

Pharmacy Trial Program Tranche 2

Integrating Pharmacists within ACCHSs to Improve Chronic Disease Management (IPAC) Project

Pharmacist Induction Training

June

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The financial assistance provided by the Australian Government must not be taken as endorsement of the contents of this report. The trials are undertaken by independent researchers and therefore the views, hypotheses and subsequent findings of the research are not necessarily those of the Australian Government Department of Health.

Abbreviations

ACCHS	Aboriginal Community Controlled Health Service
ACCHO	Aboriginal Community Controlled Health Organisation
AHS	Aboriginal Health Service
AHW / ATSIHP	Aboriginal Health Workers/Aboriginal and Torres Strait Islander Health Practitioners
AMH	Australian Medicines Handbook
AMSANT	Aboriginal Medical Services Alliance Northern Territory
APF	Australian Pharmaceutical Formulary
CIS	Clinical information system
CTG	Closing the gap
DAA	Dose administration aid
DNA	Did not attend
eMIMs	electronic Monthly Index of Medical Specialities
eTG	electronic Therapeutic Guidelines
FTE	Full time equivalent
GP	General Practitioner
HbA1c	Glycosylated Haemoglobin A1c
HMR	Home Medicines Review
IPAC	Integrating Pharmacists within Aboriginal Community Controlled Health Services to improve Chronic Disease Management
JCU	James Cook University
MBS	Medicare Benefits Schedule
NACCHO	National Aboriginal Community Controlled Health Organisation
N-MARS	NACCHO Medication Adherence Readiness Scale
NT	Northern Territory
PBS	Pharmaceutical Benefits Scheme
QAIHC	Queensland Aboriginal and Islander Health Council
QUMAX	Quality Use of Medicines Maximised for Aboriginal and Torres Strait Islander people
PSA	Pharmaceutical Society of Australia
VACCHO	Victorian Aboriginal Community Controlled Health Organisation

Executive Summary

Introduction

Pharmacists integrated within Aboriginal Community Controlled Health Services (ACCHSs) often work with complex patients who may have multiple chronic diseases and specific socio-cultural priorities and challenges. This necessitates an understanding of both complex chronic disease management and of the social determinants of health and the public health challenges related to Aboriginal and Torres Strait Islander peoples. Induction training for pharmacists participating in the IPAC Project aimed to prepare pharmacists to work within ACCHSs to deliver a diverse range of professional services within their scope of practice in a culturally-responsive manner while also meeting the project's requirements for consent and data collection.

Methods

Pharmacists participating in the project met initial selection criteria which included at least 2 years post-registration experience along with a post-graduate clinical qualification or demonstrated clinical expertise.

Prior to attending IPAC Project induction training, all pharmacists were asked to complete essential pre-reading which included PSA's 'Guide to providing pharmacist services to Aboriginal and Torres Strait Islander people' ¹ and relevant components of the project's protocol. ² They were also asked to refresh their understanding of the 6th Community Pharmacy Agreement rules related to Aboriginal and Torres Strait Islander programs and to complete a series of online learning modules of approximately 15 hours in duration. Modules were selected by PSA Coordinators for their relevance to chronic disease management services in Aboriginal and Torres Strait Islander primary healthcare settings and working in an integrated team environment.

IPAC Project-specific induction training workshops were held over two days as facilitated face to face group sessions in Sydney, Melbourne and Brisbane. Elements of the workshop program included cultural awareness training (delivered by experienced cultural trainers), project overview, consent process, integrated pharmacist core roles, activity work plans, use of the electronic logbook and clinical information systems, resources and lines of communication. A small number of pharmacists who were recruited after completion of the workshops were given a full day of one-on-one project-specific training in a mutually agreed location followed by another day of pre-arranged experience alongside an Aboriginal Health Service pharmacist at their place of work.

Results

All pharmacists completed the essential pre-reading activities and prescribed online modules, and reviewed the relevant 6th Community Pharmacy Agreement rules. A total of 26 registered pharmacists were trained to participate in the IPAC Project and appointed to ACCHS sites.

Of these 26 integrated pharmacists, 20 were accredited to offer Home Medicines Reviews (HMRs) during the implementation phase.

The general induction training program developed for use in the project was suitably comprehensive and tailored to ensure that participating integrated pharmacists would have the necessary skills to work within diverse ACCHS settings in a culturally-responsive manner to deliver the core roles and to capture relevant data for evaluation. Participating integrated pharmacists reported that the induction training adequately prepared them for their role.

Table 1 - Summary of IPAC Project Pharmacist Induction Training attendance

Date of training delivery	Delivery method	Location	Number of pharmacists attending
July 2018	Workshop	Sydney	11
August 2018	Workshop	Melbourne	7
October 2018	Workshop	Brisbane	3
October 2018	Small group	Melbourne	2
September 2018	One to one	Cairns (Qld)	1
March 2019 (replacement)	One to one	Geelong (Vic)	1
April 2019 (replacement)	One to one	Gove (NT)	1
TOTAL			26

Discussion

For the majority of pharmacists participating in the IPAC Project, induction training was delivered face to face by PSA Coordinators and experienced cultural trainers in a group workshop setting which encouraged dynamic discussion between participants. While this mode of delivery should be considered for future training programs, consideration could also be given to development of an online training course encompassing the necessary core role content. This would need to be combined with support for access to cultural awareness training, noting the importance of delivery by Aboriginal or Torres Strait Islander people where possible.

Based upon their experience throughout the project, the integrated pharmacists provided feedback and recommendations to PSA Coordinators to further enhance training and preparation of pharmacists to work in the ACCHS setting with broader rollout of this model of care. Importantly, the integrated pharmacists reinforced that training must be backed up by a comprehensive program of ongoing support to create a community of practice and foster a sense of 'teamwork' for pharmacists working in this sector.

Conclusion

The substantial and consistently positive feedback received by PSA Coordinators from patients, clinicians and health service staff throughout the project indicated that participating integrated pharmacists fulfilled their role in a way that was acceptable, culturally safe and effective for ACCHSs and their communities. This, combined with the high level of core role activity achieved by the integrated pharmacists, confirms that the IPAC Project Pharmacist Induction Training Program met its aims.

Given the relatively low number of integrated pharmacists working within Aboriginal Community Controlled Health Services, sector-specific training is important for pharmacists to understand the holistic nature of care delivered by ACCHSs and how the pharmacist can best integrate into the primary health care team to improve chronic disease management and optimise quality of care outcomes for Aboriginal Australians and Torres Strait Islanders. As evidenced in the IPAC Project, training must be comprehensive and include integrated pharmacist core roles as well as an understanding of contributors to the disparity in health outcomes experienced by Aboriginal and Torres Strait Islander Australians, including social determinants of health.

We propose that the training program developed for use in the IPAC Project may be adapted to be generalisable for application in a national program to prepare pharmacists to work in ACCHS settings. A national program such as this is important to address the gap in tailored training currently available. It is anticipated that effective training and ongoing support for pharmacists will improve uptake and retention of integrated pharmacists by ACCHSs, ensure consistent practice quality and ultimately improve health outcomes for Aboriginal Australians and Torres Strait Islanders.

Recommendations

Table 2 - Recommendations for training integrated pharmacists to work within ACCHSs

Future opportunities to provide training to pharmacists	Potential pathways to implementation	Intended industry impacts
1. Further develop a foundation training program for pharmacists intending to work in the ACCHS sector.	1.1 Creation of an online multi-module Aboriginal Health Services Pharmacist foundation training course, as well as face to face workshops.	Implementing this recommendation will lead to: <ul style="list-style-type: none">Enhanced readiness of integrated pharmacists to work with Aboriginal Australians and Torres Strait Islanders with chronic diseaseConsistency of skills provided by pharmacists integrated within ACCHSsIncreased workforce of appropriately skilled pharmacists available to work in ACCHSs

Future opportunities to provide training to pharmacists	Potential pathways to implementation	Intended industry impacts
2. Acknowledge and direct pharmacists to appropriate cultural awareness training	<p>2.1 Support for pharmacists to access cultural awareness training, noting the importance of delivery by Aboriginal or Torres Strait Islander people where possible, as a combination of:</p> <ul style="list-style-type: none"> • Introductory (general) cultural awareness training • Local cultural induction • Ongoing support from a cultural mentor if available 	<ul style="list-style-type: none"> • Enhanced understanding by pharmacists of the cultural and social determinants of health influencing chronic disease outcomes for Aboriginal and Torres Strait Islander Australians • Enhanced understanding by pharmacists of their own connection to culture and unconscious biases, and how these are likely to influence their work

Table of Contents

Version control log	i
Acknowledgements	ii
Abbreviations	iii
Executive Summary	iv
Table of Contents	viii
Figures and Tables	ix
1. Introduction	10
2. Methods.....	11
2.1 Essential Pre-reading.....	12
2.1.1 IPAC Project Master Pharmacist Participation Brief.....	12
2.1.2 PSA Guide to providing pharmacy services to Aboriginal and Torres Strait Islander people.....	12
2.1.3 Aboriginal and Torres Strait Islander Specific Programs and measures to support QUM and medicines access	12
2.2 Online modules	13
2.2.1 Medication management reviews, collaboration and motivational interviewing	13
2.2.2 Chronic Disease Management and Indigenous Health Services	13
2.3 Development of IPAC-specific training materials for face to face induction training.....	13
2.3.1 Cultural Training	14
2.3.2 Project Overview	16
2.3.3 Consent	16
2.3.4 Core Roles	17
2.3.5 Activity Work Plans	25
2.3.6 Logbook, resources and lines of communication	26
2.3.7 Clinical Information Systems.....	28
3. Results	30
3.1 Cultural Induction	30
3.2 Delivery of workshops and one to one project induction training	30
3.3 Logbook data entry	32
3.4 Clinical information systems	33
3.5 Pharmacist feedback on preparation required, in addition to induction training	33
4. Discussion	36
5. Conclusion.....	38
6. Recommendations.....	39
References	40
Appendices	42

Figures and Tables

Figure 1 - Pharmacist Electronic Logbook screenshot.....	27
Figure 2 - Best Practice IPAC Project webinar screenshot	29
Table 1 - Summary of IPAC Project Pharmacist Induction Training attendance	v
Table 2 - Recommendations for training integrated pharmacists to work within ACCHSs	vi
Table 3 - Logbook activity from 2/8/2018 - 31/10/2019*	32

1. Introduction

Prior to the IPAC Project several ACCHSs across Australia had sourced ad-hoc funding to employ pharmacists, however these appointments were few in number. Registered pharmacists have historically provided limited clinical services to Aboriginal Australians and Torres Strait Islanders due to existing barriers to service provision.¹

The aim of the IPAC Project is to improve quality of care outcomes for Aboriginal and/or Torres Strait Islander adult patients with chronic disease by integrating a pharmacist within the primary health care team of Aboriginal Community Controlled Health Services.

To achieve the project's aim, pharmacist induction training needed to meet the specifications of the project protocol and thereby prepare pharmacists to work within ACCHS settings in a culturally-responsive manner to deliver the required services and to capture relevant data for evaluation. Training would also need to ensure an understanding of existing pharmacy programs and MBS services relevant to the health of Aboriginal and Torres Strait Islander people.

Integrated pharmacists would be working with complex patients, often with multiple chronic diseases, necessitating an understanding of social determinants of health and the public health challenges related to Aboriginal and Torres Strait Islander peoples.

This project was conducted in 18 ACCHSs across 22 health service settings located in urban, rural, and remote Australian regions in three jurisdictions: Queensland, Northern Territory, and Victoria. As such, it was necessary to take into account the unique requirements of each jurisdiction in terms of participant consent, state-specific evidence-based treatment guidelines and legislation relevant to the practice of pharmacy.

2. Methods

During the Establishment Phase of the IPAC project, training materials were developed by the Pharmaceutical Society of Australia in preparation for delivery to pharmacists early in the Implementation Phase (2 August 2018 to 31st October 2019).

Considerable expertise existed within the IPAC Project Team itself, with project coordinator roles for both PSA and NACCHO being filled by registered pharmacists with extensive combined experience working with Aboriginal and Torres Strait Islander clients, undertaking review and implementation of program delivery to the AHS sector, and providing clinical services such as conducting medication management reviews. . Additional pharmacist expertise was sought for feedback on training areas deemed to be of value to pharmacists commencing work in an Aboriginal primary health clinic setting. The opportunity to develop training material for the IPAC Project integrated pharmacists was offered to pharmacist members of the PSA/NACCHO ACCHO Pharmacist Leadership Group, chaired by an Aboriginal pharmacist and comprised of pharmacists working in the Aboriginal Health sector. While there was not capacity within the group to take a lead role, input from its members helped to inform the development of resources for the pharmacist induction training course facilitated by the PSA Coordinators.

Eligibility criteria for pharmacists participating in the IPAC project were specified in the project's protocol² and included:

- Current registration as a pharmacist with the Australian Health Practitioners Regulation Agency (AHPRA)
- More than 2 years' post-registration experience; and
- Post-graduate clinical qualifications or demonstrated clinical experience (eg hospital or HMRs)

The need for post-graduate qualifications was dependent on the ACCHSs preference of applicant and adequate availability of accredited and experienced pharmacist applicants. While some of the integrated pharmacists recruited for the project had prior experience working with Aboriginal or Torres Strait Islander people, others did not.

Training was initially intended as a 3-step process involving locally available health specific cultural safety training, project foundation training and facilitated on-site training at participating ACCHSs. Feedback from the Leadership Group however led to a decision to deliver the majority of training in a workshop setting to enable consistent face to face delivery of extensive cultural training by experienced cultural trainers, which would then be supplemented by local cultural induction if available.

A number of existing available resources were identified as being relevant to the induction training content needed for the project. These could be delivered online as a combination of essential pre-reading and course modules to be undertaken by the pharmacists prior to attending face to face training. This preparatory training content was compiled and made available to pharmacists via a customised IPAC Project Pharmacists Training portal accessible on the PSA website, with completion anticipated to take each pharmacist approximately 15 hours.

2.1 Essential Pre-reading

2.1.1 IPAC Project Master Pharmacist Participation Brief

The IPAC Project Master Pharmacist Participant Brief (Appendix 1) comprised the components of the project's protocol relevant to the integrated pharmacists. A slightly different version of the brief was made available to integrated pharmacists according to the Human Research Ethics Committee specifications of their respective jurisdictions. Pharmacists were instructed to read this document, answer the associated multiple choice questions (Appendix 2) to demonstrate understanding of the content, and bring the Statement of Completion to the face to face training session. A total of 4 Group 2 CPD points were allocated for this activity and could be included in the pharmacists' annual CPD plan.

2.1.2 PSA Guide to providing pharmacy services to Aboriginal and Torres Strait Islander people

PSA's *Guide to providing pharmacy services to Aboriginal and Torres Strait Islander people*¹ is intended to assist pharmacists to deliver a consistently high quality of service to Aboriginal and Torres Strait Islander people, to communicate effectively and to be culturally responsive health professionals. This guide was included in essential pre-reading to enhance pharmacists' understanding of culture, relationship-building, effective communication, provision of existing pharmacy services and programs as they relate to the health care needs of Aboriginal Australians and Torres Strait Islanders.

2.1.3 Aboriginal and Torres Strait Islander Specific Programs and measures to support QUM and medicines access

Aboriginal and Torres Strait Islander Specific Programs included under the 6th Community Pharmacy Agreement are targeted programs and services which improve quality use of medicines and culturally appropriate services for Aboriginal and Torres Strait Islander patients. For pharmacists participating in the IPAC project, an understanding of these programs and services was essential to being able to recognise the medicines-related support available across urban, rural and remote areas of Australia. As such, links to the following programs were provided to pharmacists via the training portal:

- 6CPA Program Rules for QUMAX -Quality Use of Medicines maximised for Aboriginal and Torres Strait Islander people.³
- 6CPA Program Rules for S100 Pharmacy Support Allowance.⁴
- The Closing the Gap – PBS Co-Payment Measure.⁵

2.2 Online modules

2.2.1 Medication management reviews, collaboration and motivational interviewing

Although the majority of pharmacists participating in the IPAC project were accredited to conduct Medication Management Reviews at the time of induction training, all pharmacists were directed to the 6CPA Program Rules for Home Medicines Review⁶ to ensure a thorough revision and understanding of relevant current program requirements.

PSA provides a range of continuing professional development activities, practice support tools and guidance on recommended external resources via its Aboriginal and Torres Strait Islander Health Services Pharmacist Career Pathway.⁷ Of the PSA online modules available at the time of induction training, the modules related to collaboration and motivational interviewing were selected for completion by the pharmacists due to their relevance to working in an integrated team environment.

2.2.2 Chronic Disease Management and Indigenous Health Services

Pharmacists were also directed to undertake the Chronic Disease Management online eLearning programs⁸ intended for health professionals, provided by the Australian Government Department of Human Services. These Medicare eLearning programs were intended to up-skill pharmacists in the areas of GP Management Plans, Team Care Arrangements and Allied Health services.

Importantly, the Indigenous Health Service programs section included education on topics such as Medicare Indigenous Enrolments, Indigenous Health Incentive, Indigenous Health Assessments and CTG PBS Co-payment measures.

2.3 Development of IPAC-specific training materials for face to face induction training

Content for induction training to prepare pharmacists for participation in the IPAC project was developed in the following categories:

- Cultural Training
- Project Overview
- Consent process
- Core Roles
- Pharmacist Activity Workplans
- Logbook, resources and lines of communication
- Clinical Information Systems – Best Practice and Communicare

2.3.1 Cultural Training

Culture can influence Aboriginal and Torres Strait Islander people's decisions about when and why they should seek health services, their acceptance of treatment, the likelihood of adherence to treatment and follow up, and the likely success of prevention and health promotion strategies.⁹ As such, pharmacists integrated within ACCHSs must be culturally competent to effectively deliver comprehensive and culturally appropriate healthcare.

Provision of introductory cultural awareness training for the participating pharmacists was acknowledged by the Project Team as a preliminary step for facilitating culturally safe and appropriate care for clients of the participating health services. In addition to a focus on history, the intention of introductory cultural training delivered in the group workshops was to explore practical strategies focussing on how to engage well with Aboriginal and Torres Strait Islander patients.

The small proportion of integrated pharmacists who were unable to attend one of the IPAC Project's group training workshops were given the opportunity to undertake the Royal Australian College of General Practitioners online *Introduction to Aboriginal and Torres Strait Islander Health Cultural Awareness*¹⁰ course which was endorsed by NACCHO. Feedback from pharmacist members of the PSA/NACCHO ACCHO Leadership group reinforced stakeholder belief that cultural training should be delivered face to face by Aboriginal or Torres Strait Islander people whenever possible. Taking this feedback into account, the Project Team engaged experienced cultural trainer Emma Walke (a Bundjalung woman) and pharmacist Associate Professor Lindy Swain to prepare and deliver this component of induction training. The result was a 5-hour session included in the group workshops called 'Pharmacists working with Aboriginal and Torres Strait Islander people', comprising interactive discussion, video clips, role plays and case studies. Content of the introductory cultural awareness training included:

Context

- What is culture? (Culture exercise)
- Aboriginal diversity
- History overview (Stolen generation video)
- How does history influence engagement and health?
- Identity, terminology

Aboriginal overview

- Population demographics
- Chronic disease
- Social determinants of health
- Racism (video)

Engagement, relationships and trust

- Building rapport
- Communication competency (Improving clinical practice video)
- ACCHSs
- Role of the AHW
- Engaging with ACCHSs

- What is culturally responsive care?
- What does a culturally secure health system look like?
- What does a culturally safe pharmacy look like?
- How do I make my practice culturally secure?

Service delivery and processes

- Dispensing, CTG
- Adherence and DAAs
- Medication counselling (Pharmacy video clip, Role play)
- Culturally safe medication review (Case study)

Links to the resources referred to during the cultural awareness training session were provided by Emma Walke and made available to all participating pharmacists via the dedicated IPAC Project online repository. These resources included;

- Stolen Generation testimonies
<http://www.stolengenerationstestimonies.com/>
- AIHW report detailing the effects (on victims and their descendants) of being stolen
<https://www.aihw.gov.au/reports/indigenous-australians/stolen-generationsdescendants/contents/table-of-contents>
- IQ2 Racism Debate – Stan Grant’s speech 2017
<https://www.youtube.com/watch?v=uEOssW1rw0I>
- Bringing Them Home Report 1997
<https://www.humanrights.gov.au/publications/bringingthem-home-report-1997>
- Map of colonial massacres
<https://c21ch.newcastle.edu.au/colonialmassacres/map.php>
- AIHW overview of the health of Aboriginal and Torres Strait Islander people
<https://www.aihw.gov.au/reports-statistics/population-groups/indigenoustraitislanders/overview>
- AIHW National Key Performance Indicators for Aboriginal and Torres Strait Islander primary health care: results from June 2016
<https://www.aihw.gov.au/reports/indigenous-healthwelfare-services/nkpi-indigenous-australians-health-care-2016/contents/table-of-contents>
- Australian Bureau of Statistics – Census information (enter postcode into Quick Stats Search)
<http://abs.gov.au/websitedbs/censushome.nsf/home/Census?opendocument&ref=topBar>

Integrated pharmacists were given a further opportunity to seek guidance from A/Prof Lindy Swain and Emma Walke with questions related to engaging with Aboriginal and Torres Strait Islander people during a teleconference titled ‘You can’t ask that!’. This was scheduled and facilitated by PSA Coordinators early in the implementation phase.

Introductory cultural awareness training was to be supplemented by more targeted measures including local cultural induction and ongoing engagement with ACCHS staff as cultural mentors. As such, the integrated pharmacists were instructed to seek and undertake locally available cultural safety training upon commencement of work at their respective ACCHSs in order to tailor their knowledge to local community contexts.

2.3.2 Project Overview

During training conducted by the PSA Coordinators, pharmacists were given an overview of the increased burden of chronic disease experienced by Aboriginal and Torres Strait Islander people relative to other Australians, together with the lack of consistent or reliable funding to support integrated pharmacists to work within ACCHSs.

The presentation (Appendix 3) also included the aim of the IPAC Project, the three distinct phases of the project, and the role of each of the project partners (PSA, JCU and NACCHO). The project funder was acknowledged as the Australian Government under the Pharmacy Trials Program of the 6th Community Pharmacy Agreement.

The project protocol was discussed, detailing its development with input from the Evaluation Team and Project Partners, which include NACCHO, with NACCHO Affiliates; QAIHC, VACCHO and AMSANT. Emphasis was placed on the importance of this document to provide a framework for the requirements, management and conduct of the IPAC project.

The overview also included identification of the various Human Research Ethics Committees involved in the project, the community-based participatory research (CBPR) design of the project, and the intended aggregated pharmacist FTE to be offered to participating ACCHSs.

The spread of geographically diverse settings of participating ACCHSs was explained, along with the aim to recognise the diversity of Aboriginal and Torres Strait Islander peoples and models of care across Australia, to deliver an impact assessment that can best be generalisable to other Australian sites/settings in the future.

Pharmacists were given a broad overview of their role in the IPAC project, including provision of relevant healthcare activities to patients within their scope of practice, provision of education and training to existing staff within the services as appropriate, liaison with community pharmacies to overcome barriers to access of medication by patients, assistance in managing medications at transitions of care, and recording all activities related to the 10 core pharmacist roles.

An introduction to the methods of data collection (Appendix 4) throughout the project was given, noting that further training on the use of the pharmacists' electronic logbook and clinical information systems data entry would be provided later in induction training.

2.3.3 Consent

During the establishment phase, the project partners sought and received ethics approval from four Human Research Ethics Committees, encompassing the three jurisdictions relevant to the project. These included St Vincent's Hospital Melbourne (SVHM) Human Research Ethics Committee (Victoria), James Cook University Human Research Ethics Committee (mutual recognition of SVHM HREC), Menzies School of Health Research and the Central Australian Human Research Ethics Committee.

Upon reading the IPAC Project Master Pharmacist Participant Brief relevant to their jurisdiction, each pharmacist was asked to sign the related IPAC Project Master Pharmacist Consent Form (Appendix 1, Appendix 6) prior to commencing work.

Training included a detailed explanation of IPAC patient participant criteria. Pharmacists were advised of the need for informed patient consent as a requirement for participation in the project, with provision of verbal and written information to include the purpose and aims of the project, who is funding and running the project, what participation involves (including any risks and benefits), ownership and storage of information and the use and release of information and confidentiality. Written information was given to patients in the form of the *Master Participant Information Brief* (see example, Appendix 7) specific to each jurisdiction. Training highlighted the need for each ACCHS to develop a customised process for seeking participant recruitment and written consent considering local preferences and to ensure cultural safety.

Pharmacists were instructed to encourage early patient participation in the project to ensure maximum benefit from the services available, noting that patients could withdraw their consent at any stage without consequence. In the event of withdrawal of consent, pharmacists were to record the reason for withdrawal (if given) in logbook, and remove consent in the ACCHS CIS as per JCU procedure. Data for these patients would no longer be collected by GRHANITE™ and would be removed from the analysis.

2.3.4 Core Roles

Integrated pharmacists aimed to augment current practice within primary health care services, and introduce new services not currently delivered within ACCHS settings. The integrated pharmacists conducted pre-determined core roles and additional roles as specified by ACCHSs and the service agreement which would reflect the pragmatic approach to the intervention and evaluation of 'real-life' health service roles.

The pharmacist 10 core roles (for table of expanded core roles, see Appendix 8) included:

1. Medication Management Reviews
2. Team-based collaboration
3. Medication adherence assessment and support
4. Medication appropriateness audit, and Assessment of Underutilisation
5. Preventative health care
6. Drug Utilisation Review
7. Education and training
8. Medicines information service
9. Medicines stakeholder liaison
10. Transitional care

Of these ten core roles, five would be directed towards patients and the other five towards health professionals and systems:

- Activity targeted towards patients includes: the assessment of medication management, optimisation of medicines, in the home or out-of-home settings (such as the clinic), resolution of medication related problems, arrangements for multiple follow-up encounters with patients (core roles 1-5)

- Activity targeted towards health professionals and systems includes: recommendations to clinicians, ad-hoc and specific education sessions/training and support, liaison with community pharmacy and other healthcare service providers (core roles 6-10)

Core role 1 – Medication management reviews (presentation - Appendix 9)

Given the expectation of existing clinical experience associated with selection criteria for pharmacists participating in the project, this training reinforced the process of medication management review and consistency of recording the associated activity in the logbook rather than focussing on clinical aspects. Pharmacists were encouraged to use their existing processes for reporting findings and recommendations to doctors, and to consider creation of new templates specific for their ACCHS setting if deemed necessary.

Home Medicines Reviews

Training related to the provision of medication management reviews in the IPAC Project highlighted the many potential reasons for previously low uptake of the HMR service by Aboriginal and Torres Strait Islander people.¹¹

The integration of pharmacists into the ACCHS model of care aimed to increase delivery of holistic medication management services to ACCHS clients in a culturally safe and appropriate way, with anticipated improvements in biometric data, medication optimisation and reduction in inappropriate polypharmacy.

6CPA Program Rules for Home Medicines Review were discussed and reinforced, including patient inclusion criteria and service eligibility, and exemption criteria for repeat HMR. IPAC participant inclusion criteria were used to prompt the integrated pharmacists to prioritise patients with cardiovascular disease (stroke, transient ischaemic attack, hypertension, coronary heart disease, dyslipidaemia or any other cardiovascular disease), chronic kidney disease or diabetes.

The project partners collaborated to develop IPAC Project Guidelines for the provision of Home Medicines Reviews to help ensure a uniform approach by integrated pharmacists to the delivery of the HMR service, including the process to follow when conducting HMRs within versus outside IPAC Project hours (Appendix 10). Particular emphasis was placed on supporting existing relationships between the ACCHS and external pharmacists providing HMR services.

Non-HMRs

The project protocol² identified known reasons why the offer of a HMR may be inappropriate for some Aboriginal and Torres Strait Islander patients. These were discussed during training and the pharmacists were encouraged to consider provision of medication management reviews in potentially more appropriate settings such as the clinic, according to the circumstances and preferences of participants. Such medication management reviews were referred to as non-HMRs, and were defined as comprising some or all the elements of a HMR but not fulfilling all relevant HMR criteria to be eligible to claim the MBS rebate.

Again, to ensure consistency in delivery of the non-HMR model of medication management review, the project team developed IPAC Project Criteria for Non-HMR (Appendix 11.). These criteria were covered in induction training, along with explanation of the IPAC Project Model (Appendix 12), which was created to represent the steps to be followed by integrated pharmacists when considering the most appropriate means of delivery of the medication management review service for individual patients.

Follow up to a HMR or non-HMR

By being integrated within the primary health care team of their respective ACCHSs, integrated pharmacists were well positioned to provide patient follow-up, intended as a process to review patient progress following a HMR or non-HMR. The essential elements of follow-up to a HMR or non-HMR were identified as:

1. Reinforcement of advice and recommendations provided with the HMR or non-HMR
2. Monitoring the impact of actions arising from the HMR or non-HMR
3. Assessment of the need for future pharmacist activity

Pharmacists were instructed to conduct follow-up as per usual clinic processes, ideally within 3-6 months of completion of a non-HMR, and within 12 months of completion of a HMR.

Advice was given to pharmacists on how to appropriately record the provision of HMRs, non-HMRs and follow-up activity for consented patients in the electronic logbook and CIS.

Core role 2 - Team-based Collaboration (presentation - Appendix 13)

Training for this core role included background information related to the establishment of Aboriginal Community Controlled Health Services and their delivery of holistic, comprehensive and culturally-appropriate primary health care to the communities they serve. An overview of the diversity of staff usually employed in such services was included, with emphasis placed on the potential for integrated pharmacists to contribute to clinic activities which support team-based care to improve chronic disease management. Training included ways in which integrated pharmacists could contribute to improved cardiovascular (CV) risk assessment by supporting clinic efforts to measure and stratify CV risk, and provided a basic overview of MBS claiming (in particular Team Care Arrangements and GP Management Plans) for services provided to Aboriginal and Torres Strait Islander patients. The broad kinds of activity to be logged here included (but were not limited to):

- Participation in multidisciplinary case conferences (these may or may not have related to consented IPAC patients) and similar discussions with clinicians involving direct patient care, even if not claimed/claimable under the MBS
- Working with staff (eg clinic manager) to create workflow processes to highlight how/where pharmacist fits in to the patient experience at the clinic
- Assistance with clinical governance activities, eg medicine-related policies, programs and procedures, implest management
- Assistance with medicines-related response to, and management of, localised events of high public health significance, eg outbreaks of Acute Post-Strep Glomerulonephritis (APSGN)
- Participation in team meetings eg the 'morning huddle', and all-staff meetings to coordinate patient care activities
- Support for, and participation in, preventive health and chronic disease activities such as National Stroke Week, Diabetes Day

- Support for activities which improve cardiovascular risk assessment such as recording smoking status in patient records
- Participation in ACCHS-coordinated patient group meetings such as Women's and Men's Group meetings, diabetes 'yarning' groups, Elders' group gatherings.

Core role 3 - Medication adherence assessment and support (presentation - Appendix 14)

Training included discussion around the potential factors contributing to reduced medication adherence in Aboriginal and Torres Strait Islander populations, and the consequences of poor adherence. Types of reporting measures for assessment of medication adherence were covered, followed by explanation of the new Aboriginal-specific self-reporting measure of medication adherence, derived from literature review, developed for use in the IPAC project. This new adherence measure was created to be culturally appropriate and suitable to the Aboriginal and Torres Strait Islander patient context, and was referred to as the N-MARS (NACCHO – Medication Adherence Responses Scale) patient survey.

The aim of the N-MARS patient survey was to assist pharmacists and prescribers identify modifiable factors affecting patient adherence, thereby enabling health care staff to devise strategies to assist individual patients to overcome barriers to adherence.

Pharmacists were advised that this patient survey would ideally be conducted with each consented patient on a minimum of two occasions in order to explore change from baseline throughout the IPAC intervention.

The N-MARS patient survey (Appendix 15) comprised twelve questions in total, with one question exploring the extent to which doses are missed, and eleven questions exploring the reasons for non-adherence. Pharmacists were instructed to record the results of the survey in their electronic logbook, and most importantly to use the survey results to develop appropriate strategies to support chronic disease self-management and medication adherence.

Core role 4 – Medication appropriateness audit, and Assessment of Underutilisation

As a core role within the project, pharmacists were required to assess medication appropriateness and underutilisation of medicines as an audit of a sample (30 patients per 1.0 FTE pharmacist) of their consented patients, with the aim of assessing the potential for improvements in prescribing.

Medication appropriateness and overuse would be assessed by means of the Medication Appropriateness Index (MAI) audit, while medication underuse would be assessed using an Assessment of Underutilisation (AOU) tool.

Medication Appropriateness Index (MAI) Audit

The MAI tool used in the IPAC Project was based upon the internationally validated Canadian MAI model of scoring developed by Hanlon et al¹² adapted to the Australian context.

The MAI tool comprised 10 questions (Appendix 16), to be applied to each current medicine used by the patients who were selected pragmatically for the audit, with pharmacists allocating a response of A, B, C or Z in their electronic logbooks accordingly. A score of zero would be assigned by the evaluators (JCU) for A, B and Z responses, while a weighted score would be applied for responses rated as C. The calculation of mean score for each patient would be conducted by the evaluators, not the pharmacists.

Training (Appendix 17) in the use of the MAI tool aimed to provide a standardised approach to rating each medicine to enable individual pharmacists to use the tool accurately, consistently and reliably. To assist with understanding of the use of the MAI tool in the Australian context, a set of examples (Appendix 18) demonstrating how to assess each item in the MAI tool was developed by the Project Team and used during training.

Pharmacists were instructed to use Australian evidence-based references along with information such as the patients' usual medicines, medical conditions and laboratory results from the CIS when assessing medicines; patients did not need to be present in order for the pharmacists to conduct the MAI assessment. Pharmacists were expected to communicate the findings and recommendations from the MAI assessment to prescribers so that appropriate clinical action could be considered, and to follow-up participants as per usual clinic processes.

Pharmacists were instructed to conduct the MAI assessment twice for their sample of patients, first within the initial 3 months of the intervention period, and then for the same patients within the final 3 months in order for the evaluation team (JCU) to explore change from baseline. Training aimed to minimise intra-rater errors (the same person interpreting the same data differently). To minimise inter-rater errors (different observers reporting the same information differently), for sites with 2 pharmacists and patient overlap the same pharmacist was instructed to conduct the end of study MAI assessments they initially completed at baseline.

Assessment of Underutilisation (AOU) (presentation - Appendix 19a)

While the MAI tool would enable integrated pharmacists to assess overuse or inappropriate use of medicines, it would not enable assessment of potential underutilisation. As such pharmacists were instructed to conduct an Assessment of Underutilisation (AOU) to prompt identification of medicines that have been omitted despite being indicated and potentially beneficial.

The AOU comprised a set of 10 indicators (Appendix 19b) defined by the IPAC Project team, drawn from current recommendations within Australian best practice prescribing guidelines appropriate to the health context involving Aboriginal and Torres Strait Islander people, who have chronic disease at younger ages. During training, the patient group and components applicable to each indicator were discussed, along with the evidence base used to support the core recommendations.

Pharmacists were advised to take into account patients' medical history and medication lists, and to apply clinical judgment when considering whether prescribing has been adjusted to take into account clinical appropriateness, contraindications or clinical decisions to withdraw therapy. Ratings would be dichotomized as 'no prescribing omission' or 'omission of an indicated drug'.

In addition to assessing against the 10 extrinsic indicators, pharmacists would also use clinical judgement to identify any other potential prescribing omissions. As for MAI assessments, pharmacists would be expected to communicate the findings of the AOU to the prescribing team so that appropriate clinical action may be considered. The AOU was to be conducted twice by the integrated pharmacists for the same participants selected for the MAI audit (ie once at baseline then repeated within the final 3 months of the intervention), as well as for each HMR and non-HMR conducted. As for the MAI assessment, completion of the AOU would not require the patient to be present.

Pharmacists were instructed to record the results of the AOU in their electronic logbooks.

Core role 5 - Preventative health care (presentation - Appendix 20)

As preventable chronic disease remains the largest contributor to the health differential between Aboriginal or Torres Strait Islander peoples and other Australians¹³, pharmacists were instructed to promote preventive interventions with every participant contact. This could include ensuring that height, weight, smoking status and recent BP are recorded in patients' medical records, along with assessment and recording of absolute CVD risk, and checking that patients are up to date with age-appropriate health checks (eg. MBS Item 715 - Annual Health Assessments for Aboriginal people).

As most ACCHSs already have preventive health strategies, programs (eg Tackling Indigenous Smoking), activities and processes in place, pharmacists were encouraged to familiarize themselves with these health programs and actively participate wherever possible.

Pharmacists were encouraged to adopt a 'co-creation approach' by liaising with other members of the primary healthcare team within the ACCHS to identify priority areas for preventive care. This would enable strategies to contribute to preventive care activities to be tailored to local context, aiming for provision of standardised information used by all staff at the service for particular lifestyle issues. Integrated pharmacists would also be well placed to promote participation in preventive programs provided at the ACCHSs or others they are linked into.

Training also included a discussion about the various resources and guidelines available to assist with preventive health recommendations involving lifestyle issues such as smoking, nutrition, alcohol and physical activity.

Core role 6 - Drug Utilisation Review (presentation - Appendix 21)

Within the intervention phase of the project, each integrated pharmacist was required to conduct a minimum of one drug utilisation review as part of a broader program to improve the quality, safety and cost effectiveness of medicine use at their respective ACCHS. The aim of the DUR was to recommend interventions in collaboration with practice staff to improve the standard of care at the practice.

Training included discussion around the process of DUR, intended as a continuous cycle of quality evaluation and improvement and the key steps :

- Identify priority issue for DUR
- Identify best-practice evidence to support DUR
- Define criteria for best practice
- Define data collection method
- Collect data
- Evaluate
- Provide feedback of results
- Action
- Assess results of action

Pharmacists were encouraged to liaise with ACCHS staff to identify a relevant priority issue for DUR, which may relate to a medicine or therapeutic class, disease state or condition, or a medicine use process. It was noted that identification of a priority issue may actually take quite some time, and may occur once the integrated pharmacist has had time to work collaboratively within the ACCHS primary health care team.

The project team created a basic report template (Appendix 22) for collection of DUR information, which could then be uploaded to the pharmacists' electronic logbook.

Core role 7 – Education and Training (presentation – Appendix 23)

Pharmacists have been shown to increase patient and health staff medication knowledge, and are particularly needed in remote areas, where there is often a scarcity of medical practitioners and lack of continuity of health professional staff. ¹⁴

Within the IPAC Project, integrated pharmacists would provide education and training to patients and clinic staff by way of workshops, written information and a variety of other activities. Workshops could be delivered to various groups such as GPs, specialists, registered nurses, AHWs, ATSIHs, tobacco control officers and community members. Pharmacists were instructed to use culturally appropriate educational resources whenever available, such as those provided by the Australian Indigenous HealthInfoNet, to plan and implement evidence-based education sessions.

It was recommended that pharmacists liaise with ACCHS staff to help identify learning needs, both for patients and members of the ACCHS primary healthcare team, prior to development and delivery of education and training sessions. In this way, sessions would be co-designed to ensure relevance in the ACCHS setting. Pharmacists would also need to take into account the following:

- Target audience – consider prior knowledge and health literacy - adapt content and facilitation style accordingly
- Learning objectives – aim for maximum of 3 key points to maintain audience engagement
- Structure - include brief background, evidence-based best practice, and practical application of new concepts

In the event that pharmacists created new educational material, a PDF example was to be uploaded into the logbook.

Pharmacists were encouraged to seek feedback from individual participants of training and education sessions. To provide a consistent means of capturing this feedback, the project team created a basic Education Session Evaluation Form template (Appendix 24) which could be used by pharmacists at their respective ACCHSs, as well as an Education Session Evaluation Summary Report template (Appendix 25), both which could be uploaded directly to the pharmacists' electronic logbook.

Core role 8 – Medicines Information Service (presentation – Appendix 26)

As integrated members of the ACCHS clinical team, it was anticipated that integrated pharmacists would be well positioned to provide medicines related information to staff within the service and respond to enquiries by clinicians. Such enquiries may include ad-hoc medicine queries, PBS queries, information requests involving dose titration and interactions, new and emerging drugs, and out of stock items.

Throughout the intervention phase, the PSA Coordinators ensured that integrated pharmacists had access to the range of professional reference texts recommended by the Pharmacy Board of Australia. This included online access to current editions of the Australian Medicines Handbook¹⁵, eMIMS¹⁶, Therapeutic Guidelines¹⁷ and the Australian Pharmaceutical Formulary.¹⁸

Integrated pharmacists were also encouraged to identify and utilise a variety of online references and treatment protocols relevant to the health of Aboriginal and Torres Strait Islander patients in their state/jurisdiction. A range of such resources was compiled by PSA Coordinators and made available to the integrated pharmacists via the dedicated IPAC Project Pharmacist Training portal (see section 2.3.6) on the PSA website.

Pharmacists were instructed to record details of each discrete 'event' in their electronic logbook, including the date and type of activity, how the request for information was received, which clinical reference was used to support the advice given, which staff were supported, total time taken, and evidence of an outcome (if known).

Core role 9 – Medicines Stakeholder Liaison (presentation – Appendix 27)

As integrated members of the ACCHS team, the integrated pharmacists were expected to perform an important liaison role by collaborating with, and supporting, local community pharmacies and external health care providers to optimise the care of patients with chronic disease. The anticipated benefits of building networks and relationships included improved patient access to medicines, support with medication adherence and enhanced continuity of care especially during transitions such as discharge from hospital.

The pharmacists were encouraged to engage a member of the ACCHS staff to understand existing communication arrangements in place between the ACCHS and stakeholders, any known barriers to communication, and to take into account ACCHS policies when considering their liaison role. They were instructed to develop a written Stakeholder Liaison Plan (Appendix 28) supporting engagement with each of the community pharmacies predominantly associated with their respective ACCHS, as well as with other external stakeholders involved in the medicines cycle of care for their patients.

Such external stakeholders included (but were not limited to) hospitals, other GP service providers, aged care facilities, pathology providers and tertiary referral centres such as renal units.

The aim of the written plans was to support the provision of referrals and communication of all relevant patient information (such as for HMRs) with community pharmacies and other relevant stakeholders. It was anticipated that enhancement of communication processes would continue to have benefit and relevance to the ACCHSs even after completion of the project.

Pharmacists were instructed to record details of each contact with community pharmacy as a discrete event in their electronic logbooks under 'Stakeholder Liaison – Community Pharmacy', including details such as date of contact and data entry, who initiated the contact, the reason contact was made, and the method of contact used.

Core role 10 – Transitional Care (presentation – Appendix 19)

People with complex medication regimens, older people, those with mental health problems, people who are poor or have low literacy, migrant and Aboriginal and Torres Strait Islander populations are particularly at risk of medications discrepancies with transitions of care.¹⁹ Transitional care provided by the integrated pharmacists within ACCHSs aimed to optimise management of medication for patients across the continuum of care.

During induction training, pharmacists were instructed to facilitate ad-hoc care coordination with relevant hospitals, renal/dialysis units, residential aged care facilities and any other services involved in patient care. The aim was to ensure seamless care by relaying all relevant information including contact details, current medications list, management plan and monitoring requirements.

Improved transitional care coordination was anticipated to lead to improved discharge summary management and medicines reconciliation. A link to an online education module²⁰ focusing on medicines reconciliation was provided on the IPAC Project portal.

Transitional care activities were to be recorded as discrete events in the pharmacists' electronic logbook, including the agency engaged with in supporting transitional care of the patient, the reason for contact, how the contact was made, date of contact and time taken for the communication.

2.3.5 Activity Work Plans

During training, acknowledgement of culturally mediated differences in the model of care for integrated pharmacists' roles was reinforced as an important outcome of the project. This acknowledgement was vital to demonstrate respect for the expertise of Aboriginal staff and ACCHSs on what processes may work best within each individual community setting.

Whilst the project comprised 10 core pharmacists roles which formed the foundation for the impact and outcome evaluation, each participating ACCHS had the flexibility to utilise the services of the pharmacist according to service and client priorities at the local level.

As such, a Pharmacist Activity Work Plan template (Appendix 30) was created by the NACCHO project coordinators.

Development of an individual work plan would be facilitated by a NACCHO Project Coordinator for each integrated pharmacist in consultation with their respective health service. This would follow an assessment of the needs of the health service, existing pharmacy support through the S100 or QUMAX programs and with consideration of the skills of the pharmacist.

The induction training incorporated an explanation of the purpose of the Pharmacist Activity Work Plan, in particular to:

- a. Clarify the specific role of the pharmacist within the health service according to identified need.
- b. Clarify the work requirements of the project evaluation
- c. Allow review of the performance of the pharmacist in meeting the needs of the health service and the goals of the project.
- d. Identify learning needs of the project pharmacist

The various components of the work plan were discussed, including key action steps associated with core roles, timelines, expected outcomes, data sources and evaluation methodology, and resource needs.

Anticipated timelines for completion of work plans were discussed, along with the intention to undertake review after approximately 3 months to assess continuing applicability.

2.3.6 Logbook, resources and lines of communication

Pharmacists' Electronic Logbook

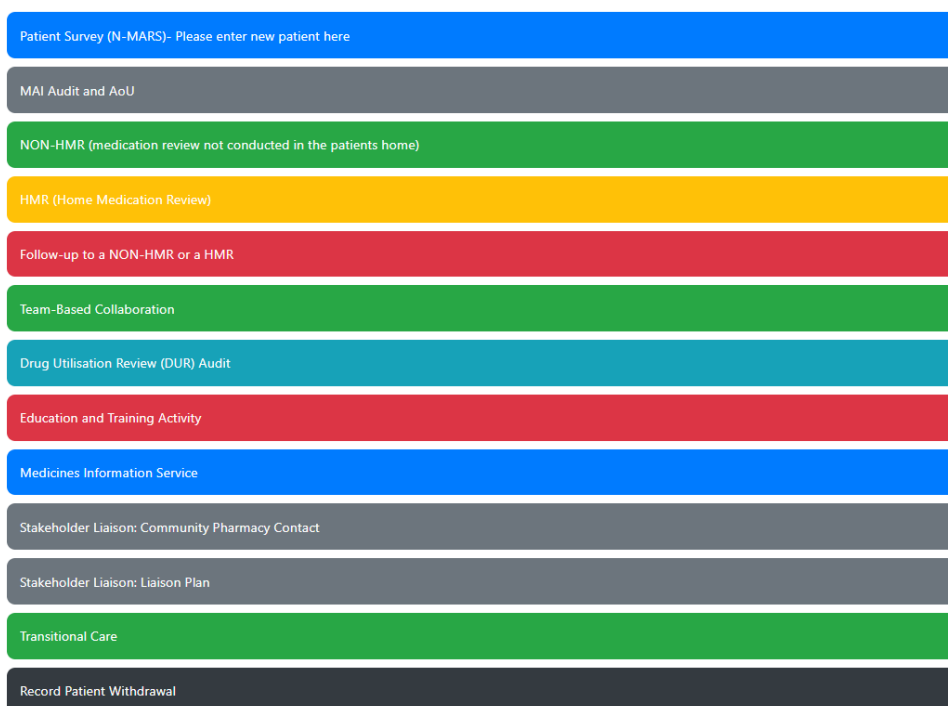
Written IPAC Project Pharmacist Logbook Instructions (Appendix 31) were developed by Commonline Pty Ltd and the system administrator at JCU. These instructions were conveyed to the integrated pharmacists during induction training. The electronic logbook could be accessed from any internet connected device, and was used to record details of the core roles to be undertaken by integrated pharmacists throughout the project. Contents of the instruction manual included;

- Introduction
- Initial account confirmation
- Password management
- General data entry
- Entering and editing patient details
- Withdrawing patients
- Monitoring activity

Throughout delivery of training in relation to each of the project's core roles, the integrated pharmacists were given access to a 'Test' version of the electronic logbook and encouraged to explore entry of data by means of clicking on the relevant colour-coded tab on the home page (see Figure 1).

Figure 1 - Pharmacist Electronic Logbook screenshot

Log an Activity



Patient Survey (N-MARS)- Please enter new patient here

MAI Audit and AoU

NON-HMR (medication review not conducted in the patients home)

HMR (Home Medication Review)

Follow-up to a NON-HMR or a HMR

Team-Based Collaboration

Drug Utilisation Review (DUR) Audit

Education and Training Activity

Medicines Information Service

Stakeholder Liaison: Community Pharmacy Contact

Stakeholder Liaison: Liaison Plan

Transitional Care

Record Patient Withdrawal

Resources

To assist the integrated pharmacists in conducting their professional activities, the PSA Coordinators compiled a contemporary online repository of resources related to medicines use and management of chronic disease in Aboriginal and Torres Strait Islander peoples, taking into account jurisdiction-specific differences in legislation and best-practice guidelines. This online repository was available to all participating integrated pharmacists via the Pharmacist Resources tab of the dedicated IPAC Project Pharmacists Training portal on the PSA website.

Induction training described the content of the resources repository. The resources compiled and collated could be broadly categorised as:

- References and evidence-based guidelines
- IPAC Project consent
- Clinical information systems
- IPAC Project core roles (training presentations, forms, useful website links)
- Pharmacists working with Aboriginal people
- Disease state specific information
- Other useful resources
- Legislation related to the practice of pharmacy

For further content within the IPAC Project Pharmacists' Resource List see Appendix 32.

Pharmacists were also encouraged by PSA Coordinators to explore the availability of additional professional references and resources provided by their state-based health library. In Victoria, for example, pharmacists working within ACCHSs could access the Clinicians Health Channel and its significant drug information databases, journals and guidelines. Another source of locally-relevant treatment guidelines accessible by the integrated pharmacists included HealthPathways, a web-based information portal supporting clinicians to plan patient care through primary, community and secondary health care systems.

Lines of Communication

Induction training for the integrated pharmacists included a session dedicated to lines of communication, during which instructions and relevant contact details were given for use in the event of queries related to:

- Information technology (clinical information/software systems, pharmacists' electronic logbook, GRHANITE data extraction, online access to PSA's IPAC Project related resources)
- Clinical information
- Personal and annual leave requests
- Conflict resolution

Throughout the intervention phase of the project, integrated pharmacists were able to contact the project coordinators from PSA, NACCHO and JCU via phone or email during business hours, enabling prompt response to queries.

2.3.7 Clinical Information Systems

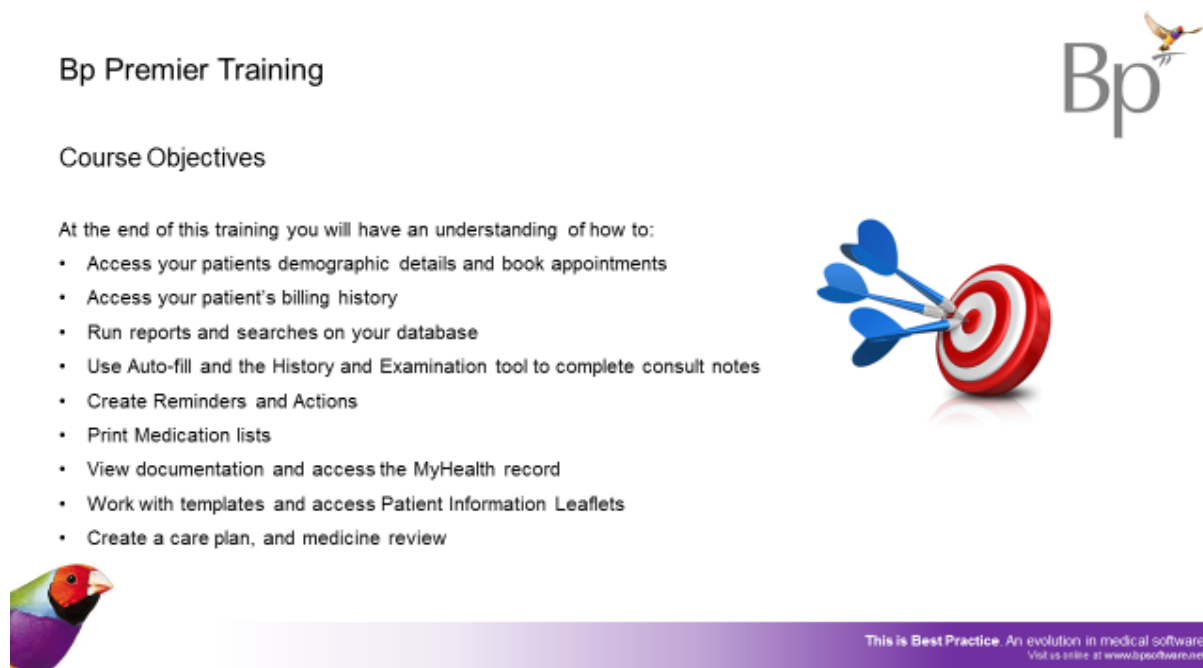
In order to provide optimal patient care, integrated pharmacists would require full access to patients' electronic health records. This would enable informed clinical interventions and recommendations, and enhance collaboration and communication between pharmacists, GPs and other clinicians within the ACCHS. Continuity of care would require an understanding of ACCHSs recall and reminder systems and how healthcare and wellbeing services are coordinated within the entire community. Thus integrated pharmacists would need to be familiar with and use the clinical information systems within their respective ACCHSs.

During the establishment phase of the project, ACCHS site eligibility was refined to include those with one of two clinical information systems, Communicare or Best Practice.

The Department of General Practice University of Melbourne, with the assistance of project staff at JCU, prepared guidelines for the use of Communicare (Appendix 33) and Best Practice (Appendix 34) software by integrated pharmacists participating in the IPAC Project. These guidelines incorporated instructions for pharmacist login, user setup, access and use of the patient record, recording patient consent to participate in the study, and use of clinical item types and key words to enable entry and extraction of information related to certain core role activities. These instructions were conveyed to the integrated pharmacists during induction training.

For pharmacists using Best Practice software, additional training was made available by means of a 3-hour bespoke training webinar commissioned by PSA to assist pharmacists in their professional practice. A link to the Best Practice webinar was added to the Pharmacist Resources section of the IPAC Project Pharmacist Training portal accessible via the PSA website, enabling pharmacists to revise this training content whenever necessary. For components of the webinar see Figure 2.

Figure 2 - Best Practice IPAC Project webinar screenshot



Bp Premier Training

Course Objectives

At the end of this training you will have an understanding of how to:

- Access your patients demographic details and book appointments
- Access your patient's billing history
- Run reports and searches on your database
- Use Auto-fill and the History and Examination tool to complete consult notes
- Create Reminders and Actions
- Print Medication lists
- View documentation and access the MyHealth record
- Work with templates and access Patient Information Leaflets
- Create a care plan, and medicine review

This is Best Practice. An evolution in medical software
Visit us online at www.bpsoftware.net

Pharmacists using Communicare software were invited to undertake eLearning modules available online as part of the Introduction to Communicare (Clinical) suite. Topics available for eLearning included;

- Introduction to Communicare (clinical use)
- Login, password maintenance, and the Communicare Toolbar
- Patient biographics
- Appointment book
- Service recording
- The clinical record (basic data entry, using clinical Items and qualifiers)
- Recalls and referrals
- Documents and results
- Getting Help

3. Results

The resources and plan developed for the project induction training were finalised during the establishment phase and subsequently approved by the Project Operational Team and Steering Committee. All participating pharmacists successfully completed the specified essential pre-reading and online course modules prior to attending face to face training.

3.1 Cultural Induction

Of the 26 integrated pharmacists who participated in the project, 18 undertook five hours of introductory cultural awareness training in the group workshop setting. The remaining eight pharmacists were invited to complete the Royal Australian College of General Practitioners online 'Introduction to Aboriginal and Torres Strait Islander Health Cultural Awareness' course. Four of these eight pharmacists completed the course, while the remaining four declined as they had already undertaken introductory cultural training as a requirement of prior employment.

Availability of local cultural training varied between participating ACCHSs, with some sites providing a formal program to be attended by all new employees, others providing cultural mentor support from a staff member such as a cultural liaison officer or Aboriginal Health Practitioner, whilst others had no existing programs in place. The timing of this training was also variable, with some integrated pharmacists undertaking local cultural induction more than six months after commencement at their ACCHSs. The nature and content of local cultural induction varied between health services, and included video presentations, programs hosted entirely within the ACCHS, visits to culturally significant areas (eg 'The Keeping Place') and meetings with local Elders.

Feedback from integrated pharmacists regarding their local cultural induction was sought by the qualitative evaluation team and documented in the Qualitative Evaluation Report.²¹ Integrated pharmacists deemed that provision of induction to both the ACCHS and the local community was important. Feedback was also sought from staff at participating ACCHSs, with managers rating the cultural sensitivity of their integrated pharmacists at an average of 9.3 on a scale of 1 (not sensitive at all) to 10 (very sensitive) (n=9).

Of the nine managers who provided a response, eight rated their integrated pharmacist as a 9 or 10 on the scale. One manager commented;

"[IPAC pharmacist] works really well with community and staff to provide culturally appropriate care."

3.2 Delivery of workshops and one to one project induction training

Induction training (presentation - Appendix 35) for pharmacists participating in the IPAC Project was delivered by PSA Coordinators and external cultural trainers. Workshops were held over 2 days (15 hours) as facilitated group sessions in Sydney, Melbourne and Brisbane (see Table 1 in Executive Summary).

A small number of pharmacists who were recruited after completion of the workshops were provided with a full day of one-to-one project-specific induction training in a mutually agreeable location (Cairns, Geelong, Melbourne) followed by another day of pre-arranged experience alongside an Aboriginal Health Services pharmacist at their place of work (eg Victorian Aboriginal Health Service).

A total of 26 registered pharmacists were trained to participate in the project and appointed to ACCHS sites. Additionally, two community pharmacy owners with staff participating in the project undertook the training workshop in Brisbane to ensure an understanding of the overall expectations of the project. Of the 26 pharmacist participants, 20 were accredited to offer HMRs during the implementation phase of the study. Table 1. Pharmacist induction training by delivery method, location and number of attendees.

Date of training delivery	Delivery method	Location	Number of pharmacists attending
July 2018	Workshop	Sydney	11
August 2018	Workshop	Melbourne	7
October 2018	Workshop	Brisbane	3
October 2018	Small group	Melbourne	2
September 2018	One to one	Cairns (Qld)	1
March 2019 (replacement)	One to one	Geelong (Vic)	1
April 2019 (replacement)	One to one	Gove (NT)	1
TOTAL			26

PSA Coordinators observed a strong sense of teamwork, comradery and professional networking between pharmacists attending the induction training workshops, noting that this environment was not readily achievable during one to one training sessions.

Feedback from integrated pharmacists regarding their induction training was reported elsewhere.¹⁷ Pharmacist feedback on induction training was positive and the pharmacists felt prepared for their role. Some pharmacists described areas in which more in-depth training would have been useful, in particular related to how primary health care clinics work and Medicare billing processes used by ACCHSs. Some pharmacists had not previously worked in a primary health care setting and struggled to understand how certain aspects of practice worked. Pharmacists reported that a more detailed explanation of the MBS health program payments and services relevant to Aboriginal and Torres Strait people would be helpful in training for the role.

They added that ideally this should include further details of the MBS services relevant to the sector and where the pharmacist may have input, with an example being the creation of a chronic disease 'flowchart' to identify and outline where potential pharmacist input into MBS items for Chronic Disease Management could attract a rebate.

3.3 Logbook data entry

Throughout the implementation phase, integrated pharmacists entered data related to discrete core role activities in the electronic logbook. A summary of total data entered is included in Table 3.

Table 3 - Logbook activity from 2/8/2018 - 31/10/2019*

Pharmacist activity	Number of discrete 'events'
Total patients consented	1,733
Patient survey N-MARS	2,579
Medication Appropriateness Index (MAI) Audits and Assessments of Underutilisation	789
HMRs	639
Non-HMRs	757
Follow-up to HMR or Non-HMR	1,548
Team Based Collaboration	3,165
Medicines Information	1,715
Education and Training	358
Drug Utilisation Reviews	26
Stakeholder Liaison Plans	47
Stakeholder Liaison – Community Pharmacy Contact	3,233
Transitional Care	1,901
Patient Withdrawal	81

* Source: Integrated pharmacists within ACCHSs: Support for practice-based activities, Report to the Pharmaceutical Society of Australia for the IPAC Project ²²

The IPAC Project pharmacists' electronic logbook was created as a bespoke product completed on 30th July 2018, just prior to the commencement of induction training.

Feedback from the integrated pharmacists during site visits by PSA Coordinators reported that, after some initial confusion, most found use of the logbook and entry of data to be quite straightforward. Furthermore they found it to be a useful way to reflect upon the activities they had undertaken each day. Some pharmacists reported a lack of clarity about where or how to enter certain information into the logbook for activity which did not seem to clearly 'fit' into one of the defined core roles. Ongoing support, especially during site visits, was provided by PSA Coordinators throughout the project to help integrated pharmacists optimise capture of data in the logbook. One pharmacist stated;

"So, I think when [PSA Project Coordinator] came around it was useful because she had ways of entering more stuff on the logbook that I kind of didn't really enter because I didn't know where to enter it." (Pharm06)

3.4 Clinical information systems

Of the integrated pharmacists who participated in the project, 18 undertook training in the use of Communicare software while eight were trained to use Best Practice, as per the requirements of their respective ACCHSs. Feedback related to induction training on the use of clinical information systems was sought from the integrated pharmacists as part of the project's qualitative evaluation¹⁷ and during a workshop²³ held in Darwin at the end of the project.

The integrated pharmacists reported that access to the clinical information system was essential to being able to perform their role effectively, providing them with a more comprehensive and contextual insight into the patient, allowing them to leave notes in the patients' file, manage their own appointments, and saving a lot of time for both the pharmacists and the GPs.

A sound basic understanding of the clinical information system used by an ACCHS was deemed by the integrated pharmacists as an essential starting point, ideally with additional support from ACCHS IT staff when necessary. A small number of the integrated pharmacists noted that certain aspects of the clinical information software were particularly challenging to use effectively, so while general orientation to the clinical software is important, some further guidelines on what information to record in the patients' files would have been useful.

3.5 Pharmacist feedback on preparation required, in addition to induction training

At the end of the implementation phase, all participating integrated pharmacists were invited to attend a workshop (facilitated by PSA Coordinators) in Darwin where they were asked to provide additional feedback to supplement the project's qualitative evaluation. Of the twenty pharmacists participating in the project at the end of the implementation phase, eighteen attended the workshop, with two pharmacists unavailable due to personal or annual leave arrangements. From their experiences in the IPAC Project, the pharmacists attending the workshop were asked to identify individual enablers beyond induction training which would assisted with successful integration into the ACCHS setting.

They then grouped these into themes for further exploration and discussion. In addition to information on core pharmacist roles of the project covered in induction training, the key 'essential' elements of preparation identified by the integrated pharmacists required for the role included:

- Professional skills and personal attributes

Strong clinical skills and prior experience working as a pharmacist were identified as important attributes for pharmacists intending to work in ACCHSs. Of the integrated pharmacists participating in the IPAC Project, many felt it was important to be accredited to conduct HMRs. Whilst a small number commented that even without being accredited, they still possessed valuable skills and knowledge, others observed that the health service valued being able to claim the additional MBS Item 900 income through Medicare.

Pharmacists described a range of personal attributes and qualities they considered to be valuable when working in an ACCHS setting. These included professional confidence, emotional intelligence, leadership, initiative (one pharmacist stated '*don't sit still!*'), flexibility, adaptability and open-mindedness. They also advised being patient, flexible, and open to new experiences to make the most of opportunities as they were presented.

The vast majority of the pharmacists identified that good communication skills were essential to working as an integrated pharmacist in an ACCHS; this included being able to communicate succinctly with GPs. Some pharmacists reiterated that listening was a crucial aspect of communication, and a particularly important skill to have when working in an ACCHS. It was also noted that the ability to adopt different communication styles for different health professionals within the team was important, and particularly relevant for clients with varied levels of health literacy or education, and for those for whom English may not be their first language.

- **Local induction**

Pharmacists reported that general cultural training must ideally be enhanced by locally-relevant cultural induction and that this should be combined with an ongoing willingness to continue to learn about the culture and social determinants of health relevant to the local community. Being involved with the community outside the clinic as well as developing relationships with the other members of staff (particularly the Aboriginal Health Workers) was advice that was reiterated by the pharmacists.

- **On-site staff induction at the ACCHS**

Pharmacists reported that identifying a regular staff member at the ACCHS who could facilitate introductions and explanation of staff roles and responsibilities would be beneficial to new pharmacists. One pharmacist stated that additional practical advice on 'fitting into' the primary health care team and clinic would be helpful as they found this to be an initial challenge.

A 'go-to' person would also be valuable to help the integrated pharmacist understand the usual 'flow' of the patient experience while attending the clinic, share details of community events, and raise awareness of the local issues and priorities which may affect patient engagement. Overall, the availability of a 'go-to' person would assist with integration of the pharmacist into the ACCHS team.

- **Understanding clinical services available within the ACCHS**

Pharmacists reported that having a comprehensive awareness of the services provided by the various clinicians within the ACCHS, as well as those provided by visiting clinicians, would be helpful to clarify where the pharmacist might 'fit' and therefore best contribute to patient care.

- **Understanding health and social services available in the local community**

Pharmacists recommended that those new to the role create a contact list of health and social service providers in the local community, meeting with these providers in person if possible to explain their role at the ACCHS and to identify the best way to connect when necessary for optimal patient care.

Given the interplay between physical health, mental health and social and emotional wellbeing which impacts upon patient wellbeing, the development of effective working relationships with different agencies and external stakeholders was considered essential to the planning and provision of effective patient-centred holistic care in ACCHSs.

- **Peer Support and community of practice**

Throughout the IPAC Project implementation phase, support was provided to the integrated pharmacists through various means, including (but not limited to) phone and email support by PSA Coordinators and the wider Project Team, site visits by PSA Coordinators, mentoring, access to an online repository of relevant resources, regular monthly teleconferences, access to an online discussion group and contact by closed-group social media. Feedback from the integrated pharmacists confirming the value of this program of support is included in the IPAC Project Support for Pharmacists Report.²⁴

A couple of pharmacists suggested that 'shadowing' a pharmacist already working in an ACCHS setting and attempting to obtain as much information as possible beforehand would be ideal steps to prepare for the role. Pharmacists also recommended maintaining contact with others working in similar roles, particularly if working remotely.

The feedback provided by the integrated pharmacists in the Darwin workshop was consistent with comments made during the project's qualitative evaluation²¹, which included the following quotes;

"I mean I think being HMR accredited probably is pretty important. I know not everyone on the project is, but I feel like, A) it just means you're more comfortable with your clinical recommendations and B) it does help that the health service can bill for our work. I know it's not the be all and end all but until pharmacists have Medicare billable numbers it's the only one we got. And I think that that's just a nice extra thing for the health service to be able to do." (Pharm20)¹⁷

"Great communication skills. Respect for the culture and where the patient [come from], respect for the client's life. I guess their socioeconomic background the literacy background and what other things are impacting on their health. Other than just the fact that they've got health problems, there's lots of other things that are priority in their life as well as a good knowledge of what medicines are around and how they work." (Pharm11)¹⁷

"I would say stay in contact with the other people in the same type of role. I would get in contact with some other remote pharmacies because they often have ideas that you haven't even thought of, or like they've got exactly same problem that you might have and don't really know how to deal with it. I think that's really important. Don't give up because your computer doesn't work for six weeks. It will eventually. It's just how it is. You have just got to work with what you got. That's about it, and they will appreciate you. People appreciate you so much." (Pharm07)¹⁷

4. Discussion

The IPAC Project identified core roles which were conducted by pharmacists integrated within ACCHSs. The induction training program developed for use in the IPAC Project was comprehensive and tailored to ensure that participating pharmacists, acknowledged as already possessing existing clinical expertise, would have the necessary skills to work within diverse ACCHS settings in a culturally-responsive manner to deliver the required core services and to capture relevant data for evaluation. Participating pharmacists reported that the induction training program adequately prepared them for their role, and provided constructive feedback regarding recommendations for additional consideration in future training models.

The enablers to successful integration reported by pharmacists participating in the IPAC Project were consistent with those previously identified in the Integrating Models of Pharmacists Across Care Teams (IMPACT) Framework.²⁵ The IMPACT project undertook a systematic literature review and interviewed primary health care professionals and community members to identify factors expressed as critical to enabling successful integration of pharmacists into primary health care teams. This led to the development of the IMPACT Framework which consists of six overarching domains including characteristics, skills and experience of the pharmacist; relationships; scope of practice; connectivity; localisation and sustainability. The domains and their underlying enablers are recognised as being interdependent.

When combined, these learnings may be used to inform the development of a tailored training program for pharmacists intending to work in the ACCHS sector, with associated mapping against national competency standards for pharmacists in Australia.

Advances in digital technology over time have significantly improved the user experience of online training programs, as evidenced by PSA's online General Practice Pharmacist Foundation Training course.²⁵ Online modules are cost effective and enable convenient and timely access by users regardless of geographic location. The creation of an online multi-module training course is one key mechanism to prepare more pharmacists to work within ACCHSs. It is also important however to acknowledge the value of the dynamic and supportive environment created by face to face group workshops for delivery of training, as noted by PSA Coordinators in the IPAC Project. Provided such workshops utilise skilled and engaging facilitators, it likely that a proportion of pharmacists would prefer this style of learning and would value the community of support this offers.

Regardless of the preferred mode used to deliver training, the IPAC Project provided evidence that preparation of pharmacists to work within ACCHSs should include components such as;

1. Working in a culturally safe manner, taking into account social determinants of health
2. What is an Aboriginal Health Service pharmacist?
3. Australia's health care system (including governance models for Aboriginal Health Services)
4. Aboriginal Health Service funding (including Medicare, Practice Incentive Payments and Indigenous Health Incentives in Aboriginal Health Services)
5. The Aboriginal Health Service team, including health professionals and non-clinical staff

6. Comprehensive medication management reviews and patient follow up, medication adherence assessment and support
7. Chronic disease management, preventive health care, team-based collaboration, multidisciplinary case conferences and the MBS
8. Supporting medicines safety in Aboriginal Health Services (education and training, medicines information, clinical governance, drug utilisation review, accreditation requirements)
9. Clinical information systems (including all basic functionality, how to generate quality improvement reports and how to set up patient recalls) and health records in Aboriginal Health Services
10. Collaborating with community pharmacists and external stakeholders, transitional care

Throughout the implementation phase of the project, PSA Coordinators made some additional key observations which should ideally be taken into consideration when proposing a model for broader rollout of integrated pharmacist services to ACCHSs across Australia. These include the need for allocation of additional training time to work through certain complex core pharmacist activities such as medication management reviews (especially if pharmacist attendees are not yet accredited) and assessment of prescribing quality in the Aboriginal and Torres Strait Islander health sector.

In view of pharmacist feedback suggesting that more in-depth initial knowledge of the clinical information systems may have enabled them to use the systems more efficiently from the early stages of the project, consideration could be given in future training programs to linking pharmacists with existing providers of CIS training such as Primary Health Networks or state-based Affiliates of NACCHO.

Furthermore, development and provision of additional profession-wide training resources related to implementation of drug utilisation reviews (as previously done by the Society of Hospital Pharmacists of Australia) would assist pharmacists by ensuring a thorough and consistent understanding of the process involved. It is noted that consultation on the first draft of the new Medicines Use Evaluation Guideline has now closed, with the new guideline intended to refresh and merge two documents, these being the previous Drug Usage Evaluation Standard (2004) and the SHPA publications Australian Drug Use Evaluation Starter Kit (1998).

<https://www.shpa.org.au/standards-of-practice#Guidelines>

The considerable burden of data capture for the evaluation of the project was noted by PSA Coordinators, along with the impact this had on the time available to pharmacists to provide professional services. While the research burden would not exist with future program rollout, minimising requirements for data capture should be taken into account when considering any associated monitoring and evaluation components.

It is very important to acknowledge from integrated pharmacist feedback provided during the IPAC Project that training must be backed up by a comprehensive program of support to create a community of practice and foster a sense of 'teamwork' for pharmacists working in this sector.

5. Conclusion

Pharmacists integrated within ACCHSs work with complex patients, often with multiple chronic diseases, necessitating an understanding of social determinants of health and the public health challenges related to Aboriginal and Torres Strait Islander peoples.

Given the relative infancy of the Aboriginal Health Service pharmacist role in Australia, sector-specific training is important for integrated pharmacists to understand the holistic nature of care delivered by ACCHSs and how the pharmacist can best integrate into the primary health care team to optimise quality of care outcomes for Aboriginal and Torres Strait Islander Australians.

As evidenced in the IPAC Project, training must be comprehensive and include integrated pharmacist core roles as well as an understanding of contributors to the disparity in health outcomes experienced by Aboriginal and Torres Strait Islander Australians, including social determinants of health.

While the comprehensive induction training program developed for use in the IPAC Project included some elements specific to the project, a large proportion of its content could be considered for incorporation into a future training program for pharmacists upon broader rollout of integrated pharmacist services to ACCHSs across Australia.

Understanding of the detailed role description and list of activities undertaken by pharmacists integrated within ACCHSs as part of the IPAC Project, together with observations and feedback provided by the integrated pharmacists and Coordinators, will enable educators to establish educational needs and learning objectives to inform future instructional design.

Such an induction training program could be modelled on PSA's existing *General Practice Pharmacist Foundation Training*²⁶ course, a multi-module online course intended to prepare pharmacists to work in a general practice setting; this concept could then be tailored to the ACCHS context.

Beyond training, the provision of ongoing support, along with the creation of a community of practice for pharmacists working with Aboriginal and Torres Strait Islander peoples, will enable sharing of sector knowledge and expertise with the aim of increased uptake, up-skilling and retention of pharmacists working in the ACCHS sector. Support for integrated pharmacists may be provided by various means as demonstrated in the IPAC Project and should be multi-modal to take into account accessibility, ease of utilisation and responsiveness.

6. Recommendations

Future considerations for training integrated pharmacists to work in the Aboriginal Community Controlled Health Service setting are included in Table 2, repeated below.

Future opportunities to provide training to pharmacists	Potential pathways to implementation	Intended industry impacts
1. Develop a foundation training program for pharmacists intending to work in the ACCHS sector.	1.2 Creation of an online multi-module Aboriginal Health Services Pharmacist foundation training course and face to face workshops.	Implementing this recommendation will lead to: <ul style="list-style-type: none"> Enhanced readiness of integrated pharmacists to work with Aboriginal and Torres Strait Islander Australians with chronic disease Consistency of skills provided by pharmacists integrated within ACCHSs Increased workforce of appropriately skilled pharmacists available to work in ACCHSs
2 Acknowledge and direct pharmacists to appropriate cultural awareness training, (also noting AHPRA requirement for cultural competence)	2.1 Support for access by pharmacists to cultural awareness training, noting the importance of delivery by Aboriginal or Torres Strait Islander people where possible, as a combination of: <ul style="list-style-type: none"> Introductory (general) cultural awareness training Local cultural induction Ongoing support from a cultural mentor if available 	<ul style="list-style-type: none"> Enhanced understanding by pharmacists of the cultural and social determinants of health influencing chronic disease outcomes for Aboriginal and Torres Strait Islander Australians Enhanced understanding by pharmacists of their own connection to culture and unconscious biases, and how these are likely to influence their work

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Appendices

(See associated Zip folder)

Appendix 1. Master Vic Pharmacist Participant Brief

Appendix 2. MCQs for IPAC Project Master Pharmacist Participation Brief

Appendix 3. IPAC Project Overview (presentation slides)

Appendix 4. Data collection table

Appendix 5. Consent (presentation slides)

Appendix 6. Master Vic Pharmacist Consent Form for IPAC

Appendix 7. Master Vic Participant Information Brief for IPAC

Appendix 8. Summary of Pharmacist 10 core roles

Appendix 9. Core role 1 - Medication Management Reviews (presentation slides)

Appendix 10. IPAC Project HMR Guidelines

Appendix 11. IPAC project non-HMR criteria

Appendix 12. IPAC Project HMR compact model

Appendix 13. Core role 2 - Team-based collaboration (presentation slides)

Appendix 14. Core Role 3 - Medication adherence (presentation slides)

Appendix 15. NMARS survey with SF1

Appendix 16. MAI Patient Survey form

Appendix 17. Core Role 4 – Medication Appropriateness Index (presentation slides)

Appendix 18. Medication Appropriateness Index examples

Appendix 19a. Core Role 4 – Assessment of Underutilisation (presentation slides)

Appendix 19b. Assessment of Underutilisation Patient Survey collection form

Appendix 20. Core Role 5 - Preventive Health Care (presentation slides)

Appendix 21. Core Role 6 - Drug Utilisation Review (presentation slides)

Appendix 22. Drug Utilisation Review Report (presentation slides)

Appendix 23. Core Role 7 - Education and Training (presentation slides)

Appendix 24. Education Session Evaluation form

Appendix 25. Education Session Evaluation Summary Report

Appendix 26. Core role 8 - Medicines Information Service (presentation slides)

Appendix 27. Core role 9 - Medicines Stakeholder Liaison (presentation slides)

Appendix 28. Medicines Stakeholder Liaison - Plan and Outcomes

Appendix 29. Core role 10 - Transitional Care (presentation slides)

Appendix 30. Pharmacist Activity Workplan template

Appendix 31. Logbook Instructions

Appendix 32. IPAC Project Pharmacist Resources list

Appendix 33. Pharmacists in GP Clinic BP HowToGuideVersion1.4

Appendix 34. Pharmacists in GP Clinic CC HowToGuideVersion1.5

Appendix 35. Training Presentation Schedule

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