk patients, (as a result of changes to the HMR system), would be likely to contribute to a much greater level of receptiveness over time, among GPs.
Competing Programs: Many stakeholders and submitters noted that HMR competes for the GP’s attention and prioritisation against much more established programs with well proven clinical outcomes: HMR must reach this level if it is to be a serious contender for GP attention.

5.3 Issues requiring further exploration

There were a number of issues either raised repeatedly by high proportions of the submitters, or which emerged through an overall analysis of the submissions. Many of these issues were specifically explored in the qualitative phase of this research with grassroots health professionals and consumers, including those described in this section.

There was an emerging sense from the submissions that many GPs considered HMRs to be marginal in terms of the benefits they generate for patients and as a result gave them a very low priority.

Some submissions suggested that integration of HMR referral triggers with existing protocols for management of chronic disease states may be important for patients with co-morbid disorders and also important to streamline GP involvement and willingness to refer.

Where the connections between the GP, the community pharmacy, and the accredited pharmacist were operating effectively, there was reporting of solid, productive relationships and an efficient and valuable HMR service being provided. Based on the submissions, ideal rural models appeared to be operating in some areas: for example, Strathalbyn and surrounding areas of the Fleurieu Peninsula in South Australia and in the Bass Coast area of Victoria. These models appeared to benefit from the close relationships, both professionally and personally, within these smaller communities. Conversely, there appeared to be many other rural towns where the HMR system did not work at all and as a result, the entire population of the surrounding catchment area were excluded from any realistic possibility of a HMR, regardless of their level of risk for medication misadventure.

Throughout the submissions, consumer resistance and reluctance to agree to HMRs emerged as perceived barriers to participation. Some submitters suggested the reluctance of some patients was a reason for low HMR ‘conversion’ rates. Those consumers likely to be most in need of a HMR are said to be sometimes daunted by the Program components. Some submitters suggested that it was unsatisfactory that a Program aimed at assisting those in most need of HMRs had inherent characteristics that make it unlikely that such individuals will be able to benefit.

There were a number of calls for education/promotion/marketing directly to consumers on HMR. However, based on other content within the submissions, any promotional campaign would only appear to be valuable to the extent that it could reach, inform and influence much older, confused or high risk patients. Reviewing the submissions led to a conclusion that patients who are regarded as the most receptive to HMRs appear to be the very patients who are least likely to need HMRs. These observations combined to present a mixed picture as to the potential success of a consumer awareness campaign.

Throughout the earlier stages of the research project including the Call for Submissions, there were a number of suggestions put forward about specific measures that could be taken to change and enhance the HMR Program and develop it to meet its potential. Recommendations of appropriate statistical measures of the HMR Program’s effectiveness were also put forward in the submissions.

There appears to be a need for: benchmarking of current HMR practice, followed by subsequent strategic action to encourage and introduce new models of HMR, develop linkages with hospitals, introduce new referral options, and a subsequent tracking of the effects of the HMRs on a population that will then have access to HMRs in a best case scenario. At present, the measures of participation that do exist are crude and ignore the realities of a lack of practical access to HMRs for many high risk patients. For GP uptake to increase, clinical evidence must be made available. The submissions
identified a need to explore what type of evidence would be most likely to trigger HMR referral by the GP.
6. Phase Four: Qualitative Research with Health Professionals

The objective of the qualitative research with grassroots health professionals was to provide in-depth analysis of gaps in access to the HMR Program, and to determine what drives HMR participation amongst health professionals and the factors involved in non-participation. Specifically, the qualitative research stage aimed to provide grassroots views on existing practice and identify options for the future directions of the HMR Program.

Issues for exploration in this phase were formulated from findings of the earlier three phases of this research: the Literature Review; the Stakeholder Consultations and the Call for Submissions.

6.1 Health professionals’ perceptions of the program

Overall, stakeholders perceived the HMR Program as ‘a good idea’ but also as a program that was not working well. Most stakeholders identified opportunities for improvement. Dominant themes included the complexity of the business rules, delays between initiation and completion of HMRs associated with the many professionals involved and communication difficulty. These issues were embedded in a perception that reviewing medicines was something that GPs, pharmacies and pharmacists did anyway as part of their everyday work. The additional training and accreditation was not always seen as necessary.

While many perceptions were negative, there was a consistent view expressed about the value of medication review and the importance of reducing adverse events associated with pharmacy use. Nearly all stakeholders identified room for improvement. Many expressed concern at the lack of a solid evidence base of outcomes, in the form of reduced adverse drug related events directly associated with HMRs.

Many health professionals are not participating in the Program because they don’t find it valuable or don’t consider it to be a priority. As a result, consumers are not getting access to the Program.

In the following section, a wide range of barriers for grassroots professionals are outlined, together with the strong positive suggestions for improvement. Different issues for each health professional – GP, community pharmacy, accredited pharmacist and other health professionals, are dealt with. Across the board it is the ambivalence of health professionals exacerbated by some negative experiences that is limiting participation.

The views of the grassroots professionals were often inconsistent with those of their professional stakeholder organisations.

6.1.1 Perceptions of the Program - GPs

GP attitudes towards HMRs were most commonly ambivalent. Some were positive and a number of respondents were clearly negative, considering the program a waste of money.

Positive GPs, usually those with a higher number of referrals, believe the HMR program is beneficial for both patients and health professionals. These GPs emphasised the importance of a team approach to healthcare, and cited the quality assurance that comes from having an independent person reviewing medication and a second opinion on patient care. They are also strong believers in the value of HMRs and find that they provide educative, psychosocial and health benefits to participants, practice review and learning opportunities for GPs, as well as financial savings to the health system.

The HMRs provide a psychological boost to the patient, showing that you are interested in their welfare, that something is being done. They provide a big boost. They sometimes pick up some interactions and you
can cut down on one or two medications and if so, the patient will feel that they are healthier... It is useful to have my practices reviewed. I find it a learning process and make use of it because it is available. (Rural HMR GP)

Most GPs were ambivalent about the HMR Program, and while they did not criticise the HMR Program outright, they rarely referred patients. In general, they wanted to see further evidence of clinical health outcomes and effectiveness. Some were also concerned with the work that could be generated when they had to explain their clinical practice decisions to the pharmacists.

Often the pharmacist isn’t telling us anything new, but sometimes you get real gems. 60% probably confirming what we did already know. 5-10% causing grief and about 25% coming up with gems ... and we will make changes and have new information. (Rural/Remote HMR GP)

A small number of negative GPs did not view the HMR Program as at all effective in improving health outcomes for their patients and generally saw HMRs as a misuse of time and a waste of government money (Rural Non-HMR GP).

I do think the Government should spend their money on something else instead, like public hospitals. (Regional Non-HMR GP)

It is important to note that often these GPs present very clearly as giving considerable time to their patients, being committed to the patient’s wellbeing and having a strong commitment to collaborative care. Despite the negative characterisations sometimes put forward to explain GP resistance to HMRs, these did not appear to be valid for many non-referring GPs, nor even for many of those referring in low numbers.

6.1.2 Perceptions of the HMR program compared with other healthcare initiatives

GPs frequently made comparisons between HMRs and the various other Government primary healthcare initiatives of recent years. Overall, GP Management Plans, Enhanced Primary Care Initiatives for diabetes and for asthma, as well as over 75 health assessments received considerable and obvious support. By comparison, HMRs were viewed as either less valuable or a lower priority. The other programs tend to be perceived as more closely tied to the GP’s role.

HMRs tended to be seen as the primary healthcare initiative that could be ‘dropped’ without any negative impacts for their patients.

While the level of need for HMRs may always be very small in comparison with some of the other primary healthcare initiatives, HMRs do not seem to come close to the other programs in terms of their consideration by the GP.

With the Diabetes and Asthma Care Plans, they are given good prioritisation by the GPs because they can clearly show hard clinical outcomes. Also, all of these plans do cover all of those issues around medications, so sometimes there is a sense of overlap. (Rural Former practice manager, HMR GP clinic)

There was one GP however, who said that he found the HMRs to be a more valuable program than GP Management Plans.

When I had used them <in previous practice> they definitely helped the patient and me as well. They can help bring to your attention some problems that you were not aware of ... <they>may be more of a help than a GP Management Plan. (Rural non HMR GP, as HMR not available in current location)

Some GPs resisted HMRs due to concerns it could leave them vulnerable if a routine Medicare audit found that they had not adhered to the required HMR patient eligibility and billing requirements.

In one Division, HMR referrals were reduced by half as soon as a Medicare audit was announced.

Referrals dried up by 50% when Medicare advertised that they were auditing GPs in relation to HMRs. (Rural/Remote CPBOM).
For some GPs, concern about the Medicare audit came through when they expressed they must ‘get it right’, when selecting patients for HMRs. For others, the concern about Medicare audits was obvious in the GP’s refusal to do HMRs if he/she had to ‘get around the system’ to make it work. The requirement for a phone call to the accredited pharmacist was taken literally by some GPs who were not confident about ‘working around’ a Medicare requirement. In contrast, other GPs simply treated this communication as an option and were happy to be flexible.

The difficulty is that there is so much paperwork in what you do … that one more thing to fill out when you’re trying to get through all the other sort of EPCs, primary care, GP Management Plans and so on. I find it hard enough to understand who’s appropriate for what, much less add in a medication review, but I really do think they’re valuable. (Regional HMR GP)

6.1.3 Factors in GP participation and factors in non-participation

HMR Program participation drivers for GPs varied, but their approach to HMR tended to fall into the following categories: entrepreneurial; selective approach; healthcare team approach; reluctant; frustrated; traditionalist.

The entrepreneurial GP was driven by business opportunities associated with the HMR Program. Remuneration was a key driver and this type of GP was more likely to advocate for universal triggers (e.g. all patients over 75 years of age). They typically had efficient organisation systems in place to record and track all patients fitting the HMR referral criteria.

GPs with a selective approach to their HMR referrals assessed HMR eligibility on an individual patient basis, rather than advocating blanket referrals for all their patients who met the HMR criteria. They were concerned that some GPs ordered HMRs for business rather than patient care reasons.

The typical healthcare team GP was driven to participate as HMR was compatible with their approach to patient care; alleviated their workload; and provided an additional quality assurance. This type of GP was usually involved in other government primary healthcare initiatives such as GP Management Plans, Enhanced Primary Care Initiatives for diabetes and asthma and the over 75 health assessments.

The chemist also gives me ideas … not just to reduce medication, also to look at other issues because there is just so much involved in looking after patients … unfortunately I can’t deal with every little thing. I tend to deal with big issues and it’s all that fine tuning that other staff help with … it’s just working as a team. (Metropolitan HMR GP)

The reluctant GP describes those who were encouraged to participate in the HMR Program by others, for example: the Division Facilitator suggesting the GP find appropriate patients to increase uptake; the local community pharmacy recommending a patient; or the patient requesting the review. This type of GP had typically only referred three or four HMRs over the last three years.

The frustrated GP had tried to participate and had come up against barriers, or had previously participated and since lost interest in the Program, due to negative experiences.

The traditionalist GP tended to show reluctance towards having pharmacists review their prescribing practices (I don’t need anyone checking up on my work). They felt that medication review was the domain of the medical practitioner. These GPs were more likely to also hold reservations about other Government healthcare initiatives.

Like the GP Management Plans, I think these types of programs are only useful if they’re done by a doctor. (Regional Non-HMR GP)

I don’t know how receptive our [local] doctor would be. He doesn’t like being told what to do and is not really abreast of modern health programs … I guess there are some doctors that have big egos, and be is one and be likes it be known that be is the doctor and be is in charge. (Rural/Remote Clinic Nurse Manager)
For the traditionalist GP, ‘trialling’ a new healthcare program was often done in quite a limited way, before the GP then made a judgement about the value or otherwise of the program. When one GP was asked how many HMRs he had referred in total since the Program began, the reply was ‘maybe six’ despite the fact he had said he had done ‘quite a few’. Another GP, who’d been a GP for 40 years, expressed support for HMRs, saying ‘you’re too close to it yourself, it can be handy to have a dispassionate view’ yet he had referred only one patient in five years.

Traditionalist GPs took the view that healthcare programs such as HMRs should be used sparingly, to ensure suitable use of Government funds and considered HMRs to be one of many different healthcare programs they had seen come and go over the years.

_With some people they [HMRs] are a waste of time. I feel with my patients, it isn’t necessary … Most of my patients have grown up with me and the elderly patients do tend to be prepared to do whatever you tell them._ (Regional Non-HMR GP)

### 6.1.4 Perceptions of the Program – community pharmacy business owners/managers

The views of community pharmacy business owners/managers tended to fall into four categories: enthusiastic; indifferent; indignant; or; negative. Overall, pharmacists tend to be in the indifferent camp.

Some community pharmacy business owners/managers were _enthusiastic_ about the HMR Program. They believed that medication reviews are core to the pharmacist’s role, and that the HMR Program gave official recognition to an enhanced role of pharmacists with consumers and GPs. They tended to be involved in other government initiated preventative health programs, and were proactive in establishing relationships with local GPs.

Overall, community pharmacy business owner/managers were _indifferent_ in their views of the HMR Program. They did not place HMR referrals as a priority for day-to-day business in their pharmacy. They could take weeks, or even months, to act on referrals. The HMR process was perceived as a burden. Even some who had become accredited to conduct HMRs held this indifferent view of the Program.

_I don’t exactly go seeking them out._ (Regional HMR CPBOM and accredited pharmacist)

The indifferent pharmacists tended to see a limited role for HMRs, and a need to be selective in its use.

_I think they’re a good idea but the ones I’ve done and the suggestions I’ve made seem to get ignored by the GP and the issues are not big enough to worry about. I’ve seen perhaps 3-4 that were useful._ (Rural HMR CPBOM and accredited pharmacist)

Indifferent pharmacists sometimes did not consider the home visit to be essential.

_The home component is not that important – it should only be a home option. They should be able to be done in the shop._ (Rural HMR CPBOM and accredited pharmacist)

Others in community pharmacies felt that the HMR Program was a good initiative with positive benefits for the consumer, but were _indignant_ about the additional training in order to become accredited. They believed that medication review is already a core pharmacist skill.

_Every pharmacist can do a review … no point to do further training. I review everything. <I am> already very thorough. My question is why? Don’t get me wrong, it’s good, but it needs to recognise the base skill set of community pharmacists._ (Metropolitan CPBOM)

A small number of community pharmacy business owners/managers had a clearly _negative_ view of HMRs. These respondents expressed outright scepticism but also thought HMRs should remain an option available to the pharmacist.
I’m not so sure it’s necessary. Probably only 5-10% are really worthwhile. They should be redirected to higher need patients, there should be fewer of them. (Rural HMR CPBOM and accredited pharmacist)

At a pharmacy I was at, there was a big push just to get the numbers up on HMRs so the study would look good, so I’d be wary of the areas of very high uptake of HMRs. If you do have to have it pushed by a facilitator then something’s not right – it means doctors are not seeing a need for them. (Rural HMR CPBOM and accredited pharmacist)

6.1.5 Factors in community pharmacy participation and non-participation

HMR Program participation drivers for community pharmacy business owners or managers tended to fall into the following categories: core professional role; customer loyalty; healthcare team approach; low priority; wary.

Core professional role community pharmacy business owners/managers were driven by the perceived health benefits for their customers, and felt rewarded by the positive responses they received from customers who had received a HMR. The primary driver for their participation was the centrality of the medication review and education as core elements in the professional role of pharmacists. They felt that community pharmacy had become too supply-orientated; and that HMR assisted to shift the focus back to providing advice.

HMR ensures that pharmacists get reimbursed for their advice and it encourages pharmacists to offer extra services. (Metropolitan CPBOM)

Most rural towns visited for this research had one (or no) pharmacy, so customer loyalty was not a driving factor for the pharmacies participating in HMR. Those who participated in the Program (to one extent or another) did so for the benefits of their consumers.

Customer loyalty community pharmacies saw HMR as good for business. This group of pharmacists could also be driven to participate in HMR by the perceived customer health benefits and a genuine belief in the Program.

The healthcare team group were generally proactive campaigners for the HMR Program and likely to have approached local GPs to find solutions to get the HMR Program working efficiently in their area. This group strongly believed in the value and benefits of the HMR Program and may have undergone accreditation training and conducted HMRs themselves. In some cases, these individuals also held representative positions with the Guild.

We always do them. Never refuse. (Metropolitan CPBOM)

Certainly with HMRs, we can improve compliance; improve knowledge; provide reassurance; demystify the health of the patient; and the GP realises they can use us for advice more than in the past. (Regional CPBOM and Guild advocate)

Some community pharmacy business owner/managers were only mildly interested in HMRs and despite thinking ‘HMRs seemed like a good idea’, due to time and the costs of becoming accredited, the Program was a very low priority (below other initiatives such as diabetes monitoring/testing etc).

Others were disinterested and would process HMR referrals and pass them on to a consultant accredited pharmacist, but considered them also to be a low priority. They did not perceive the Program to be any great asset to their pharmacy and they had no real interest in learning from the reports.

The wary community pharmacy business owners were very protective of their customer base and reluctant to use consultant accredited pharmacists as they were wary of losing customers. This type typically preferred to delay HMR referrals than employ a consultant accredited pharmacist.
Financial gain was rarely seen to be a driver for participation, particularly due to the perceived low margins on HMRs.

Drivers for participation amongst community pharmacy owners included the belief that medication management and education is a core component of the pharmacist’s role, the benefits of developing and improving relationships between pharmacists and GPs, benefits for their customers, and improved customer relations. Remuneration was a less common driver.

6.1.6 Perceptions of the Program - consultant accredited pharmacists

The consultant accredited pharmacists interviewed for this research were generally positive in their views of the HMR Program, although most felt there was room for improvement in its effectiveness. Some were concerned that most patients referred for HMRs were not what the consultant viewed as being ‘high need’ for a HMR.

*I am sure that I don’t see enough of the people that desperately need one, no. They are probably quite infrequent really.* (Regional consultant accredited pharmacist)

There were a small number who preferred to put their energy towards the Residential Medication Management Review (RMMR) Program instead. For this group, RMMRs provided a higher volume of consistent work with less output required on the part of the consultant pharmacist to generate work.

Some accredited pharmacists felt that a HMR was much more comprehensive and a higher quality process than that of an RMMR, particularly because many RMMRs involve no contact with the consumer whatsoever. From a business model perspective however, there was no comparison - accredited pharmacists could make a profit from RMMRs but not from HMRs.

One consultant accredited pharmacist interviewed held a divergent and negative view about the HMR Program. Despite being accredited and stating that home interviews were rewarding and enjoyable to conduct and well received by patients, this pharmacist felt that: the HMR Program was not an effective use of government money and putting effort into those whose health has already deteriorated (‘…shutting the gate when the horse has bolted’). The pharmacists felt that the government should be putting more money and effort into preventative healthcare initiatives and education, rather than ‘wasting money’ on those who the pharmacists perceived as being beyond help (‘Don’t drive around without oil and then get the car fixed’).

Most consultant accredited pharmacists reported getting involved in the HMR Program because they saw it as a potential business model, especially for some who were new parents and others who were semi-retired. However, many found that it took a substantial amount of time (in some cases, years) before they received financial rewards from the HMR Program. Consultant accredited pharmacists reported that it was a belief in the health benefits from HMRs that kept them participating in the HMR Program during this period.

Whilst the majority of consultant accredited pharmacists preferred the process of HMRs, many had to rely on the RMMR Program for a consistent income flow.

Many consultant accredited pharmacists were only conducting HMRs for the benefit of the patient and the belief in the service, as it served no purpose in generating a profit for their business. In general, these pharmacists relied on RMMRs for the financial reward but found the HMRs more personally and professionally rewarding. Some of these pharmacists also conducted HMRs due to a sense of obligation, as they may have been the only accredited pharmacist in the area and continued to receive requests. They did not wish to decline requests for HMRs where they knew they would deprive the patient of a HMR.
It is not for financial reasons at all that I occasionally do HMRs, it is as service to the patient only. It is a service we should be offering. Those who don’t provide the service limit the level of care their customers are receiving. (Regional CPBOM and accredited pharmacist)

6.2 Health professionals’ perceptions of the effectiveness of HMRs

6.2.1 Education and prevention or clinical benefits

The primary purpose of the HMR Program was debated among the ‘HMR professionals’. Is it first and foremost a tool of education and long-term prevention, or is it a program for reducing adverse events associated with polypharmacy and the achievement of health outcomes? Some respondents felt that the HMR Program can do both well. Many emphasised the patient education function and identified outcomes associated with improved and appropriate medication use.

Discussions with the GPs and pharmacists involved in this research led to the clear impression that HMRs, as they currently stand, mostly tend to: come up with very little of direct significance to the patient’s health, from a clinical perspective, that is, they generally do not uncover instances of imminent harm from medication misadventure, such as accidental double-dosing or under-dosing. There is also a clear sense that they have little bearing on hospital admission or re-admission and have very few health outcomes that could be immediately measured from a clinical perspective.

I could not see in the ones I did that it actually made any difference to them at all; they were still on all their medicines. (Rural HMR CPBOM and accredited pharmacist)

There were isolated cases of clearly defined health outcomes as a result of HMRs:

- This month I had a 90 year old on Warfarin and he was also put on Tramadol and on a combination of meds commonly known as a cause of renal failure. I reported this to the doctor and he changed two drugs and that was essential, as the patient could have gone into renal failure as a result. I have another one this month which will be an important one. The HMR is being done because the patient has put on 10 kgs in a month. These things can be insidious … Probably in about 90% of HMRs, you provide the GP with some really relevant information and 10% are quite serious medical dilemmas. (Regional CAP and former AACP Board member)

Even accredited pharmacists (whether consultant or working in a community pharmacy) typically struggled to think of many, if any, direct and immediate significant health outcomes as a result of HMRs, even though they could recount good examples of the program being of assistance.

The examples of outcomes included:

- A patient who had multiple bruises from incorrect technique in administering daily injections for insulin and was at risk of ceasing her treatment as a result. As a result of the HMR, the patient was able to adjust her technique, prevent the bruising and thereby be once again fully compliant with the injection regime
- Improving technique for use of puffers and nebulisers
- Shifting timing of medication dosages to ward off side-effects of nausea, nightmares
- Enabling the patient to drop a secondary and non-prescription medicine
- Sorting out confusion that may have arisen with generic names of common drugs
- Encouraging the patient to be more compliant/adherent with critical medications to prevent future life-threatening deterioration
- Make some patients feel that they are indeed ‘doing better’ than they thought, and feel some pride in managing their own ‘systems’
- Some GPs noted that their patients ‘felt healthier’ as a result of the HMR as it confirmed they were on track and doing quite well with their own healthcare
Carers were often relieved to have had the chance to be briefed fully on the medications of the person for whom they provided care, particularly where that person’s GP did not allow the carer to come in to the appointments.

Instead of generating immediate clinical health or pharmacological outcomes, HMRs were reported to be serving a much stronger role in providing reassurance to the patient; educating the patient on the importance of a medication and the possible side-effects; and providing advice on symptoms that might relate to the medication.

A small number of consultant accredited pharmacists and several GPs believed that HMRs resulted in significant health improvements for patients.

I would say 98% of the reviews I do there is something of significance to report. (Metropolitan CAP)

Most health professionals however stated that the HMR Program influenced prevention and education rather than producing immediate clinical outcomes.

Impact on hospital admissions for adverse medication events was expected, by some respondents, to be a longer term outcome.

There might not be a shift in hospitalisation numbers now, but further down the track there probably will be … Patients are not coming in with those obvious adverse reactions … <HMRs are> helping to stop it getting to those phases. (Rural/Remote HMR Accredited CPBOM)

Clarification of the focus on immediate clinical outcomes versus longer term prevention and education would be helpful.

6.2.2 Impact of delays

The researchers found that it was common for delays of up to three months to occur between the time a HMR was referred by the GP and the time the HMR actually took place. Further delays would subsequently occur in the time it took for the patient to make the return visit to the GP.

Health professionals referred to a number of consequences arising for the patient, the GP, and the accredited pharmacist as a result of delays in conduct of HMRs, including: the point of the initial referral is often lost over time; the health concern that may have prompted the initial referral can have changed; a new referral comment is often required from the GP; pathology tests often accompany a HMR – new tests may be needed; the patient may have been in and out of hospital since the initial referral; the GP often finds the HMR less useful due to the delay.

The delay caused by the current HMR model, where a hospital has to recommend to a GP that a HMR referral take place, was widely seen as a barrier to access to timely HMRs for post discharge consumers.

If I want to send a patient out of hospital, the turnover is really fast, because we have 98.5% occupancy rates. What would be really, really good is if we could get a medication review done by two weeks after discharge…We make recommendations on our discharge that they do that, however then the patient has to then make an appointment with their GP, then take it to a community pharmacy, who have then got to find somebody, then go back to the GP. It’s incredibly convoluted for someone who is just out of hospital and isn’t feeling terribly well. (Regional Hospital Director of Pharmacy)
6.3 Gaps in access

CR&C has used the definition of access established by the National Health Performance Committee in 2001 as:

The ability of people to access healthcare services at the right place and time, irrespective of income, physical location or cultural background.\(^\text{13}\)

Access was largely driven by participation in the HMR program, or lack thereof, by the range of health professionals. This participation by health professionals is largely driven by the confidence the health professionals have in the effectiveness of the HMR program. At times it is also a result of the restrictions of the business model.

Health professionals identified a number of areas where a HMR could be effective but at present these consumers are not typically receiving a HMR. The consumers identified by respondents as having the greatest gaps in their access to HMRs were those patients at highest risk of medication misadventure, including:

- patients post hospital discharge
- Indigenous consumers
- consumers in remote locations
- CALD consumers
- palliative care patients
- non-compliant consumers
- consumers who are transient or homeless

The reasons for gaps were often believed to be systemic, including inadequate communication between state health services and community health professionals, a lack of consultation with health professionals who service at-risk communities (such as CALD community health workers); or that the Program model was not suited to some consumers (namely, Indigenous consumers). For post discharge patients, a different set of reasons applied.

Inadequate identification of appropriate patients by individual health professionals was also reported to be a common reason for gaps in consumer access. Some respondents questioned whether the referral criteria were suitably designed to target those at highest risk of medication misadventure.

Most respondents reported that HMRs were only reaching patients who were at low or minimum risk.

I am sure that I don’t see enough of the people that desperately need one, no. They are probably quite infrequent really. (Regional CAP)

The doctors using the Program are good doctors, so HMRs are just tidying up. (Metropolitan CAP)

One community pharmacy business owner/manager in a rural area however, reported that ‘100% of the people getting HMRs were high need’ as the GP only referred those in most need, due to limited availability of resources and time.

6.3.1 Post hospital discharge patients

For most respondents, the greatest gap in access to the HMR Program was in reaching patients immediately following discharge from hospital.
Hospital pharmacist respondents were anxious to see HMRs used to help reduce the number of patients who are readmitted to hospital soon after discharge due to medication confusion. Hospital pharmacists presented as the health professionals most deeply concerned at the failure of the HMR Program to reach patients they believed to be in great need of the service.

Maybe 10% of our readmissions are due to confusion over medications … This is an extremely busy hospital and we are trying to get an additional ten pharmacists … onto the Emergency Department Floor just to achieve medication reviews on the spot for patients … We have quite a lot of kidney transplants here arising from diabetes complications and the side-effects of the drugs they take. HMRs can definitely be valuable once they go home. Having someone come in to the home and help sort things out in the first week is most important. (Regional Hospital Director of Pharmacy)

We have just gone through Easter and so we provided 10 days of medication on discharge … two Webster packs were issued. The patient had the notion that they should be used sequentially, however, they were to be used concurrently and so the patient did not get any of their steroid for that period of time and so they have bounced back into hospital. (Regional hospital senior clinical pharmacist)

GP's often highlighted long-standing concerns with hospitals changing medications, or prescribing new medications, without communicating these changes to the patient’s regular GP. Concern with hospital prescriptions related mainly to hospitals prescribing a different brand of medication, with consequent concerns that this could cause confusion for patients, as different brands were usually of a different colour, shape and size, and could even have slightly different dosages.

The patient will come out of hospital and even without any change in the actual medication, they will be on medication that appears to be completely different, due to different brands. (Regional Hospital pharmacist)

The largest gap in HMRs was for consumers on multiple medications in the immediate period post hospital discharge. There is a strong consensus that HMRs do not reach such patients in the necessary timeframe.

6.3.2 Indigenous consumers

A number of senior staff at Aboriginal Health Services in Rockhampton, Townsville and Geraldton (Capricornia, Townsville and Midwest Divisions) were interviewed for this research along with a number of other health professionals who worked with Indigenous consumers in remote locations. Professionals consulted ranged from CEOs who provided an overall operational focus; to GPs, Aboriginal Health Workers (AHW) and nurses, who provided more of a patient-centred perspective on medication issues.

The overwhelming issues identified for Indigenous Australians related to adverse events arising from not adhering to medication regimes. Patient education provided in culturally appropriate ways was seen as essential.

Assisting Indigenous consumers with medication management was seen to be very difficult but also a high priority. Hospitalisations of Indigenous patients were reported to be high as a direct result of medication non-adherence. One manager of an AHS which operated in a remote area reported that, within his service area, hospitalisations for complications of diabetes/hypertension and non-compliance/adherence with medications were approximately three to four times higher among the Indigenous community than non-Indigenous Australians.

The hospitalisations are high … and are related to <non-adherence with medications leading to> complications from diabetes and hypertension. (Remote AHS Manager)
Non-compliance can make our job very difficult here. (Regional Non-HMR GP working in an AHS)

The management of the multitude of Indigenous health issues was acknowledged by respondents to be much broader and more complex than the Home Medicines Review Program, however, they saw a clear role for the Program in assisting Indigenous consumers to better manage their health.

Health professionals from Aboriginal Health Services reported that non-adherence to medication regimes was a chronic and ongoing problem among the communities that they service. They reported that the medication issues included imminent and current risk of adverse events, including hospitalisation, arising from inappropriate medicine use. While clear steps forward had been made in relation to screening for diseases, there was often a lack of understanding in taking the prescribed medication for the diagnosed disease.

The co-morbidities because of the lack of adherence to medications are very significant. We see high rates of infection and the patients don’t want to go to hospital or discharge themselves from hospital. (Regional Non-HMR GP working in an AHS)

Financial disadvantage or hardship impacted significantly on Indigenous Australians’ ability to purchase medication, with respondents reporting cost as one of the most significant barriers to adherence among this group of Australians but was also seen to be compounded by lack of understanding of consequences.

With diabetic patients, non-compliance is often due to not having the money to buy the medications, but also not fully understanding the consequences. (Regional Non-HMR GP working in an AHS)

In the time I have, I try to explain that they need to take the medication, but they will often say ‘we understand but we don’t have the money’. The consequences we then see are in the eyes, the feet, the kidneys. They cannot see these consequences and don’t necessarily understand that they will eventually see these things if they don’t control their condition by simply taking the medications. I then see the patients with the later stages of cardiovascular disease; chronic kidney disease; loss of vision; amputations of the foot. (Regional Non-HMR GP working in an AHS)

Some respondents reported progress in relation to non-adherence; nevertheless, it is still a major issue. Continuous reassurance and education were seen as important components of the solution and this is where an adapted HMR Program was seen to have the potential to play a role in future.

A good percentage are compliant, some are not, a lot of the time if they come from big families, or something else, money goes on other things and a lot of them think, if you take tablets for a while and things settle down you don’t need them anymore. It’s got to go through education. We need to emphasise that you need to take all medications that are prescribed to keep you at optimum health. (Remote Aboriginal Health Worker)

It was noted that it was easier among health workers to gauge levels of adherence in areas that operated under the provisions of the Section 100 scheme.

<In towns operating under the Section 100 scheme> what we have been doing is going and reviewing the packs, so of course we know what’s being used so if they have not used a pack we don’t re-issue a new one. Where of course the problem in town here is people just get re-issued another script. They come in and say ‘I need a new script’ and they might have a heap of stuff at home and that is a problem. (Remote AHS CEO)

A number of those interviewed reported that there were several different types of consumers within the Indigenous community.

The first type of Indigenous consumer was well educated, working and generally adherent with their medications. Another lived in remote areas and traditional bush medicine and tucker make up a large component of day-to-day life. Western styles of medication and attitudes towards disease are viewed by
these Indigenous Australians as belonging to the ‘White Fella’. It was reported that a lot of education is undertaken with this group and that a HMR could be a useful adjunct in this process, if done well.

*Education is important but socio-economics are a big issue too. They do have a strong attitude of wanting to ignore their illnesses and being resigned to it. Even with education, the message is very hard to get through, but it is still important.* (Regional Non-HMR GP working in an AHS)

*There is no use in doing a medication review if a person does not have medication to review.* (Remote AHS Manager)

The research identified that the current business model for HMRs was not appropriate for Indigenous Australians in remote and rural regions. Alternative strategies being used or suggested generally involved a location other than the consumer’s home as most appropriate for medication reviews. Solutions proposed include funding positions in Aboriginal Health Services specifically devoted to medication review and consumer education by a pharmacist; ensuring that, in remote communities, pharmacists are properly oriented and introduced into the community before attempting health education work.

### 6.3.3 Consumers in remote locations

Indigenous consumers in remote areas were clearly a high risk group, however, respondents noted that they were not the only population in remote areas for whom difficulties exist.

*What you find in remote areas are the lifestyles are similar, so Indigenous health and non-Indigenous health are very similar.* (Remote AHS CEO)

These areas often have no doctor or dispensing pharmacist available to them and are serviced by means of a ‘fly-in, fly–out’ service, often on a fortnightly to monthly basis.

*You look at the PBS in those areas and it’s just so hugely down on other areas. Why is that? Because people can’t get to see a doctor, they can’t get a script written.* (Remote AHS CEO)

*What we do is we do a monthly run, so we just do chronic disease … that’s about it. We can’t do the acute, we can’t do much primary care, we can’t do much health promotion, we can’t do the basic stuff because we are there for only 3 hours, 5 hours a month, and that is a problem.* (Remote AHS CEO)

The difficulty of obtaining accessible healthcare is a substantial and ongoing problem for remote communities. Respondents reported that the lack of availability of any service, coupled with illness and a general reluctance to adhere to medication regimes, was having an enormous impact on the type of service they could provide.

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**Example**

One AHS servicing a remote town had a doctor available but no pharmacy supply. The service attempted to manage this gap with innovative means, reporting that patients would fax the script to a chemist 200 kms away and then medication would be sent to the patient via post. This method of obtaining medication provided limited success, with patients residing outside the town often picking the medication up from the post office – sometimes 50 km away. As a result, many did not return to collect their medication.
6.3.4 **CALD consumers**

CALD community health workers from Dandenong, Bayside and Bankstown Divisions (covering large areas of metropolitan Melbourne and Sydney) were interviewed for this research. Perceptions of HMR and CALD communities were consistent across all three metropolitan Divisions – despite the fact that Dandenong and Bankstown were areas with a much higher proportion of residents from CALD backgrounds than Bayside.

CALD community health workers reported that CALD consumers with a regular doctor and pharmacy were just as likely to receive a HMR as patients from English speaking backgrounds. However, this type of CALD consumer was more likely to have been in Australia for a long period of time, allowing them to have established regular relationships with their doctors and pharmacies. Also, they were more likely to have family members that speak English and assist them in their dealings with health professionals.

CALD community health workers reported a gap in reaching the broader CALD population and identified that many of their clients were potentially at high risk of medication misadventure. Patients who do not speak English are often isolated, especially if they are in an area where they don’t have access to health professionals speaking their language. For example, one CALD worker stated that there were bigger health issues for Greek and Turkish patients in the Bayside area than for the local Indian or Chinese population, as there were many GPs from the latter nationalities practicing in near by locations. Furthermore, CALD health workers reported that despite the option to have access to interpreters when visiting health professionals, some were reluctant to use this service.

Other high risk characteristics of many CALD consumers identified by community health workers included:

- high levels of confusion about their medication
  
  *Some of them will say ‘I am on this blue medication … but I don’t know why.’* (CALD community health worker)

- a tendency amongst some CALD patients to see their medication as valuable and not something to be thrown away, often keeping medication well past its use by date

- certain cultural beliefs that could hinder appropriate use of medication, such as different beliefs among certain cultures that cancer is a curse rather than a disease that can be treated with western medication and myths about medications.

  *There is a lot of misinformation going around about medications and probably western medicine in general I suppose, that they get from the cultural group, their friends and family and things like that, that stops them adhering to what their doctors has prescribed … I had a man yesterday … that was on diabetes medication and he was told not to take his diabetes medication as it would make him impotent. I had to explain to him, ‘it’s actually the opposite, if you don’t take it you might become impotent’.* (CALD community health worker)

- the children of non-English speaking parents often had to take on the responsibility of ensuring that their elderly parents were taking their medication correctly

- as community centres only reach a certain proportion of the high risk CALD population, many high risk individuals amongst this group are receiving no help.

While there were issues raised in earlier phases of this research about certain cultures having a reluctance for strangers to visit the home, most CALD workers disagreed, believing there were no differences here to mainstream Australia. That is, if the HMR visit is introduced correctly by the patient’s regular doctor or pharmacist, then there is no issue.

*Depends who it is coming from. They trust the GP, if coming from them, they trust their word.* (CALD community health worker)
One HMR GP, whose patients were predominantly refugees, migrants and asylum seekers, noted that newly arrived refugees tended to be particularly familiar with home visits by a whole range of health and other professionals, as it is part of the process for refugee settlement.

CALD community health workers felt that there was definitely a role for community health workers in reducing the access gap for their clients around the HMR Program.

Community health workers run regular groups conducting health promotion with CALD populations, and often run partner programs with groups such as Diabetes Australia. They often educate groups on the importance of having regular doctors and pharmacists.

One of the core goals of the community health workers is to assist the elderly to remain living independently and they saw the HMR Program as having the potential to help with this. Case workers routinely conduct home visits and see those at risk first-hand.

However, community health workers qualified their potential to assist with HMRs by stating that they did not have enough resources to cater for everyone in need.

There is definitely a role, but we don’t have enough staff to cover everyone. (CALD community health worker)

There is a need for communication to community health centres. Information exchange is what is ideal … and inform us about new programs and we can tell our clients. <We need> a way of identifying and screening more at risk people, because a lot of the time they are very hidden it’s not until they have an acute episode … that you know that something is going wrong. (CALD community health worker)

There is a need for the HMR system to incorporate CALD workers and community centres if the Program is to effectively target this high-risk group. Their current exclusion is a barrier, creating gaps in access for CALD consumers. Health workers run regular health information sessions and case workers conduct regular home visits.

6.3.5 Palliative care patients

A number of respondents with specialist expertise in palliative care outlined the role that HMRs could play for palliative care patients. They spoke about the potential value of HMRs in enabling a review for patients who are in the terminal phase, as well as for patients who are in the dying phase. In each phase, one of the key issues is to review and recommend the reduction and elimination of medications which were no longer relevant. For example, patients suffering side-effects from continuing to take medications related to kidney function and diabetes may benefit from reducing such medications, as the patients were beyond the point where the medications served a purpose.

In the dying phase, palliative care practitioners identified that there is a need for an urgent HMR so that every medication not directly related to providing end-of-life comfort and pain relief is reviewed and unnecessary medications discontinued.

6.3.6 Non-compliant consumers

All respondents agreed that the most non-compliant patients were not receiving HMRs, and most felt that the Program was not effective in targeting these patients. Some respondents felt that these patients would remain non-compliant regardless of access to HMRs or any other government initiative health program, while others held a counter view.
There is a certain element of compliance involved in a lot of this, and unfortunately a lot of high risk patients are not compliant. (Regional/rural Non-HMR GP)

Some respondents expressed strong opinions that it was not appropriate to refer non-compliant patients for HMRs, because a HMR was unlikely to make a difference for this type of patient. Some respondents (including some Facilitators) tended to actively support measures designed to focus on long-term prevention and younger, less complex patients rather than those seen as ‘too far gone’.

One GP provided the following example of a highly non-compliant patient:

If he was still alive he would be 70 years of age … he saw a number of practitioners, consulted a number of practitioners on his walks around the area, for the purpose of having his blood pressure checked and determining what blood pressure medications he fancied taking. Every time I saw him his medication was awful. Every time I asked him ‘what are you taking now?’… it was very rare that his blood pressure was normal … At the end he got a massive cerebral haemorrhage and passed away. It was coming; it was a long time coming. He was setting himself up for disaster for about 12 years. There was nothing you could do, he was the sort of guy that would show you the door [if you suggested a HMR]. (Metropolitan Non HMR GP)

Others felt the opposite was true – that non-compliant patients were precisely the type of patients who should be targeted by a more intensive and deliberate approach to the HMR Program. These respondents emphasised that even small adjustments to medication for patients with highly complex illnesses could make a real difference to their quality of life and survival.

There is a lot of non-compliance, but some of it is wise <because of side-effects>, some of it is mistaken, some of it is accidental. (Regional consultant accredited pharmacist)

We are doing HMRs for patients at medium risk, because they are the type <of patients> that are happy to have the HMR. It is harder to get those who are non-compliant. (Rural/remote HMR GP)

Overall, there was little evidence of HMRs being recommended and used for highly non-compliant patients. There is considerable evidence of it being very difficult to reach such patients to provide a HMR service to them, based on the current model.

6.3.7 Consumers who are transient or homeless

Transient or homeless consumers are recognised by many health professionals as suffering from high levels of medication misadventure. These consumers are very difficult to reach and tend to fall through a range of ‘safety nets’ designed to assist them in their healthcare. They may attend emergency departments in hospitals or a series of GPs. The HMR Program is seen by respondents as being difficult to apply to these consumers, but also as a service which could be beneficial to these consumers.

6.3.8 Consumers living with a mental illness

The qualitative research with health professionals did allow an opportunity for this issue to be canvassed in the study to some extent. Despite comments and findings by some stakeholders and within elements of the literature review, indicating that there was a gap in HMR access for consumers living with a mental illness, CR&C found that overall, GPs did not consider HMRs to be a suitable approach for most of their patients with a mental illness, particularly because not all such patients were on multiple medications, therefore interactions were not necessarily an issue. In addition, the home visit component was not necessarily considered suitable if the patient was exhibiting signs of being unstable anyway. Furthermore, several GPs interviewed for this research who had a higher proportion of patients with a mental illness, expressed a belief in maintaining the one-on-one GP relationship with
such patients, as a key element in achieving best possible outcomes in terms of compliance with medication. An additional complicating factor was that consumers living with mental illnesses were often younger and therefore shared some of the issues which related to younger consumers and HMRs, discussed in the following section 6.3.9

6.3.9 HMRs considered less appropriate for younger consumers

Younger patients with chronic disease and high medication use are typically not being reached within the HMR Program, however most respondents were not concerned about this, as they considered that HMRs were generally not appropriate for a younger age group. Subsequent consumer research also indicated that the Program in its current form is not as appropriate for younger consumers, who tend to have a negative reaction to the prospect of a home visit, as they see it as something that is only necessary for older people. They also felt strongly that they ‘still had their faculties’ and so this service would not be necessary for them.

There is a need to decide whether the HMR Program is an appropriate healthcare tool for younger patients.

6.4 The need for a more flexible model

The need for a flexible HMR Program model was a raised by respondents across all Divisions visited for this research. Even where the HMR Program was working well, with strong relationships and good communication channels between health professionals, there was still consensus that the HMR model needs to be flexible to account for differing circumstances.

6.4.1 Working around the system

In many of the cases where HMRs were occurring more frequently, this was enabled by ‘working around the system’.

As the researchers moved from Division to Division, they became aware that individuals were often going to considerable lengths to adapt the designated processes, so that they could make the Program viable and enable HMRs for local patients.

Where HMR participation and access worked well, it was commonly found that the reason it was working was due to the diligent efforts of individual health professionals, who had found innovative solutions to make HMRs work for them and their patients in their particular setting.

It became clear that, ideally, the HMR Program needs to reflect the reality of how the system works best ‘on the ground’ by allowing for a flexible model. In some cases, the guidelines could be interpreted as allowing for the modifications currently being made, however there is often uncertainty on this among the health professionals or GPs who are involved and they prefer not to have to find ‘loopholes’ when it comes to a Medicare claim item.

Where the HMR Program works well, it tends to work in spite of the system and not because of the system. A flexible model is needed to reflect the practical aspects of the Program.

The need for flexibility was especially evident in rural and remote locations, where health resources were often more limited than in metropolitan areas.

Have to adapt the model to make it work here. (Rural/Remote CPBOM)
In one rural/remote town with only a single pharmacy and single solo practice GP, a practice nurse identified eligible HMR patients whilst undertaking health assessment visits for those over 75. The nurse conducted the HMR visit for these patients.

There were a number of rural and remote community pharmacy business owners/managers (who were not accredited), going out to conduct the home review and sending all data off to a consultant accredited pharmacist electronically for them to confirm the HMR report. This occurred even though there were locally available accredited pharmacists, however they were employed or had a regular working relationship with another community pharmacy, so were not asked to do the HMR. In these instances, a pharmacy was ‘working around the system’ in order to protect the business interests of its franchise.

In one rural town, the community pharmacy owner, who was also an accredited pharmacist, arranged for those referred for HMRs to come to his pharmacy (as long as they were physically able) because he did not see any need for the home visit component in many instances. He stated that home visits should be only an option and not a requirement. In several cases, this pharmacist’s HMR recipients were also interviewed for this research. They lived only two or three town blocks from the community pharmacy so distance had not been a barrier at all in these instances.

One modification that was being made in almost every HMR discussed with GPs or accredited pharmacists as part of this research was the elimination of a phone call between the GP and the accredited pharmacist. This rarely occurred as most communication was by paper, fax or email, yet it is a modification which, while outside the guidelines, did not appear to be having any detectable detrimental effect.

In some cases, modifications are minor and relate to simple, practical considerations and adjustments to the designated process which are made to reflect local realities. These examples offer an insight into what may well be more appropriate approaches for particular communities.

In order to cater to the specific needs of some rural and remote patients (in particular for Indigenous communities) medication reviews were taking place either in the pharmacy, or at a public safe place suitable for both the pharmacist and patient. In one instance, Indigenous consumers would have the HMR consultation near the pharmacy. This was considered to be an appropriate and culturally acceptable way of providing the service.

[The pharmacist] is great. He does them on the bench outside the pharmacy if he has to. (Rural/Remote HMR Facilitator)

It was rare for the HMR Program to be working efficiently without some level of modification.

Some health professionals in rural and remote areas had not yet found a way to modify the HMR model to fit their circumstances, so were not participating in the Program. Respondents with circumstances that did not fit the HMR model included:

- dispensing GPs in towns where there was no local community pharmacy at all
- GPs who offered fly in/fly out services to remote consumers
- rural hospital physicians and nurses with no authority to initiate a HMR referral; and
- towns where one health professional (either GP or pharmacist) was simply not interested in HMRs, leaving the other unable to utilise the Program for their patients/customers.

Whilst some respondents did not explicitly state the need to modify the model, it was apparent they were in fact modifying the HMR Program model to fit their needs.

The most common example of modification related to the GP - accredited pharmacist communication step in the process. In reality, verbal communication between the GP and accredited pharmacist rarely occurred. A phone call was also considered unnecessary by most GPs and outside the scope of usual
GP-provider interaction. Most GPs were not aware that verbal communication with the accredited pharmacist was required.

The need for a flexible HMR Program model to account for differing circumstances was a consistent finding across all Divisions, even when the Program was working well and strong relationships were established between health professionals.

At present, the range of barriers and inflexibility of the model mean that HMRs are unlikely to happen in an ideal timeframe.

A number of respondents reported that the reality of participating in the HMR Program had led them to realise that the Program ‘red tape’ was not the issue they thought it would have been.

*It appears hard when you don’t do it. But it is not that difficult when you do actually start doing them.*
(Metropolitan HMR GP)

In some instances, particularly in rural areas, the association of HMR with excessive red tape was not eased until relationships were formed and the model adapted to fit local circumstances.

*Once the process was started, things started to fall into place. But it was the initial ‘how do we do this?’*  
(Rural/Remote Accredited CPBOM)

The perception of difficulty and red tape reduces as health professionals become familiar with the HMR process and streamline it to fit their individual business needs.

### 6.4.2 Flexibility in meeting the needs of Indigenous consumers

Respondents from two of the largest regional Aboriginal Health Services in Australia (Townsville and Rockhampton) felt strongly that offering HMRs to Indigenous patients in their clinic would be a very valuable service, and would also alleviate some of the extreme time pressures on GPs and practice nurses. One of these clinics had some 10,000 Indigenous patients on its books, with up to 1,000 of those suffering from diabetes. The other regional clinic had some 7,000 Indigenous patients on its books, with upwards of 800 diabetic patients.

*If we had a pharmacist here that we could refer patients to, so they could speak to them for some time, perhaps meet with them fortnightly or monthly initially, it would definitely help — educating them a little each time. The diabetes educators could also alert the GPs to the patients who should be referred to the pharmacist. It’s a very personal service here. The staff in reception are Indigenous themselves and so they encourage the patients to take the advice, attend the appointments. They would come and they would listen, because we do a pick-up service. They like the staff here, they like the doctors here, so they are happy to come. If they’re not, they don’t come back.*

*If you can change one thing, it is better than no things. It’s all practical you know. Some of the education, even in the younger ones, is not as good as a lot of others, a lot of them don’t read and write particularly well, so if you can get the message across … in a nice way, and if they keep coming back to see you, then you know that you’re on the right track. Because as I said, if you change one thing and then gradually change more, that’s the way to go.*  
(Regional AHS Practice Nurse)
The practice nurses and GPs in the large regional Aboriginal Health Services visited for this research emphasised that they are accustomed to working in a collaborative healthcare setting, and constantly refer to other in-house resources, including podiatrists, diabetic educators, hearing specialists, eye specialists and others who provide sessional support at the clinic. Providing a service for HMRs in a similar manner would therefore be more familiar, and palatable, for the patients and the clinic.

Based on findings of this qualitative phase, it is likely that this type of service may be best provided as an option to Aboriginal Health Services – as some believe it would be highly beneficial, whereas others do not see the need for it in their area.

Aboriginal Health Workers in one service felt that for a HMR to work effectively, there was a need to collaborate with local health professionals and to utilise local community pharmacies to undertake reviews with the assistance of Aboriginal Health Workers. They preferred this approach rather than having a pharmacist under the direct employment of the AHS. This model was currently working with one very proactive community pharmacy in the Midwest Division.

> Getting on my country high horse, if there is a pharmacy in the town we should all be supporting that pharmacy to make it a viable business so it is there for everyone. (Remote AHS CEO)

### 6.4.3 Section 100

Some respondents were employed in areas that operated under Section 100 provisions whereby they provide a range of QUM and medication management services, including education materials and training, to support approved remote area AHS that participate in the special supply arrangements for PBS medicines under Section 100 of the National Health Act 1953. Links between HMRs and Section 100 provisions were seen as mildly successful in improving both the uptake of medication and assisting with adherence.

> ‘… the drugs we hold: they are mainly diabetic, hypertensive, renal disease and antibiotics that we hold. We held those really because even though we have got a pharmacy that is just 100 metres down the road we found that we could get better uptake of medications if we held them, dish them out here, Aboriginal person to Aboriginal person. (Remote AHS Manager)

Most Aboriginal Health Workers saw that while Section 100 (s100) had benefits and assisted in leading to clear improvements in the health of Indigenous patients, there is still a place for HMRs both within s100 and in non-s100 regions. There was consensus that the current goal of an enhanced primary model would incorporate HMRs, and that the educational component of a HMR would be a core element within the HMR model for Indigenous Australians.

Flexibility in the model was viewed as vital to the success of a HMR Program for Indigenous consumers.

> You can't have a one size fits all model - it is not going to work. (Remote AHS CEO)

### 6.5 Workforce issues

A range of respondents reported that limited resources and workforce shortages in the health sector were a barrier to health professional participation in the HMR Program. Shortages were a problem in a variety of geographic locations, with shortages of accredited pharmacists being one of the concerns.

#### 6.5.1 Rural and remote areas

Many community pharmacy business owners/managers in rural and remote areas reported that it was difficult to get through HMR referrals in a timely fashion due to the large general workload.

Time was also a barrier for those rural/remote community pharmacy business/owners operating a modified version of the HMR model (where they would undertake the interview themselves and send the data to an accredited pharmacist). Many were working in states where pharmacy legislation required
the pharmacist to remain in the shop for at least 5.5 days per week. They were usually forced to conduct HMRs out of working hours and this was a barrier to increased participation.

*I find it very difficult to take so much time out of the pharmacy.* (Rural/Remote CPBOM)

Arranging for locum pharmacists is a great expense for rural/remote pharmacies. Costs include the locum’s salary, their travel and accommodation costs, as well as a finder’s fee for the pharmacy recruitment agency. One (remote location) business owner reported that the contracting of a locum to be available for a 12 month contract included a $10,000 finder’s fee, taking the projected cost to over $100,000 for a 12 month contract.

Pharmacy and workforce shortages, coupled with the lack of accredited pharmacists in rural and remote areas, led to a resistance to HMR by some community pharmacies.

*The pharmacists aren’t keen. They’re a major stumbling block.* (Rural/Remote Non-HMR GP)

### 6.5.2 Time as a barrier

The perennial problem of enormous time pressures on GPs is a barrier for HMRs – just as it is for many other health programs that place demands on GP time. The difference, however, appeared to be that the HMR Program was one of the most likely programs to be abandoned as a result of time pressures.

It is essential that HMRs impact a GP’s time as little as possible in order to overcome the barrier of time.

Many GPs interviewed reported being extremely overloaded. Most had closed their books to new patients and were working long hours. Some were seeing well over 100 patients a day. For these time pressured GPs, incorporating government health program initiatives like HMRs into their busy daily practice was seen as too difficult.

A number of solo GPs perceived themselves as being especially pressed for time. They reported that being in a solo practice hindered participation in the HMR process. These GPs felt that larger practices have better resources, including practice nurses and administration staff, to do the required follow up on HMR referrals (such as chasing reports and tracking follow up appointments). HMRs seemed *like a good idea* for the time pressured solo practitioner GP, but they just did not have the time or resources to participate. Often they ‘had not really thought about’ the HMR Program before being contacted to participate in this research.

There were however a number of solo practitioners who regularly participated in the HMR Program and had found ways to incorporate HMR referrals into their practice.

GP shortages were especially evident in rural areas. Many rural and remote towns had only one practicing GP. Often this GP would not reside in the town, splitting their time between their metropolitan or regional base and the remote town. These GPs had very little time available to undertake ‘new government health initiatives.’

Some remote locations had no permanent GPs, with the community only having access to healthcare via fly in/fly out doctor services (such as the Royal Flying Doctor Service and private providers). GPs who offered fly in/fly out services reported that it was not possible to offer HMRs to their remote patients because it was too difficult (and costly) to get pharmacists to go to these areas.

*We only do HMRs for our [town] patients. I mean you have got to take the pharmacist with you, it’s just not worth it for them – unless there is a special incentive for remote area patients. I mean, there are high risk patients out there who are very crook with all sorts of problems but … pharmacists are not keen to go there, not private pharmacists ….They’re making more money in their own little shop.* (Rural/Remote HMR GP)
6.5.3 **High rotation of doctors in rural and remote areas**

Rural and remote respondents frequently raised issues relating to the high rotation of hospital doctors and GPs in rural/remote areas. Many respondents reported that due to a GP workforce shortage in rural areas, it was often overseas trained doctors who were enticed to work in remote locations. Most respondents were not criticising the fact that these doctors were overseas trained, rather that they were hired to work for local health services on short-term contracts. The frequent rotation of doctors hindered relationship building and acted as a barrier to the HMR Program.

**Example**

One overseas trained doctor had recently been transferred to operate a general practice out of a local hospital in a small rural town. This GP had previously worked in a different rural area where he had worked closely with the local pharmacy to participate in the HMR Program. This GP was keen to be involved in HMR in his new location and had attempted to refer patients for a HMR to the local pharmacist.

However, he discovered that the local pharmacist was not accredited and was not participating in the HMR Program. The local Division had since initiated a program where an accredited pharmacist would come from the nearest metropolitan city once a year to conduct reviews for the pharmacy. However, the GP did not view this as an adequate arrangement of capturing those most at risk of problems with their medications, essentially rendering HMRs ineffective in this region. This was a very frustrating process for the GP.

6.6 **Referral pathways**

6.6.1 **Direct referral to consultant accredited pharmacists**

The suggestion that direct referral to consultant accredited pharmacists should be introduced as an option in the HMR process model produced two streams of opinion among respondents. Any consideration of this option emphasised the importance of maintaining involvement of the community pharmacy. The suggestions were to include an alternative option to enhance participation and improve access for consumers. It was not to replace the existing model.

Some GPs interviewed for this study already refer directly to accredited pharmacists and prefer to do so as it is in line with their usual approach and they trust the health professional involved. Other GPs not currently referring to accredited pharmacists felt that there was merit in the option of direct referral. GPs in rural and remote areas who did not have access to consultant pharmacists (as there were none operating out of their area) were strongly in favour of the option being made available, with some suggesting that the Division MMR Facilitator would be in a position to coordinate this process.

All GPs in favour of direct referral strongly emphasised the importance of keeping the local community pharmacy in the loop.

* I think it is simpler now because we can refer to [name of accredited pharmacist] directly now so it became less complicated…even though it took only one step out of the equation. (Regional HMR GP)

* I've had GPs refer directly to me and I have had to say ‘No you can't do that’. (Regional CAP)

Some community pharmacy owners interviewed for this research did not have any concerns about direct referral, as long as they were kept in the loop. They felt that the current model for referral should always be the preferred model and the first path taken. However, they stated that community pharmacy business owners/managers needed to take responsibility and respond to HMR requests in a timely
manner, and that GPs should be able to refer to a consultant pharmacist if the community pharmacy did not provide a timely response to their request.

Other community pharmacy business owners/managers reluctantly acknowledged the potential need for a direct referral option to consultant pharmacists, however some in metropolitan regions felt that direct referral would only be appropriate for rural or remote areas, where they believed there would be a shortage of community pharmacies. Some in rural and remote regions felt that direct referral would only be appropriate for metropolitan areas, where they believed that consumers would be less likely to have developed relationships with their community pharmacy. In other words, ‘direct referral is a good idea but don’t think about implementing that in my region’.

The option of direct referral to a consultant accredited pharmacist is well supported by many health professionals.

All consultant accredited pharmacists interviewed were in favour of the option of direct referral to an accredited pharmacist.

The introduction of direct referral to consultant accredited pharmacists produced two streams of opinion among health professionals – where it would act as a barrier or enabler to participation.

A number of respondents firmly believed that direct referral to a consultant accredited pharmacist should not be allowed, even as an alternative when the standard referral pathway was not working.

This position was primarily argued by some community pharmacy business owners/managers who felt that direct referral would exclude the community pharmacy. In doing so, they believed the HMR process would lose access to relevant patient medication history. These pharmacy owners were concerned that a pharmacist unknown to the patient contacting them about their medications would risk offending, upsetting or confusing patients/customers.

As a former community pharmacy manager, I would hate to see GPs and accredited pharmacists set up these super clinics. You need to enable the community pharmacy to be the information collector. (Regional MMR Facilitator)

Other community pharmacy business owners/managers currently participating in the HMR Program were concerned that consultant accredited pharmacists would not be protected by the ‘same umbrella of protection’ or safety-net that a community pharmacy has if the patient suffered complications from medications after receiving a HMR and making changes.

Strategies to manage business risk, quality control and insurances for Consultant Accredited Pharmacists working independently of community pharmacies may need to be considered if direct referral is to occur.

For others, the resistance to direct referrals to consultant accredited pharmacists was related directly to the protection of established customer relationships. Even when the pharmacy would hit ‘peak times’ creating a delay with HMRs, they would never consider hiring a consultant to undertake HMR referrals.

A number of GPs were also concerned about direct referral to a consultant accredited pharmacist. For these GPs, concerns primarily related to the patient relationship and referring their patient to a
pharmacist who did not have an established relationship and who would not have firsthand knowledge of the patient’s medical history.

I think the best person to do the HMR is the patient’s pharmacist, whether they are accredited or not. Because they know the patient … I mean the stuff that they are giving us back is not rocket science, and if these guys have got their pharmacy degree … If you have a patient within a community and he has got his pharmacist and you’re talking about getting his medical or pharmacy profile assessed by some stranger outside the community: a) you’re going to alienate the patient; b) you’re going to insult the pharmacist; and c) you are going to get mixed results which are of variable use to the GP. (Rural/Remote HMR GP)

For other GPs, concern about direct referral to a consultant pharmacist stemmed from a wariness of ‘career HMR pharmacists’. Such GPs felt that consultant accredited pharmacists were undertaking HMRs for monetary reasons rather than having a genuine interest in continued patient care. One GP stated that his negative perception of consultant accredited pharmacists was enhanced by the increased numbers of RMMRs occurring, and the fact that RMMRs ‘fall on your desk’ without the GP initiating the referral, and that the RMMR process was tedious for GPs and could work as a disincentive to participation on HMRs.

6.6.2 Alternative referral pathways for post hospital discharge

Of all the interviews conducted for this phase of the research, the respondents most anxious to see the HMR Program working well were the hospital pharmacists, who were seeing the daily effects of medication misadventure leading to hospital admissions and readmissions (or ‘bounce backs’).

The respondents who expressed great concern about the lack of access to HMRs in the post discharge period, believed that the Program could be integrated easily into the hospital discharge planning process. They suggested that referrals made by hospital doctors and hospital pharmacists directly to a consultant accredited pharmacist or a community pharmacy.

There needs to be a comprehensive handover back to community care … it is getting primary care activity, primary care resources being deployed in those areas. If the report came back to us as well … <and> we know these are repeat offenders, we are highly likely to have these patients come back to us and we could then monitor how effective it had been for the patient to have the HMR. (Regional Hospital Director of Pharmacy)

6.6.3 Referral and other roles for nurses in HMRs

One strategy is for practice nurses to be actively involved, with some support for practice nurses being granted referral rights for HMRs in certain circumstances.

We’re very very busy here as we are also hospital GPs and work in A & E as well. So we are very much time-pressured. Doctors here are therefore mainly treating acute illnesses and while education and prevention is important, we have limited resources for that. So this is a role we are asking of the practice nurse. It is otherwise all a competition for our time. (Regional HMR GP)

In small towns with limited healthcare services, nurses were often the most stable health professionals, and were regularly required to act above and beyond the usual nursing role.
Example

One remote town visited for this research had a stable population of 1,400 residents (swelling to 10,000 in peak holiday seasons). A solo GP practice serviced the town four days per week. There were no resident doctors employed at the town’s health centre, which was staffed by state-funded nurses. These nurses are considered to be the town’s primary healthcare providers, with strong relationships with the local GP and pharmacist.

Local nurses felt they could play a vital role in health programs including HMR, as they were often the connection between doctors, pharmacy and patients - and the first point of call for patient care.

Nurses had the opportunity assist with identifying and tracking eligible patients. In some instances, rural practice nurses are already doing the home visit aspect of the HMR. In order for HMRs to be possible under an adapted model in some rural areas of Australia, it is often a case of having a practice nurse involved. The alternative may be having no HMRs take place at all or not for three-four months.

Community nurses interviewed in metropolitan divisions felt that they were also in a prime position to identify high risk patients for HMRs. Community nurses see patients post discharge from hospital, and part of their routine visit is to ask about medication. Some community nurses interviewed had not heard about HMRs, and were surprised at this. They believed that they were in a unique position to connect high risk patients to their pharmacists and GPs. They did however caution that there are certain types of GPs who were not receptive to nurses’ recommendations, and that in these instances there would be blockages.

Metropolitan community nurses also mentioned that it would be very useful to have a list of accredited pharmacists in the area to contact in these circumstances for referral to the HMR Program.

Respondents also suggested that it is appropriate for palliative care nurse practitioners to be authorised to refer directly to an accredited pharmacist for HMRs, and that up to three could be allowed within the terminal and dying phases, unrestricted by timelines (given the unpredictability of such phases).

The palliative care nurse practitioner is already authorised to prescribe medication. Changes to allow the nurse to refer for HMRs, with a requirement to keep the GP and community pharmacy informed, were seen as minimal but necessary.

Consideration could be given to providing a referral role on HMRs for practice nurses, community nurses and district nurses, in certain circumstances.

Palliative care nurse practitioners appear to be ideally placed to refer for HMRs.

6.7 Accreditation issues

Substantial evidence emerged that pharmacists perceived the accreditation and re-accreditation process to be difficult and onerous. The accreditation process was presented as a barrier to participation, particularly in rural and remote regions. Negativity towards the accreditation process was widespread –
across all regions and types of pharmacists, including those with substantial experience as well as recent graduates.

50% of barrier to entry is the fact that the examination for becoming accredited is overly onerous, for something that even the new graduates are coming out with a 4 year degree, but you're saying they can't do it, they have just finished their degree in ... patient care, pharmaceutical patient care, and then you're saying 'well, no you can't actually do that – we want you to do another test'. I just think that the association of consultant pharmacists are just trying to make themselves elitists in all honesty. (Rural CPBOM)

In one case, a consultant accredited pharmacist who had completed around 1,000 HMRs found the re-accreditation exam onerous. Another pharmacist had decided not to promote their accreditation to GPs because she was ‘ashamed’ at being told she ‘nearly failed’ her HMR accreditation exam - this person reported they had always received the highest marks while undertaking their pharmacy degree six years earlier.

The complex and difficult five hour re-accreditation exam is a big barrier to me being re-accredited. I run a seven day pharmacy. I have been accredited for three years and am now facing the re-accreditation. They need to make re-accreditation less daunting. 75% of those questions are more suited to a hospital setting so I don’t think it is so suited to a home setting. For me it is the re-accreditation process that is too daunting and yet I was awarded the Guild medal when I completed my degree. I can only do the exam when I have another pharmacist available and I cannot be interrupted when doing the online exam. So I just don’t think it is realistic. (Regional CPBOM)

Several reports emerged of pharmacists who had been stuck halfway through the accreditation process for up to three years, unable to find the time and energy to complete the process. The small number of potential referrals of HMRs in many areas meant that individuals were particularly reluctant to spend many hours – and considerable sums of money - to become accredited.

I did about 150 HMRs through my previous pharmacy in Adelaide, as we had referrals coming through all the time, but here I have only seen one referral in a year here. (Rural CPBOM)

For rural and remote pharmacists, cost was a substantial barrier to accreditation.

Accreditation and re-accreditation costs too much as well, even though the incentives helped. (Rural CPBOM and accredited pharmacist)

In some cases, large regional cities had been reduced to one or two accredited pharmacists and had lost the services of several highly experienced accredited pharmacists, primarily because of the accreditation process.

The intensive accreditation process was not considered to improve the perception of HMRs by GPs.

I don’t think that the GPs are put off by HMRs because they think that we are not academic enough. I certainly don’t think that they want reams and reams of academia. (Regional MMR Facilitator)

One community pharmacy business owner had a different view, even though he admitted finding it almost impossible to find a consultant accredited pharmacist.

I hear a lot of people find it <accreditation> a bit onerous but I don’t have a lot of sympathy for that attitude. It is not acceptable to be second-best and a certain level of skill assessment is necessary. (Rural HMR CPBOM, non-accredited, senior Guild representative)

The views on the accreditation process by accredited pharmacists and community pharmacy business owners/managers were expressed consistently and frequently but not unanimously.

6.7.1 GP views on accreditation

As the issues around accreditation were raised frequently, the researchers canvassed the issue at different levels. GPs were probed about what they knew of the accredited pharmacists’ skills and
training, and what they thought of the accreditation process. Feedback was sought on whether the process was onerous. Did accreditation have at least a positive flow-on effect to the GPs, perhaps increasing their willingness to refer? Perhaps it increased the trust in the HMR process?

GPs knew very little about the accreditation process for the accredited pharmacists and generally cared even less about what that process was. A few had made a number of assumptions such as ‘well I think they probably go through some skills training’, but others made comments such as ‘I don’t know that they should need to go through any additional training should they? Don’t they do this sort of thing every day in their pharmacies? I am not even sure that it absolutely needs to be a pharmacist does it? I think it could be done just as well by a practice nurse.’

When asked if GPs were aware of the level of training involved in pharmacists becoming accredited to conduct HMRs, one GP said:

\textit{Do they care?} (Metropolitan HMR GP)

Accreditation training seems to be making little, if any difference, to the perceptions of pharmacists amongst GPs or to the uptake of HMRs by GPs.

6.7.2 Drivers for accreditation

Reasons given by community pharmacy business owners/managers for becoming accredited included being a career community pharmacy manager, but not wanting to (or having the opportunity to) own their own business. These pharmacists saw accreditation as a professional development option, to gain ‘professional depth’.

\textit{I don’t want to own my own business, but I would like to be more fulfilled professionally. So I thought, well, HMR is just a good way to go … one thing that I will say with the accreditation process is [that] I thought ‘wow’ there was a lot that I don’t know … when you see prescriptions come through now you think, ‘oh, I know why that is happening’. (Rural/Remote CPBOM)}

Other community pharmacy business owners/managers reported that they had become accredited after receiving requests from their local GP to conduct HMRs. In these instances, it was the relationship with the GP and the customer that drove the pharmacist to undertake accreditation training, rather than a personal belief in the benefits of the Program or for personal development.

Community pharmacy owners/managers in rural and remote locations reported a number of barriers to obtaining HMR accreditation specifically related to their rural or remote area location. The most prominent of these barriers related to time, costs and a pharmacy workforce shortage in rural/remote areas.

\textit{We have to spend a couple of thousand dollars to go to Perth for a course and take a few days off work to do it. That’s actually an unrealistic expectation … I have not had a holiday for two years because I can’t get a locum. How am I going to get a locum <so I can> do a course?} (Rural/Remote CPBOM)

\textit{I don’t believe that it is necessary to jump through this enormous number of hoops and pay all these fees to become accredited. It’s ridiculous and that’s our barrier to entry.} (Rural/Remote CPBOM)

Some rural/remote community pharmacy business owners/managers had explored the option of completing the first stage of accreditation training online to overcome the time and cost burdens associated with obtaining accreditation. However, one pharmacist stated that he was deterred from taking up the online option by the increased fee for the online training component.
There was a substantial financial disincentive to attending accreditation training for rural community pharmacy business managers/owners.

6.8 Perspectives on remuneration

6.8.1 Remuneration for GPs

While there are financial and payment issues to be addressed with the HMR Program, overall, the problems with the Program do not appear to be primarily a matter of money. There does not appear to be any need for an increase in payment on the GP side.

GP reimbursement was widely regarded as adequate and even generous, with many positive references and descriptions when asked how much the reimbursement was and what they thought of that reimbursement. Comments included: stacks; heaps; not sure, but I know it is plenty.

Most GPs had no idea what the actual amount of reimbursement was and no idea of the fact that it was lowered and was then increased. Even when the GP admitted freely to some consideration of financial issues with a number of other government primary healthcare initiatives, money did not appear to be a motivating factor or disincentive on HMRs.

Entrepreneurial GPs were the exception on the matter of payment. Where they referred for HMRs, it was typically in quite large numbers and was routinely applied to all patients in certain ‘categories’, such as those having an over 75 health assessment. There was evidence that they tended to use the same blanket approach for a number of other Government funded programs and tests.

It is important to note that even when a GP, or clinic of GPs, is widely described as being ‘money oriented’, the GPs in that clinic are not necessarily doing many, if any, HMRs.

For most GPs, financial reward does not appear to have any effect on their uptake of HMRs.

Community pharmacy business owners/managers who are actively involved in advocating HMRs expressed strong feelings about GP payment for HMRs.

There is one part that is well remunerated and that is the GP…The remuneration for the pharmacy and the accredited pharmacist needs to be higher in order to generate more accredited pharmacists. This is absolutely critical. Money is the root of practical and viable programs. For example, the introduction of PBS online and the incentivising of pharmacies to participate [made a major difference]. This [HMR] will work when the model is right. (Rural CPBOM and senior representative of the Guild)

When asked why the remuneration for GPs was not triggering the greater involvement of GPs in HMRs, the respondent replied:

Not sure, I think a lot of GPs have not analysed what is in it for them. Maybe they are just trying to survive a busy practice. (Rural CPBOM and senior representative of the Guild)

6.8.2 Remuneration for pharmacy side

As mentioned in a number of sections of this report, the general consensus among community pharmacy business owners/managers and consultant accredited pharmacists is that HMRs are not profitable.
The increase in the amount of remuneration to $220, as advocated by the Guild at the national level (in its submission), was consistently reported by pharmacists as a fair and appropriate minimum remuneration for the time required for conducting HMRs. Those pharmacists who were familiar with the Guild campaign for an increase to $220, volunteered this figure as the level at which HMRs would be a reasonable proposition financially. There were one or two respondents who suggested the figure should be closer to $250.

Some of the many comments by pharmacy respondents included:

- *At the moment, it's a love job.* (Regional CPBOM and accredited pharmacist)
- *It used to be a loss-making proposition before the increase, now you probably come out even but you don't make anything on it.* (Regional CPBOM and accredited pharmacist)
- *The Pharmacy Guild say… 'pharmacists can make a lot of money out of medication reviews,' I reckon that is a load of rubbish……they look at it purely as a service I think.* (Regional consultant accredited pharmacist)

Despite the perception that HMRs are not sufficiently well-remunerated for community pharmacies and CAPs, pharmacists agree the main barrier to take-up is at the GP end and is not related primarily to remuneration.

The very low referral numbers for HMRs combined with an unprofitable payment level act as a disincentive for most community pharmacies.

For many CAPs, distance has severe cost implications in relation to HMRs, adding another layer of difficulty and deepening the extent to which cost is a barrier overall.

Throughout the course of this study, varying views emerged about the remuneration levels for the main participants in the HMR process, that is: the GP; the community pharmacy and the accredited pharmacist. There was consistency about the remuneration for GPs, with agreement that it was adequate. (See Section 3.4.2 and section 4.1.1 and section 5.1.6 and section 5.2 for additional perspectives on remuneration elsewhere in this report)

Despite the information in the literature review suggesting that HMR remuneration for the pharmacy side is now ‘about right’, the qualitative research with health professionals in several phases of this study, including Stakeholder Consultations, Call for Submissions and this phase, the Qualitative Research with Health Professionals, uncovered information which could support the case for an increase in the fee for the ‘pharmacy side’.

The debate about whether the remuneration for accredited pharmacists is adequate is influenced by the wide range of settings and circumstances in which HMRs occur. There was ample supporting material provided by submitters as well as through fieldwork interviews with health professionals, to indicate that remuneration is often inadequate, particularly for those accredited pharmacists disadvantaged financially by travel costs, yet ineligible to apply for any allowances.

The complex pathways involved in the HMR process and the lack of economies of scale are among the additional contributors to the financial impact on many community pharmacies and accredited pharmacists.

The accreditation incentives, while mentioned in the literature review as making the remuneration ‘about right’ now (see Section 3.4.2) are not considered by a pharmacist or business owner when looking at the rebate and therefore, while appreciated, they do not tend to influence the accredited pharmacists’ response to the adequacy or otherwise of the rebate, because they are related to accreditation and not to reimbursement for professional time spent providing the service.
Overall findings from this study indicate that increased remuneration for the ‘pharmacy side’ would not be expected to make a significant difference to the uptake of HMRs or to the provision of the service to those at high risk of medication misadventure.

6.8.3 Remuneration for consultant accredited pharmacists

Processing payment through the relevant community pharmacy is a substantial payment barrier for some consultant accredited pharmacists.

Late payments from community pharmacies were common, and were seen as reflecting a lack of professional respect and little faith in the Program by community pharmacy owners/managers.

*It has got to change... I am owed so much money. It has to be able to go directly to me. I shouldn’t have to spend that time chasing up $160.* (Metropolitan CAP)

Some community pharmacies feel that they should not receive any additional payments – some firmly believe that the consultant accredited pharmacist is doing the hard work, and some believe that the amount they receive (varying from $25-$40 depending on the amount pharmacy decides to retain) for simply filling in forms is quite generous.

It is important to note that many community pharmacies had no problem whatsoever with direct billing by CAPs, and commented that *it made sense to them* – with the proviso that they must keep the community pharmacy in the loop.

Overall, there is a high level of demand for accredited pharmacists to be able to bill directly.

6.8.4 PhARIA travel allowances

There is a widespread consensus that Pharmacy Access Remoteness Index of Australia (PhARIA) allowances are very often inadequate in relation to HMRs. While the proponent for inadequate reimbursement mostly relates to rural and remote areas, sometimes this inadequacy can also apply within a large city, where the CAP has to travel upwards of 20kms each way to conduct a HMR. Respondents argued that it would be more appropriate to provide allowances based on the distances travelled by the CAP.

*When I go to <name of small town>, I travel a few hundred kilometres to get there as they have no local accredited pharmacists, but the patients all live within a few kilometres of the pharmacy and although it’s a PhARIA 3 pharmacy, it is only if I have to travel more than 10 kms from the pharmacy that I receive an allowance and then only $30 or so, whereas it would cost $50-$60 to get there alone. To try to make it more economical, I usually do 6 in a day, which means there is a long delay before I have 6 that I can do.* (Regional CAP)

The problems with travel allowances have a direct impact on the timely delivery of HMR services in some parts of Australia, as CAPs typically need to accumulate a number of referrals in order to make a trip worthwhile. This may take up to four months, as they may need to accumulate up to eight HMRs to make the trip more financially manageable. Typically, they will still make no profit on these types of HMR trips, so it is a considerable disincentive.
In other cases, the accredited pharmacist asks the patient to come to the pharmacy or GP’s clinic and the HMR is routinely conducted there rather than in the home, as this is the only way to overcome cost barriers.

Travel allowance was not a major issue in all rural areas, as HMRs were only performed within the vicinity of the town or within a short distance in a regional city and were being performed by the local pharmacist.

Inadequate travel allowances are having a direct impact on delivery of HMRs in many areas.

6.8.5 Newly established practices

There were many newly established medical practices in one metropolitan Division. Being newly established meant that GPs in the region were in a good position to create new financial and administrative systems and structures to incorporate new government health initiatives such as the HMR Program. Pharmacists in the area reported that local GPs were generally well aware of the Program and this was of considerable benefit in the uptake of HMR. The Division where this scenario applied was one of the higher uptake Divisions explored for this research phase.

6.9 Relationships between health professionals

The quality of relationships between health professionals is a key factor influencing participation by health professionals in the HMR Program. Good relationships often acted as an enabler to participation, whereas poor relationships often acted as a barrier.

Where there were good and communicative relationships, the HMR process was reported to be easy, efficient and effective. Good relationships assisted health professionals to modify the HMR model to fit their circumstances. However, even where these positive relationships existed, HMRs were still not occurring systematically and were not always targeting those in most need of assistance. Good relationships alone were not sufficient to overcome other limitations.

Rural and remote respondents also reported that changes to relationships in small towns could be disruptive to the HMR process. Some rural and remote participants reported that the frequent rotation of overseas trained doctors disrupted established HMR relationships.

…it is difficult, he’s not very communicative with me … very rarely would he communicate with me. (Rural/Remote CPBOM)

6.9.1 Electronic communication solutions

A lack of electronic communication was not reported to be a significant barrier to uptake or involvement in the HMR Program by those interviewed for this project. However some respondents believed that electronic communication would reduce some of the perceptions of red tape and burdensome administration, as electronic communication was standard practice for many GPs and pharmacists.

The paper trial is a pain in the neck, you know electronic and just being able to do it by secure email is really important. (Metropolitan HMR GP)
One HMR facilitator in a rural remote Division reported that they were partnering with two other Divisions in a trial to implement secure electronic transfer between GPs and pharmacists in their region.

Developing measures to encourage electronic communication between GPs and pharmacists was suggested as a potential enabler to assist health professional participation in the Program.

6.9.2 Quality of referrals and HMR reports

Many accredited pharmacists reported that the quality of their final HMR report was related in part to the quality of the initial GP referral.

Concerns about the variable quality of pharmacists’ reports were repeatedly reported by HMR GPs. A common complaint from these GPs was that accredited pharmacists often produce large volumes of information, sometimes with detailed academic references, and the GP considered the detail to be irrelevant. Invariably GPs preferred short and concise reports, usually not more than one page. In this way, the GP’s preference appeared to mirror their preference for reports back from specialists.

Where the doctor had a good, communicative relationship with the pharmacy, they tended to provide feedback about reports, and pharmacists would tailor their reporting style to the doctor’s preferences.

In cases where GPs had repeatedly referred directly to their preferred accredited pharmacist (whether a consultant or in a pharmacy), they tended to be quite satisfied with the quality, style and content of the reports they received.

6.10 Strategies to improve access and uptake

6.10.1 GPs’ role critical

The point at which the Program’s uptake is most affected is with the GPs as it is the GP who will refer patients for HMRs. Without this referral, neither community pharmacies nor accredited pharmacists have a role. The central focus of reporting and involvement is the GP. The consumer component of the qualitative research has shown that it is the decision of the GP that is the most important factor for the consumer to participate in a HMR - and for the final decision in changing medications and to follow through on treatment.

It was apparent from the qualitative research that many GPs are not referring for the Program at all and it would appear that they may be unlikely to ever be interested, given their expressed reluctance. Another segment of GPs only occasionally and sporadically refer for a HMR, while a very small minority refer reasonably frequently. This overview is based on the experience on the ground while conducting fieldwork rather than a data analysis.

Whatever actions are taken to address program uptake, without a change in the level of interest in the Program by GPs, the uptake of the Program will remain low.

6.10.2 Blanket screening or a targeted approach?

Most GPs were wary of the blanket screening approach for HMR referral, stating that HMRs were not appropriate for every patient that fitted the referral criteria. These GPs considered that referral should be selective, and decided on a case-by-case basis. They believed that doctors should have a clear objective for a patient when referring for a HMR, and should specify the reason for the review on the HMR referral form.
The criteria for referral is flexible enough that you could do a large number if you wanted to. But you need to be selective in referring. Some patients have been very complex and these are the ones that have the most benefits. (Metropolitan HMR GP)

Using polypharmacy and health assessment as indicators for a HMR [is OK], but the doctor still needs to make an individual assessment as to whether or not a HMR is required. We simply would not have the resources for the luxury of blanket referrals. (Rural Hospital GP)

It was not only GPs who saw a need for a selective approach. A number of community pharmacy business owners/managers and a number of accredited pharmacists interviewed, expressed a similar view. These respondents felt that generating a referral based on the number of medications alone was not going to generate HMRs that provided significant health improvements.

They should be reserved for the high risk patients, for example those who have just been released from a big public hospital on multiple medications. (Rural HMR CPBOM and accredited pharmacist)

Only a small number of GPs (predominantly in metropolitan regions) were in favour of a blanket screening approach to link HMR referrals to all patients requiring an over 75 health assessment. They combined the administration and reminders for the home health assessment program with those for the HMR, utilising the practice nurses for administration. These GPs tended to be entrepreneurial in their style.

Most consultant accredited pharmacists were reasonably likely to support the notion of blanket screening and promote the benefits of linking HMR into other health programs.

Overall, the researchers did not find evidence to support blanket screenings for HMRs.

6.10.3 The role of Facilitators

While evaluation of the role of the MMR Facilitators was not a component of this project, information and observations on the Facilitators inevitably arose from the fieldwork.

The extent of impact by Facilitators appeared to vary considerably and opinions about their role ranged from great respect and regard for the Facilitator, to outright and vehement disdain for their alleged ineffectiveness; including extreme comments such as ‘the person is … a waste of money.’

Many respondents were ambivalent about the Facilitators and made only mild comments about them, whether positive or negative. Some tended to think it was a good idea to have them there.

There is some resentment among those HMR community pharmacy business owners/managers who are active in the Guild, that resources are unnecessarily going to the Facilitator program. In their view, Facilitators were making very little difference, while the pharmacists themselves were struggling to make this Program pay its way. For some community pharmacy owners/managers, the concern about HMR Program expenditure on Facilitators was great, and they advocated the need to look at redirection of Facilitator funds.

I’m not averse to the removal of the Facilitator function. (Regional CPBOM and active Guild member)

GPs did not have strong views about the role of the Facilitators but most GPs reported that they preferred to teach themselves about health programs and initiatives. This tendency toward self learning by GPs meant that much of the information and action coming from Facilitators was not seen as particularly useful.
One region had been comparatively successful in generating reasonable uptake of HMRs, but this was only while the Facilitator role was filled jointly by two accredited pharmacists who were able to directly promote the service to GPs. Those GPs then directly referred to those accredited pharmacists who liaised with community pharmacies.

It was clear that without a Facilitator, some Divisions would have almost no uptake of HMRs. Nevertheless, these Divisions did not necessarily have a very high or sustainable level of HMRs and once there was a change in the Facilitator role, the gains appeared to be lost 14.

Through the inclusion of the Sunshine Coast in the list of Divisional areas covered for this research, it was also possible to assess activities in an area where there has never been a Facilitator. In comparison with other Divisions included in this study, Sunshine Coast did not appear to suffer any negative side-effects from the absence of a Facilitator.

Based on information gathered in the qualitative research, the Sunshine Coast has a comparatively high number of GPs who refer for HMRs, and a comparatively high number of HMRs overall.

In the Sunshine Coast, a consultant accredited pharmacist was reported to have been receiving referrals from some 35 GPs. In an area of comparable size elsewhere (visited during this research), only four to five GPs, at most, would be doing regular and high numbers of referrals.

One new Facilitator stated that there was a strong GP mindset that HMRs are about checking up on the GP, and are not for the patient.

In another Division, the Facilitator felt that it was important to clearly demonstrate how GPs could make a good profit from HMRs by combining them with other related Medicare item numbers (such as care plans). However, follow-up discussions with the region’s GPs reported being so busy that they appeared to be quite unconcerned about obtaining financial rewards from HMRs. These GPs were more concerned about measures that would remove some of the time pressures, including the post-HMR phone call to the accredited pharmacist.

6.10.4 The effect of a highly proactive pharmacy

The qualitative research phase provided an opportunity to observe the effect of a number of highly proactive HMR community pharmacies. Despite an extreme amount of activity, the numbers of HMRs referred were still low, given the number of patients who would have been eligible ‘on paper’.

14 The variability of uptake over time makes the use of cumulative indicators inappropriate as a Performance Indicator.
Example

In one case, the respondent owned six community pharmacies in one city. The pharmacies had their own in-house full-time HMR accredited pharmacists, who also provided clinical pharmacy services to local private hospitals. These community pharmacies took a highly proactive approach to generation of HMRs. The pharmacy owners and managers had a very strong commitment to the value of the HMR Program and a commitment to the philosophy of HMRs dating back many years. The owner continues to be an active Guild advocate for the HMR Program. These HMR pharmacies, their managers and pharmacists, take every possible opportunity to generate HMRs for the patients they believe would benefit. Yet even with all of this activity, they are still conducting only about 150 a year and find this number of HMRs means they are at only at a break-level financially. Based on eligibility guidelines, the owner and manager of this series of pharmacies would expect to be seeing about 20 times as many HMRs.

In another example, the respondent was a community pharmacy business owner, in addition to holding a senior role with the Pharmacy Guild - this respondent was strongly committed to HMRs as an educational and preventive tool, yet his pharmacy is processing only about six per year (outsourced to consultant accredited pharmacists).

I try to support them because I really believe, from the instances I’ve seen, that they enable a lot more people to manage their medications much better, but it is difficult for me to personally deliver on HMRs. It is hard to find accredited pharmacists and I have not been able to find the time to be accredited, having been on the Board of the Guild for 12 years. I haven’t had anything but positive responses from GPs, though marketing it to them is hard. (Rural CPBOM & senior representative of the Pharmacy Guild)

6.10.5  HMR uptake tracing back to a single ‘source’

Where there are higher numbers of HMRs, they often appear to be very strongly related to a ‘single source’ or perhaps two or three sources. While this is generally the case, there were exceptions, including the Dandenong Division.

Where the ‘single source’ was a GP, that GP did not appear to have necessarily become effective as an unofficial ‘GP champion’ influencing others to take up the Program. Indeed, it was common to find that a proactive HMR GP’s own immediate GP colleagues rarely took up HMRs.

Typically the ‘single source’ was either a GP who was highly interested in and active on HMR referrals; a community pharmacy which was extremely proactive (including ‘reverse referral’ activity with GPs); a Facilitator at the Division who was an accredited pharmacist and could provide a reasonably ‘seamless’ service for the GPs. (A number of other Facilitators considered this a conflict of interest.)

The striking nature of the ‘single source’ effect on the HMR Program came through repeatedly, but was particularly apparent in certain Divisions. It did not necessarily present as an ideal approach to best practice and appropriate use of HMRs, though that may have been the case in many instances.

In one Division with a population of 150,000 people – and a very low HMR uptake, the researcher could find no ‘on the ground’ evidence of any HMR referrals that were referred other than by a single GP. The identified GP is also on the Division’s Quality Use of Medicines Committee. Of the 12
health professional interviews and three consumer interviews undertaken in this area, seven were traced directly back to this single source.

Example

In one practice, Dr K refers around 250 HMRs a year. He is in a practice where there are eight GPs, but his colleagues are not known to refer more than five or six a year.

6.10.6 Promotion through link to NPS

Facilitators would often use the National Prescribing Service as a stepping stone to discussing HMRs with doctors. For those who held Divisional roles relating to MMRs and NPS programs (and many did), they would set up routine visits to discuss NPS, and would then follow on to discuss HMRs because they could not secure appointments under the HMR heading.

In addition to the connection with setting up interviews, Facilitators tended to find other ways of linking HMR with NPS Programs. Again this was in order to gain the interest of GPs and the credibility that came with the NPS Program. Examples included references by Facilitators to links with the NPS focus on osteoporosis for a portion of 2008, to be followed by an NPS focus on diabetes. Several Facilitators actively promoted these links.

The NPS appears to be more respected and appreciated by GPs.

We’re now trying to link the NPS case studies with HMR. The current one is on osteoporosis. We will explain to GPs the range of drugs, interactions and other issues associated with medication for treatment of osteoporosis. I will be suggesting that GPs use this as a trigger for a HMR. The next NPS topic is diabetes and we will have the practice nurses in special training for that, so I will also use that as link to HMR. (Rural Divisional Facilitator)

This Facilitator also stated that she believed the NPS QUM Program has more definitive goals than the HMR Program, and that HMR should have some similarly clear key performance indicators.

The fact that many Facilitators would use NPS as a direct link to the HMR Program is reflective of GP perceptions of the HMR Program compared with NPS.

6.10.7 Systems and organisation

Respondents from all health professions reported that having efficient systems and the resources in place to manage referrals was key to streamlining the HMR process.

Most GPs interviewed reported that additional support staff and organisation structures were needed for HMRs to be conducted efficiently and effectively. Where practices were managing HMRs in a systematic way, they tended to rely heavily on practice nurses for assistance with the administration.

It’s harder in a smaller surgery if you’re not systems driven, and do not have a process to do it, it can drop off. (Metropolitan HMR GP)

For community pharmacy business owners/managers, having the right systems in place ensured that referrals were handled in a timely and appropriate manner, and that patient records were easily accessed to provide the required background information for the accredited pharmacist.
For some GPs and community pharmacy business owners/managers, not having the organisational infrastructure to manage HMRs systematically was a barrier to continued participation in the Program.

Some GPs working in remote areas reported that the appropriate systems did not exist at a health administration level to allow for new doctors (overseas trained or otherwise) to be aware of available health programs such as HMR. One respondent suggested that the administrative staff at the health service should adopt measures to include the HMR Program into induction training.

In areas with a high rotation of doctors, the appropriate systems need to be put in place at an administrative level to inform health professionals about the HMR Program.

### 6.11 Other issues

#### 6.11.1 Grassroots views different from those of stakeholder organisations

The prelude to the qualitative research involved input primarily from stakeholder organisations and peak bodies, while the qualitative phase involved grassroots interviews with individuals who, for the most part, had little or no involvement in their representative body.

Substantial differences emerged between views put forward by the stakeholder organisations and representative bodies, and the views provided directly from individuals in small town, large city or outer suburban pharmacies and doctor’s surgeries around the country. In many cases, there was just no correlation whatsoever between the views of the organisation and the views put forward at the grassroots level.

There was some disquiet at the role of the Guild in promoting HMRs:

> The Guild has been flogging this dead horse for 5 years now. They’re good lobbyists. I would like to still see them out there as an option, but generally I don’t know whether it’s money well spent. (Rural HMR CPBOM and accredited pharmacist)

> I am concerned and angry about the Guild’s attitude. (Rural HMR CPBOM and accredited pharmacist)

Many community pharmacy business owners/managers had no problem at all with direct payment to consultant accredited pharmacists.

The funding agreement barely rated a mention from community pharmacy business owners/managers who were not active in the Guild or a similar representative organisation. A high proportion of community pharmacy business owners/managers were disinterested in HMRs. Disinterested pharmacies seemed to incur the wrath of those respondents who were active in their representative organisation.

Promotion to eligible consumers was reasonably strongly backed by some stakeholder respondents in earlier phases. However on the ground, there appeared to be very little reference to this and little support for such promotion. One of the few categories of respondents who did refer to a need for promotion was the Facilitator. While several respondents did propose that there be direct promotion to consumers on HMRs, others had tried it and found it to be ineffective.
In addition to direct promotion, some community pharmacy and accredited pharmacist respondents even suggested that consumers be able to self-refer for HMRs - a concept also raised in some submissions for this research - but little evidence was found in the grassroots fieldwork, to support the value or appropriateness of this concept.

There are at times, more similarities between the views of community pharmacy business owners/managers and the views of some GPs, than between the community pharmacy business owners/managers and their representative bodies.

6.11.2 ‘That is our money’ – the funding agreement

The ‘average’ community pharmacy business owner did not express strong views about the funding agreement - indeed, it did not rate a mention. Where pharmacy owners were active in the Guild however, they made it clear that ‘this is our money’ and that they would ‘resist any change that attempted to take any of it away from Section 90 pharmacies’; ‘while ever the payment is coming out of our pocket’ due to the changes linked to the funding agreements, ‘I will argue against [direct referral to CAPs]’.

Resistance to certain changes, including referral relationships, was so closely argued by community pharmacy owners who were Guild advocates, in relation to the funding agreement, that the interviewer had to request several respondents to consider the issue beyond the framework of the funding agreement - as it was not the subject of this research.

Other health professionals were able to see a different side of the equation.

If no one claims the money because the process is convoluted, the Pharmacy Guild members lose out the same as everyone else does, so I'm not really sure it's protecting their interests either. (Regional hospital pharmacist and former CAP)

6.12 Summary of findings from qualitative research with health professionals

GPs with no involvement or interest in HMRs tended to refuse all attempts to elicit participation. The overview presented in this report should therefore be seen to be ‘as good as it gets’ because it is predominantly a reporting of the views of those who are more positive about HMRs.

Based on the findings of the qualitative research with health professionals, it is clear that at present, HMRs have little or no connection to immediate prevention of hospital admission due to medication misadventure.

The consumers identified by respondents as having the greatest gaps in their access to HMRs were those patients at highest risk of medication misadventure, including:

- patients post hospital discharge
- Indigenous consumers
- consumers in remote locations
- CALD consumers
- palliative care patients
- non-compliant consumers
- consumers who are transient or homeless.
The largest gap in HMRs was for consumers on multiple medications in the immediate period post hospital discharge. There is a strong consensus that HMRs rarely reach such patients at all, let alone in the necessary timeframe.

There were very few respondents who felt that the HMR Program was unnecessary or worthless. Most positive views of the Program did however come with the qualification ‘it is a good thing, but there are areas for improvement’ or ‘but I have not found it to be valuable/effective’.

While HMRs appear to be a potentially valuable tool in meeting the objectives of preventing hospital readmission and adverse drug events, at present they predominantly serve as a valuable tool of:

- reassurance
- information provision
- encouragement of continued compliance
- positive feedback
- de-mystification of the reason for medication

It was rare for the HMR Program to be working efficiently without some level of modification. Some health professionals in rural and remote areas had not yet found a way to modify the HMR model to fit their circumstances, so were not participating in the Program.

Respondents from two of the largest regional Aboriginal Health Services in Australia (Townsville and Rockhampton) felt strongly that offering HMRs to Indigenous patients in their clinic would be a very valuable service. One of these clinics had some 10,000 Indigenous patients on its books, with up to 1,000 of those suffering from diabetes. The other regional clinic had some 7,000 Indigenous patients on its books, with upwards of 800 diabetic patients.

Support was also expressed for adaptation to the HMR model so that it could be of assistance to Indigenous consumers in remote communities.

Where the HMR Program works well, it tends to work in spite of the system and not because of the system. A flexible model is needed to support the practical adaptation needed to make the Program work in some areas.

The option of direct referral to a consultant accredited pharmacist is well supported by many health professionals. Overall, there is a high level of demand for accredited pharmacists to be able to bill directly.

Consideration could be given to providing a referral role on HMRs for practice nurses, community nurses and district nurses, in certain circumstances. Palliative care nurse practitioners appear to be ideally placed to refer for HMRs.

Overall, the researchers did not find evidence to support blanket screenings for HMRs.

Inadequate travel allowances are having a direct impact on delivery of HMRs in many areas.

Whatever actions are taken to address program uptake, without a change in the level of interest in the Program by GPs, the uptake of the Program will remain low. For most GPs, financial reward does not appear to have any effect on their uptake of HMRs.

The primary purpose of the HMR Program is a matter for debate among the ‘HMR professionals’. Is it first and foremost a tool of education and long-term prevention, or is it more appropriate to reserve it for the achievement of pharmacological and immediate health outcomes?

There are at times, more similarities between the views of community pharmacy business owners/managers and the views of some GPs, than between the community pharmacy business owners/managers and their representative bodies.
6.13 **Summaries of access gaps, barriers, and strategies**

Respondents identified a number of gaps in consumer access to HMRs, the reasons for these gaps and some proposed strategies for how these gaps could be addressed (Table 7).

<table>
<thead>
<tr>
<th>Gaps in Access</th>
<th>Reasons for Gaps</th>
<th>Strategies to Address Gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post hospital discharge patients</td>
<td>Inadequate referral pathways. Lack of timely response for these consumers. No effective link between hospital and community health.</td>
<td>Modification of HMR referral pathway model to allow hospital discharge doctors or hospital pharmacists to refer directly for HMRs (with strict requirements for patient’s GP and community pharmacy to be kept fully informed).</td>
</tr>
<tr>
<td>Indigenous patients</td>
<td>Current model is unsuitable. Community pharmacy link for referral is inappropriate for a large majority of Indigenous communities. Inadequate and irrelevant travel allowances for those in remote communities.</td>
<td>HMR Program must offer different models to assist Indigenous consumers. HMR Program to work collaboratively with Aboriginal health services. Provide pooled funding for up to three HMRs a year for those on chronic disease registers in Aboriginal communities. Provide the option of an in-clinic service where a consultant accredited pharmacist is available on a regular basis. Consider link with Section 100 to address travel payment issues.</td>
</tr>
<tr>
<td>Remote (and some rural) consumers</td>
<td>Limited resources and workforce availability in remote areas. Barriers to accreditation are accentuated for those in rural areas.</td>
<td>Allowing for a wider range of flexible models of HMR. Reducing barriers to accreditation. Addressing inadequacies in travel allowances. Many remote communities are Indigenous, and gaps for these consumers are addressed above.</td>
</tr>
<tr>
<td>Gaps in Access</td>
<td>Reasons for Gaps</td>
<td>Strategies to Address Gaps</td>
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<tr>
<td>-------------------------</td>
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<tr>
<td>CALD consumers</td>
<td>HMR Program model has not effectively introduced to health professionals who service CALD communities. Lack of awareness by GPs of the cultural behaviours that can affect correct medication management. Isolation, with limited access to health professionals who speak their language. Lack of free interpreting services for direct use by CAPs.</td>
<td>Incorporate community health centres into the HMR Program model. Communication campaigns targeting CALD media. Provide the option of free interpreting services for CALD patients.</td>
</tr>
<tr>
<td>Palliative care patients</td>
<td>Unpredictable and short time periods between terminal and dying phases mean GP referral model can be inadequate.</td>
<td>Palliative care nurse practitioners be authorised to refer directly to a CAP. Allow up to three HMRs for palliative care patients, with no time limit, due to the need for rapid response to changing phases.</td>
</tr>
<tr>
<td>Non-compliant patients</td>
<td>These patients are very difficult to reach using the current HMR model.</td>
<td>Many respondents felt that the HMR Program was not the right program for targeting many in this group, particularly where there were younger consumers with mental health issues. Highly selective referrals, with more intensive support for these consumers.</td>
</tr>
<tr>
<td>Consumers who are homeless or transient</td>
<td>More time-consuming to reach and difficult to arrange referral. May require GP or visiting nurse follow-up to gain agreement for appointment. May be homeless or transient.</td>
<td>Refocus the HMR model to focus time and resources on providing a highly responsive service to target hard-to-reach patients. Provide an ‘intensive HMR’ approach which may entail higher reimbursement amounts and a series of HMRs, rather than just one.</td>
</tr>
<tr>
<td>Younger patients with chronic disease or high medication use</td>
<td>HMRs are generally not seen as appropriate for this younger age group, especially from the view of the consumer themselves.</td>
<td>Decision to be made about whether there should be a continued expectation of the involvement of younger patients.</td>
</tr>
</tbody>
</table>
## Table 8: Participation: Barriers, Drivers and Strategies

Participation: The incidence of health professionals providing, or willing to provide, a HMR. Full participation occurs when GP, community pharmacy business owners/managers and accredited pharmacists are providing a service to consumers.

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Barriers</th>
<th>Level of Barrier</th>
<th>Enablers (Strategies to Promote Drivers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving patient care</td>
<td>HMRs not targeting those who really need them.</td>
<td>System</td>
<td>(System) Refine the HMR model to target those in most need.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(System) Business rules to widen referral opportunities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Organisation) Improved patient management systems in general practice – IT and nurses.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Individual) Improving focus of GP referrals.</td>
</tr>
<tr>
<td></td>
<td>HMR Program model acted as a barrier in areas where resources were limited (rural &amp; remote).</td>
<td>System</td>
<td>(System) The need for a flexible HMR Program model, to count for differing circumstances, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>to include participation amongst other health professional groups - especially in rural and remote areas.</td>
</tr>
<tr>
<td></td>
<td>GPs not convinced that HMRs can be effective in improving health outcomes for patients. No clinical evidence that HMRs improve patient outcomes.</td>
<td>Individual</td>
<td>(System) Establish measures for short and long term patient outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(GP; CAP; CPBOM)</td>
<td></td>
</tr>
<tr>
<td>Remuneration</td>
<td>Not a barrier for GPs who generally believe current remuneration for HMRs is adequate.</td>
<td>Individual</td>
<td>Not applicable for GPs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(GP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payment arrangements for consultant accredited pharmacists.</td>
<td>Individual</td>
<td>(System) Option to be made available for consultant accredited pharmacists to bill directly for HMRs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CAP)</td>
<td>(System) Consider increase in the pharmacy component for the HMR payment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CAP &amp; CPBOM)</td>
<td>(System) Provide option for direct referral to consultant accredited pharmacists.</td>
</tr>
<tr>
<td></td>
<td>HMR remuneration not profitable for community pharmacy business owners/managers.</td>
<td>Individual</td>
<td>(System) Consider increase in the pharmacy component for the HMR payment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CPBOM &amp; CAP)</td>
<td>(System) Provide option for direct referral to consultant accredited pharmacists.</td>
</tr>
<tr>
<td></td>
<td>HMR remuneration not reflective of time taken to complete HMRs.</td>
<td>Individual</td>
<td>(System) Consider increase in the pharmacy component for the HMR payment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(CAP &amp; CPBOM)</td>
<td></td>
</tr>
<tr>
<td>Drivers</td>
<td>Barriers</td>
<td>Level of Barrier</td>
<td>Enablers (Strategies to Promote Drivers)</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------------------------------</td>
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<td>-----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Current PHARIA travel allowance for pharmacists is inadequate.</td>
<td>Individual (CAP &amp; CPBOM)</td>
<td>(System) Proposed solution to provide allowances based on actual distances travelled by the accredited pharmacists to conduct HMRs.</td>
</tr>
<tr>
<td></td>
<td>HMR GPs are not championing the HMR Program to other GPs.</td>
<td>Individual (GP)</td>
<td>(System) Support GP champion Program (after evidence base is established).</td>
</tr>
<tr>
<td></td>
<td>Verbal communication component between GPs and accredited pharmacists does not occur.</td>
<td>Team</td>
<td>(System) Amend the verbal requirement to allow for electronic or faxed feedback forms.</td>
</tr>
<tr>
<td>Inter-professional communication / Effective communication</td>
<td>Poor quality reports from accredited pharmacists.</td>
<td>Individual Team</td>
<td>(System) Include a business communication module in accredited training program.</td>
</tr>
<tr>
<td></td>
<td>Poor relationships between health professionals</td>
<td>Team</td>
<td>(System/Organisation) Conduct quality clinical audits to improve reporting processes, similar to measures run by NPS.</td>
</tr>
<tr>
<td></td>
<td>Protection of professional territories:</td>
<td>Individual (GP)</td>
<td>(Team) Develop good relationships and communication channels between health professionals.</td>
</tr>
<tr>
<td></td>
<td>- GPs reluctant to work with pharmacists in a healthcare team based approach.</td>
<td></td>
<td>(Team) Protocols for quality improvement to assist all health professionals to adjust the model to work for their circumstances.</td>
</tr>
<tr>
<td>Team based approach to healthcare/ Quality Assurance</td>
<td>- The influence of the Guild on community pharmacy business owners/managers ‘it’s our money’.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>- Community pharmacy business owners/managers reluctance to work with consultant accredited pharmacists.</td>
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</tbody>
</table>

Participation: The incidence of health professionals providing, or willing to provide, a HMR. Full participation occurs when GP, community pharmacy business owners/managers and accredited pharmacists are providing a service to consumers.
Table 8: Participation: Barriers, Drivers and Strategies

Participation: The incidence of health professionals providing, or willing to provide, a HMR. Full participation occurs when GP, community pharmacy business owners/managers and accredited pharmacists are providing a service to consumers.

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Barriers</th>
<th>Level of Barrier</th>
<th>Enablers (Strategies to Promote Drivers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient delivery of Service</td>
<td>Not having the systems or organisational infrastructure to manage HMRs systematically.</td>
<td>Individual (GP); CPBOM)/Team</td>
<td>(Team/Organisation) Good systems, organisation and utilisation of support staff.</td>
</tr>
<tr>
<td></td>
<td>GP time constraints; perception that the HMR Program has too much red tape.</td>
<td>Individual Team System</td>
<td>(Organisation/Team) Active learning – demonstrations of the simple process of generating referrals using medical software.</td>
</tr>
<tr>
<td></td>
<td>Indifference from community pharmacy end; HMRs not completed on time; HMR referrals ignored</td>
<td>Team Individual</td>
<td>(System) Education targeted at community pharmacy business owners/managers on the benefits of HMR. (System) Option for GP to refer direct to accredited pharmacists when community pharmacy is acting as a barrier to an efficient HMR process.</td>
</tr>
<tr>
<td>Professional development</td>
<td>No business case for supporting consultant pharmacist workforce.</td>
<td>Individual</td>
<td>Increase funding.</td>
</tr>
<tr>
<td></td>
<td>No official option in the HMR model allowing direct referral to consultant accredited pharmacists.</td>
<td>Team Individual</td>
<td>(System) Modification to allow option for direct referral by GPs to consultant accredited pharmacists, with the provision that consultant liaise with the patient’s community pharmacy.</td>
</tr>
<tr>
<td></td>
<td>Accreditation and re-accreditation process for pharmacists overly onerous.</td>
<td>Individual</td>
<td>(System) Provide recognition for experienced pharmacists; prior learning (especially for hospital pharmacists). (System) Re-evaluate the format of accreditation processes.</td>
</tr>
<tr>
<td></td>
<td>Medication review is part of GP role.</td>
<td>Individual</td>
<td>(Organisation - Divisions) Promote improved workload resulting from team approach.</td>
</tr>
<tr>
<td></td>
<td>Medication review is what pharmacists do everyday.</td>
<td>Individual</td>
<td>(Organisation - Divisions) Promote access to laboratory results and GP relationship as an opportunity to enhance pharmacists’ role.</td>
</tr>
<tr>
<td>Division facilitation</td>
<td>GPs’ low level of interest in the HMR Program.</td>
<td>Team</td>
<td>(Organisation) Incorporate HMR with NPS visits. (Organisation) MMR Facilitators to conduct NPS work.</td>
</tr>
</tbody>
</table>
Participation: The incidence of health professionals providing, or willing to provide, a HMR. Full participation occurs when GP, community pharmacy business owners/managers and accredited pharmacists are providing a service to consumers.

<table>
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<tr>
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<th>Level of Barrier</th>
<th>Enablers (Strategies to Promote Drivers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved pharmacy customer relations</td>
<td>Community pharmacies are concerned that broadening referral will detract from improving customer relations.</td>
<td>Team</td>
<td>All of the suggestions for broadening referral base identified the inclusion of community pharmacy as essential. Active promotion of community pharmacist role in QUM.</td>
</tr>
<tr>
<td>Preventative healthcare approach</td>
<td>Limit of HMR to one visit.</td>
<td>System</td>
<td>Ensure GPs and APs communicate findings relevant to long-term care. Provide for up to three HMRs for those at high risk.</td>
</tr>
<tr>
<td>Effective collaboration between hospital and community on discharge</td>
<td>HMR model not conducive to the short turnaround of HMRs.</td>
<td>System</td>
<td>Direct referral pathways from hospital upon discharge. Innovation arising from change to HMR model.</td>
</tr>
<tr>
<td>Effective relationships with CALD workers</td>
<td>Lack of awareness among many CALD workers. Lack of direct avenues for accredited pharmacists to access interpreting services.</td>
<td>Team</td>
<td>Promote the HMR Program and its appropriateness for CALD patients, directly to CALD workers. Provide for use of free interpreting services directly through accredited pharmacists.</td>
</tr>
<tr>
<td>Indigenous specific</td>
<td>HMR model inappropriate for this group.</td>
<td>Organisation</td>
<td>Provide alternative HMR models appropriate for Indigenous consumers.</td>
</tr>
</tbody>
</table>
7. Phase Five: Qualitative Research with Consumers

7.1 Introduction

This chapter reports on the key findings from the qualitative research with consumers. The consumer research included 10 focus groups with individuals who were eligible for a HMR but had not had one (referred to as eligible consumers) and in-depth interviews with 28 individuals who had received a HMR (referred to as HMR consumers). In some cases, a carer or spouse was also present. The interviews with HMR consumers were conducted in their homes.

In the focus groups for this research, CR&C canvassed the views of around 100 Australians who met the eligibility guidelines for a HMR but had not received a HMR. The participants had very high levels of illness and most had multiple chronic diseases. Some attended the groups wheeling their portable oxygen machines. Several were transplant recipients (heart, lung, or kidney). Some were on up to 20 different medications a day, though more commonly, they were on approximately 8-10 different medications. Most were on at least one medication with a narrow therapeutic index. Two of the groups were held with consumers who were between 40-60 years of age, to canvass the views of this younger age group. The other eight groups included participants who were over 60, with many participants over 75 and the oldest participant 94.

As with the eligible consumers, HMR consumers represented a broad cross-section of the older Australian population, with all respondents aged over 60. The age range of respondents interviewed was 58 to 90 years with a total of 11 respondents aged over 80. Most HMR consumers were either diabetic, had heart problems or high blood pressure, cardio-vascular disease, or suffered from emphysema or chronic pain. In many cases, the respondent suffered from a combination of several of these conditions.

The consumers represented a very broad cross-section of the older population. The participants ranged from those who had spent 40 years working in a lead-smelter town (Port Pirie); to those who had lived on Western Australian wheat farms all their lives; to those who had worked in casual roles flying in and out of mines in central Queensland; to those from a non-English speaking background; to those who had lived in the sun and on the coast most of their lives; to those who had fought in the Vietnam war.

In both of the 40-60 year old eligible consumer focus groups, the participants were in different life stages from those in the older groups, and despite being very ill individuals, they tended to be still fighting the notion that they had multiple, often life-threatening and certainly, life-restricting, health problems.

Further details on the consumers who participated in this research are contained in Section 2.4.3 in the Methodology chapter of this report.

7.2 Current use of medicines

7.2.1 Systems

A common finding from the focus groups was that eligible consumers had a range of efficient and creative systems they had developed themselves to manage their medications. Most were quite innovative and systematic. The self-developed systems provided evidence of the degree of control that most of these individuals appeared to have over their own medication regimes, even though they were very ill people.

The majority of eligible consumers came to the groups with carefully drawn-up lists of their medication, either handwritten on a small piece of paper, or on a computer generated document printed and stuck on a small piece of cardboard. In some cases the list had included the other brand names for their
medication, when medications should be taken, and a note on the illness or reason for that item (e.g. heart/diabetes/kidneys).

In addition to the careful lists, stories were frequently told of arrangements for setting out the tablets each morning, or preparing for the week’s allocation of tablets each Sunday. Some had arranged an alarm on their mobile phone to remind them when certain medications should be taken – particularly where there was a strict timeframe for those particular medications.

The planning and consideration required to deal with the medications was acknowledged by some eligible consumers as being something they valued, as it meant they still had their faculties. Many preferred to have their own system rather than resorting to a Webster pack (where the pharmacy packages all medications according to days and times for the patient).

*It’s a system, whatever the system is, there’s got to be a system.* (Eligible consumer)

Some examples of the systems eligible consumers in the focus groups used were:

- ‘Bob’ has a cardboard medication chart and takes the label off the medication box and places it on the list corresponding to other details. In this way, Bob is able to keep tabs on the medications and what they are for, even though the brand names sometimes change.
- ‘Julie’ has a dosette pill box with morning, afternoon and night sections. She fills this once a week on a Thursday and notes when she is running low on tablets.
- ‘John’ keeps a diary of daily self-diagnostic tests and places a tick in a box when tablets have been taken.
- ‘Eve-Marie’ has seven white film canisters for the morning tablets and seven black film canisters for the evening tablets and she fills these each Sunday.
- ‘Sean’ uses a fisherman’s tackle box ‘because you can put three weeks of medication into those’.

‘Allen’ – ‘He’s got his system - as soon as he’s finished breakfast he gets up and gets his pack down off the fridge, he takes it and I put it back on the fridge. So at night after he’s taken it he leaves it on the bench so that I know it’s been taken, so he’ll take them and go to bed and sometimes he’ll come out and say “Didn’t take my pills”, I’ll say “Yes you did, they’re down”. Off he’ll go back to bed’. (Carer for husband)

Others participants reported having a more rudimentary system:

*Just put them in the palm of my hand and throw my head back.* (Eligible consumer)

*I know I take six pills in the morning at breakfast, I take seven after tea and I take one before bed.*

(Eligible consumer)

HMR consumers were just as systematic in the management of their medications as the eligible consumers, and most reported that their use of a medication management system pre-dated the HMR visit. The planning and consideration required to deal with multiple medications was clearly a matter of pride for many of the HMR consumer respondents.

The findings of this qualitative research differ from the findings of research conducted under the auspices of the Consumer Health Forum in 2001 and referred to in Section 3.4.3 of this report, within the Literature Review. The methodology for that research was substantially different and little is known about the detail of how it was conducted, other than that it had a limited qualitative component. It is...
also important to note that the study predated HMRs and its predecessor, DMMRs, and changes have occurred since that time in the availability of support from pharmacies for medication management.

Consumers commonly had medication management strategies they had developed themselves and these worked well for them. For HMR consumers, these medication management systems often pre-dated the HMR visit.

7.2.2 **Pragmatic approach**

For some eligible consumers, the fact that they had to take so many medications was enough in itself. They did not wish to be thinking about their medication too much beyond that, so had adopted a pragmatic attitude. They closely followed instructions but did not want detail about why they were taking the medications or what the medications themselves did.

> I went to see the chemist … and said ‘I want to know what they have got to do’ and he says ‘You just swallow them, the medications know what they’ve got to do, you just take them, they know their job’. (Eligible consumer)

> I find out what they are first and after that I don’t care. I’ll query it with the doctor but when I get this list, I just stuff them down my throat. (Eligible consumer)

These consumers had no interest in having a HMR.

**Example**

‘Shirley’ in Rockhampton, is 84 and an Indigenous woman who attends the GPs at the local Aboriginal Health Service. She suffers from severe heart complications. She proudly told of having been rushed to hospital in Brisbane where the cardiologist apparently told her ‘you’re too old; too fat; there’s nothing I can do for you’ and she happily returned to Rockhampton, glad to have avoided surgery.

She brought along to the focus group, a tidy (though large) plastic bag of medications, and was able to clearly explain what she does to remember to take the medicines and when she needs to take them. Given her circumstances, she did indeed demonstrate a clear and genuine understanding of her medications, in addition to being extremely proud that she did not have diabetes. She presented as highly compliant with her other medications.

On paper, ‘Shirley’ would have appeared to be in great need of a HMR, yet she had no interest in a HMR.

7.2.3 **Names and appearance of medications**

Both eligible and HMR consumers reported potential for confusion about changes in the name and appearance of medications when generic medication was prescribed; the likelihood of confusion about changes to their medication after a stay in hospital and some reported adverse reactions from prescription medication where the brand had been changed.
You know when you go to the chemist and they say ‘Do you want the cheaper one?’ I don’t know whether I understand that, I just say ‘Give me the other one, I understand that’. (Eligible consumer)

I like to stick to the known brands. (HMR consumer)

I haven’t [had any problems with generic medicine] but I was very nervous about it to start with. Eventually it was OK. (Eligible consumer)

Consumers (both eligible and HMR consumers) reported concerns around generic medication brands, including feeling that, at times, generic medications had contributed to adverse events.

Several consumers told of how they had come out of hospital and been confused about their array of new prescriptions and had taken steps to sort out their confusion – generally these steps entailed taking all their medications to their GP, but sometimes they also sought advice from their community pharmacy.

The first time I was in hospital … I came home with 24 scripts so I came to my doctor and he said ‘just chuck half of them out’. The chemist said ‘would you like me to come over and go through it?’ I think some are pretty proactive. (Eligible consumer)

Stories recounted by consumers indicated a perceived need to sort out medications following discharge from hospital. For eligible consumers, this would appear to be a time when they would be more receptive to HMRs.

Consumers identified a need for assistance with medications at the time of discharge from hospitals.

Some consumers reported an adverse reaction to medication. In some cases, participants blamed a change in brand of medication (even though it was the same active ingredient) for causing the problem. Several HMR consumers claimed that their GP or the hospital had later confirmed the connection. As a result, many consumers had a determination to stick with the same brand, especially when it came to their heart medication.

I was at the hospital and they picked up something and ended up changing the medication. I was building up fluid around the heart and lungs. (Eligible consumer)

I didn’t want to take my tablets [due to them making the participant sick] and my doctor said it was a necessity, ‘if you stop taking them you will drop dead’. (Eligible consumer)

No consumers who had received a HMR suggested that their HMR referral had arisen as a result of an experience with an adverse drug reaction. Often the adverse reaction had occurred some years earlier.

Most HMR consumers appeared to be in good control of their medications prior to the HMR visit and were able to demonstrate this to the researchers in a variety of ways (as outlined in Section 7.2.1).

The majority of HMR consumers were confident in their management of their own medications, despite some reporting that ‘signs of confusion’ had been part of the reason their GP had requested a HMR.

A small number of HMR consumers did present as being in a very high risk category due to the sheer complexity of their medication regime and the life-threatening nature of their multiple illnesses.
Example

One respondent was taking 20 different prescription medications a day, equating to 28 tablets plus insulin injections. This respondent was 75 years old and had suffered from diabetes for 24 years. Many of her other health problems were a consequence of diabetes complications. She had been through many operations, and was a complex patient requiring considerable attention from both her GP and the pharmacist at her highly trusted rural community pharmacy. As part of her care, she was under the guidance of a diabetes educator, who also liaised with the pharmacist.

With so many medications and her health so finely balanced, health professionals involved in her care were constantly seeking to refine her treatment.

Sometimes the work to get the medicines right for me is very difficult and it can take up to 4 months and the doctor and pharmacist work together. If I was not able to work with the pharmacist, I believe I would be experiencing a lot more pain, whereas for now the pain is reasonably controlled.

He also helped me get off the tablets that were aggravating my stomach.

7.3 Awareness and experience of HMRs

7.3.1 Awareness

Most eligible consumers had never heard of a HMR. They then doubted that such a healthcare program would involve a home visit. Most had become accustomed to the cessation of home visits by their GP. There was little awareness of the HMR Program in any focus group, except the group conducted in Launceston, where promotional advertising had been more extensive.

Most eligible consumers did not believe that any additional advice from the pharmacist would be provided at their home as part of a HMR because they felt they already received extensive advice.

Likewise, most HMR consumers had no awareness of the HMR Program prior to the referral and had been surprised to hear about the HMR Program’s existence.

Levels of awareness of HMRs were low to non existent amongst eligible consumers, and HMR consumers generally reported no prior awareness of HMRs.

A number of HMR promotional efforts had been made in Launceston, particularly the Margaret Fulton advertising campaign. As a result, there are Margaret Fulton HMR posters on display in several GP clinics in this location. It was noted by the researchers that these posters were also on display in a number of pharmacies in Bankstown and Bayside. Several participants from focus groups in Launceston and Bayside reported that they were aware of the posters. Older participants related well to the Margaret Fulton image. Several consumers had then asked their GP to initiate a HMR visit, only to find that their GP had declined, saying he (the GP) had ‘everything under control’.

Younger participants in the Brighton focus group were also aware of the Margaret Fulton advertising campaign. These participants had either been given the brochure by their GP (in relation to the health
of a person they cared for) or had seen the brochure in their community pharmacy. These younger participants did not feel the brochure was relevant to them, as they felt Margaret Fulton was much older and not from their own generation.

The Margaret Fulton advertising for the HMR Program appeared to have been effective in reaching a number of older participants, however the response of the GP was still the ultimate point at which the HMR either did or did not proceed. Younger eligible consumers did not relate to the Margaret Fulton campaign.

7.3.2 Experience

The HMR consumers interviewed for this research were referred for HMRs through a variety of avenues. In some cases the GP had initiated a referral unprompted by any other health professional; in other cases, the GP had made the referral after it was recommended by the practice nurse. In other cases, the pharmacist had prompted the referral by sending information to the GP suggesting that the consumer was eligible for a HMR. In at least one case, a diabetic educator had suggested to the GP that he refer the respondent for a HMR. One respondent had requested the HMR themselves.

I was pleased that [name of doctor] said to me, ‘look we will get [patient’s pharmacist] to do a home medication check, and that he was able to say, you know that there may be something I [patient’s doctor] am missing’. I know that there are still people around that think that the doctor is God and can’t make any mistakes. (HMR consumer)

Most consumers referred to the HMR as the ‘pharmacist coming to visit’. The majority of consumers reported that their GP had suggested a HMR, and seemed to make a clear connection between their GP and the home visit.

A substantial number of HMR consumers said they would not change anything about the HMR process. Consumers generally had a very positive view of the HMR process, acknowledging the thoughtfulness of their health professionals in recommending a HMR, the thorough nature of the HMR visit and the positive demeanour of the accredited pharmacist.

Oh, I thought that he was very thorough, documented everything and picked up a couple of things, like that I had not had a test for diabetes for a while, apart from that it was pretty good. (HMR consumer)

We could not fault it - we could not make any suggestions to make it any better. (HMR consumer)

Several respondents were keen to let the government know they thought the program was a good idea.

Tell the Government that I think it’s an excellent program and I am very pleased they do it and it is very informative. (HMR consumer)

HMR consumers did not identify any need to change or improve the HMR Program.

7.3.3 Reported outcomes

As reported by consumers, the main outcomes from the HMR visit were: education (this was seen as the main benefit of receiving a HMR); reassurance; and identification and removal of out-of-date medication. A small number of HMR consumers were unsure of the outcomes and a few felt that the HMR visit was not necessary in the first place and did not produce any outcomes for them.
While almost every HMR consumer was positive about their own HMR experience, they tended to remain ambivalent about the HMR Program as a whole. Respondents typically thought it was a good thing for those who need it, with a substantial number stating that the HMR was a good idea ‘but not necessary for me’.

For several respondents, the visiting pharmacist had highlighted areas to watch, including ways in which certain foods could interact and reduce medication effectiveness.

She told me I needed to be more consistent with what I ate with it, for example my green vegetables, because of the way this could affect one of my tablets. (HMR consumer)

As a result of having a HMR, some respondents said they felt more confident and less confused about their medications. The most positive respondents cited the HMR visit as having been very informative and felt that it had helped minimise any possibility of confusion over their medications.

I felt less confused, I was taking them, but I didn’t know what I was taking them for, so she explained it to me, what I had to do, what every tablet was for and I had to go through and tell her. (HMR consumer)

The educational component of the HMR was the aspect of the review valued most highly by HMR consumers.

I am more aware now that even small changes can affect the interactions between the medicines. I also take a few herbal medicines and so we talked about them too. (HMR consumer)

Some respondents did reveal an underlying fear about their own mortality and for these individuals, the HMR had provided additional reassurance that everything possible was being done.

It was a worthwhile visit. She found that I was reliable; that I knew which medicines to take and that I had my own system. (HMR consumer)

I feel reassured, it has put my mind at ease. Even though I could probably have got the same information from the pharmacy, I can see the sense of this man coming out – it safeguards you. (HMR consumer)

For many consumers, the main outcome they could recall was that the pharmacists had discovered out of date medication, and advised them to dispose of the medication immediately.

Consumers valued the one-on-one discussion time with the pharmacist. Many also seemed to have enjoyed the company of a person visiting them in their own home, and were very appreciative of the opportunity to discuss their wellbeing for up to an hour.

We were so impressed with [name of pharmacist] that we invited her to talk about HMRs at our local Rotary club meeting. (HMR consumer)

Other consumers reported that they did not really learn anything from the HMR.

Not really, I had everything sort of down pat. (HMR consumer)

Regardless of whether HMR consumers had found the HMR visit to be beneficial, most still felt that it was a service that was ‘nice to have but not really necessary’. Other respondents reported that they preferred to have their medications left alone for the GP to deal with.

She was lovely, but she needn’t have come, she really needn’t have come. (HMR consumer)

Reassurance, identification and removal of old medication were important outcomes for many consumers. Consumers valued the pharmacist coming to their own home, but most also had confidence in their capacity to manage their medications themselves prior and post the HMR visit.
7.3.4 Follow-up visits and the review after 12 months

Some respondents reported that they had not been back to see their GP for a follow-up appointment after receiving a HMR. Others reported that they believed the follow-up had simply taken place within a regular check-up appointment. Other respondents reported that they did not know if they needed to see the GP, but would follow this up with their pharmacy.

I thought the next time I go down to the pharmacy I will check up with [Name of pharmacist] [about whether I had to go back to the GP]. Now whether he is going to talk to the GP … or whether I need to make an appointment is something I completely forgot about yesterday. I thought well, I am down there every day or two; he would go broke if he did not have me. (HMR consumer)

A small number of consumers were aware that the follow-up visit to the GP after the HMR was part of the process.

Yes that’s part of the routine, the information goes to the doctor from the pharmacist and then you go to see your doctor again and you know whether there is anything that you need to follow up on. (HMR consumer)

Consumers are not always aware of the need for a return visit to the GP as part of the HMR.

Some HMR consumers expressed concern about the notion of a 12 month follow-up HMR visit. Respondents tended to see no need for another HMR only 12 months later. Other consumers simply felt that they did not need the pharmacist to come out to their home repeatedly, as nothing had changed substantially since the last visit.

I don’t think it is necessary for her to come out here, I think that if anything occurred she would come out. (HMR consumer)

7.4 Factors that influence participation in the HMR Program

7.4.1 Trust in health professionals

Consumers reported high levels of trust in their GPs and community pharmacists.

If my doctor says ‘take this’, I take it. I never considered that the GP didn’t have my best interests at heart. (HMR consumer)

It was common for consumers to have been with the same GP for between 10 and 30 years. Where older consumers had been with their GP for a shorter time, it was usually because their previous doctor had retired or moved away, or because they themselves had recently moved to their current location.

I have a lot of trust in my GP - he could cut me to pieces and put me back together. I can talk to him. (Eligible consumer)

I’ve been with the same doctor for 20 years. I hate him, he hates me, but we love to work together. He tells me I’m too fat, I tell him [where to go]. (Eligible consumer)

Few consumers had made conscious decisions to ‘leave’ their GP and change to another and where they had it was due to the inability to obtain urgent appointments.

The GPs here are so busy, you can’t get in even if it’s urgent and so you’ve got to go to Outpatients. (Eligible consumer)
In contrast to the towns where GPs were in great demand and every clinic had a shortage of GPs, the Sunshine Coast focus group presented a very different picture. The Sunshine Coast has comparatively higher uptake of HMRs and it was possible to see why this may be. GPs are comparatively plentiful, with a very high proportion bulk-billing all of their services for older patients. Many GPs carry out home visits as part of the ‘enhanced’ services offered to patients and the attitudes of consumers in the area appeared to reflect these different circumstances. Sunshine Coast eligible consumers were also more financially comfortable than those in some other locations where a high number of participants were surviving solely on a pension.

My doctor has just started making home visits. She comes every Friday morning and checks me out. It feels very nice because with my problems I don’t drive and she said that [she is] doing that for a lot of the elderly. She says it’s a different atmosphere seeing them [her patients] in their home and seeing how they live and the conditions. (Eligible consumer)

HMR consumers in rural and remote areas described the strong relationship between themselves and their GP as a direct benefit of country living. This strong relationship appeared to contribute to highly supportive healthcare for a number of respondents.

I said to him [my doctor] one of the joys of living in a small country community is that these things are not threatening because you know the people involved, he said ‘I could not agree more’. (HMR consumer)

The GP was the first choice for seeking advice on medications for virtually all consumers.

I had trouble with one [medication] of mine and I went to the GP. It [the medication] was given to me by the specialist … Later I told the specialist the GP had changed it and he turned to me and said ‘I would’ve done the same thing’, so I wouldn’t go to the pharmacist. (Eligible consumer)

I’d agree with going to the GP first because he’s the fellow that’s got your records and knows what progress you’ve made and then the pharmacist is to follow up any advice your doctor gives. (Eligible consumer)

Overall, older consumers demonstrated an extraordinary degree of trust in their GPs. Most consumers indicated that their GP would be their first choice for seeking advice on medications - often over the advice of a specialist.

Trust levels in community pharmacies were also very high and most consumers felt they received high quality advice on medications from their local pharmacy as well as from their GP.

It was common for older consumers (both eligible and those who had received a HMR) to have attended the same pharmacy for upwards of 30 years. One eligible consumer had been attending the same pharmacy for more than 50 years. Many participants knew the pharmacist by their first name and took their advice very seriously.

Most consumers were very satisfied with the level of customer service they received at their preferred pharmacy – including the vigilance of the pharmacy staff with regard to advice about new medications and about medications with particular side-effects.

My pharmacist knows so much about my medicines. I trust him so much, even more than the GP. He is even more of a help to me than my doctor. (HMR consumer)
I've been going to the same chemist for 12 years now, he is very helpful, he has to be on the ball with me - I have 18 different types of medications. He makes sure everything is OK. (Eligible consumer)

The continuity of medications was also identified as a factor for consumers in maintaining their ongoing and loyal relationship with their pharmacists.

The consistency of using only one pharmacy provided additional value for consumers due to the Medicare Safety Net. Some consumers who were diabetics reported attending more than one pharmacy, generally because their usual pharmacy was not an agent for the National Diabetes Services Scheme (NDSS), so they needed to attend a different pharmacy to access the NDSS.

Some eligible consumers in the focus groups, for whom money was ‘very tight’, reported that shopping around for cheaper medication prices had led them to try out different pharmacies from time to time.

If you go to one of the cheaper places, you can pay $20 less, so if it’s a big difference you really look at it. (Eligible consumer)

Younger eligible consumers also reported trusting their GPs and pharmacists, though the level of trust was more varied than among the older consumers. For some of the younger participants who were still in the workforce using more than one pharmacy was a matter of practicality. Health issues were more likely to be ‘just one of the life pressures’ for younger participants and as such, their sense of loyalty to a community pharmacy was not necessarily as strong.

A key difference among some of the younger eligible consumers was the issue of the cost of medications. For some, cost presented barriers to maintaining a relationship with a single community pharmacy that were often not present for older participants, who were able to access pensioner arrangements which reduced the cost impact of medications.

I mostly go to the same one [community pharmacy] because it’s handy, but I also go to four more, one of them because it lets you buy all the diabetes stuff you want, all of them have something that I need for different reasons. (Younger eligible consumer)

Cost of medications did not come up often in the discussions with older participants, although all were keen to access the Medicare Safety Net. However, some of the younger eligible consumers had made deliberate choices not to take certain prescription medications because they could not afford them.

I used to take medication for my kidneys but had to stop taking it because of the cost. My kidney medication costs $1 a day and this is on top of all my other medication, so I can’t afford that, so I don’t take it because I figure I have two kidneys and I can afford to lose one. (Younger eligible consumer)

Cost was a more significant issue for the younger participants. In some cases, cost of medications had led individuals to make calculated decisions that medications could be abandoned.

### 7.4.2 Independence

The importance of maintaining independence in self-management of medications emerged strongly across both eligible consumers and HMR consumers. The overwhelming majority of consumers
consulted for this research displayed a high level of pride in the fact that they were able to manage their own medications.

Most consumers were intent on maintaining their independence with their medications as well as in their lives more broadly.

*The worst thing you can do as you get older and I think all these folks will agree, is start to give things away. As soon as you start giving it away and you don’t think about it, you’re on your way out. You’ve got to work to find things out too.* (Eligible consumer)

Many consumers appeared to rely upon their resilience and good humour to help them cope with multiple illnesses or degenerative conditions.

*My doctor won’t let me go off it [a medication], because I’ve put on so much weight around my tummy and … when I said this to him, he said ‘You either give up eating or you give up breathing, one of the two, take your choice’.* (Eligible consumer)

Many eligible consumers had a strong sense of their own responsibility in relation to medications. These participants did not see the GP and their pharmacy acting for them, but instead saw themselves as a member of a team with specific roles and responsibilities.

*It’s the patient’s job to ask questions if they don’t know.* (Eligible consumer)

However, whilst eligible consumers perceived the HMR as a potential threat to their independence, HMR consumers did not view the home visits as having affected their sense of independence. Rather, HMR consumers took pride in their independence and closely associated this independence with the preference to maintain management of their own medications. Some explained that they did not want to use a Webster pack for their medication because they valued the control they currently had over their own medications.

*I don’t need a Webster pack. I like to know what’s going on with my medications.* (Comment by a HMR consumer who was on 20 different prescription medications daily)

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Rejecting additional healthcare assistance (such as HMRs) was often presented by eligible consumers as a way of reinforcing their independence, resilience and ability to cope. However HMR consumers still maintained a strong sense of their own independence.

7.4.3 Receptiveness to HMRs

Across the groups of eligible consumers, there was a strong feeling that HMRs were ‘not necessary for them’, with most participants shaking their heads at the suggestion.

*I would say no, I know what it is all about. I can manage myself. I feel I’ve got it under control. I’ve had the information given to me up at the [hospital] in the first place. If I didn’t get the information I still wouldn’t want them to come.* (Eligible consumer)

*I don’t think I require that. What’s wrong with going to your chemist if you know your chemist?* (Eligible consumer)

There were a number of eligible consumers who appeared to be very anxious about their health. These participants were generally more welcoming of the prospect of any additional measure and any healthcare tool that could possibly assist them.
There were also quite a number of eligible consumers who had a positive response to the concept of a HMR and thought they could learn something from a HMR. They noted the value that would come from the education about medication they would gain from the visit. Others were more easygoing about it and had ‘no problem’ with the idea. Carers were mostly quite keen on the prospect of a HMR as it would provide an avenue for them to become aware of the medications issued to the person they care for (however the carer was not always sure that the GP would agree to it).

Personally I would have no objection to someone coming around and explaining the whole lot to me because really, I’ve got no idea what most of them are for. (Eligible consumer)

Not understanding the generic … that would be a good opportunity for them to come and explain. You feel safe in your own home, if you’re sitting in that sort of situation. (Eligible consumer)

Many felt that the educational value of a medication review was important as there was little awareness that interaction between drugs can cause adverse events.

Some eligible consumers presented as being more financially secure and having the means to fund high levels of care and specialist assistance to help them stay in their own home. These participants tended to be more open to the prospect of a pharmacist visiting them in their home, as they were already receiving a number of in-home services. Most of these participants were in the Sunshine Coast focus group.

Even when eligible consumers were quite sure they did not need a HMR, they were usually keen to mention that they felt HMRs could be of help to others.

I think there are a lot of proud, elderly people out there that don’t want to be a problem to the system and who are also afraid to ask for anything and I think they should … be visiting these elderly people. (Eligible consumer)

I think it would be useful for carers, because you’re not taking the tablets so unless you notice or the person tells you what’s happening to them, you don’t know. … I’ve never seen any of the [list of] side-effects for Dad’s meds, so I wouldn’t know and he’s really not well enough to tell me. (Carer of eligible consumer)

Participants in the younger groups were mostly adamant that they did not want a pharmacist visiting their home. For these participants, a HMR was perceived as a potential burden, with some stating that they were busy individuals who did not have the time to clean and prepare their home for someone to come and visit.

The prospect of a home visit by a health professional made younger participants uncomfortable, as it appeared to be correlated to age, while others considered it to be related to diminished intellectual capacity. To accept a health professional’s home visit appeared, for younger participants, to be tantamount to admitting being old and unable to get out and about.

I’m not ready for the white coats to come in just yet. (Younger eligible consumer)

Most of these consumers felt that they could get the advice they needed from their GP or pharmacist, with some using the internet to gain additional information about their medications.

I feel okay about taking all my medication. I have a good relationship with my pharmacist. I just ask questions if I’m concerned. They can be more of an expert than the doctors. (Younger eligible consumer)

Mr Google is always sitting on my computer to give me advice if I am unsure [about my medications] … Mr Google can give bad advice, but I will always go to my GP for an explanation if I am concerned. (Younger eligible consumer)
Overall, most HMR consumers’ attitudes could best be described as being ‘happy to go along with it’ when their GP suggested a HMR, even though most did not see themselves as being in great need of the service. Many respondents also commented that they were surprised at the Program’s existence.

_I just signed for it and agreed to do what they told me but I was surprised to find it was available._ (HMR consumer)

Despite not identifying themselves as a person being in need of assistance with their medication, all consumers had been willing to have the HMR take place. Some respondents admitted that they had needed convincing of the value by the accredited pharmacist who visited.

_I wasn’t in favour of it to begin with. I couldn’t see what she could tell me that I didn’t already know, but she did [tell me things I didn’t know], she really did._ (HMR consumer)

When asked why they were willing to have a HMR, the simple response given by most respondents was that it had to be done because their GP suggested it. This response is reflective of the tendency for most consumers to have ultimate trust in their GP.

Other HMR consumers believed that their doctor’s decision to refer them for a HMR was a reflection of their doctor’s thorough approach.

_He is just a very thorough doctor who likes to cross his ‘i’s and dot his ‘i’s and make sure of things._ (HMR consumer)

There were a number of respondents who thought they could learn something from a HMR and so welcomed the opportunity when it was first suggested.

_I thought that it was a great thing that she would take the time out to come out and discuss it with [my husband]._ (Carer for a HMR consumer)

While HMR consumers expressed a desire for independence and took great pride in the systems they had developed themselves to manage their complex arrays of medications, many were receptive and welcomed the HMR as an opportunity for education.

### 7.5 Consumer Conclusions

Consumers reported long-term relationships with their GP and community pharmacy, and identified a high level of trust in GPs. Community pharmacies were also identified as important, trusted and frequently used sources of information about medications. However, it is the GP who remains the final arbiter for these consumers regarding all health care decisions and actions, including decisions regarding medications.

Levels of awareness of the HMR Program were low to non-existent amongst eligible consumers. Most participants did not believe that any additional advice from the pharmacist could be provided at their home as part of a HMR because they felt they already received extensive advice from the pharmacist in the pharmacy.

Many consumers took pride in their independence through the management of their own medications, showing high levels of resilience in the face of adversity. Many of these consumers did not feel that HMRs were for them, but when the program was explained to them, they thought it would be a good idea … for someone who was less independent.

Younger consumers were even less likely than the older consumers to believe that a HMR was appropriate for them.

There was a widespread use of simple, personally devised medication management systems (some of which involved advice from a pharmacist in the pharmacy as a starting point). This reflected the active focus on appropriate medication use, including active engagement with the community pharmacist. The literature suggests that often consumers struggle to cope with complex medication regimes,
however the HMR consumers canvassed for this study typically did not present in this way, perhaps a reflection of their high level of engagement with their community pharmacy. They did however perceive themselves as likely to be at greater risk of confusion if they had just come out of hospital.

While the stakeholder consultation and some submissions identified a perceived concern that consumers would be uncomfortable with an unknown person coming to their homes, this was not identified by consumers themselves (other than where younger eligible consumers did not think it was necessary at their age). This lack of concern appeared to relate to the trust in their GP and community pharmacy. If either made a recommendation, it tended to be respected and this extended to referring a health professional to visit their home.

Messages around HMRs need to be communicated in a way that does not undermine consumer independence and resilience - which were identified as important coping strategies by consumers facing major health problems. Presenting the HMR as a way to help the GP may make it more palatable for consumers. Helping the GP would not impact on their sense of autonomy and self-reliance.

Discharge from hospital was identified by consumers as a time when medication management could be more difficult. Hospital discharge and prescriptions of generics were seen by consumers as likely to lead to adverse drug events.

The use of generic prescriptions was identified as an aspect of concern by some consumers who reported adverse effects associated with taking generic medications and were aware of the potential for confusion and problems if constantly switching brands.

Consumers who had experienced HMRs considered them to be ‘nice but not always necessary’. These consumers felt that they were managing their medications well and did not identify any apparent outcome, for example most believed there had been no change in their medication as a result of the HMR.

In summary, consumers are likely to participate in a HMR if it is recommended by their GP, but they would be unlikely to request that their GP arrange a review.

Policy development and practical implementation of HMRs can benefit from consideration of the resilience and desire for independence of Australian consumers.
8. Project Conclusions

The HMR Program was introduced as a preventative health care measure in 2003 to address the adverse medication events associated with polypharmacy. Initial take up of the program was slower than expected although participation, as measured by pharmacy claims under the Community Pharmacy Agreement and GP claims made under Medicare Benefits Schedule Item 900, has been steadily increasing. There were 46,768 pharmacy claims, and 36,020 GP claims made in 2007/08. However, participation by health professionals has been patchy at best. Even now, after five years of implementation, less than 10% of GPs are participating in the HMR Program (submitting a Medicare claim for Item 900).

The research commissioned by the Department and which is the subject of this report, explored barriers to participation. This research has identified that the existing model is not focused on ensuring access by those consumers who could benefit most from the HMR Program, including patients recently discharged from hospital, Indigenous Australians, CALD consumers, patients receiving palliative care, and consumers who did not have an existing relationship with a GP or community pharmacy.

For some consumers, HMR is a signal that their independence is under threat and they consider HMR to be a ‘good idea … but for someone else … not for me’.

The research has revealed in principle support for the concept of the HMR Program but with very little support for the current approach to implementation. This is particularly the case for GPs and owners and managers of community pharmacies. Consultant accredited pharmacists are supportive of the Program but consider the current business model is preventing them from being able to respond effectively. Participation of GPs is essential. Without GP involvement, consumers are highly unlikely to consider participating. This study confirmed that GPs are ultimately trusted over other health professionals when it comes to medication advice, so it is clearly appropriate to retain their role as the primary source of referrals.

The research has found that, at best, GPs are ambivalent about the HMR Program, with very few GPs actively supporting the Program and many considering it a waste of time and Government resources.

The primary barrier for GPs was the lack of convincing evidence from either the research literature or their own experience, that HMRs were effective. In addition, GPs find the Program complex; at odds with the normal referral relationships they develop with medical professionals; and have often experienced poor-quality HMR reports that are voluminous but provide little value. Other negative experiences for GPs included instances of the GP having to spend time explaining the history of medication strategies to the accredited pharmacist. While the occasions of such instances may be infrequent, they emerged in the grassroots qualitative research as establishing the GP mindset of indifference or antipathy to HMRs. One or two difficult experiences were sufficient to relegate the priority of the HMR Program for GPs, particularly if they felt they already reviewed medication use as part of maintaining a quality practice.

Complex business rules and delays in implementing the many stages of each HMR reinforce the argument that participation, when it does occur, is less than enthusiastic and conducted with little sense or urgency, by either the GP or the community pharmacy or consultant accredited pharmacist. This has resulted in substantial delays at different stages after the initial referral: from community pharmacy to accredited pharmacist; from accredited pharmacist to consumer; from HMR visit to the provision of the report to the GP; and ultimately for the consumer to return to the GP; and the GP to make any necessary changes. The cascading series of delays has a substantial impact upon the perceptions and effectiveness of the Program.
The delays described at the grassroots level were supported through individual case examples put forward by the GP, the accredited pharmacist, the community pharmacy and often, the HMR consumer themselves. In all locations where fieldwork was conducted there was agreement that HMRs could rarely be conducted in the optimal timeframe. It is worth noting that the practical on-the-ground delays in conduct of HMRs contrasted with the perceptions gathered in Stakeholder Consultations, as many were apparently unaware of the extent of delays. The reality and ramifications of delays were however supported fully and backed by considerable justification, in a large proportion of the submissions received in Phase 3 of this study. Indeed, this study has uncovered a vast array of evidence to support concerns regarding delays.

Significantly, while many barriers were identified, the level of remuneration for GPs was not found to be a factor limiting GP participation as the level of remuneration was considered by the GPs to be adequate. Some practices, particularly those which could be described as more entrepreneurial in their approach, have incorporated the HMR Program into everyday routine. However, integration of the Program was the exception and not the rule.

Remuneration was however an issue for community pharmacies and accredited pharmacists. Owners and managers of community pharmacies tended to be ambivalent about the HMR Program, partly due to the remuneration arrangements. In addition, HMR was seen to compete for the pharmacist’s time with other programs.

The importance of established relationships between consumers and their community pharmacy was confirmed in the qualitative research with consumers. The HMR Program was not identified as central in maintaining those relationships as they were widely acknowledged as being well established anyway.

Accredited pharmacists had a much more positive view of the Program’s effectiveness and value to the consumer. However they expressed concern that the existing business model was complex and restrictive. A particularly strong criticism from consultant accredited pharmacists was the requirement for referral through the community pharmacy. They were also concerned about the level of payment and mechanisms for receiving payment, through the community pharmacy. The lack of priority given to the HMR Program by community pharmacies was reflected in the considerable delays in processing referrals, with a lapse of two months and more a common occurrence.

Over and over again, throughout the five phases of this study, timeliness emerged as a key issue, with delays having a major impact on many factors including the ultimate effectiveness of the HMR itself.

One of the ways in which change is also sought, relates to the involvement of The Guild.

Many submitters expressed strong views that the role of the Guild had led to an over-representation of the interests of pharmacy businesses rather than a balance between the interests of consumers, accredited pharmacists, GPs and community pharmacies.

The role of the Guild in the HMR Program was seen by a number of respondents as presenting a conflict of interest, and an inappropriate monopoly over the process. Both of these factors were thought to negatively impact the ultimate goal of the HMR Program: the appropriate and effective use of medicines in the community.

*Currently the Pharmacy Guild is the chief negotiator for HMRs … <and given> equity of health care access is Government policy, the prime, and indeed only, consideration should be delivery of the service to those most likely to need and benefit. It is not about returning dollars to community pharmacy owners. The monopoly that has been created does not allow models to meet the needs of individuals. (Consultant accredited pharmacist, Qld and peak body representative)*
8.1.1 Strategies for improvement

There was widespread recognition of the potentially positive role for HMRs. Some advocates argued the need for a consumer awareness campaign to encourage consumer driven demand. The findings of this research study do not support the argument for a broad brush consumer marketing campaign because of the strong set of indications of the need for much tighter targeting of HMRs to those at higher risk of medication misadventure. Despite the fact that a revised national advertising campaign for consumers was suggested by almost half of those who contributed submissions for this research, the consumer awareness campaign is likely to generate demand among those at low risk of medication misadventure. Reviewing the overall findings for this research leads to a conclusion that consumers who are regarded as the most receptive to HMRs appear to be the very consumers who are least likely to need HMRs.

The consumer based component of the research did not identify a high level of consumer demand for HMRs, even when it was explained fully. Consumers demonstrated little understanding of the effectiveness of HMRs, even after experiencing one, receiving some additional advice and finding the consultant pharmacist very helpful.

Both those consumers who had experienced HMRs and those who were eligible ideal candidates and exhibited a number of risk factors but had not participated in the Program, saw the prospect of a HMR as possibly indicating they were not in control of their medications and this at times threatened their sense of independence. For many, self-reliance was highly valued and appeared to be a key mechanism for coping with their multiple illnesses and serious health conditions.

The loyalty of consumers to both their community pharmacy and their GP emerged clearly, although the GP relationship was paramount. Consumers clearly relied on their ongoing relationship with these health professionals, but particularly their GP, to inform their medication strategies. The research with consumers demonstrated just how strong this bond was, in particular, for persons with complex chronic conditions requiring polypharmacy.

This study confirmed that increased participation can only be directly driven by GPs (other than adoption of an additional model involving other referral sources, specifically, hospitals).

The principal strategies identified for improved participation were: to streamline the existing business rules to enable more flexibility in implementation of HMRs while maintaining the role of the four key participants – the GP, the community pharmacy, the accredited pharmacist and the consumer.

The research did not find evidence to support blanket screenings or universal triggers for HMRs. Indeed, the findings support a highly selective approach adapted to reach those in greatest need of the service, with flexibility in order to achieve this, rather than flexibility that could be used to increase uptake of HMRs without reaching those in greatest need of the service.

Alternative referral processes were identified as important to increase participation of GPs. Consultant accredited pharmacists suggested that allowing GPs to refer directly to them would be a strong incentive for them to promote the program to GPs and enable them to develop relationships with practices. The current business rules were described by these professionals as restrictive, limiting the opportunity for consultant accredited pharmacists to advocate for HMRs directly to GPs. It is important to note that all respondents who supported direct referral were recommending it as an option, not as a replacement of the existing referral framework.

One of the greatest concerns arising from this research was that there is no strategic, program-wide concerted effort being made to address the gaps that inevitably allow high risk patients to fall through the cracks in the HMR system when they are likely to be in most danger: that is, in the period following hospital discharge. Referral by discharging hospital medical officers and hospital pharmacists, was identified as extremely important to enable access by consumers seen to be among those at highest risk.
of medication misadventure. Inclusion of options for direct referral to an accredited pharmacist by hospital medical officers, are regarded as critical to manage the need for short turnaround times on post discharge HMRs. All proponents stress the need for this process to include clear protocols for provision of information to the patient’s treating GP and regular community pharmacy.

It is noted that the area of responsibility between hospitals and primary health care delivery is complex. However, this research strongly suggests that implementing a model based on best practice for at-risk post-hospital patients would have considerable benefits through improving patient care, integrating primary health providers with hospitals, and potentially reducing the number of adverse events associated with medication misadventure, at a point when patients are most vulnerable. The CR&C team is of the strong view that this is the single most important recommendation for improving participation in and access to HMRs.

The logic of requiring the community pharmacy to be the sole referral pathway was criticised by both GPs and pharmacists (including many grass roots community pharmacists) as an impediment to the effective and efficient implementation of the program. The importance of maintaining the relationship between the consumer and the community pharmacy was widely acknowledged but it was felt that this could be achieved even with direct referral as an option. Direct referral was also seen to free the community pharmacy from the task of processing the HMR payments.

Submissions strongly held that the fact the GP cannot refer to an accredited pharmacist of their choice (a model much closer to their current familiar and longstanding arrangements of referrals to specialists) can be a barrier to GP participation. Reference to this as a barrier emerged throughout each of the first three phases of research conducted for this project, and this was further explored and confirmed in the qualitative research amongst health professionals at the coalface of HMRs. It should be noted however that the current absence of a direct referral pathway is not the only, nor is it the primary reason for GP ambivalence about HMRs.

Despite the degree of support found for increased remuneration for the pharmacy side in the qualitative stage of this research study, overall findings indicate that higher levels of remuneration on the pharmacy side would not be expected to make a significant difference to the provision of HMRs to consumers at high risk of medication misadventure.

All professional stakeholders, but particularly the accredited pharmacists, identified problems with delays in the different steps for referral. These problems were considered to reduce the efficacy of the HMR Program.

Within the existing model, provision of HMRs in rural regions was reported to be achieved through taking a highly flexible approach to the application of the rules – often going beyond the ‘letter’ of the rules - despite the fact that in some towns, strong professional relationships mean that HMRs work well and more efficiently than some metropolitan settings. Workforce shortages, high cost of travel and licensing requirements for pharmacists to be in attendance at the pharmacy contribute to the difficulty of providing HMRs in many rural and particularly in remote regions. Strategies used included involvement of practice nurses and remote review of information by accredited pharmacists in metropolitan areas. The importance of reimbursement of the high cost of travel in rural (and indeed in some metropolitan) regions was also identified as an important issue. HMRs in remote areas are almost impossible to achieve cost effectively at present, while metropolitan settings can also include substantial travel costs with no provision for travel allowances.

Indigenous Australians, in remote areas as well as in large regional cities, are the most likely of all Australians to miss out on any effective access to HMRs at present, despite having the highest rates of hospitalisation due to medication misadventure. Strategies for providing alternative models of HMR aimed at reaching Indigenous consumers are outlined in this report. Specific models for major overhaul of this aspect of the HMR Program were put forward by submitters (and later explored to some extent
in the qualitative research with grassroots health professionals in Phase Four. However, further research specifically focusing on Indigenous communities and/or a pilot program would be valuable as an adjunct to this research.

In summary, while the current model of HMRs was widely criticised, nearly all stakeholders identified strategies for improvement. These strategies included major structural changes based around referrals, with the most critical of these: referral directly from hospital upon a patient’s discharge; and the inclusion of an option for direct referral to a consultant accredited pharmacist (either from a GP or a hospital medical officer or hospital pharmacist). Another key area requiring urgent consideration is the introduction of a far more appropriate model for Indigenous Australians, in both remote areas and major regional cities.

Without substantial changes in the way the Program is delivered, the HMR Program is unlikely to meet its objectives.
9. References


E-PillPal. (2008). "e-Pill Pillpal Medication Reminder 1.1." Retrieved January, 2008, from [http://downloads.zdnet.co.uk/0,1000000375,39059640s,00.htm?r=1](http://downloads.zdnet.co.uk/0,1000000375,39059640s,00.htm?r=1).


## Appendix 1:
Terminology used in this Report

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Access</td>
<td>The ability of people to obtain healthcare services at the right place and the time irrespective of income, physical location and cultural background (National Health Performance Committee 2001).</td>
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<tr>
<td>Accredited Pharmacists</td>
<td>To be able to conduct a Home Medicines Review, pharmacists must be an accredited pharmacist. Accreditation can be obtained from either the Australian Association of Consultant Pharmacy or the Society of Hospital Pharmacists of Australia. Accredited pharmacists may be community pharmacy business owners/managers, community pharmacy permanent employees, or may work in a consultant capacity (as a consultant accredited pharmacist).</td>
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<tr>
<td>Adverse Drug Event</td>
<td>An adverse outcome that occurs during or after the use of a drug intervention but is not necessarily caused by it. (adapted from Cochrane 2008)</td>
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<tr>
<td>Community Pharmacy business owners/managers</td>
<td>Consumers’ preferred pharmacist operating in the community</td>
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<tr>
<td>Consultant Accredited Pharmacists</td>
<td>Accredited pharmacist working in a consultant capacity, as an individual contractor. Consultant accredited pharmacist can not bill directly for HMRs – Medicare reimbursement must be co-ordinated through the community pharmacy through which they have been contracted to conduct the HMR</td>
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<tr>
<td>Descriptive study</td>
<td>A study that describes characteristics of a sample of individuals. Unlike an experimental study, the investigators do not actively intervene to test a hypothesis, but merely describe the health status or characteristics of a sample from a defined population. (The Cochrane Collaboration 2008)</td>
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<tr>
<td>Eligible Consumer</td>
<td>A consumer who is eligible for referral to HMR but has not received HMR, who is at risk of medical misadventure.</td>
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<tr>
<td>Evidence based health care</td>
<td>Evidence based health care takes place when decisions that affect the care of patients are taken with due weight accorded to all valid, relevant information. (Hicks 2008)</td>
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<tr>
<td>GP Champion</td>
<td>The GP Champion program is a ‘Train the Trainer’ initiative developed by the Australian General Practice Network. The objective of the GP Champions program is to provide HMR training for GPs by their peers, to ensure that HMR works for the patient, GP and pharmacist.</td>
</tr>
<tr>
<td>HMR/MMR Facilitator</td>
<td>There is an MMR Facilitator in most divisions of General Practice. Their role</td>
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Appendix 1: Terminology used in this report

<table>
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<tr>
<th><strong>Participation in the HMR Program</strong></th>
<th>The incidence of a consumer receiving, or health professional providing, a HMR. Full participation is flagged by payments made to both GP and the community pharmacy.</th>
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<tr>
<td><strong>Qualitative research</strong></td>
<td>Qualitative research entails in-depth examination of attitude, perception or event to identify the range of characteristics in the context of every-day life. Qualitative research can be idiosyncratic.</td>
</tr>
<tr>
<td><strong>Quantitative research</strong></td>
<td>Quantitative research measures the extent to which an attitude, perception or event occurs in a population. Sample surveys are the most common form of quantitative social research. Quantitative research is always nomothetic.</td>
</tr>
<tr>
<td><strong>Randomised control trial</strong></td>
<td>An experiment in which two or more interventions, possibly including a control intervention or no intervention, are compared by being randomly allocated to participants. In most trials one intervention is assigned to each individual but sometimes assignment is to defined groups of individuals (e.g. in a household) or interventions are assigned within individuals (e.g. in different orders or to different parts of the body). (The Cochrane Collaboration 2008)</td>
</tr>
<tr>
<td><strong>Stakeholders</strong></td>
<td>Stakeholders interviewed in this stakeholder consultation component of the research were selected if they were identified as the person in the organisation representing the interests of GPs (medical stakeholders), pharmacists (pharmacy stakeholders) and consumers (consumer stakeholders). The term professional stakeholders is used to refer to ‘stakeholders representing professionals involved in the HMR Program’.</td>
</tr>
</tbody>
</table>

18 (Source: http://www.guild.org.au/mmr/content)
Appendix 2: Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AACP</td>
<td>Australian Association of Consultant Pharmacists</td>
</tr>
<tr>
<td>ADE/ADR</td>
<td>Adverse drug event/ reaction</td>
</tr>
<tr>
<td>AHS</td>
<td>Aboriginal Health Services used to refer to both Aboriginal Community Controlled Health Services (ACCHS) and Remote Area Aboriginal Health Services (RAAHS)</td>
</tr>
<tr>
<td>AHW</td>
<td>Aboriginal Health Worker</td>
</tr>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>ANPA</td>
<td>Australian Nurse Practitioners Association</td>
</tr>
<tr>
<td>CALD</td>
<td>Culturally and Linguistically Diverse</td>
</tr>
<tr>
<td>CAP</td>
<td>Consultant Accredited Pharmacists</td>
</tr>
<tr>
<td>CPBOM</td>
<td>Community Pharmacy Business Owners and Managers</td>
</tr>
<tr>
<td>CR&amp;C</td>
<td>Campbell Research &amp; Consulting</td>
</tr>
<tr>
<td>DDI</td>
<td>Dangerous Drug Interaction</td>
</tr>
<tr>
<td>Division</td>
<td>Division of General Practice</td>
</tr>
<tr>
<td>DVA</td>
<td>Department of Veterans’ Affairs</td>
</tr>
<tr>
<td>Facilitator</td>
<td>Division MMR/HMR Facilitators</td>
</tr>
<tr>
<td>GP</td>
<td>General Practitioner</td>
</tr>
<tr>
<td>HARP</td>
<td>The Hospital Admission Risk Program</td>
</tr>
<tr>
<td>HBC</td>
<td>Home Based Care</td>
</tr>
<tr>
<td>HITH</td>
<td>Hospital in the Home</td>
</tr>
<tr>
<td>HMR</td>
<td>Home Medicines Review</td>
</tr>
<tr>
<td>ISMP</td>
<td>Institute for Safe Medication Practices</td>
</tr>
<tr>
<td>MATES</td>
<td>Medicines Advice and Therapeutics Education Service</td>
</tr>
<tr>
<td>MBS</td>
<td>Medicare Benefits Schedule</td>
</tr>
<tr>
<td>MMR</td>
<td>Medication Management Review</td>
</tr>
<tr>
<td>MRP</td>
<td>Medication Related Problems</td>
</tr>
<tr>
<td>NDSS</td>
<td>National Diabetes Services Scheme</td>
</tr>
<tr>
<td>NPS</td>
<td>National Prescribing Service</td>
</tr>
<tr>
<td>PhARIA</td>
<td>Pharmacy Access/Remoteness Index of Australia</td>
</tr>
<tr>
<td>PILL</td>
<td>Pharmacokinetics Involves Lifelong Learning</td>
</tr>
<tr>
<td>PIM</td>
<td>Potentially Inappropriate Medication</td>
</tr>
<tr>
<td>RFDS</td>
<td>Royal Flying Doctor Service</td>
</tr>
<tr>
<td>RMMR</td>
<td>Residential Medication Management Review</td>
</tr>
<tr>
<td>RN</td>
<td>Registered Nurse</td>
</tr>
<tr>
<td>The Department</td>
<td>The Australian Government Department of Health and Ageing</td>
</tr>
<tr>
<td>The Guild</td>
<td>The Pharmacy Guild of Australia</td>
</tr>
</tbody>
</table>
## Appendix 3: List of Submitters

<table>
<thead>
<tr>
<th>Name</th>
<th>Occupation</th>
<th>Organisation/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yvonne Allinson</td>
<td>CEO</td>
<td>The Society of Hospital Pharmacists of Australia, Federal Secretariat, ACT</td>
</tr>
<tr>
<td>Lisa Atkins</td>
<td>Consultant accredited pharmacist</td>
<td>NT and other locations (inc remote Indigenous communities)</td>
</tr>
<tr>
<td>Jenny Blennerhassett</td>
<td>Accredited pharmacist and community liaison pharmacist</td>
<td>Prince of Wales Hospital and Community Health Services, Sydney NSW</td>
</tr>
<tr>
<td>Assoc Prof Chris Bonner</td>
<td>Faculty of Medicine and consultant accredited pharmacist</td>
<td>Bond University QLD</td>
</tr>
<tr>
<td>Helen Brown</td>
<td>QUM Program Manager</td>
<td>Kwinana DGP</td>
</tr>
<tr>
<td>Wendy Campbell</td>
<td>QUM coordinator</td>
<td>Alliance of NSW Divisions</td>
</tr>
<tr>
<td>Stephen Carbonara</td>
<td>Consultant accredited pharmacist</td>
<td>Dapto, NSW</td>
</tr>
<tr>
<td>Assoc Prof Andrew Cashin</td>
<td>President</td>
<td>Australian Nurse Practitioner Association and Justice Health Nursing Professional Unit, University of Technology, NSW.</td>
</tr>
<tr>
<td>Prof Colin Chapman</td>
<td>Faculty of Pharmacy</td>
<td>Monash University, VIC</td>
</tr>
<tr>
<td>Andrew Clayton</td>
<td>Consultant accredited pharmacist</td>
<td>Launching Place, VIC</td>
</tr>
<tr>
<td>Jenny Cole</td>
<td>Consultant accredited pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Debra Cottrell</td>
<td>CEO</td>
<td>Goulburn Valley DGP</td>
</tr>
<tr>
<td>Deirdre Criddle Pradeep Jayasuriya</td>
<td>Consultant accredited pharmacist  GP</td>
<td>Dianella, WA</td>
</tr>
<tr>
<td>Lisa Crisp</td>
<td>Consultant accredited pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Kerry Deans</td>
<td>CEO</td>
<td>Pharmaceutical Society of Australia, Curtin, ACT</td>
</tr>
<tr>
<td>Christine Donaldson</td>
<td>Accredited Pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Michael Dooley</td>
<td>Director of Pharmacy</td>
<td>Bayside Health, VIC</td>
</tr>
<tr>
<td>Patricia Downes</td>
<td>Pharmacy Project Officer</td>
<td>Western Melbourne DGP</td>
</tr>
<tr>
<td>Michael Driscoll</td>
<td>HMR Facilitator</td>
<td>Mid North Coast DGP</td>
</tr>
<tr>
<td>Sue Edwards</td>
<td>Pharmacist</td>
<td>Southern DGP (SA)</td>
</tr>
<tr>
<td>Timothy Chen</td>
<td>Senior Lecturer in Pharmacy Practice (Young pharmacist of the Year 2001)</td>
<td>Faculty of Pharmacy – University of Sydney</td>
</tr>
<tr>
<td>Linda Fitzgerald Renata Schindler</td>
<td>HMR Program Manager Program Officer</td>
<td>Toowoomba &amp; District DGP, QLD</td>
</tr>
<tr>
<td>Gail Forlonge</td>
<td>Quality Use of Medicines and Cancer Support Program</td>
<td>Southern Highlands DGP</td>
</tr>
<tr>
<td>Robert Forsythe</td>
<td>Director of Pharmacy</td>
<td>Rockhampton Hospital, QLD</td>
</tr>
</tbody>
</table>
## Appendix 3: List of Submitters

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<tr>
<th>Name</th>
<th>Occupation</th>
<th>Organisation/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alan Freedman</td>
<td>Victorian MMR Facilitator</td>
<td>Pharmacy Guild of Australia VIC</td>
</tr>
<tr>
<td>Michael Furey</td>
<td>Manager MMR Program</td>
<td>Blood and Pharmaceutical Programs DHS, NSW</td>
</tr>
<tr>
<td>Markus Gebauer</td>
<td>Pharmacist/owner</td>
<td>Strathalbyn Pharmacies</td>
</tr>
<tr>
<td>Jenny Gowan</td>
<td>MMR Facilitator and consultant accredited pharmacist</td>
<td>North East Valley DGP/ Northern DGP/ MediCom, Gowan &amp; Associates (3 submissions)</td>
</tr>
<tr>
<td>Georgina Green</td>
<td>Acting Manager, Corporate Public Affairs and Marketing</td>
<td>National Prescribing Service</td>
</tr>
<tr>
<td>Graham Greenhill</td>
<td>Consultant Clinical Pharmacist</td>
<td>Medication Management</td>
</tr>
<tr>
<td>Marc Grimer</td>
<td>Hospital pharmacist</td>
<td>John Hunter Hospital</td>
</tr>
<tr>
<td>Julie Grint</td>
<td>Consultant accredited pharmacist</td>
<td>Victoria</td>
</tr>
<tr>
<td>Paul Gysslink</td>
<td>Professional Issues and Research Officer</td>
<td>Pharmacists Division of APESMA</td>
</tr>
<tr>
<td>Paul Hannan</td>
<td>General Manager</td>
<td>Manrex Pty Ltd - Webstercare</td>
</tr>
<tr>
<td>Patrick Hayden</td>
<td>Pharmacist</td>
<td>IGA Superpharm Zillmere</td>
</tr>
<tr>
<td>Jill Hayward</td>
<td>MMR Facilitator</td>
<td>Gold Coast &amp; Tweed Valley DGP</td>
</tr>
<tr>
<td>Tim Hewitt</td>
<td>Community pharmacy business owner</td>
<td>Albion Park Pharmacy, NSW</td>
</tr>
<tr>
<td>Alison Hilet</td>
<td>Pharmacist</td>
<td>Echuca Regional Health, VIC</td>
</tr>
<tr>
<td>Sheila Holcombe</td>
<td>CEO</td>
<td>Blue Mountains DGP</td>
</tr>
<tr>
<td>Jay Hooper</td>
<td>Consultant accredited pharmacist</td>
<td>Sunshine Coast, and Former National President, Pharmaceutical Society of Australia</td>
</tr>
<tr>
<td>Roslyn Hosking</td>
<td>Pharmacist</td>
<td>NW DGP QUM Advisory Committee</td>
</tr>
<tr>
<td>Karen Huxhagen</td>
<td>Pharmacist</td>
<td>Mackay QLD</td>
</tr>
<tr>
<td>Suzanne Jacobs</td>
<td>Consultant accredited pharmacist</td>
<td>East Fremantle, WA</td>
</tr>
<tr>
<td>Shirley James</td>
<td>Pharmacist</td>
<td>Bendigo &amp; District DGP</td>
</tr>
<tr>
<td>Stefanie Johnston</td>
<td>Pharmacist/QUM PM</td>
<td>Osborne GP Network</td>
</tr>
<tr>
<td>Noeline Karlson</td>
<td>Consultant accredited/ hospital pharmacist / community pharmacist</td>
<td>Medowie, NSW</td>
</tr>
<tr>
<td>Bill Kelly</td>
<td>CEO</td>
<td>Australian Association of Consultant Pharmacy ACT</td>
</tr>
<tr>
<td>Greg Kyle</td>
<td>PhD Candidate</td>
<td>School of Pharmacy University of QLD</td>
</tr>
<tr>
<td>Sue Leitch</td>
<td></td>
<td>Pharmacy Guild of Australia TAS</td>
</tr>
<tr>
<td>Gavin Lockcock</td>
<td>Pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Karen Luetsch</td>
<td>QUM Program Manager</td>
<td>Health Workforce QLD</td>
</tr>
<tr>
<td>Greg Luke</td>
<td>Consultant accredited pharmacist</td>
<td>Mt Evelyn VIC</td>
</tr>
<tr>
<td>Rollo Manning</td>
<td>Consultant accredited pharmacist</td>
<td>RWM Consultancy, NT</td>
</tr>
<tr>
<td>Grant Martin</td>
<td></td>
<td>Pharmaceutical Society of Australia</td>
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</tbody>
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</thead>
<tbody>
<tr>
<td>Geoff McCurdy</td>
<td>Director of Pharmacy</td>
<td>Ballarat Health Services, VIC</td>
</tr>
<tr>
<td>Jenny McGill</td>
<td>Pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Tanja McLeish</td>
<td>MMR Facilitator</td>
<td>North West Slopes DGP</td>
</tr>
<tr>
<td>Andrew McPherson</td>
<td>CEO</td>
<td>Ballarat &amp; District DGP</td>
</tr>
<tr>
<td>Bill Newton</td>
<td>CEO</td>
<td>GP Network Victoria</td>
</tr>
<tr>
<td>Debbie Norton</td>
<td>QUM Program Pharmacist</td>
<td>West Victorian DGP</td>
</tr>
<tr>
<td>Brendan O’Loughlin</td>
<td>Pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Matt Pettit</td>
<td>Accredited pharmacist/ MMR Facilitator</td>
<td>Goldfields-Esperance GP network</td>
</tr>
<tr>
<td>Neil Petrie</td>
<td>Consultant accredited pharmacists</td>
<td>Business owners</td>
</tr>
<tr>
<td>John Morgan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela Clucas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vijay Ramanathan</td>
<td>Medication Management Review Facilitator</td>
<td>Central Sydney GP Network</td>
</tr>
<tr>
<td>Vijay Ramanathan</td>
<td>MMR Facilitator</td>
<td>Sydney South West GP Network Ltd, NSW</td>
</tr>
<tr>
<td>Debbie Rigby</td>
<td>Consultant accredited pharmacist</td>
<td>Australian Assoc of Consultant Pharmacy Board Member</td>
</tr>
<tr>
<td>Andrew Roberts</td>
<td>Locum pharmacist</td>
<td>Ngaanyatjarra Aboriginal Health Service, remote desert communities, WA</td>
</tr>
<tr>
<td>Joanne Rolland</td>
<td>Director of Pharmacy</td>
<td>Bass Coast Regional Health, VIC</td>
</tr>
<tr>
<td>Lee Sadler</td>
<td>MMR Facilitator</td>
<td>Pharmacy Guild of Australia SA</td>
</tr>
<tr>
<td>Sue Scott</td>
<td>Consultant Accredited Pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Shivon Singh</td>
<td>No further information</td>
<td>Sydney South West Area Health Service, NSW</td>
</tr>
<tr>
<td>Carlene Smith</td>
<td>Manager MMR Program NSW</td>
<td>Pharmacy Guild NSW Branch</td>
</tr>
<tr>
<td>Andrew Stafford</td>
<td>Ph.D Candidate and Research Assistant, School of Pharmacy</td>
<td>University of Tasmania</td>
</tr>
<tr>
<td>Pam Stanford</td>
<td>Pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Cameron Stewart</td>
<td>HMR Facilitator</td>
<td>Sutherland DGP</td>
</tr>
<tr>
<td>Keli Symons</td>
<td>Pharmacist</td>
<td>No further information</td>
</tr>
<tr>
<td>Anne Todd</td>
<td>QUM Liaison Officer</td>
<td>DGP North, submitting on behalf of General Practice Tasmania</td>
</tr>
<tr>
<td>Fran Vaughan</td>
<td>Consultant accredited Pharmacist/Lecturer</td>
<td>Faculty of Education, Health and Science (EHS), Centre for Remote Health Charles Darwin University, Alice Springs, NT</td>
</tr>
<tr>
<td>Marcus Weidinger</td>
<td>Consultant Accredited Pharmacist</td>
<td>Perth, WA</td>
</tr>
<tr>
<td>Neil Wildman</td>
<td>National Program Manager</td>
<td>Pharmacy Guild of Australia National Office</td>
</tr>
</tbody>
</table>
## Appendix 3: List of Submitters

<table>
<thead>
<tr>
<th>Name</th>
<th>Occupation</th>
<th>Organisation/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice Windle</td>
<td>Continuing Professional Development and QUM Program Officer</td>
<td>Adelaide Hills DGP, Mt Barker SA</td>
</tr>
<tr>
<td>Christine Wise</td>
<td>Consultant accredited pharmacist</td>
<td>Toowoomba DGP and University of Queensland School of Medicine QLD</td>
</tr>
</tbody>
</table>
## Appendix 4:
Lines of Enquiry for Stakeholder Consultations

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION &amp; RULES</strong></td>
<td>CR&amp;C has been commissioned by the Department of Health and Ageing to conduct qualitative research to identify options for enhancing the HMR Program, including identifying gaps in access and understanding factors that influence participation amongst consumers and health professionals (confirm PAL. Resend if necessary). Explain approach (show diagram) and note opportunity for further input at the time of Call for Submission. Interviews confidential … Record for CR&amp;C internal purpose … recording destroyed on completion of project … not provided to the Department. Get permission for recording. Reporting will not identify views expressed by an individual or organisation unless specifically requested (list of stakeholders will be included). A short summary of findings will be provided to all participants at the conclusion of the research.</td>
</tr>
</tbody>
</table>
| **RESPONDENT AND THE ORGANISATION**        | Can you tell me about yourself and your role in the organisation?  
  ➢ How you have been involved in HMRs?  
  ➢ … probe for policy/ research / practice / funding negotiations involvement  
  ➢ And how has <organisation name> been involved in the HMR Program? |
| **THE CURRENT HMR PROGRAM IN AUSTRALIA**   | How would you describe the HMR Program as it stands today?  
  ➢ What do you see the overall objective of the HMR Program to be?  
  ➢ What are the factors influencing the achievement of these objectives? Probe for  
  ➢ Factors enhancing and inhibiting achievement?  
  ➢ What factors influence the take up of HMRs? Probe for  
  ➢ Circumstances in which it is working and/or not working  
  ➢ Geographic/workforce/cultural/gender |
<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
<td>Points to cover</td>
</tr>
<tr>
<td>How does the program identify consumers who are suitable for review? What is the evidence for that?</td>
<td>➢ How does the program identify consumers who are suitable for review? What is the evidence for that?</td>
</tr>
<tr>
<td>Would you say that the Program is effective in targeting at-risk groups? <strong>Probe for</strong></td>
<td>➢ Would you say that the Program is effective in targeting at-risk groups? <strong>Probe for</strong></td>
</tr>
<tr>
<td>➢ Groups that are effectively targeted;</td>
<td></td>
</tr>
<tr>
<td>➢ Groups that have limited access but would benefit from HMRs. <strong>Probe for</strong> Cultural/socio-economic/geographic/ Indigenous Australians.</td>
<td>➢ Groups that are effectively targeted;</td>
</tr>
<tr>
<td>➢ How widespread is awareness of the HMR Program? <strong>Probe for:</strong></td>
<td>➢ How widespread is awareness of the HMR Program? <strong>Probe for:</strong></td>
</tr>
<tr>
<td>➢ Organisations (General practices/pharmacies)</td>
<td>➢ Organisations (General practices/pharmacies)</td>
</tr>
<tr>
<td>➢ Individual professionals (GPs/pharmacists and others)?</td>
<td>➢ Individual professionals (GPs/pharmacists and others)?</td>
</tr>
<tr>
<td>➢ Consumers/Carer’s?</td>
<td>➢ Consumers/Carer’s?</td>
</tr>
<tr>
<td><strong>SYSTEM LEVEL</strong></td>
<td>Which aspects of the HMR <strong>policy framework</strong> have influenced up-take by: GPs, pharmacists, pharmacies and consumers? <strong>Probe for</strong></td>
</tr>
<tr>
<td>➢ specific factors enhancing and inhibiting</td>
<td>➢ specific factors enhancing and inhibiting</td>
</tr>
<tr>
<td>➢ suggested enhancements/improvements</td>
<td>➢ suggested enhancements/improvements</td>
</tr>
<tr>
<td><strong>ORGANISATIONAL LEVEL</strong></td>
<td>There are a number of different individuals and organisations involved in supporting HMRs. How would you describe their roles? <strong>Probe for</strong></td>
</tr>
<tr>
<td>➢ Divisions/Facilitators/general practices/pharmacies and others.</td>
<td>➢ Divisions/Facilitators/general practices/pharmacies and others.</td>
</tr>
<tr>
<td>➢ How could their involvement be enhanced?</td>
<td>➢ How could their involvement be enhanced?</td>
</tr>
<tr>
<td>➢ What other organisation are important? Why is that? <strong>Probe for</strong></td>
<td>➢ What other organisation are important? Why is that? <strong>Probe for</strong></td>
</tr>
<tr>
<td>➢ ACATS, hospitals and others</td>
<td>➢ ACATS, hospitals and others</td>
</tr>
<tr>
<td><strong>TEAM LEVEL</strong></td>
<td>How would you describe the ways that GPs and pharmacies/pharmacists work together to conduct HMRs? <strong>Probe for</strong></td>
</tr>
<tr>
<td>➢ Examples of where and why they work together well</td>
<td>➢ Examples of where and why they work together well</td>
</tr>
<tr>
<td>➢ Examples of where and why collaboration could be improved</td>
<td>➢ Examples of where and why collaboration could be improved</td>
</tr>
<tr>
<td>➢ What specific factors enable/inhibit a collaborative team approach in the conduct of HMRs to promote uptake, effectiveness and</td>
<td>➢ What specific factors enable/inhibit a collaborative team approach in the conduct of HMRs to promote uptake, effectiveness and</td>
</tr>
</tbody>
</table>
# HMR Qualitative Research Lines of Inquiry

## Stakeholder Consultations

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDIVIDUAL LEVEL</strong></td>
<td>(In turn) what motivates GPs and pharmacies/pharmacists to get involved in the program? <em>Probe for</em>  &lt;br&gt; ➢ Financial, professional, health outcome and personal motivators? Patient wishes? Other parties?  &lt;br&gt; What are the factors influencing ongoing participation in the program for GPs and pharmacies/pharmacists? <em>Probe for</em>  &lt;br&gt; ➢ Financial, professional, health outcome and personal, benefits/disincentives? Patient wishes?</td>
</tr>
<tr>
<td><strong>FOR PHARMACISTS/PHARMACIES</strong></td>
<td>How does the accreditation process for pharmacists influence uptake and conduct of HMRs? <em>Probe for</em>  &lt;br&gt; ➢ Impact of the accreditation incentive  &lt;br&gt; ➢ Specific enablers/barriers.  &lt;br&gt; How does the training provided to pharmacists promote quality in the conduct of HMRs? <em>Probe for</em>  &lt;br&gt; ➢ Sufficiency, quality and targeting of training.  &lt;br&gt; ➢ How would the proposed HMR mentoring program enhance participation? <em>Explore impact of payment to pharmacies</em></td>
</tr>
<tr>
<td><strong>FOR GPS/GENERAL PRACTICES</strong></td>
<td>➢ What support or specific training to enhance participation in HMRs?  &lt;br&gt; ➢ What is the role of a practice nurse?</td>
</tr>
<tr>
<td><strong>CONSUMER LEVEL</strong></td>
<td>➢ What are the major benefits of participation in an HMR for consumers/Carer’s?  &lt;br&gt; ➢ In general; are HMRs an effective tool for improving medication management? Why is that? What is the evidence for improved outcomes for consumers?  &lt;br&gt; ➢ Is the current model the best way to conduct HMRs from a consumer’s/Carer’s perspective?  &lt;br&gt; ➢ What other ways could this be done?</td>
</tr>
<tr>
<td><strong>COMPARATIVE MODELS</strong></td>
<td>What other mechanisms exist for improving medication management? <em>Probe for</em>  &lt;br&gt; ➢ Alternatives that are: efficient, effective, appropriate.  &lt;br&gt; ➢ Does the HMR provide a medication management model that is applicable across Australia (i.e. rural settings)? Why or Why not?</td>
</tr>
<tr>
<td>Topic</td>
<td>Points to cover</td>
</tr>
<tr>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>How does the HMR compare with other medication review models? <strong>Probe for:</strong></td>
<td></td>
</tr>
<tr>
<td>➢ Residential MMR</td>
<td></td>
</tr>
<tr>
<td>➢ MATES (DVA)</td>
<td></td>
</tr>
<tr>
<td>➢ Hospital-initiated home medicines reviews?</td>
<td></td>
</tr>
<tr>
<td>➢ Overseas experience</td>
<td></td>
</tr>
<tr>
<td>➢ Any others?</td>
<td></td>
</tr>
<tr>
<td>How do the services provided under HMR complement these other approaches to medicine management?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUTURE DIRECTIONS</th>
<th>Overall, how do you feel about the HMR Program?</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ What are its strengths and weaknesses?</td>
<td></td>
</tr>
<tr>
<td>➢ How could the HMR Program be improved?</td>
<td></td>
</tr>
<tr>
<td>What is the best way of achieving this?</td>
<td></td>
</tr>
<tr>
<td>➢ Do you have any other comments or suggestions about HMRs that we have not already covered?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FINISH UP</th>
<th>➢ Identify specific details of any literature mentioned in the interview or probe for availability of evidence based material;</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Mention Call for Submissions and ask if there are newsletters or other ways to communicate the Call to interested parties?</td>
<td></td>
</tr>
<tr>
<td>➢ Anything else that is important that we have not covered?</td>
<td></td>
</tr>
<tr>
<td>Thank you for your time.</td>
<td></td>
</tr>
</tbody>
</table>

### ISSUES IDENTIFIED FROM LITERATURE

The following are specific issues identified from previous literature. They do not need to be directly related to the interviewee, but need to be borne in mind throughout the consultation.

**Amongst pharmacists:**
- The majority of community pharmacies in Australia (nearly 80%) are currently registered as DMMR Service Providers. However, substantial numbers of pharmacists regard the $183.60 currently payable to community pharmacies for each HMR as inadequate.
- Low number of accredited pharmacists has been identified as a problem.
- Distance to be travelled to conduct the HMR especially in rural and remote locations.
- The need to invest time in learning and using the HMR process.

**GPs**
- Poor relationship between the pharmacist and the GP.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict with nursing home reviews.</td>
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</tr>
<tr>
<td>GP reluctance to lose control of the patient / GP relationship.</td>
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</tr>
<tr>
<td>Lack of knowledge of the HMR process.</td>
<td></td>
</tr>
<tr>
<td>Time constraints of GPs and pharmacists.</td>
<td></td>
</tr>
<tr>
<td>The need to invest time in learning and using the HMR process.</td>
<td></td>
</tr>
<tr>
<td>Lack of conviction, belief or confidence in the HMR process.</td>
<td></td>
</tr>
<tr>
<td>GPs feeling they already provide a quality medicine review process.</td>
<td></td>
</tr>
<tr>
<td>Fear of ‘big brother’ intruding into the practice.</td>
<td></td>
</tr>
<tr>
<td>Concerns over the influence of the pharmacist over the patient care.</td>
<td></td>
</tr>
<tr>
<td>The time required to produce referral documents, especially when the practice is not fully IT-enabled.</td>
<td></td>
</tr>
<tr>
<td>The uneven quality of accredited pharmacists’ HMR reports - not set out in a form that the GP finds convenient and useful.</td>
<td></td>
</tr>
<tr>
<td>Concern about pharmacists undertaking the kinds of work traditionally seen as being in the domain of the medical profession (such views were said to be held by older GPs in particular).</td>
<td></td>
</tr>
<tr>
<td>The large number of recently introduced Australian Government initiatives targeted at general practice and competing for GPs’ attention.</td>
<td></td>
</tr>
<tr>
<td>The low level of support that was available to ‘early adopter’ GPs, some of whom became disillusioned with the HMR Program.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 5:  
Recruitment Screener for Health Professionals

<table>
<thead>
<tr>
<th>Client</th>
<th>Campbell Research &amp; Consulting</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Client</td>
<td>Australian Government Department of Health and Ageing</td>
</tr>
<tr>
<td>Number of interviews</td>
<td>109</td>
</tr>
</tbody>
</table>
| Location of interviews | Melbourne (Central Bayside, Dandenong)  
Sydney (Bankstown)  
South Australia (Mid North)  
Western Australia (Mid West, Wheatbelt District)  
Queensland (Capricornia, Townsville, Sunshine Coast)  
Tasmania (Northern) |
| Number of participants per interview | 1 |
| Dates         | February and March 2008 |

Recruitment Questionnaire

General Practitioners and Practice Nurses

Good morning / afternoon / evening. My name is <insert name> from Campbell Research & Consulting calling on behalf of the Australian Government Department of Health and Ageing. May I please speak to the practice manager?

1. Yes (Continue-S1)
2. Person not available now (Arrange call-back appointment)
3. Refused (Terminate)

RE-INTRODUCE, IF NECESSARY

S1 The Australian Government, through the Department of Health and Ageing, is currently conducting a project looking at the Home Medicines Review program.

The aim of this research is to obtain information and feedback regarding health professionals’ experience and views of the HMR program.

<Provide further explanation of the HMR program if necessary: see information overview sheet>

The Department is inviting GPs and other health professionals who participate, or choose not to participate in the HMR program, to be involved in one-on-one research interviews.

I am calling you today because we would like to arrange a time for one of our senior consultants <Cathy Somerville or Evylyn Campbell> to come and meet with a doctor in your practice.
GPs who participate will be given $200 to compensate for their time, and the interview would be scheduled at a venue convenient for the doctor.

Participation is completely voluntary and anonymity is assured. (EXPLAIN AS REQUIRED).

Would I be able to speak with the doctor about participating in this research project?

1. Yes (Continue)
2. No / Unsure / Requests further information

(Arrange to send information sheet through for doctor’s information)

S2 As we are speaking with GPs who have participated in the HMR Program, as well as those who have not, can you please confirm whether <doctor has/ you have> has referred a patient for a HMR in the past year? This can include starting the referral and HMR process but not submitting a Medicare claim

1. Yes (check against quota before continuing – go to N1 if quota full)
   a. How long have you been undertaking HMRs/ or participating in the HMR program for?
2. No (check against quota before continuing – go to N1 if quota full)

S3 Our consultant <Cathy Somerville or Evylyn Campbell> will be in your area on <insert day/date>. The discussion would take around ½ an hour.

<Is doctor/ Are you> available on these dates for <Cathy or Evylyn> to meet with <doctor/ you> at the practice?

1. Yes (Continue) Confirm practice address/ email and telephone number
2. No / Unsure (A1)

Demographic Profile

S4 Can you please confirm how many doctors are working at your practice?

S5 Does your practice service any specific ethnic or socio-economically disadvantaged populations?

Alternative Interview Options Section <if unavailable during scheduled interview times>

A1 Would there be a more convenient time that we could arrange for <Evylyn or Cathy> to call <doctor /you>, to conduct the interview via telephone instead?

1. Yes (Continue)
2. No / Unsure (Continue)

A2 Arrange time and date for tele-interview. Make arrangements for incentive to be paid electronically. (Only pursue this option if alternative interviewees are unavailable or if this contact is particularly important for the research.)

Nurses and Practice Managers Section
DoHA  Page 175

HMR Qualitative Research  Appendices

N1  We would also like to speak with practice nurses who do or do not currently have involvement in the HMR program. Is there a nurse working in your practice who participates in any aspect of the HMR program?
1. Yes (Continue)
2. No / Unsure (N1)

N2  Would I be able to speak to your nurse?
1. Yea (Continue)
2. Person not available now (Arrange call-back appointment)
4. Refused (Terminate)

N3  – Repeat S1-S3 for nurses. Differences are that nurses will be paid $150 and we only wish to speak to nurses where their practice or role has a direct relevance to populations with high numbers of potentially eligible HMR consumers.

Confirmation

C1  I will arrange for an email/letter to be sent out to you (today / tomorrow) confirming all of these arrangements. Could I confirm that I have your correct contact details? (CONFIRM EMAIL ADDRESS/ & STREET ADDRESS FOR PRACTICE.)

Termination

"Thank you for your help. Just in case you missed it, my name is <insert name> from Campbell Research & Consulting."

IF VALIDATION REQUESTED, REFER TO EITHER
CR&C: Evylyn Campbell or Cathy Somerville on 1300 368 113. Or the Department: Marita Kenrick on (02) 9263 3548

Pharmacists (HMR accredited and non-HMR accredited)

NOTE: RECRUITMENT LISTS WILL IDENTIFY IF THE PHARMACIST IS HMR ACCREDITED OR NOT.

Introduction

Good morning / afternoon / evening. My name is <insert name> from Campbell Research & Consulting calling on behalf of the Australian Government Department of Health and Ageing. May I please speak to <insert name>?  
1. Yes (Continue-S1)
2. Person not available now (Arrange call-back appointment)
4. Refused (Terminate)

RE-INTRODUCE, IF NECESSARY
The Australian Government, through the Department of Health and Ageing, is currently conducting a project looking at the Home Medicines Review Program.

The aim of this research is to gather information about your experience and views of the HMR program.

The Department is inviting a number of pharmacists and other health professionals who participate, or choose not to participate, in the HMR program in your area, to take part in one-on-one interviews.

I am calling you today because we would like to arrange a time for one of our senior consultants <Cathy Somerville or Evylyn Campbell> to come and meet with you.

If you participate you will be given $150 to compensate for your time, and the interview would be scheduled at a time and location convenient to you.

Participation is completely voluntary and your anonymity is assured. (EXPLAIN AS REQUIRED).

Are you interested in participating in this research project? (OFFER TO SEND INFORMATION SHEET)

1. Yes (Continue)
2. No / Unsure (Terminate)

Can I just confirm that you have undertaken medication review accreditation training/education? Record details

And you long have you been conducting HMRs for? Record details

Our consultant <Cathy Somerville or Evylyn Campbell> will be in your area on <insert day/date>. The discussion would take around 45 minutes of your time.

Are you available on these dates for <Cathy or Evylyn> to meet with you?

1. Yes (Continue)
2. No / Unsure (A1)

Where would be the most convenient location for <Cathy or Evylyn> to meet with you? (NOTE: Where relevant, prefer the pharmacy office, or a central location.)

1. Record details. (Continue)

Would there be a more convenient time that we could arrange for <Evylyn or Cathy> to call you, to conduct the interview via telephone instead?

1. Yes (Continue)
2. No / Unsure (Continue)
A2 Arrange time and date for tele-interview. Make arrangements for incentive to be paid electronically.

**HMR Consumer interviews**

H1 As part of this research project, we are also conducting consultations with HMR consumers. We would like to speak with patients who have participated in a HMR.

Consumers’ experience and perspectives of the HMR program are integral parts of this project. Are you able to assist us with this process by helping us to get in touch with one of your HMR patients?

1. Yes (Continue)
2. No / Unsure (N1)

H2 List opt-in process and offer to send through opt-in information sheet [See HMR Consumer Recruitment Specifications for further detail]

**Confirmation**

C1 I will arrange for an email/letter to be sent out to you (today / tomorrow) confirming all of these arrangements. Could I confirm that I have your correct contact details? (CONFIRM EMAIL ADDRESS/ ADDRESS OF INTERVIEW LOCATION)

**Termination**

"Thank you for your help. Just in case you missed it, my name is <insert name> from Campbell Research & Consulting."

IF VALIDATION REQUESTED, REFER TO EITHER

CR&C: Evylyn Campbell or Cathy Somerville on 1300 368 113. Or the Department: Marita Kenrick on (02) 9263 3548
Business owners of Community Pharmacies

Good morning / afternoon / evening. My name is <insert name> from Campbell Research & Consulting calling on behalf of the Australian Government Department of Health and Ageing. May I please speak to <insert name>?

1. Yes (Continue-S1)
2. Person not available now (Arrange call-back appointment)
4. Refused (Terminate)

RE-INTRODUCE, IF NECESSARY
OFFER TO SEND INFORMATION SHEET IF NECESSARY

S1 The Australian Government, through the Department of Health and Ageing, is currently conducting a project looking at the Home Medicines Review Program.

The aim of this research is to gather information on your experience and views of the HMR program.

The Department is inviting a number of pharmacy owners and other health professionals who participate, or choose not to participate, in the HMR program to take part in one-on-one interviews.

S2 Are you the person responsible for making business decisions for your pharmacy?

1. Yes (continue)
2. No (ask to be transferred to business decision maker and repeat introduction and S1)

S2a Is your pharmacy an independent pharmacy or part of a pharmacy chain?

Record response – aim for a mix of independent and chains

S3 I am calling you today because we would like to arrange a time for one of our senior consultants <Cathy Somerville or Evylyn Campbell> to come and meet with you.

Community pharmacy business owners who participate will be given $150 to compensate for your time, and the interview would be scheduled at a venue convenient for you.

Participation is completely voluntary and your anonymity is assured. (EXPLAIN AS REQUIRED).

Are you interested in participating in this research project? (OFFER TO SEND INFORMATION SHEET)

1. Yes (Continue)
2. No / Unsure (Terminate)
S4 Our consultant <Cathy Somerville or Evylyn Campbell> will be in your area on <insert
day/date>. The discussion would take around 45 minutes of your time.
Are you available on these dates for <Cathy or Evylyn> to meet with you at your consulting
rooms?
1. Yes (Continue)
2. No / Unsure (A1)

Alternative Interview Options Section <if unavailable during scheduled interview times>
A1 Would there be a more convenient time that we could arrange for <Evylyn or Cathy> to call you,
to conduct the interview via telephone instead? (ONLY IF NECESSARY, otherwise seek
alternative interviewee.)
1. Yes (Continue)
2. No / Unsure (Continue)

Confirmation
C1 I will arrange for an email/letter to be sent out to you (today / tomorrow) confirming all of these
arrangements. Could I confirm that I have your correct contact details? (CONFIRM EMAIL
ADDRESS.)

Termination
"Thank you for your help. Just in case you missed it, my name is <insert name> from Campbell
Research & Consulting."

IF VALIDATION REQUESTED, REFER TO EITHER
CR&C: Evylyn Campbell or Cathy Sommerville on 1300 368 113. Or the Department: Marita Kenrick
on (02) 9263 3548
# Appendix 6:
## Discussion Guide for Interviews with Health Professionals

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION and Rules</strong></td>
<td>Introduction about the nature of the interview. Confidentiality, privacy, recording, non-identifiable.</td>
<td>(0:00) 2 min</td>
</tr>
</tbody>
</table>
| **OVERVIEW OF THEIR PRACTICE**             | Tell me something about your practice:  
  - Location, geography, services in the area;  
  - Demographics;  
  - Social and economic setting;  
  - Home visits;  
  - Practice nurse.  
Overall, how would you describe the majority of your patients/clients:  
  - Ageing;  
  - High levels of unemployment;  
  - Young families;  
  - Single and professional;  
  - Low levels of English;  
  - Indigenous;  
  - Transient or lived in the area a long time.  
What are the relationships like between your practice and:  
  - Local pharmacies;  
  - Nursing Services;  
  - Hospitals.  
How would you describe the level of IT ‘literacy’ and usage within this practice:  
  - How much of the prescribing is done through electronic systems direct from the doctors’ offices;  
  - What electronic linkages do you have with other major IT support systems for medical practitioners? Pharmacies? (Etc). | (0:02) 7 min    |
| **EXPERIENCE OF HMR /PERCEPTIONS**         | Are you familiar with Home Medicines Reviews?  
What experience have you had with these in this practice or in | (0:09)          |
### HMR Qualitative Research Discussion Guide
#### Interviews with Health Professionals (GPs)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>other settings where you may have worked recently;</td>
<td>10 min</td>
</tr>
<tr>
<td></td>
<td>What would be the level of understanding of medicines among most of your older patients/clients;</td>
<td></td>
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<tr>
<td></td>
<td>What is your overall view of the Home Medicines Review program;</td>
<td></td>
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<tr>
<td></td>
<td>Can you describe any examples you can recall of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Referring patients for HMRs. What process did you follow in those instances;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Being asked to refer patients but deciding against it. What sort of factors did you consider in making that decision?</td>
<td></td>
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<tr>
<td></td>
<td>What sorts of responses do you see from patients when the possibility of a HMR comes up:</td>
<td></td>
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<tr>
<td></td>
<td>➢ Receptive;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Resistant;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Confused;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Overwhelmed.</td>
<td></td>
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<tr>
<td></td>
<td>What differences do you see between patients when you discuss HMRs with them:</td>
<td></td>
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<tr>
<td></td>
<td>➢ The characteristics of those who are more or less inclined to accept your recommendations? (Eg. Those over 75 compared with younger patients; or patients with little English compared with those without language barriers.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The general health of those patients for whom you have recommended a HMR.</td>
<td></td>
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<tr>
<td></td>
<td>Would you say they were at a medium or high risk of ill-effects from factors relating to their medications?</td>
<td></td>
</tr>
<tr>
<td>WHAT WORKS AND WHAT DOES NOT</td>
<td>I’d now like to discuss your experience of what works well with HMRs and what does not work so well, based on your experience in this practice:</td>
<td>(0:19)</td>
</tr>
<tr>
<td></td>
<td>➢ Firstly, what works well for the patient;</td>
<td>10 min</td>
</tr>
<tr>
<td></td>
<td>➢ Then, what works well for you as a healthcare professional:</td>
<td></td>
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<tr>
<td></td>
<td>– Financial arrangements;</td>
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<tr>
<td></td>
<td>– Process – steps involved;</td>
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</tr>
<tr>
<td></td>
<td>– Information flow and quality;</td>
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<td></td>
<td>– Hospital discharge;</td>
<td></td>
</tr>
<tr>
<td>Topic</td>
<td>Points to cover</td>
<td>Duration (Mins)</td>
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</tr>
<tr>
<td><strong>Topic</strong></td>
<td><strong>Discussion Guide</strong></td>
<td><strong>Interviews with Health Professionals (GPs)</strong></td>
</tr>
<tr>
<td><strong>Topic</strong></td>
<td><strong>Points to cover</strong></td>
<td><strong>Duration (Mins)</strong></td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td><strong>(Mins)</strong></td>
<td><strong>(Mins)</strong></td>
</tr>
<tr>
<td><strong>Frustrations:</strong></td>
<td><strong>− Frustrations;</strong> &lt;br&gt; <strong>− Work capacity/workforce shortages.</strong></td>
<td><strong>When it works well, what does it look like? What is different?</strong></td>
</tr>
<tr>
<td><strong>When it works well, what does it look like? What is different?</strong></td>
<td><strong>EXPLORE POTENTIAL AND ACTUAL BENEFITS FOR:</strong></td>
<td><strong>(0:29)</strong></td>
</tr>
<tr>
<td><strong>EXPLORE POTENTIAL AND ACTUAL BENEFITS FOR:</strong></td>
<td><strong>− Your patients:</strong></td>
<td><strong>5 min</strong></td>
</tr>
<tr>
<td><strong>− Your patients:</strong></td>
<td><strong>− For those with high needs;</strong></td>
<td><strong>− For those of all ages.</strong></td>
</tr>
<tr>
<td><strong>− For those of all ages.</strong></td>
<td><strong>− You as a health professional.</strong></td>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
</tr>
<tr>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
</tr>
<tr>
<td><strong>How important do you think HMRs are for the clinical care of the patient? Do you see any benefits in terms of preventing hospitalisation? Do they help prevent it at all? What about when patients come out of hospital? In the early discharge phase? Re-admission levels and any connection to HMR?</strong></td>
<td><strong>In an ideal world, how should the Home Medicines Review program work?</strong></td>
<td><strong>(0:34)</strong></td>
</tr>
<tr>
<td><strong>VISION FOR THE PROGRAM</strong></td>
<td><strong>What changes or enhancements would you like to suggest for the Home Medicines Review:</strong></td>
<td><strong>7 min</strong></td>
</tr>
<tr>
<td><strong>SUGGESTED ENHANCEMENTS</strong></td>
<td><strong>− For the patients;</strong></td>
<td><strong>− For you as a health professional.</strong></td>
</tr>
<tr>
<td><strong>− For you as a health professional.</strong></td>
<td><strong>Here are some examples of ways in which others have suggested that the HMR Program might work differently. I would like you to tell me your response to these:</strong></td>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
</tr>
<tr>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
<td><strong>− Provision for GPs to refer HMRs directly to an accredited pharmacist and not necessarily to a community pharmacy in the first instance:</strong></td>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
</tr>
<tr>
<td><strong>− Provision for GPs to refer HMRs directly to an accredited pharmacist and not necessarily to a community pharmacy in the first instance:</strong></td>
<td><strong>− Would you feel more comfortable if you could refer directly to someone you had an established professional relationship with?</strong></td>
<td><strong>EXPLORE WHY THESE BENEFITS HAVE BEEN CITED, AND WHAT EXAMPLES THEY HAVE SEEN OF THESE.</strong></td>
</tr>
<tr>
<td><strong>CONCLUSION</strong></td>
<td><strong>Anything else you’d like to mention?</strong></td>
<td><strong>(0:41 pm)</strong></td>
</tr>
<tr>
<td><strong>Thank you for your time.</strong></td>
<td><strong>The results of this series of interviews will be very valuable in providing feedback to the Department on the HMR Program.</strong></td>
<td><strong>4 min</strong></td>
</tr>
<tr>
<td><strong>End</strong></td>
<td></td>
<td><strong>(0:45)</strong></td>
</tr>
</tbody>
</table>
## Appendix 7:
Discussion Guide for HMR Consumer Interviews

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>Introduction about the nature of the interview. Confidentiality, privacy, recording, non-identifiable.</td>
<td>(0:00) 2 min</td>
</tr>
</tbody>
</table>
| ACKGROUND INFORMATION         | Tell me something about yourself:  
  ➢ Live alone/with others;  
  ➢ How long have you lived in the area;  
  ➢ Your own background;  
  ➢ Home visits from any carers;  
  ➢ Family carers? Relatives nearby.  
  Tell me something about your health issues and the reasons you are on a large number of medications.  
  How do you feel about:  
  ➢ Your GP (one or more than one):  
    – Frequency of visits/Home visits;  
    – Length of time seeing this doctor.  
  ➢ Local pharmacy (one or more than one):  
    – How did you select this pharmacy?  
    – How long has this been your regular pharmacy for?  
    – Do you use other pharmacies as well?  
  ➢ Local hospital  
    – Have you been admitted to hospital?  
    – Do you go to an emergency department instead of seeing your regular doctor? | (0:02) 5 min    |
## HMR Qualitative Research Discussion Guide
### Interviews with HMR Consumers

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
</tr>
</thead>
</table>
| **EXPERIENCE OF HMR /PERCEPTIONS** | Do you recall someone coming to your home to talk to you about your medicines?  
What can you tell me about the visit? How did it come about?  
When did it take place? (Approx):  
➢ How did you feel when the idea first came up? Was this from your GP or from the pharmacist or someone else?  
➢ How did you feel about someone visiting you at home to talk about your medicines?  
➢ Was it your regular pharmacist who came to your home, or somebody you had not met before?  
   - If it was somebody you had not met before, did that concern you at all?  
➢ Did you have any concerns about why your GP was suggesting the visit?  
➢ Do you know what this visit was called?  
➢ Have you had more than one of these visits? | (0:12)  
5 min  
5 min |

**Before the visit**

How would you describe your general approach to your medicines before the visit?

Had you ever experienced any side-effects or bad reactions to prescription medicines?

Had you ever needed to go to hospital, either to a clinic or to be admitted, because of problems with medicines?
## HMR Qualitative Research Discussion Guide
### Interviews with HMR Consumers

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOLLOW-ON FROM HMR</strong></td>
<td><strong>Explore any changes that arose as a result of visit</strong></td>
<td>(0:22)</td>
</tr>
<tr>
<td></td>
<td>➢ Do you think the visit helped you with your medicines? How did it do that?</td>
<td>7 min</td>
</tr>
<tr>
<td></td>
<td>➢ Once you had the pharmacist come to visit and talk to you about your medicines, did you change anything?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Do you recall talking to your GP about the home visit after it had taken place?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Did you have to make a special appointment to speak to your doctor about the visit?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Was making a second appointment to see your doctor easy for you?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Did the visit leave you feeling confused about your medications at all?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ E.g., did the pharmacist make suggestions that seemed to be different from what your Doctor had said?</td>
<td></td>
</tr>
<tr>
<td><strong>EXPLORE WISHLIST</strong></td>
<td>Are there any things about the review visit that you would like to change? What would you suggest and why?</td>
<td>(0:29)</td>
</tr>
<tr>
<td></td>
<td>➢ Changes relating to the way you were asked about the visit?</td>
<td>7 min</td>
</tr>
<tr>
<td></td>
<td>➢ Changes relating to the visit itself and the pharmacist?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Changes in the follow-up period, after the visit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Other points to note could include changes to the number of people involved; the length of time it took for the visit to be completed etc]</td>
<td></td>
</tr>
<tr>
<td><strong>CONCLUSION</strong></td>
<td>Anything else you’d like to mention?</td>
<td>(0:36)</td>
</tr>
<tr>
<td></td>
<td>Thank you for your time.</td>
<td>4 min</td>
</tr>
<tr>
<td></td>
<td>The results of this series of interviews will be very valuable in providing feedback to the Government.</td>
<td></td>
</tr>
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</table>
Appendix 8: Eligible Consumer Screening Questions

<table>
<thead>
<tr>
<th>Appendix 8: HMR Eligible Consumer Screening Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In the last 6 months, approximately how many times have you consulted</td>
</tr>
<tr>
<td>a. A GP? Specify (ONCE A MONTH OR MORE INDICATES A HIGH RISK CONSUMER)</td>
</tr>
<tr>
<td>b. A specialist? Specify (2 OR MORE INDICATES A HIGH RISK CONSUMER)</td>
</tr>
<tr>
<td>c. An Emergency Department or Outpatients’ Clinic at a hospital? Specify (ONCE A MONTH OR MORE INDICATES A HIGH RISK CONSUMER)</td>
</tr>
<tr>
<td>2. Are you currently taking (or meant to be taking) any prescription medications? (If necessary, prescription medications are medications that are prescribed by your doctor or specialist that you buy from a pharmacy).</td>
</tr>
<tr>
<td>a. YES (If YES)</td>
</tr>
<tr>
<td>3. About how many prescription medicines are you taking each day? Specify (High risk users to be taking five or more prescription medications on a daily basis. Note this relates to different medicines, rather than doses of the same medication)</td>
</tr>
<tr>
<td>a. If taking less than 5 medications, go to Q5</td>
</tr>
<tr>
<td>b. NO Go to Q5</td>
</tr>
<tr>
<td>4. Are you providing assistance to a close relative or friend who is in need of daily care and who may be taking five or prescription medications each day? (Not in a professional employment capacity).</td>
</tr>
<tr>
<td>a. YES. Continue – GO TO CARERS’ STREAM, see below.</td>
</tr>
<tr>
<td>b. NO. Terminate. “Unfortunately, you are not one of the people we need to speak to for this study, but thank you very much for being prepared to participate.”</td>
</tr>
<tr>
<td>5. Are you currently or have you been in the past, working as a medical doctor, a nurse or in another medical profession?</td>
</tr>
<tr>
<td>a. NO Continue</td>
</tr>
<tr>
<td>b. YES Terminate. “Sorry, unfortunately for this research, we need to talk to people who do not have health training. Thank you for your time”</td>
</tr>
</tbody>
</table>
Appendix 9:
Moderators’ Guide for Eligible Consumer Focus Groups

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>Introduction about the nature of the discussions. Confidentiality, privacy, recording, non-identifiable.</td>
<td>0:00</td>
</tr>
<tr>
<td></td>
<td>We are a company based in Melbourne specialising in social research for government and business.</td>
<td>3 mins</td>
</tr>
<tr>
<td></td>
<td>We have been commissioned by the Australian Government Department of Health and Ageing to conduct a study about use of medicines in the home.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The format of the group is open and free flowing. There are no right or wrong answers. However, we do ask that:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ You don’t all talk at once, as it means we might not catch something important, or something that someone else in the group might want to comment on.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Everyone joins in and offers their opinion, everyone’s view is important.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– You don’t talk among yourselves but address yourselves to the group – otherwise it can be disruptive for the group and people can miss what others have to say.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ CR&amp;C is bound by the Market and Social Research privacy code. Please be assured that the information and opinions you provide today will be used only for research purposes, and only for this project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ Our report will present the overall findings from the research. No individual will be identified.</td>
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<tr>
<td></td>
<td>If you agree, I would like to record this discussion. This is only to help us write our report. The tape is not provided to anyone and will only be accessed by those people working within the company, who are assisting on this project. The tape and all notes that may identify you will be deleted at completion of the project. (NB respondents will have been advised of recording at the time of recruitment).</td>
<td></td>
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</tbody>
</table>

Some of the topics for discussion may be sensitive, and if you
### HMR Qualitative Research Discussion Guide
#### Focus Groups with Eligible Consumers

<table>
<thead>
<tr>
<th>Topic</th>
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<th>Duration (Mins)</th>
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</table>
| **AND RULES** | feel uneasy you do not need to talk or answer any questions if you do not want to.  
You may also leave the discussion at any point should you wish.  
We also have a number that you can call if you need more information about tonight's discussion, or this research project. This number will put you through to our offices in Melbourne where one of our staff members can help you with any questions you might have about the research or our company. If anyone would like to write down this number, it is 1300 300 979.  
Tonight we have a number of observers here, from both the Department and Campbell Research. They are simply here to observe the proceedings and won’t be involved in the discussion in any way.  
Did you have any questions at this stage?  
You’ll see that we have some refreshments available so please help yourself to these at any time. | **8 mins** |
| **ABOUT THE PARTICIPANTS** |  
➢ Firstly, could everyone introduce themselves, and tell the group a little bit about:  
➢ Who you are  
➢ Where you live  
➢ Perhaps what you like to do with your time  
➢ You might want to mention whether you live with anyone else  
If you are here as a carer, please let us know that as well.  
This is just so we can learn a little about each of you. | **(00:03) 8 mins** |
| **OVERVIEW OF DISCUSSIONS** | To give you an idea about tonight’s discussion, I would like to talk to you *generally* about use of medicines in the home and other issues.  
Then I would like to talk about any personal experience you have in relation to your approach to your own healthcare. | **(00:11) 2 min** |
| **RELATIONSHIP WITH:**  
THEIR GP  
SPECIALISTS  
COMMUNITY PHARMACIES | **GPs**  
I’d like to start by asking you to tell me something about your visits to your doctor – and in this case, we are mainly thinking of GPs:  
*Consumer Behaviour (frequency of visits; doctor shopping)*  
➢ Where do you go? How long have you been | **(00:13) 10 min** |
## HMR Qualitative Research Discussion Guide

### Focus Groups with Eligible Consumers

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
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</thead>
<tbody>
<tr>
<td>Going to this doctor?</td>
<td></td>
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<tr>
<td>➢ Do you always go to the same doctor/practice? Any difficulty in getting to see the doctor?</td>
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<tr>
<td>➢ Bulk bill or not? Home visits?</td>
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<tr>
<td>➢ When was the last time you went to see your GP?</td>
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<tr>
<td>➢ Do you ever visit a hospital emergency department or clinic rather than seeing a GP?</td>
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<tr>
<td><strong>Relationship with GP (level of trust)</strong></td>
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<tr>
<td>Overall, how would you describe your relationship with your GP?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Level of trust?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Would you ever raise questions with your GP about any aspect of his/her advice?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specialists</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No doubt many of you see specialists as well from time to time. Would you say you have more involvement with your GP or with your specialists? (thinking of your current situation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pharmacies</strong></td>
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</tr>
<tr>
<td>When you need prescriptions, do you always visit the same local pharmacy? Or a number of different pharmacies? How do you choose which one to go to? Do you feel you know the pharmacist quite well in your local pharmacy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EXPERIENCE OF:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CARE IN THE HOME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HOSPITAL VISITS AND ADMISSIONS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In-home care</strong></td>
<td></td>
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</tr>
<tr>
<td>Do you receive regular assistance because of health problems you might be facing? Have you received care from any health workers in your own home? Perhaps from a district nurse? When visiting you, has a nurse ever discussed your medicines with you?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Hospital visits</td>
<td></td>
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<tr>
<td>Discuss their hospital experience, reason for admission, and what happened with their medicines when in hospital and in the days after they left.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic</td>
<td>Points to cover</td>
<td>Duration (Mins)</td>
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<tr>
<td>-------</td>
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</tr>
<tr>
<td>UNDERSTANDING OF THEIR MEDICINES</td>
<td>Most of you who are here this evening have quite a few medicines to take each day. I’d just like to talk with you now about how you feel about your medicines. Can you describe any examples you can recall of: <strong>Adverse Reactions</strong>&lt;br&gt;&lt;ul&gt;&lt;li&gt;Having a bad reaction to a medicine? What happened? Did you need to visit or be admitted to hospital as a result?&lt;/li&gt;&lt;li&gt;Feeling that you were at risk from ill-effects relating to your medicines?&lt;/li&gt;&lt;/ul&gt;<strong>Knowledge and Understanding</strong>&lt;br&gt;&lt;ul&gt;&lt;li&gt;Feeling confused about why you were taking a medicine or perhaps the dose?&lt;/li&gt;&lt;li&gt;What do you know about how your different medicines work?&lt;/li&gt;&lt;/ul&gt;<strong>Generic Medications</strong>&lt;br&gt;&lt;ul&gt;&lt;li&gt;Generics/different names for familiar medicines – does this make it any more confusing for you?&lt;/li&gt;&lt;/ul&gt;<strong>Pharmacist Liaison</strong>&lt;br&gt;&lt;ul&gt;&lt;li&gt;Do you ever discuss any of these issues with the pharmacist when you pick up your medicines?&lt;/li&gt;&lt;/ul&gt;</td>
<td>(00:28) 15 min</td>
</tr>
<tr>
<td>STRENGTH OF GP RECOMMENDATIONS FOR PHARMACIST VISIT: RELUCTANCE</td>
<td><em>Strength of GP Recommendations:</em> If your doctor suggested that it would be helpful for you to have a pharmacist come to visit you at your home to discuss your medicines, how would you feel about this? Explore range of responses:&lt;br&gt;&lt;ul&gt;&lt;li&gt;Receptive/Resistant/Confused/Overwhelmed/Not a problem&lt;/li&gt;&lt;/ul&gt;<strong>Reluctance Towards Home Visits</strong>&lt;br&gt;&lt;ul&gt;&lt;li&gt;For those of you who have concerns, or who are resistant, what are the reasons for these responses?&lt;/li&gt;&lt;li&gt;Explore range of responses:&lt;br&gt;&lt;ul&gt;&lt;li&gt;Personal safety?/Unfamiliar concept?/Would not feel comfortable/Unnecessary/Can discuss at the pharmacy – no need to visit my</td>
<td>(00:43) 5 min</td>
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</tbody>
</table>
### HMR Qualitative Research Discussion Guide
#### Focus Groups with Eligible Consumers

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points to cover</th>
<th>Duration (Mins)</th>
</tr>
</thead>
</table>
| **ROLE OF THE CARER IN DECISION MAKING AROUND MEDICINES** | Who can you turn to if you need to talk about your health?  
- Relatives? Friends?  
- Visiting health workers or carers? | (00:48) 10 mins |
| | Are you the only person involved in making decisions about your healthcare – or does another person assist you with this? |  |
| | If this person suggested you ask your GP for a review of your medicines, including a visit to your home by a pharmacist, would you speak to your GP about this?  
- If not, what are some of the reasons? Concern that it would offend? Show a lack of trust? Not needed? He/she's too busy for that… |  |
| | (Exploring level of willingness to take a proactive stance with their GP – and note different characteristics of those willing and not so willing.) |  |
| **AWARENESS OF HMR PROGRAM AND ACCESS** | Awareness of HMR Program  
Has anyone heard of a service where the Government pays for a pharmacist to visit your home and advise you on your use of medicines?  
- If so, can anyone tell me the name of that service?  
- For those who have heard of this type of service, where and when did you first hear of it?  
- Do you recall your pharmacist or GP making a suggestion for this kind of service at any time? | (00:58) 10 mins |
| | Experience with Access:  
- Have you tried to access this service? |  |
| | Do you know of anyone who has had one of these visits? Perhaps a relative or friend or someone you have met in a group activity? |  |
### Focus Groups with Eligible Consumers

<table>
<thead>
<tr>
<th>Topic</th>
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<th>Duration (Mins)</th>
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</thead>
<tbody>
<tr>
<td><strong>EXPLORE ANY PREFERENCES</strong></td>
<td>Is there anything you can think of which you feel would help you with your use of medicines?</td>
<td>(1:08) 5 min</td>
</tr>
<tr>
<td><strong>CONCLUSION</strong></td>
<td>Are there any other questions or comments? Are there any other questions or comments? We have been commissioned by the Department of Health and Ageing to carry out this study. The Government will use the results of the study to inform their future work. As I stated at the start of the group, if you would like any further information about tonight’s discussion or this research project, please call 1300 300 979 Thank you and close.</td>
<td>(1:13) 3 min</td>
</tr>
<tr>
<td>End</td>
<td></td>
<td>(1:16)</td>
</tr>
</tbody>
</table>