

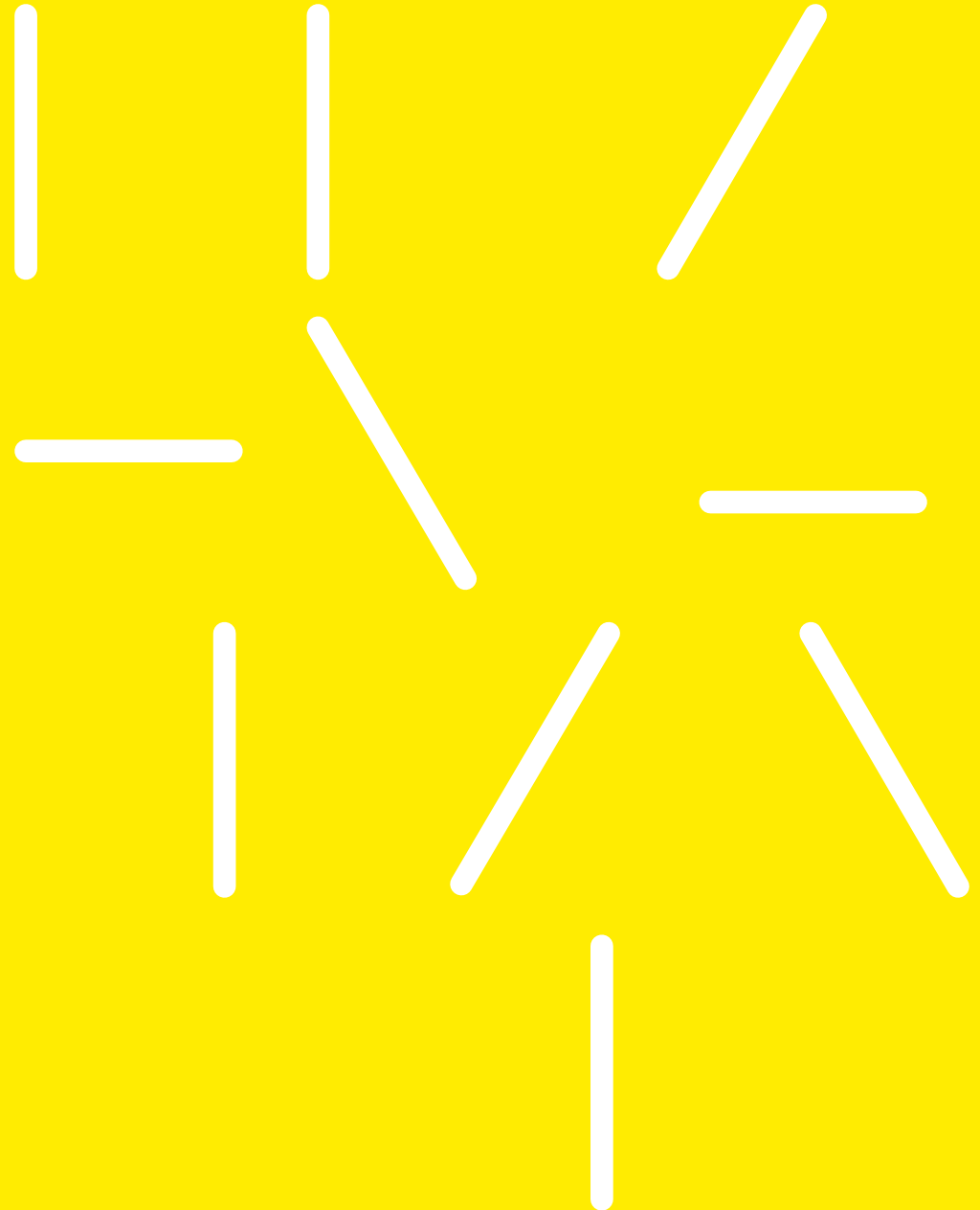


AUSTRALIAN GOVERNMENT
DEPARTMENT OF HEALTH

Review of ongoing Pharmacy Workforce Programs

DETAILED ANALYSIS OF WORKFORCE
PROGRAMS

19 SEPTEMBER 2017





OUR VISION

To positively impact people's lives by helping create better health services

OUR MISSION

To use our management consulting skills to provide expert advice and support to health funders, service providers and users.

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ABBREVIATIONS

6CPA	Sixth Community Pharmacy Agreement
AACP	Australian Association of Consultant Pharmacists
ACCHO	Aboriginal Community Controlled Health Organisations
AGSC-RA	Australian Geographic Standard Classification – Remoteness Areas
AHPRA	Australian Health Practitioner Regulation Agency
ARHEN	Australian Rural Health Education Network
BMP	Bonded Medical Places
CHF	Consumers Health Forum of Australia
CPD	Continuing Professional Development
CPE	Continuing Professional Education
Department, The	The Australian Government Department of Health
ELS	Emergency Locum Service
FOMSS	Friends of Mosveld Scholarship Scheme
Guild, The	The Pharmacy Guild of Australia
HMA	Healthcare Management Advisors
IIARP	Intern Incentive Allowance for Rural Pharmacies

IIARP-EP	Intern Incentive Allowance for Rural Pharmacies Extension Program
NACCHO	National Aboriginal Community-Controlled Health Organisation
NAHSSS	Nursing and Allied Health Scholarship and Support Scheme
PhARIA	Pharmacy Access / Remoteness Index of Australia
PSA	Pharmaceutical Society of Australia
RAMUS	Rural Australia Medical Undergraduate Scholarship
RHMTF	Rural Health Multidisciplinary Training Program
RITA	Rural Intern Training Allowance
RLAP	Rural Locum Assistance Program
RPLO	Rural Pharmacy Liaison Officer
RSO	Return of Service
SHPA	Society of Hospital Pharmacists of Australia
SRSA	Support for Rural Specialists in Australia
UDRH	University Department of Rural Health

EXECUTIVE SUMMARY

CONTEXT

The Australian Government Department of Health (the Department) engaged Healthcare Management Advisors (HMA) to review the 12 ongoing Pharmacy Workforce Programs, classified as either *Rural Support Programs* or *Aboriginal and Torres Strait Islander Specific Programs*.

The aim of the Rural Support Programs is to support targeted programs and services to improve access to PBS medicines and services for people living in rural and remote regions of Australia. Rural Support Programs in the scope of this evaluation are:

- Rural Pharmacy Scholarship Scheme
- Rural Pharmacy Scholarship Mentor Scheme
- Intern Incentive Allowance for Rural Pharmacies
- Intern Incentive Allowance for Rural Pharmacies – Extension Program
- Rural Intern Training Allowance
- Rural Pharmacy Student Placement Allowance
- Administrative Support to Pharmacy Schools
- Continuing Professional Educational Allowance
- Rural Pharmacy Liaison Officer Program, and
- Emergency Locum Service.

The aim of Aboriginal and Torres Strait Islander Specific Programs is to support targeted programs and services, which improve quality use of medicines (QUM) and culturally appropriate services for Aboriginal and Torres Strait Islander consumers. There are four Aboriginal and Torres Strait Islander Specific Programs, two of which are within scope of this evaluation, as follows:

- Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme, and

- Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme.

The Pharmacy Workforce programs target recruitment and retention of pharmacists in rural and remote areas, as well as support for students and interns and culturally appropriate services.

METHOD

HMA and the Department agreed an approach to undertaking the review, including several data collection activities, including:

- PICO (Population, Intervention, Comparator, Outcome) descriptions of in-scope programs
- workforce data analysis
- peak body stakeholder consultations
- program recipient and intended beneficiary consultations
- web-based surveys to intended program beneficiaries, and
- unit cost analysis.

The findings of each of these data collection methods are synthesised in this document to draw conclusions on the appropriateness, effectiveness and efficiency of each of the 12 programs in achieving their outcomes.

KEY FINDINGS

The review examined the appropriateness, effectiveness and efficiency of each of the 12 in-scope programs. The key findings for each program are summarised in Table 1.1.

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Table 1.1: Summary of key findings, by program

Program	Appropriateness: key findings	Effectiveness: key findings	Efficiency: key findings
Recruitment programs			
Rural Pharmacy Scholarship Scheme	Aim is evidence-based and the design is in line with other similar programs.	Effective in supporting rural students to attend university.	Estimated overhead costs to administer the program was within an acceptable range.
Rural Pharmacy Scholarship Mentor Scheme	Aim is evidence-based and in line with similar programs.	Valued by participants. Insufficient data to determine program's influence on scholar's rural practise.	Estimated overhead costs to administer the program was outside an acceptable range (estimated at 62% of total unit cost).
Rural Pharmacy Student Placement Allowance	Evidence shows an underlying need. Supporting rural placements is backed by literature.	Achieves its aim to support students to undertake a rural placement.	Estimated overhead costs to administer the program was within an acceptable range.
Rural Intern Training Allowance	Supporting rural internships is evidence-based. However, there was limited data to determine the most appropriate approach to support.	Achieves its aim to support rural interns to complete compulsory training.	Estimated overhead costs to administer the program was outside an acceptable range (estimated at 61% of total unit cost).
Retention programs			
Intern Incentive Allowance for Rural Pharmacies and Extension Program	Supporting rural internships is evidence based. However, there was limited data to determine the most appropriate approach to support.	Somewhat achieves its aim to support pharmacists to employ an intern or graduate. Insufficient data to determine program's impact compared to other drivers.	Estimated overhead costs to administer the program was within an acceptable range.
Continuing Professional Educational Allowance	Evidence shows an underlying need and the program aim is in line with similar programs.	Achieves its aim to support rural pharmacists to access CPE. Has not increased CPE delivered in rural areas.	Estimated overhead costs to administer the program was outside an acceptable range (estimated at 56% of total unit cost).
Emergency Locum Service	Evidence shows an underlying need. The need for locums also exists outside emergency situations.	Achieves its aim to support rural pharmacies to remain open during periods of absence.	Estimated overhead costs to administer the program was within an acceptable range.
Other support programs			
Rural Pharmacy Liaison Officer Program	Evidence shows an underlying need and the program aim is in line with similar programs.	Highly valued program. However, it is restricted by scope of the role and administration arrangements.	Estimated overhead costs to administer the program was within an acceptable range.
Administrative Support to Pharmacy Schools	Supporting rural placements is evidence-based. However, there was limited data to determine the most appropriate approach to support.	Achieves its aim of supporting students to undertake a rural placement. However, program volumes decreased over the 5CPA.	Estimated overhead costs to administer the program was within an acceptable range.
Programs to increase access to culturally appropriate services			
Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme	Aim is supported by stakeholders in-principle. However, it is unclear if community consultation informed this aim.	Valued by participants. However, data is insufficient to comment on whether the program contributed to access to culturally appropriate pharmacy services.	Estimated overhead costs to administer the program was within an acceptable range.

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Program	Appropriateness: key findings	Effectiveness: key findings	Efficiency: key findings
Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme	Aim is supported by stakeholders in-principle. However, it is unclear if community consultation informed this aim.	Increases workforce numbers. However, there was insufficient data to determine if this facilitated increased access to culturally appropriate services.	Estimated overhead costs to administer the program was within an acceptable range.

Options for improved program operation

Data analysis and consultation activities revealed a number of limitations with the programs in their current state. These ranged from program-specific issues including restrictive eligibility criteria, impractical program rules or administration issues. These program-specific issues are summarised in the *Main Report*.

The use of the Pharmacy Accessibility Remoteness Index (PhARIA) to classify eligible rural locations has resulted in complications for a number of programs, including the Rural Pharmacy Scholarship Scheme, the Rural Pharmacy Student Placement Allowance, the Continuing Professional Education Allowance and the Intern Incentive Allowance for Rural Pharmacies and Extension Program. Several of these programs aim to alleviate the financial burden experienced by pharmacy students or pharmacists who must travel to attend training or other professional experiences. Applying the PhARIA system to these programs excludes pharmacists or students travelling between PhARIA 1 regional areas and major cities.

Another broad issue was the promotion of the Rural Pharmacy Workforce Programs and the Aboriginal and Torres Strait Islander Workforce Programs. Consultations revealed a lack of awareness of several programs, in particular, the Rural Intern Training Allowance, the Emergency Locum Service and the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme. Several programs would benefit from targeted promotion to secondary and tertiary students and practising community pharmacists.

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1.1 PROJECT BACKGROUND

The Australian Government Department of Health (the Department) has engaged Healthcare Management Advisors (HMA) to provide a:

“cost-effectiveness review into ongoing pharmacy workforce programs.”

The Sixth Community Pharmacy Agreement (6CPA) between the Australian Government and The Pharmacy Guild of Australia (The Guild) has ‘indicative allocations for community pharmacy programs’ with a total value of \$613m over the five-year life of the program, from 1 July 2015 to 30 June 2020. This includes provision for \$6.9m for *Rural Pharmacy Workforce Programmes* and \$0.3m for the *Aboriginal and Torres Strait Islander Workforce Programme* in 2015–16 – the programs that are the subject of this project.

HMA has been engaged to assess the cost-effectiveness of the 12 community pharmacy workforce programs funded under the 6CPA, which include the:

- Rural Pharmacy Scholarship Scheme
- Rural Pharmacy Scholarship Mentor Scheme
- Intern Incentive Allowance for Rural Pharmacies
- Intern Incentive Allowance for Rural Pharmacies – Extension Program
- Rural Intern Training Allowance
- Rural Pharmacy Student Placement Allowance
- Administrative Support to Pharmacy Schools
- Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme
- Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme
- Continuing Professional Educational Allowance
- Rural Pharmacy Liaison Officer Program, and
- Emergency Locum Service.

This document, the *Detailed analysis of Workforce Programs*, summarises the findings of data collection and analysis processes undertaken during the project. The context of each program is established, including program aims, delivery method and volume.

1.1.1 Program aims

Evaluation of any program is enhanced by the clear articulation of its objectives. Program performance is then tested against these objectives by an assessment of appropriateness, effectiveness and efficiency, which are defined as follows:

- Appropriateness: the continued relevance and priority of program objectives in the light of current circumstances such as government policy context, including the suitability of program design in response to identified needs.
- Effectiveness: whether program outcomes have achieved stated objectives, and to what extent outputs have contributed to outcomes.
- Efficiency: whether there are better ways of achieving these objectives, including consideration of expenditure and cost per output, project governance arrangements, and implementation processes. [1]

A suitable program objective for any public policy intervention has the following features. It is:

- specific, including a statement of ‘who’, ‘what’, ‘where’ and ‘why’
- measurable: focuses on ‘how much’ change is expected
- achievable: realistic given program resources and planned implementation, and
- time-bound: focuses on ‘when’ the objective will be achieved.

Based on our review of the program documentation, we consider there are limitations to the Pharmacy Workforce Program objectives. These are elaborated upon in the *Final Report*. For the purposes of the analysis in this document, the

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program aims provided by The Department are used in lieu of specific program objectives.

The findings presented in this document support the broader analysis of the appropriateness, effectiveness and efficiency of the *Rural Pharmacy Workforce Programs* and *Aboriginal and Torres Strait Islander Workforce Programs* as two distinct program packages. This analysis will be presented in the *Final Report*. The *Final Report* and the *Detailed Analysis* report is accompanied by a *Technical Report*, which contains the full data collection findings and tools.

1.2 DATA COLLECTION METHODS

HMA and the Department agreed an approach to undertaking the review, including several data collection activities. In summary, these activities included:

- **PICO (Population, Intervention, Comparator, Outcome)** descriptions of in-scope programs: The target group, delivery method, comparable programs and intended outcome of each program were described, drawing upon the following data sources:
 - *Program Specific Guidelines* for each program, published by The Guild
 - peer-reviewed literature including findings from a rapid literature search of Google Scholar and PubMed, and academic journals including the *Australian Journal of Rural Health* and *Rural and Remote Health*. The literature search included non-peer reviewed literature and grey literature (e.g. government reports) where appropriate, and
 - program output data provided by The Guild.
- **Workforce data analysis:** Australian Health Practitioner Regulation Agency (AHPRA) data on pharmacy workforce, made available through the Department of Health Workforce Reform Branch, was analysed to identify pharmacy workforce trends over time.
- **Peak body stakeholder consultations:** Consultations were undertaken with representatives of peak body organisations in the fields of pharmacy, rural health and Aboriginal and Torres Strait Islander health. Consultations sought to explore

the benefit of the suite of programs and identify issues facing the rural pharmacy profession. Consulted organisation included:

- Australian Association of Consultant Pharmacists (AACP)
- National Aboriginal Community-Controlled Health Organisation (NACCHO)
- Australian Rural Health Education Network (ARHEN)
- The Pharmacy Guild of Australia (The Guild)
- Pharmaceutical Society of Australia (PSA)
- Consumers Health Forum of Australia (CHF), and
- Society of Hospital Pharmacists of Australia (SHPA).

- **Program recipient and intended beneficiary consultations:** Consultations were undertaken with recipients and intended beneficiaries of retention programs (e.g. the scholarship scheme or placement allowance) and other support programs (e.g. Rural Pharmacy Liaison Officer (RPLO) and Administration Support programs) to explore the effectiveness of the program in addressing issues pertinent to pharmacy students, interns, practising rural pharmacists and RPLOs. Consultations were undertaken at six University Departments of Rural Health (UDRHs), including:
 - Centre for Rural Health, Alice Springs
 - Melbourne UDRH, Shepparton
 - Monash University School of Rural Health, Clayton / Moe
 - Mt Isa Centre for Rural and Remote Health
 - University of Newcastle UDRH, Tamworth, and
 - Western Australian Centre for Rural Health, Geraldton.
- **Web-based surveys:** Twelve surveys were developed and distributed to capture the perspectives of beneficiaries of the following programs:
 - Rural Pharmacy Mentor Scheme
 - Rural Pharmacy Scholarship Scheme and Mentor Scheme
 - Intern Incentive Allowance for Rural Pharmacies and Extension Program
 - Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme
 - Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme
 - Continuing Professional Education Allowance

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- Rural Intern Training Allowance
- Emergency Locum Service, and
- Rural Pharmacy Liaison Officer Program.
- **Unit cost analysis:** Using available program budget, volume and expenditure data provided by The Guild, unit costs were calculated that indicate the cost of a single unit of service delivery (e.g. one scholarship) including a portion of overhead costs to administer the program. Data used in undertaking the unit cost was incomplete for several programs.

1.3 DOCUMENT STRUCTURE

The following sections of the document are structured as follows:

- **Chapter 2: Workforce recruitment programs.** This section describes the context and evaluation findings of the programs that aim to support the recruitment of new pharmacists into rural community pharmacy. This includes the Rural Pharmacy Scholarship and Mentor Schemes, the Rural Intern Training Allowance and the Rural Pharmacy Student Placement Allowance.
- **Chapter 3: Workforce retention programs.** This section describes the context and evaluation findings of the programs that aim to support the retention of existing rural community pharmacists. This includes the CPE Allowance, the Emergency Locum Service and the Intern Incentive Allowance for Rural Pharmacies and Extension Program.
- **Chapter 4: Other support programs.** This section describes the context and evaluation findings of programs that support the rural pharmacy workforce in broader ways. This includes the RPLO program and Administrative Support to Pharmacy Schools.
- **Chapter 5: Programs supporting access to culturally appropriate services.** This section describes the context and evaluation findings of programs that aim to support the entry of Aboriginal and Torres Strait Islander people into the pharmacy workforce. This includes the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme and the Pharmacy Scholarship Scheme. These programs are considered distinct from other rural pharmacy workforce programs, as they have the specific purpose of improving Aboriginal and Torres Strait Islander peoples' access to pharmacy services.
- **Chapter 6: References.**
- **Chapter 7: Appendices.**

2 WORKFORCE RECRUITMENT PROGRAMS

2.1 RURAL PHARMACY SCHOLARSHIP SCHEME

2.1.1 Context

Target population

The Rural Pharmacy Scholarship Scheme supports students from rural and remote areas (Pharmacy Access / Remoteness Index of Australia (PhARIA) 2–6) to study a pharmacy course at an Australian university. The Pharmacy Access / Remoteness Index of Australia (PhARIA) is a tool used to determine rural and remote location eligible for the Pharmacy Workforce Programs. PhARIA is a composite index incorporating the geographic distance from major cities determined by the Accessibility / Remoteness Index for Australia (ARIA) and a professional isolation component represented by the road distance to the five closest pharmacies. [2]

Students receiving the Rural Pharmacy Scholarship must be Australian citizens or permanent residents to be eligible for the scholarship. [3] To qualify, a student must have resided in a PhARIA 2–6 area for five consecutive years or eight cumulative years from five years of age.

Program aim

The Scholarship Scheme aims to encourage and enable students from rural and remote communities to undertake undergraduate and graduate entry studies in pharmacy at university, leading to a registrable qualification as a pharmacist.

Program delivery method

The Scholarship Scheme provides financial support in the form of scholarships (value of \$10,000 per annum, GST exempt) to students from rural and remote areas (PhARIA 2–6) studying an undergraduate or graduate course at an Australian

university that leads directly to a registrable qualification as a pharmacist. Students can apply for a scholarship at any point during their studies, with a maximum payment of \$40,000 available to students over a four-year period. [3]

The responsibilities of scholarship recipients include compliance with the following requirements:

- maintain membership with their University's student Rural Health club
- maintain at least quarterly contact with their nominated mentor under the Rural Pharmacy Scholarship Mentor Scheme (see Section 2.1.2)
- develop, agree and execute a Learning Plan with their nominated mentor, and
- undertake rural activities throughout the academic year. [4]

Program volumes

Program-specific guidelines state at least 30 new scholarships are offered each year. Program data indicates 43 new scholarships were offered in the 2015 calendar year. [3, 5] Program data from 2014–2016 indicates, on average, 101 active scholarships are held by students across all cohorts (study years 1–4) each calendar year. [5] This includes new and continuing scholarships.

2.1.2 Evaluation findings

Appropriateness

The main intent of the Scholarship Scheme is supported by literature. A review of Australian and international literature by Wilson et al found strong evidence that people from a rural background were more likely to pursue rural practice and choose a rural area as their first practice location. [6] Other reviews have confirmed this finding. [7, 8, 9, 10]

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This finding was supported by survey data. Of the 13 scholarship recipients who answered the question, 77% indicated they had a prior intention to practise in a rural area after completing studies as a pharmacist. Availability of the scholarship had a weak to moderate influence on students' intention to practise rurally. This may be due to the high proportion of students who had a prior intention to practise in a rural area.

Conversely, several papers have identified a lack of evidence supporting the effectiveness of scholarship schemes in promoting recruitment and retention of staff in a rural health workforce. [11, 12] A mixed methods study by Devine, Williams and Nielsen on the effectiveness of the Queensland Health Rural Scholarship Scheme (Allied Health) in retaining allied health professionals in rural areas could not directly associate workforce outcomes with the Scheme. [12] The authors suggested this nil effect was due to many scholarship holders having a prior interest in working in rural areas, regardless of whether a scholarship was received. Despite this, the scheme was highly valued by participants. [12]

It is important to note the Queensland scheme involved a Return of Service (RSO) period, unlike the Pharmacy Scholarship. Scholarship programs with an RSO period experience higher rates of drop-out and may stigmatise rural practice. [13, 11] Other comparable schemes including the Nursing and Allied Health Scholarship and Support Scheme (NAHSSS) and the Rural Australia Medical Undergraduate Scholarship (RAMUS) do not bond recipients to an RSO. However, the new Health Workforce Scholarship Program to be rolled out this year will require return of service for some 'higher value scholarships'. [14] Until 2015, the Bonded Medical Places (BMP) Scheme included an RSO period of up to six years for participating rural doctors. [15] The RSO period of the BMP Scheme was recently reduced to one year following high rates of participant drop-out. [11]

The value of the scholarship was increased after the Fourth Community Pharmacy Agreement (4CPA) from \$6,000 to \$10,000 per annum. All scholarship recipients surveyed (n=65) stated the scholarship value of \$10,000 was a helpful contribution to covering the costs of attending university. This value is in line with other rural scholarship schemes including the NAHSS and the RAMUS.

Peak body stakeholders noted the use of the PhARIA classification system to assess rurality was problematic as it excludes students from regional PhARIA 1 areas, such as Tamworth, New South Wales. Recipient consultation revealed significant barriers experienced by students from rural and remote areas who must relocate from the family home to attend university. Students who reside in regional PhARIA 1 locations may still be required to leave home to attend university. Other scholarship programs including the NAHSSS used Australian Standard Geographical Classification – Remoteness Areas (ASGC-RA) to determine rural origin. If the ASGC-RA was applied to the Pharmacy Scholarship Scheme, students from regional PhARIA 1 areas such as Tamworth, New South Wales, would be deemed eligible.

Appropriateness assessment 1: The Scholarship Scheme's aim to support students from rural and remote areas to study a pharmacy course at university is supported by literature, as rural origin is a strong predictor of future rural practice.

Appropriateness assessment 2: The lack of an RSO period tied to the Scholarship Scheme is in line with other similar programs.

Appropriateness assessment 3: The scholarship value is in line with similar programs and is seen by recipients as a helpful contribution to the costs of study.

Appropriateness assessment 4: Other scholarship schemes use remoteness classification indexes to determine rural origin that are based on geographic isolation, not workforce coverage, as in PhARIA.

Effectiveness

The aim of the Scholarship Scheme is to encourage and support students from rural and remote areas (PhARIA 2–6) to undertake a course at an Australian university that leads to a registrable qualification as a pharmacist. Receipt of a scholarship was a deciding factor for many students who may not have been able to attend university without financial support.

Table 2.1 shows the PhARIA classification of scholarship recipients' residence by cohort year. PhARIA is generally classified on an index of 1–6. Program data

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received from The Pharmacy Guild of Australia (The Guild) included data for PhARIA 0. This inclusion is considered to be an administrative error on the part of The Guild. As shown in Table 2.1, 24% of scholarship recipients resided in a PhARIA 1 location. While students historically residing in PhARIA 1 locations are ineligible for the scholarship, this figure may include students who previously resided in a PhARIA 2–6 area prior to study.

Of the eligible PhARIA locations, 28% of scholarship holders resided in PhARIA 3 areas, followed by 12% in PhARIA 2 and decreasing proportions with increasing remoteness.

Table 2.1: PhARIA classification of scholarship recipients' residence, by cohort year

Cohort year	PhARIA							
	0*	1	2	3	4	5	6	Total
2011	8	13	4	12	3	2	1	43
2012	4	13	2	7	6	4	5	41
2013	0	9	6	15	5	6	0	41
2014	4	12	3	7	5	6	3	40
2015	3	7	6	16	2	7	1	42
2016	4	5	9	12	4	3	4	41
Total	23	59	30	69	25	28	14	248
% of Total	9%	24%	12%	28%	10%	11%	6%	100%

* Program data from The Guild included PhARIA 0 data. However, PhARIA 0 is not a PhARIA category and is considered to be included in error.

Survey data from scholarship recipients indicated 77% (n=10) of respondents intended to practise in a rural area prior to studying pharmacy. However, only 52% (n=13) of recipients went on to work in major cities while 48% (n=12) returned to a PhARIA 2–6 area after study. Recipients cited greater job opportunities and lifestyle factors contributed to their decision to practise in a major city.

Effectiveness assessment 1: The Scholarship Scheme as it is currently administered is effective in supporting students from PhARIA 2–6 areas to attend university. The financial support provided under the Scheme is a deciding factor for students who could not otherwise afford to attend university.

Effectiveness assessment 2: However, the PhARIA system may exclude students from regional areas classified as PhARIA 1.

Effectiveness assessment 3: Despite scholarship recipients having previous intentions to practise in a rural area prior to studying pharmacy, only around half of scholarship recipients go on to practise in rural and remote areas after becoming qualified.

Efficiency

Ninety-nine scholarships were funded during the 2013–14 financial year and continued into 2014–15. The average total program value across the two financial years was \$1,048,537, which includes an estimated administration overhead allocation of \$61,041 comprising 6% of total program expenditure.

The individual unit cost, that is the cost per scholarship recipient, is estimated at \$10,618 per annum, which includes an estimated administration overhead allocation of \$618.

Administration overhead costs were estimated based on program volume in the context of all programs. An administration overhead cost proportion of 6% is within the acceptable range. However, this may underestimate actual program administration costs, as it is assumed considerable effort is associated with assessing scholarship recipients' eligibility and reporting each year.

Efficiency assessment 1: A single unit cost per scholarship recipient was estimated at \$10,618 comprising 6% administration overhead costs. This was considered within the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

While scholarships were highly valued by recipients and somewhat supported by the literature, there were a number of limitations with the program as it is currently administered. These include:

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- need for greater clarity around the requirements of scholarship recipients to remain eligible for the scholarship (e.g. reporting, involvement with health clubs)
- reports required to be written by scholars were considered unnecessarily time consuming
- patchy access to rural health clubs, and
- PhARIA rules excluding students from regional PhARIA 1 locations.

Two peak body stakeholders, including the Australian Rural Health Education Network (ARHEN) stated embedding an RSO in the Scheme would provide better return for investment by increasing the likelihood of students taking up rural practice. Embedding an RSO where a student would be guaranteed a job in a rural area upon graduating as a pharmacist was also suggested by survey respondents. However, the effectiveness of RSOs in retaining rural workforce is not supported by the literature.

HMA considers linking the Scholarship Scheme to a rural internship and RSO period (supported by the Intern Incentive Allowance for Rural Pharmacies and Extension Program) is a practical way to increase scholars' exposure to rural practice and may increase recruitment of rural pharmacists.

Peak body stakeholders noted the impracticality of using the PhARIA system to define student eligibility, as it excludes students from regional PhARIA 1 areas and assumes scholars will return to their home town once qualified. Other scholarship schemes such as the NAHSSS and RAMUS use the Australian Standard Geographic Classification – Remoteness Area (ASGC-RA), which identifies rural areas based on distance from major cities. Under the ASGC-RA, PhARIA 1 areas such as Mount Gambier or Tamworth are defined as Inner Regional. HMA considers using a measure of rurality that is based on geography and population such as the ASGC-RA or Modified Monash Model is more appropriate than the PhARIA system for the Scholarship Scheme. The former indexes more accurately predict students' distance from universities and, therefore, better identify students who are financially disadvantaged.

Applying a broad definition of rurality that recognises geographic isolation to the Pharmacy Scholarship Scheme will lead to an increase in scholarship demand.

However, the application ranking process already in place will ensure students facing the greatest geographical and financial barriers are awarded scholarships.

One stakeholder suggested the funding may be better directed towards assisting students who did not achieve the requisite marks to access alternate pathways to university study.

2.2 RURAL PHARMACY SCHOLARSHIP MENTOR SCHEME

2.2.1 Context

Target population

The Rural Pharmacy Scholarship Mentor Scheme is intended to support pharmacy students participating in the Rural Pharmacy Scholarship Scheme and the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme. The Mentor Scheme also supports rural pharmacists to provide mentoring to students. [16]

Program aim

The Mentor Scheme aims to provide mentoring to students from rural and remote communities and Aboriginal and Torres Strait Islander students to encourage and enable them to undertake undergraduate and graduate studies in pharmacy at university, leading to a registrable qualification as a pharmacist.

Program delivery method

The Mentor Scheme links recipients of the Rural Pharmacy Scholarship Scheme and the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme with mentors (practising pharmacists in PhARIA 2–6 areas) for the duration of their studies. [16] Mentors are required to develop a learning plan with the student and report on the student's rural health activities. Mentors are offered an honorarium payment of \$375 per mentored student, per year.

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Program volumes

As mentors are allocated to recipients of both the Rural Pharmacy Scholarship Scheme and the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme, Mentor Scheme volumes reflect the total volume of both Scholarship Schemes. Program data provided by The Guild was de-identified, so it is unclear whether one mentor was assigned to more than one student each year. Assuming each scholarship recipient was assigned a different mentor, 106 mentors are estimated to have taken part in the program during the 2013–14 financial year and continuing into the 2014–15 financial year.

2.2.2 Evaluation findings

Appropriateness

The effectiveness of mentor support for rural students is strongly supported by literature. A South African study of the success factors of the Friends of Mosveld Scholarship Scheme (FOMSS), identified support (in the form of mentoring and peer support) was key to rural scholarship recipients returning to practise in their districts. [17] However, the study identified mentors' experience in rural practice was integral to developing meaningful relationships with scholars.

The effect of mentoring on the intention of medical graduates in taking up rural practice has been extensively studied by Rabinowitz et al. [18] The authors found that rural mentoring and support for students was one of the best indicators for graduates' uptake of rural practice. [18, 19]

Consultations undertaken as part of the *Review of Australian Government Health Workforce Programs* by Jennifer Mason indicated mentoring mechanisms are particularly important in supporting the recruitment and retention of Aboriginal and Torres Strait Islander health professionals. [11] The Review recommended all Aboriginal and Torres Strait Islander health students undertaking tertiary education should have access to mentoring throughout the educational pathway and continued into the workforce.

One peak body stakeholder noted that the honorarium payment to mentors (\$375 per mentored student, per year) was very low in comparison to similar programs (e.g. John Flynn Placement Program pays mentors an honorarium of \$300 per student per placement week). This stakeholder suggested the honorarium payment should be reviewed in the context of other mentor programs. The honorarium payment appears to be low given the amount of time mentors dedicate to their students. Survey findings revealed mentors spend around 29 hours per annum on mentoring activities. If the average time spent on mentoring activities was compensated at the current award rate for experienced pharmacists (\$28.78 p/hr), mentors would receive \$834.62. However, of the mentors surveyed, 92% stated the honorarium payment at its current value was a helpful contribution to their efforts.

Appropriateness assessment 5: Students' need for mentoring is supported by literature. Other similar scholarship or placement programs include mentoring arrangements.

Appropriateness assessment 6: The honorarium payment should be reviewed to better compensate the actual time spent on mentoring activities.

Effectiveness

Most survey respondents who received mentoring (85%) found being mentored by a rural community pharmacist was a useful experience. Mentors provided ongoing support and contact with students and 32% offered students placements or work experience within their practices. Mentorship provided insights into the advantages of rural pharmacy practice and created professional networks for scholarship recipients. However, as outlined in Section 2.1.1, around half of surveyed scholarship recipients proceeded to practise in a rural or remote area after completing their studies. While survey feedback from mentors and scholars indicated the program is valued by both groups, it is unclear from this data the extent to which mentorship impacts a student's decision to practise in a rural area. This question was not explicitly asked in surveys.

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Survey data showed 92% (n=33) of surveyed mentors would *'always'* or *'sometimes'* claim the \$375 honorarium payment. The 8% of respondents who never claimed the payment were either too busy or forgot to claim, were not aware that the payment was available or wanted to 'give back' to rural community pharmacy.

Effectiveness assessment 4: Mentorship was highly valued by scholarship recipients. However, it is unclear whether mentoring has an impact on scholars' intention to return to a rural area once qualified.

Effectiveness assessment 5: Most mentors collect the honorarium payment.

Efficiency

Across the 2013–14 and 2014–15 financial years, the total average annual cost of the Mentor Scheme was \$104,132, which includes administration overhead estimate of \$64,876.

A unit cost, that is the cost of allocating a mentor to each scholarship recipient, was estimated at \$987, which includes an administration overhead estimate of \$612. This comprises 62% of the total unit cost. This is outside the acceptable range for program administration costs. However, this figure likely overestimates the actual administration expenditure for the Mentor Scheme because of the high volumes and relatively low direct program cost (i.e. \$375 per mentor).

Efficiency assessment 2: A single unit cost per mentor was estimated at \$987 including 62% administration overhead costs. This was considered outside the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

While most mentors and students found the Scheme to be a mutually beneficial program, both groups highlighted issues with the program. Survey findings revealed 32% of mentors offer their students work experience or placements. One mentor suggested the Scheme should provide funding for mentors to offer paid hours to

students who complete a placement. A practical way to support mentors to offer paid work experience to their students is to link the Mentorship Scheme with the Intern Incentive Allowance for Rural Pharmacies, whereby each scholar could complete an intern year at their mentor's pharmacy practice, supported by the Allowance.

Survey data identified the lack of resources or structure to study the outcomes of the Mentor Scheme. One mentor felt the Scheme would show more benefit if mentored students were tracked to record how many continue into rural practice. Linking the Mentor Scheme with the Intern Incentive Allowance would ensure scholarship recipients complete their intern year in a rural area. Australian Health Practitioner Regulation Agency (AHPRA) data can be used to monitor movement of pharmacy interns into graduate roles. Additional resources would need to be committed by the Department to track mentored students over a longer period.

While the honorarium payment is less than other mentorship schemes and does not reflect the amount of time spent by mentors, nearly all mentors surveyed were appreciative of the payment as recognition of their effort. Therefore, increasing the value of the honorarium payment is unlikely to result in stronger engagement with the Scheme. HMA contends that program funding would be better allocated elsewhere.

2.3 RURAL INTERN TRAINING ALLOWANCE

2.3.1 Context

Target population

The Rural Intern Training Allowance (RITA) supports pharmacy interns practising in rural areas (PhARIA 2–6). [20]

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Program aim

The RITA aims to reduce the additional costs incurred by intern pharmacists practising in rural and remote communities to undertake compulsory workshops and examinations that are part of an Intern Training Program.

Program delivery method

The RITA provides financial support to rural intern pharmacists to enable them to undertake compulsory intern year training events (e.g. exams, workshops). [20] Funding of up to \$1,500 per intern per financial year is available to help cover travel and accommodation costs associated with attending intern training events delivered in metropolitan or other regional / rural centres. Calculations for car travel are made based on the number of kilometres travelled (minimum of 200 km and maximum of 500 km per claim) and the engine capacity of the car.

In order to claim costs, interns must provide evidence to validate claims such as proof of residency/citizenship, proof of attendance and receipts. Applications must be received within 60 days of the conclusion of the event. A separate application must be submitted for each event.

Program volumes

For the three full calendar years in which program data was available (2013 to 2015), there were 559 RITA allowances paid, equating to \$253,418 over the three years. Allowance numbers and expenditure were consistent across the three years as shown in Table 2.2.

Table 2.2: RITA allowances and expenditure by calendar year, 2013 to 2015

Calendar Year	RITA allowances paid	RITA allowance expenditure	Average amount per allowance
2013	190	\$85,199	\$448
2014	190	\$86,443	\$455
2015	179	\$81,777	\$457
Total	559	\$253,419	\$453

Examination of program data by PhARIA showed that most allowances were paid to interns located in PhARIA 2 (n=164, 29.3%) or PhARIA 3 (n=163, 29.2%). Approximately one third of RITA allowances were claimed by interns in PhARIAs 4 to 6 combined. A small proportion of approved allowances had not been classified by PhARIA (PhARIA 0, 2.5%), and a small proportion (2.5%) were allocated to interns in a PhARIA 1 location that had been given an exemption to the eligibility criteria (e.g. Geraldton in WA). See Table 2.3 and Figure 2.1.

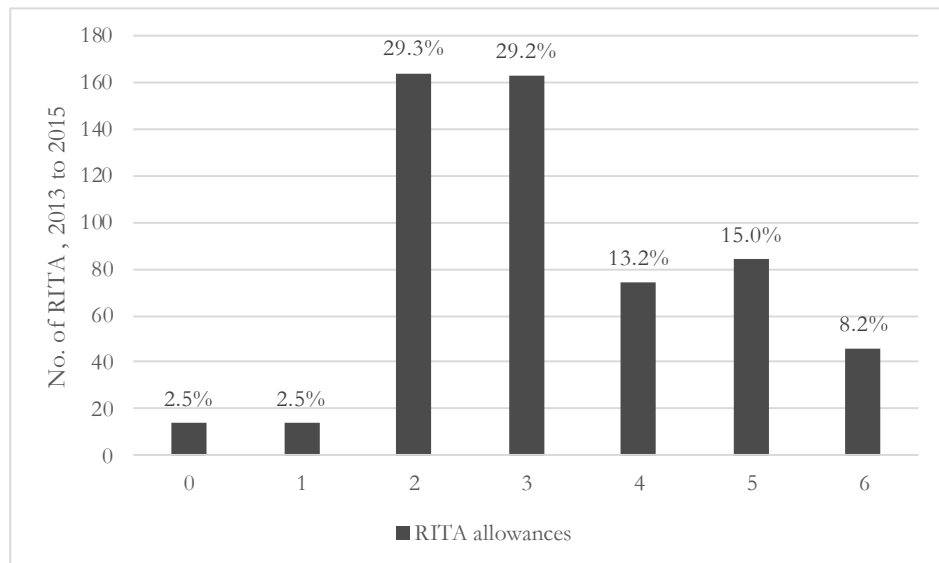
Table 2.3: RITA volume by PhARIA, 2013 to 2015

PhARIA	RITA volume	
	n	%
0	14	2.5%
1	14	2.5%
2	164	29.3%
3	163	29.2%
4	74	13.2%
5	84	15.0%
6	46	8.2%
Grand Total	559	100.0%

**PhARIA 0 was allocated to a small percentage of RITA allowances in the program data. PhARIA 1 is for places with an exemption e.g. Geraldton in WA.*

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Figure 2.1: RITA volume by PhARIA of intern placement, 2013 to 2015

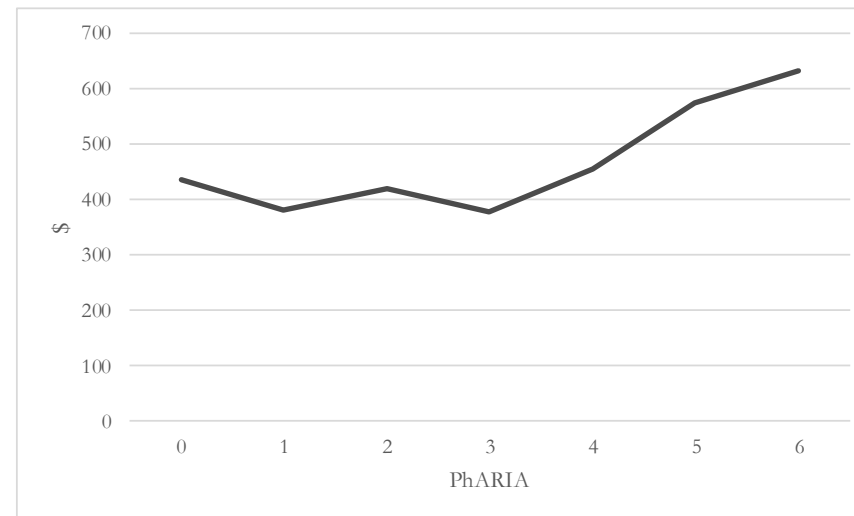


The average amount of the RITA allowance increased in correlation with increasing PhARIA classification. This reflects the increased costs of travel associated with these more remote locations. See Table 2.4 and Figure 2.2.

Table 2.4: Average RITA amount (\$) by PhARIA, 2013 to 2015

PhARIA	Average RITA allowance (\$)
0	\$437
1	\$381
2	\$420
3	\$378
4	\$457
5	\$576
6	\$634
Total	\$469

Figure 2.2: Average RITA amount (\$) by PhARIA, 2013 to 2015



2.3.2 Evaluation findings

Appropriateness

Numerous studies explore the effect of rural internship on future rural practice, which show a correlation between rural internship and rural practice. [10], [21], [22] A survey of over 600 rural and metropolitan pharmacists practising in Victoria identified that undertaking a rural internship was the strongest predictor of future rural practice and this effect was statistically significant. [22] This is confirmed by analysis of recent pharmacist workforce data, [23] which showed that the majority of newly graduating pharmacists in inner or outer regional locations had completed an internship (provisional registration) the preceding year in the same location type (76% for inner regional and 68% for outer regional).

Further details of the literature and workforce data analysis are discussed in section 3.3.

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Despite the importance of rural exposure for future rural practice, the desktop review did not find any literature on the barriers or enablers for attracting rural interns.

Additionally, a number of peer reviewed studies identified easy access to continuing professional development (CPD) as an important factor considered by health professionals when deciding whether to leave or stay in rural areas. [24, 25, 26] However, the desktop review and literature scan did not identify any similar programs specific to meeting the needs of interns.

Appropriateness assessment 7: There is strong evidence to support the importance of rural exposure (through internships) for future rural practice, and the need for support for CPD. However, there was a paucity of information on best practices to engage rural interns.

Effectiveness

Of the 51 previous recipients of the RITA that responded to the online survey, 47 (97%) stated the funding they received was a helpful contribution to the costs incurred as part of their training and education.

Only one peak body group, the Pharmacy Guild of Australia, provided comments on this program. The Guild also considered the RITA to be a useful program for non-metropolitan interns. However, it was noted that the gradual move towards online intern training may reduce the need for travel for compulsory training events. Further investigation would be required to determine the impact of online training on intern travel expenses.

Effectiveness assessment 6: Information from intern survey responses indicates that the RITA program achieves its aim to reduce the additional costs incurred to undertake compulsory workshops and examinations.

Efficiency

The average annual cost of the RITA program (allowance plus administration costs) was estimated at \$227,649 (based on the two financial years for which data was available \$221,215 in 2013–14 and \$234,083 in 2014–15). This equates to an average unit cost of \$1,169 per allowance. There is considerable administrative effort required to process each claim, estimated at 61% of the unit cost.

However, it was not possible to determine the average RITA amount per individual intern as the program data was de-identified. Therefore, it is not possible to ascertain if individual interns claimed the total \$1,500 available per financial year., nor if internships that spanned financial years were able to access more than \$1,500.

Efficiency assessment 3: A single unit cost per RITA recipient was estimated at \$1,169 comprising 61% administration overhead costs. This was considered outside the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

Several previous recipients of the RITA who responded to the online survey raised a number of issues with the program. These included:

- the 500-kilometre cap on funded distance travelled disadvantages remote interns
- more promotion of the Allowance is required as some respondents were not aware of the RITA, and
- providing upfront funding is preferred to reimbursement because out-of-pocket expenses can be a burden on rural interns.

Conversely, The Guild (as peak body and administrator of the program) considered the current administration of the program to be fast and efficient, and worried that providing upfront payments would significantly increase the administration burden.

Alternatively, a set stipend for intern travel, tier-based on remoteness of location, could be allocated, payable upon commencement of internship or at periodic

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intervals. This style of payment could provide interns with upfront payments, without increasing the administrative burden. However, a set stipend (rather than actual expenditure) could significantly increase program costs.

Efficiency assessment 4: Minor modifications to the RITA program could be made to improve the overall efficiency. However, the economic impact of the modifications would need to be considered.

2.4 RURAL PHARMACY STUDENT PLACEMENT ALLOWANCE

2.4.1 Context

Target population

The Rural Pharmacy Student Placement Allowance (the Placement Allowance) supports Australian universities offering pharmacy courses and pharmacy students completing a placement in a rural or remote area (PhARIA 2–6). [27]

Program aim

The Placement Allowance aims to facilitate positive placement experiences for pharmacy students in rural and remote communities in order to encourage students to return to rural communities upon graduation. Financial assistance is provided to students for costs incurred for travel and accommodation associated with rural placements.

Program delivery method

The Placement Allowance provides financial support to Australian universities to enable them to deliver student placements in rural and remote areas (PhARIA 2–6).

In 2015–16, Placement Allowance funding was delivered to 17 pharmacy schools including the following:

- Charles Darwin University
- Charles Sturt University
- Curtin University
- Griffith University
- James Cook University
- La Trobe University
- Monash University
- Murdoch University
- Queensland University of Technology
- University of Tasmania
- University of Canberra
- University of New England
- University of Newcastle
- University of Queensland
- University of South Australia
- University of Sydney, and
- University of Technology Sydney.

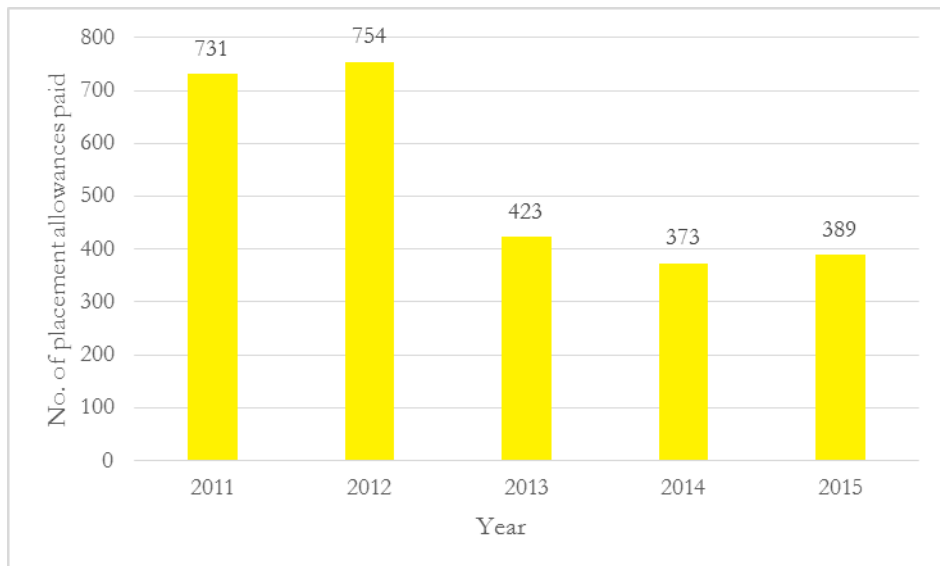
Funds are provided to universities at the beginning of each calendar year. [27] The funding allocated to each university is based on placement volumes from the previous calendar year. Allowances of up to \$3,000 per student per placement are paid to students via their university. Allowance funds may only be used to cover travel and accommodation costs for students undertaking a rural placement. [27]

Program volumes

Program data indicates 389 allowance payments were made to placement students across 15 universities (excluding Murdoch University for which data is unavailable) during the 2015 calendar year. [28] As shown in Figure 2.3, there was a downward trend in the number of placement allowances provided across the 5CPA with a slight increase in 2015. The total number of placement allowances provided to students decreased by 51% from 731 in 2011 to 373 in 2014 and increased slightly to 389 in 2015.

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Figure 2.3: Total placement allowances provided over 5CPA



2.4.2 Evaluation findings

Appropriateness

Time spent in rural areas prior to graduation has a positive effect on health professionals' intention to practise rurally. [10, 21, 22] The literature scan identified a number of studies exploring this effect within the context of placements. A longitudinal study of nursing and allied health graduates who had undertaken a rural placement during their studies found 25% of graduates had entered the rural workforce in the 6 to 20 months post-graduation. [29] Factors significantly positively associated with rural practice included self-reported value of the placement and duration of placement of four weeks or less. The latter finding indicates shorter placements may be more effective than longer, more costly placements as they minimise negative non-work-related factors (e.g. time away from friends and family) while exposing students to rural practice.

A survey of graduating health science students who had participated in a rural placement program in Tasmania identified that rural placements had a positive impact on students' intention to practise rurally. [30] After placement, nursing, medicine and allied health students expressed significantly increased intention to practise rurally. The effect was not significant for pharmacy students, which opposes findings of other studies discussed previously. [22]

It is important to note this study did not measure actual employment in rural areas, but rather the intention to practise rurally.

Other programs recognise the significant financial burden associated with undertaking a rural placement. Comparable programs include the Rural Health Multidisciplinary Training Program and the John Flynn Placement Program. These programs cover the cost of travel and accommodation, which present a barrier for students on a low income.

Appropriateness assessment 8: The promotion of rural placements as a means to increase students' exposure to and interest in rural practice is supported by literature. The financial burden experienced by students can be a barrier to completing a rural placement and is addressed by this program.

Effectiveness

As shown previously in Figure 2.3, the total number of placement allowances provided by universities dipped significantly during the 5CPA before increasing slightly in 2015. The most significant reduction in placement allowances occurred between 2012 and 2013 calendar years. This is in line with a significant reduction in pharmacy course enrolments. However, the total number of enrolments in pharmacy courses generally increased across the 5CPA. Figure 2.4 illustrates the general increase in pharmacy course enrolments over the 5CPA compared to the decrease in placement allowances paid. Currently available data is not sufficiently detailed to understand the decline in allowances. However, potential reasons may include changes to program rules or budget or university-level changes to curricula including the removal of compulsory rural placements after 2012. Only three of the ten universities consulted included compulsory rural placements in the curricula.

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Figure 2.4: Total pharmacy course enrolment and rural placement allowances over 5CPA

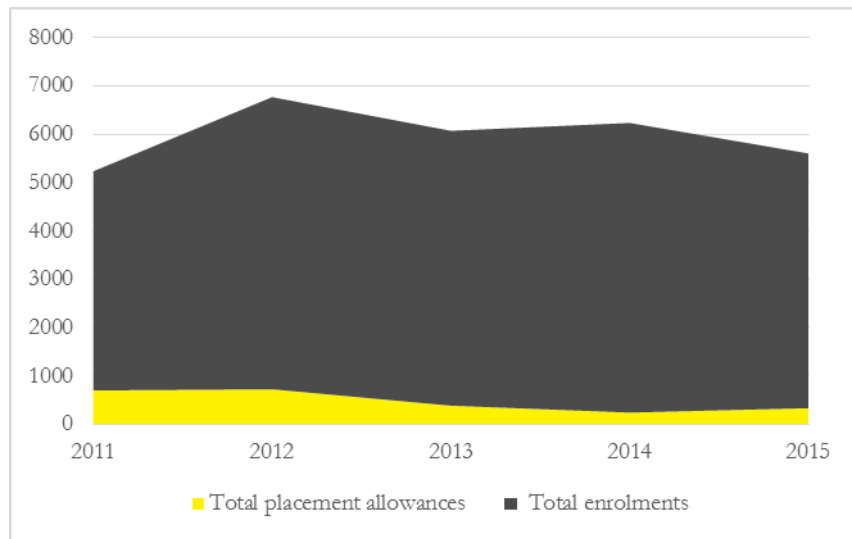
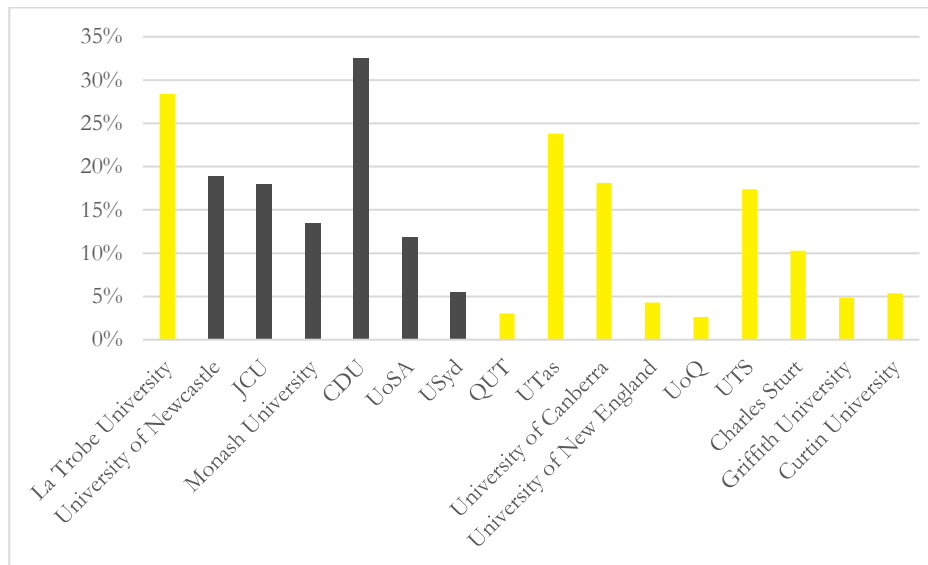


Figure 2.4 shows that enrolment in pharmacy courses far outstrips the number of rural placement allowances paid each year. On average, only 9% of pharmacy students across all universities were paid a rural placement allowance. Audited financial statements from 2013–14 and 2014–15 financial years show the allocated program budget of \$650,000 per annum was usually entirely spent, indicating all available placement allowances were paid.

Figure 2.5 shows the total placement allowances paid across the 5CPA as a proportion of total enrolments. Universities that have a Rural Pharmacy Liaison Officer (RPLO) contract are highlighted in dark grey. Universities with an RPLO contract tend to have higher proportions of placement allowances. However, this trend is weakened by a number of limitations including incomplete enrolment data. Further, universities with low enrolments (e.g. UTS, University of Canberra) tended to have high proportions of placement allowances. While Latrobe University does not have an RPLO contract, it has a focus on rural pharmacy and compulsory rural placements.

Figure 2.5: Placement allowances paid as a proportion of total enrolments, by university



Placement data is not sufficiently granular to compare the number of students who undertook rural placements versus the number of students who received an allowance. However, feedback from placement coordinators indicates only students who receive the allowance are able to undertake a rural placement.

Most peak body stakeholders consulted endorsed the support of students to undertake rural placements, as this experience is considered important in influencing students' perception of rural practice during the formative phase of their career. Two stakeholders noted that rural placements with sufficient support and planning have better outcomes for recruitment, a point supported by literature. One stakeholder suggested support and placement planning is best provided by RPLOs. Consultations with students completing rural placements identified strong support for the Placement Allowance program, as the availability of the allowance was a deciding factor for students to undertake a rural placement.

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Currently available data does not allow for investigation of the proportion of students who undertake a rural placement and who go on to practise in a rural or remote area.

Effectiveness assessment 7: The number of students who received a placement allowance decreased over the 5CPA, despite increases in the number of students enrolled in pharmacy courses. The proportion of students who receive an allowance has remained low across the 5CPA when compared to the total number of enrolled students.

Effectiveness assessment 8: Students who received the allowance, as well as university placement officers, stated students generally would not complete a rural placement without access to the allowance.

Efficiency

As program funds are distributed to 16 universities, a unit of service delivery was considered to be one university. Program expenditure for the two financial years for which data was available was \$633,383.00 in 2013–14 and \$798,030 in 2014–15.

A unit cost, that is, support of one university to arrange rural placements for students, was estimated at \$40,390 per annum. This includes \$628 in administration overhead, comprising 2% of total unit cost. It is assumed the placement allowance requires little effort to administer on the part of The Guild, as universities administer the Placement Allowance.

Efficiency assessment 5: A single unit cost per participating university was estimated at \$40,390 per annum comprising 2% administration overhead costs. This was considered within the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

Students, placement coordinators and peak body stakeholders identified a number of limitations with the Placement Allowance as it is currently administered. Despite the *Program Specific Guidelines* stipulating that program funding is provided to universities at the start of the calendar year, three placement coordinators cited occasions when funding was provided midway through the calendar year. This impaired the universities' ability to plan for the number of placement allowances they could offer students within the academic year. Greater compliance with the timing set out in the *Program Specific Guidelines* is required.

Applying the PhARIA system to determine eligible rural placement sites was considered problematic by peak body stakeholders and placement coordinators. Eight of the ten placement coordinators consulted expressed issues with the PhARIA system as it applies to the Placement Allowance. Stakeholders noted PhARIA 1 pharmacies in regional areas miss out offering student placements, as students cannot afford to travel to these centres (e.g. Tamworth). As with the Continuing Professional Education (CPE) Allowance, allowances that cover travel costs should use a classification of rurality that is based on distance from major cities rather than a measure of pharmacy access.

Placement coordinators noted the administration burden associated with processing students' claims and reporting on allowance payments was prohibitively time-consuming. However, transferring this responsibility to students may present a barrier to undertaking a rural placement due to the additional effort required.

Stakeholders at universities with longer rural placements noted that the \$3,000 cap on placement allowances is insufficient to cover travel and accommodation for a 6-week placement. This is particularly true if subsidised accommodation is not

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available via a University Department of Rural Health (UDRH). Recipients of other programs, such as the CPE Allowance may apply for funding in excess of the cap if additional documentation is supplied to substantiate the reasons for the additional costs (e.g. airfares). HMA suggest wording to this effect should be included in the *Program Specific Guidelines* for the Placement Allowance program.

3 WORKFORCE RETENTION PROGRAMS

3.1 CONTINUING PROFESSIONAL EDUCATION ALLOWANCE

3.1.1 Context

Target population

The Continuing Professional Education (CPE) Allowance supports practising pharmacists, intern pharmacists and pharmacists preparing to re-enter the workforce who are living and working in rural and remote areas (PhARIA 2–6). The CPE Allowance also supports professional educators travelling to rural and remote areas to deliver CPE. [31]

Program aim

The CPE Allowance aims to reduce the additional costs incurred by pharmacists practising in rural and remote communities in continuing to undertake professional development and training, thereby encouraging and enabling them to undertake training and development opportunities.

Program delivery method

The CPE Allowance is paid to eligible rural pharmacists to assist them in accessing CPE activities (including Group 2 and 3 Accredited activities). [31] Allowances are also available for professional educators delivering CPE in rural and remote areas.

The allowance can be used to reimburse travel, accommodation and locum relief costs associated with accessing or delivering CPE activities. However, the allowance

¹ Data was analysed from 2012 onwards because the eligibility criteria changed at the beginning of this year. Prior to 2012, the PhARLA scale was not used as a measure of remoteness and regional areas that were PhARLA 1 were also eligible for the allowance.

cannot be used for CPE event registration fees, overseas conferences, meals, locum wages, car hire and travel to and from accommodation venue to CPE venue.

The allowance is capped at \$2,000 and is paid retrospectively upon submission of relevant documents / receipts that have been appropriately certified.

Application for the CPE Allowance must be made within 60 days of the end of the CPE event.

Applications over \$2,000 are considered where additional documentation is supplied to substantiate the reasons for the additional costs (e.g. airfares or other additional transport links from remote centres). These applications are subject to review by The Guild.

Program volumes

Program data from 2012–2015¹ showed that 1,866 CPE Allowance claims were made over the four-year period, equating to \$1.48m in claims. This equates to an average of \$791.41 per claim (with a maximum claim of \$2,892² and a minimum claim of \$40.50). Of these claims, 127 were sought by professional educators (6.8%) and 1,739 were sought by pharmacists, interns or re-entering pharmacists (93.2%).

3.1.2 Evaluation findings

Appropriateness

A number of peer reviewed studies identified easy access to CPE as an important factor considered by health professionals when deciding whether to leave or stay in rural areas. [24, 25, 26] Specific barriers identified in one study were: lack of

² Allowances have a maximum value of \$2,000. However, applications over \$2,000 will be considered where additional documentation is supplied to substantiate the reasons for the additional costs (e.g. airfares or other additional transport links from remote centres). These applications are subject to review by The Guild.

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opportunity, lack of access to locum relief, costs associated with accessing training, and lack of flexible training options. [32]

Consistent with the literature, the Australian Government acknowledges the need to assist health professionals in rural and remote areas to access CPE. For example, the Australian Government Department of Health funds the Support for Rural Specialists in Australia (SRSA) grants (administered through the Council of Presidents of Medical Colleges). The SRSA grants provide up to \$10,000 for up to five days of training for medical specialists (not including general practitioners) in rural and remote areas. [33] In addition, the Australian Government Department of Health funds the Rural Locum Assistance Program (Rural LAP, administered by Aspen Medical Pty Ltd), which covers the costs of locum travel, accommodation and incentives for up to 14 days leave for rural and 28 days leave for remote health professionals for CPE activities. [34] Health professions eligible to access the Rural LAP include general practitioners, medical specialists, nurses, midwives and allied health (does not include pharmacists). [34]

The Pharmacy Workforce Program CPE Allowance, as it is currently delivered, aims to mitigate several of the identified barriers to accessing CPE, such as travel costs associated with attending CPE and/or locum travel. However, other barriers such as limited opportunities or flexibility of CPE delivery are not addressed by the allowance.

The importance of CPE opportunities for the rural and remote pharmacy workforce was also acknowledged by peak body groups, stating the need for networking opportunities, connections to other disciplines and reducing professional and social isolation often encountered in rural practice.

Appropriateness assessment 9: The strength of the evidence on the effectiveness of CPE assistance in retaining rural and remote workforce is weak to moderate. However, access to CPE is an acknowledged barrier for rural and remote workforces. The Australian Government recognises the barrier for other health professions through support programs.

Effectiveness

The aim of the CPE Allowance is to reduce the additional costs incurred by pharmacists practising in rural and remote communities to undertake CPE activities.

The program provided just under 2,000 allowances to pharmacists and educators from 2012 to 2015³, with an average of just under \$800 per allowance. During this time, almost one third of pharmacists accessing the CPE Allowance were in New South Wales (31.7%). A further 17.4% were in Victoria, 16.8% in Western Australia and 14.6% in Queensland. See Table 3.1.

Table 3.1: CPE Allowance claims for pharmacists per jurisdiction, 2012–2015

Jurisdiction	CPE Allowance claims	% of Total
NSW	\$452,424.79	31.7%
VIC	\$247,561.09	17.4%
WA	\$239,432.16	16.8%
QLD	\$208,598.60	14.6%
SA	\$128,237.83	9.0%
NT	\$90,633.29	6.4%
TAS	\$58,470.14	4.1%
Grand Total	\$1,425,357.90	100.0%

Conversely, most educators accessing the Allowance were based in Victoria (59.9%), with a further 34.1% based in South Australia. See Table 3.2.

³ Data was analysed from 2012 onwards because the eligibility criteria changed at the beginning of this year. Prior to 2012, the PhARLA scale was not used as a measure of remoteness and regional areas that were PhARLA 1 were also eligible for the allowance.

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Table 3.2: CPE Allowance claims for educators per jurisdiction, 2012–2015

Jurisdiction	CPE Allowance claims	% of Total
VIC	\$30,783.15	59.9%
SA	\$17,530.84	34.1%
WA	\$1,680.00	3.3%
TAS	\$708.41	1.4%
NSW	\$701.51	1.4%
Grand Total	\$51,403.91	100.0%

Analysis by remoteness as assessed by PhARIA for calendar years 2013 to 2015⁴, showed that almost half of the CPE Allowance funds provided to pharmacists are to those located in PhARIA 2 (average of 21.9%) or PhARIA 3 (average of 27.1%) areas. The remaining distribution increases as remoteness increases: PhARIA 4 – average 12.9%, PhARIA 5 – average 15.7%, and PhARIA 6 – average 17.7%. See Table 3.3.

Table 3.3: CPE Allowance claims for pharmacists per PhARIA, 2013–2015*

PhARIA	CPE Allowance claims	% of Total
1	\$4,685.00	0.5%
2	\$204,490.42	22.0%
3	\$253,090.47	27.2%
4	\$119,699.04	12.9%
5	\$145,870.99	15.7%
6	\$164,708.13	17.7%
Unknown	\$37,754.40	4.1%
Grand Total	\$930,298.45	100.0%

*Calendar years 2013 to 2015 were used for PhARIA analysis to limit changes in PhARIA classification of regions.

*Some PhARIA 1 regions had an exemption for the CPE Allowance, e.g. Geraldton in WA.

Examining the CPE allowance funds distributed over the calendar year shows that funds are mostly allocated in quarters one and two. The reason for the seasonal

⁴ Calendar years 2013 to 2015 were used for PhARIA analysis to limit changes in PhARIA classification of regions.

distribution was not explored during consultations, but may reflect availability of CPE activities, or limited availability of funding in later quarters.

Educator use of the CPE Allowance funds from 2012 to 2015 accounted for only 3% of funding distributed, or 6.8% of claim volume. During this time, educators accessing the funding allowance almost halved – 39 educators accessed the allowance in 2012 compared with 20 educators in 2015.

Effectiveness assessment 9: Based on the usage data of the CPE Allowance from 2012 to 2015, it is concluded that the program meets its aim of reducing additional costs incurred by pharmacists practising in rural and remote communities to undertake CPE activities. However, the distribution of the allowance funds may not be equitable across the jurisdictions or need based on remoteness (using the PhARIA scale).

Effectiveness assessment 10: Conversely, the CPE Allowance has not led to an increase in delivery of face-to-face CPE activities in rural and remote areas, assessed by the educator use of CPE Allowance funds.

Efficiency

The average annual cost of the CPE Allowance program (allowance plus administration costs) was estimated at \$787,749 (based on the two financial years for which data was available \$772,534 in 2013–14 and \$803,054 in 2014–15). This equates to an average unit cost of \$1,931 per claim.

Although each allowance is capped at \$2,000, the average allowance amount was \$842.50 over the two years (2013–14 and 2014–15). In addition, there is considerable administrative effort required to process each claim, estimated at 56% of the unit cost.

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Efficiency assessment 6: A single unit cost per CPE Allowance recipient was estimated at \$1,931 comprising 56% administration overhead costs. This was considered outside the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

Consultation and survey responses confirmed the literature evidence and views of peak bodies regarding the importance of the CPE Allowance to assist access to CPE activities. However, several limitations of the program were noted, as follows:

- the cap on the allowance (\$2,000 per application) is insufficient for pharmacists living in remote locations
- the PhARIA eligibility is restrictive for regional locations that incur significant travel costs but are in a PhARIA 1 location (e.g. Tamworth)
- the length, complexity and timing of the application process was a barrier to use (e.g. having to provide a statutory declaration with a birth certificate each application)
- there is inequity in distribution with some pharmacists receiving funding only once per year and others several times
- other factors influenced pharmacist ability to attend CPE activities (e.g. availability of locum support) but are not addressed by the allowance.

There were mixed views from stakeholders regarding the use of online education for CPE. Although online training removes the need for travel and associated costs for CPE, the survey responses indicated that 59% of pharmacists found face-to-face training more valuable than online training. In addition, face-to-face training was seen to provide professional networking opportunities that were not available via online training programs. Therefore, there is still a need to support pharmacists to attend face-to-face training events.

The PhARIA classification of remoteness was not considered an equitable measure for the CPE Allowance. Pharmacists argued that the number of pharmacies in the

area did not impact on the need for CPE, nor the costs of associated travel. Instead, the Monash Model of Remoteness was the preferred scale to be used for remoteness classification, consistent with other Departmental programs.

Prior to 2012, the CPE Allowance eligibility criteria was based on location, not pharmacy access (as in PhARIA). As evaluators, HMA can see the merit in returning to a less restrictive remoteness scale such as the Monash Model. However, the total volume of funds disbursed in 2011 was just over \$1m. The impact of removing the PhARIA eligibility criteria could be expected to increase the required CPE Allowance funds by two- to three-fold. The increase in total claims made would also be expected to increase the administrative component of the program.

The inequity of travel costs for pharmacists depending on location was also raised by pharmacists in multiple geographic locations. This predominantly disadvantages pharmacists in rural and remote areas, but also impacts on pharmacists in less remote areas, which are still expensive to travel to. Establishing a tiered system of funding, whereby the cap is set in correlation with remoteness or actual travel costs, was suggested by stakeholders.

As evaluators, HMA can see the merit in using a tiered system that more accurately reflects travel costs incurred. Based on the average amounts of claims per PhARIA from 2012 to 2015, a tiered ratio per PhARIA is proposed in Table 3.4. Based on actual spend in the timeframe, this could increase the required funding by approximately \$50,000 per year. However, this doesn't account for any increase in claims in PhARIA 5 and 6, based on increased funding availability.

Table 3.4: Proposed tiered ratio for CPE Allowance caps per PhARIA

PhARIA	1*	2	3	4	5	6
Average claim 2012–2015	\$797.72	\$782.74	\$702.51	\$752.82	\$887.38	\$1,165.77
Ratio	1.0–1.1				1.3	1.7
Proposed cap	\$2,000–\$2,200				\$2,600	\$3,400

*Note: Geraldton is a PhARIA 1 location but has an exemption for the CPE Allowance.

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Many pharmacists stated that the retrospective nature of the CPE Allowance was a limiting feature of the program. CPE Allowance claims need to be made after the fact, with no guarantee of payment. This can be a disincentive for some pharmacists who may not be able to afford the costs upfront. HMA can see the value in changing to a prospective allowance. However, the additional administration required for a program that already has a large administrative burden may be cost prohibitive.

Conversely, streamlining the application process or modifying the process to be based on a per diem rather than actual cost-reimbursement could reduce administration time, while maintaining consistency in actual claim amounts. However, simplifying the claim process may lead to increased demand.

Finally, the inequity of multiple claims per pharmacist could be negated with a limit per person based on funds received or number of claims. However, to facilitate this option, an investment in appropriate software to track claims against individuals may be required. This type of software would also simplify the application process for pharmacists, as proof of citizenship and other documents could remain linked to an individual's 'account'.

The CPE Allowance program has several limitations that restrict use by pharmacists. However, removal of these limitations need to be considered in the context of additional funds that would then be required to implement the program and whether or not the benefit would outweigh the cost, or if funds could be redirected from lesser performing programs.

3.2 EMERGENCY LOCUM SERVICE

3.2.1 Context

Target population

The Emergency Locum Service (ELS) supports community pharmacies in rural and remote areas (PhARIA 2–6). [35]

Program aim

The aim of this program is to support rural and remote communities to retain access to community pharmacy services at all usual times.

Program delivery method

The ELS provides rural and remote community pharmacies direct access to pharmacist locums in emergency situations (e.g. pharmacist illness or injury, family emergency) 24 hours a day, 7 days a week. [35]

Through the Community Pharmacy Agreements, the Pharmacy Guild of Australia funds one service provider, LocumCo, to provide the ELS service to community pharmacists. LocumCo is responsible for receiving and approving ELS requests and deploying locums within a 24-hour period of request receipt. The program provides funding of up to \$2,500 (GST exempt) to cover the travel costs associated with locums travelling between their home and the community pharmacy, for a minimum of one day and a maximum of seven consecutive days. The pharmacy is responsible for the locum's accommodation requirements and salary.

Program volumes

Program data indicated that, from the 2010–11 financial year to the 2015–16 financial year, a total of 272 ELS requests were approved (no request was refused during this time), equating to 1,028 locum days. Requests (and approvals) increased from 31 in the 2010–11 financial year to 85 in the 2015–16 financial year. [36] See Figure 3.1.

Although the range of ELS locum days per episode fluctuated from one day to 12 days, the average length remained constantly between three to five days each financial year, with an overall average of 3.8 days. See Figure 3.2.

Interestingly, although the ELS funding program caps placements at seven consecutive days, 8.1% of episodes were for eight or more days, see Figure 3.3. HMA assumes these exceptions were made on a case-by-case basis.

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Figure 3.1: ELS episodes and number of locum days, by financial year

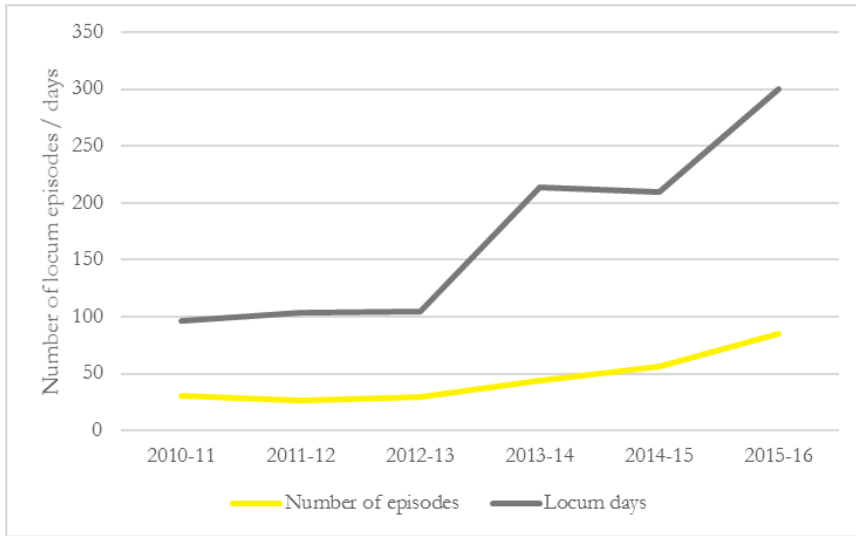


Figure 3.2: Average length of ELS episodes (and range), by financial year

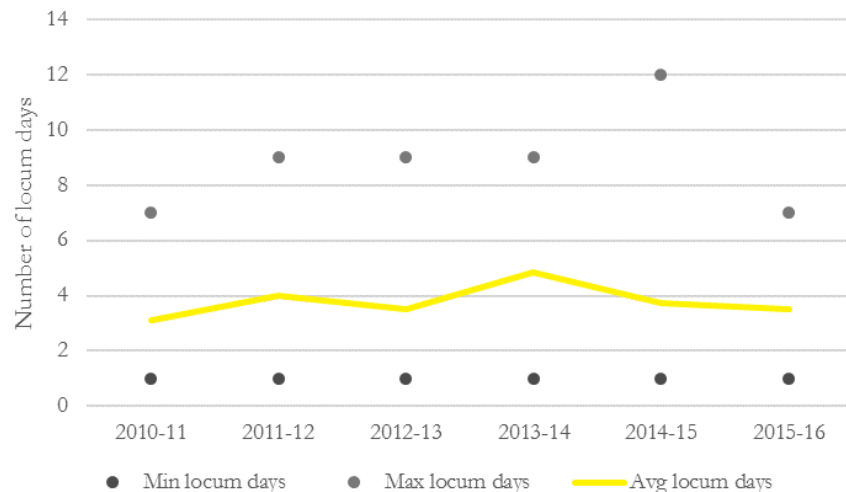
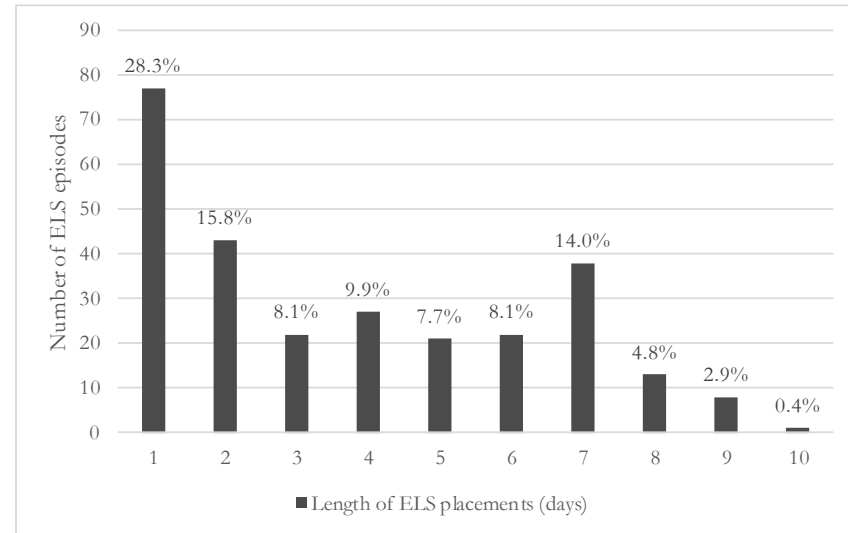


Figure 3.3: Length of ELS placements (days)



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3.2.2 Evaluation findings

Appropriateness

Access to locum services to enable rural health professionals to take emergency or planned leave is valued by health professionals and may influence the decision to stay in rural practice. A number of studies have identified access to locums as a key support to rural health professionals [37, 38, 39]. A survey of 148 registered oral health therapists in Western Australia sought to determine the major factors that influence oral health professionals to practise in rural areas. [37] Results indicated the second most important factor influencing oral health therapists to remain in rural locations (behind professional development) was access to locums, mentioned by 34% (n=31) of respondents.

However, a survey of allied health professionals in rural Victoria found that professional support in the form of locum support was not significantly related to

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intention to stay in a rural practice. Despite this, 98% of respondents (n=135) indicated access to locum support was ‘important’ or ‘very important’. [40]

In a 2013 review of Government Health Workforce Programs, access to locum support for rural health practitioners to undertake CPE was identified as a key support. [11] One such program is the Rural Locum Access Program that provides locum relief to enable rural health professionals to undertake CPE activities outside their location. [11]

As previously discussed, the Australian Government Department of Health funds the Rural LAP, which is administered by Aspen Medical Pty Ltd. Rural LAP covers the costs of locum travel, accommodation and incentives for up to 14 days leave for rural and 28 days leave for remote health professionals to undertake CPE activities. [34] Health professions eligible to access the Rural LAP include general practitioners, medical specialists, nurses, midwives and allied health (does not include pharmacists). [34]

Peak body groups consulted echoed the findings from the literature on the need for emergency locum services to support the sustainability of the pharmacy workforce in non-metropolitan areas, as well as the broader aim of facilitating access to PBS medicines.

Appropriateness assessment 10: Pharmacists consulted with found the ELS program to be vital during times of emergency. However, pharmacists reiterated the difficulties in securing locums to cover absences in non-emergency situations such as for CPE events.

Appropriateness assessment 11: Access to locums is highly valued by health professionals and may influence their decision to stay in rural practice. In addition to emergency scenarios, locum support is particularly important in enabling health professionals to take leave to access CPE.

Effectiveness

Analysis of the use of the ELS program showed that the number of ELS requests increased over time, from 31 in 2010–11 to 85 in 2015–16, see Figure 3.1. The increase in demand for the program may reflect the greater awareness of the program, although many pharmacists consulted still felt the program was poorly marketed and eligibility was unclear.

However, examination of usage (from 2010–11 to 2015–16) per PhARIA showed that PhARIA 3, 5 and 6 areas were most likely to use the service (24.3%, 25.7% and 23.3%, respectively), followed closely by PhARIA 4 areas (20.2%). Relatively few PhARIA 2 pharmacies accessed the ELS scheme (5.9%) and only one PhARIA 1 pharmacy requested services in the timeframe (note: PhARIA 1 locations were only excluded from eligibility from 2014–15 financial year onwards). See Table 3.5 and Figure 3.4.

Examination of the length of locum days per PhARIA showed a similar pattern. However, the proportion of locum days was higher in PhARIA 6 areas (33.5%), see Table 3.5 and Figure 3.4. Further analysis of the average length of locum days per episode confirmed these observations, with PhARIA 6 pharmacies requiring an average of 5.4 locum days, compared to 3.3 to 3.4 locum days in PhARIA 3 to 5. PhARIA 2 required the least locum days with an average of 2.6 days.⁵ See Table 3.5 and Figure 3.5.

⁵ Note: PhARIA 1 was not included in this analysis as it was based on only one episode and is no longer an eligible PhARIA location.

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Table 3.5: ELS program episodes and locum days by PhARIA, 2010–11 to 2015–16

PhARIA	ELS episodes		ELS locum days		Avg locum days
	n	%	n	%	
1	1	0.4%	4	0.4%	n/a*
2	16	5.9%	42	4.1%	2.6
3	66	24.3%	224	21.8%	3.4
4	55	20.2%	180	17.5%	3.3
5	70	25.7%	234	22.8%	3.3
6	64	23.5%	344	33.5%	5.4
Total	272	100.0%	1,026	100.0%	3.6

*As only one ELS request was made from PhARIA 1, the average was not calculated.

Figure 3.4: Proportion of ELS episodes or locum days by PhARIA, 2010–11 to 2015–16

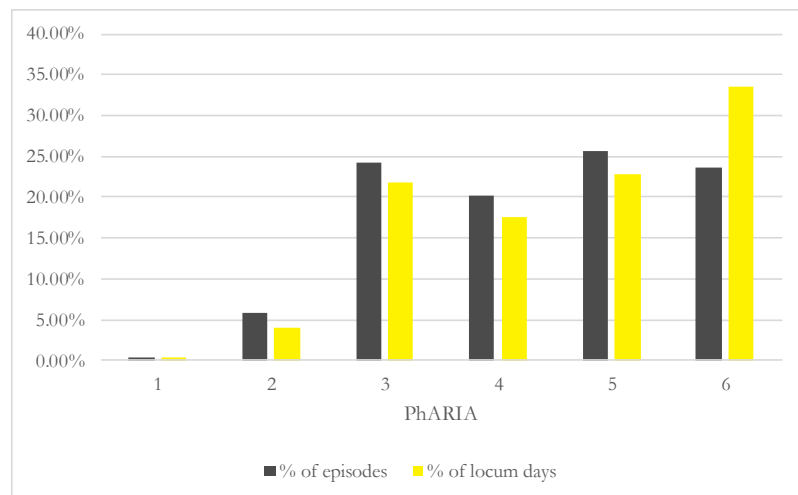
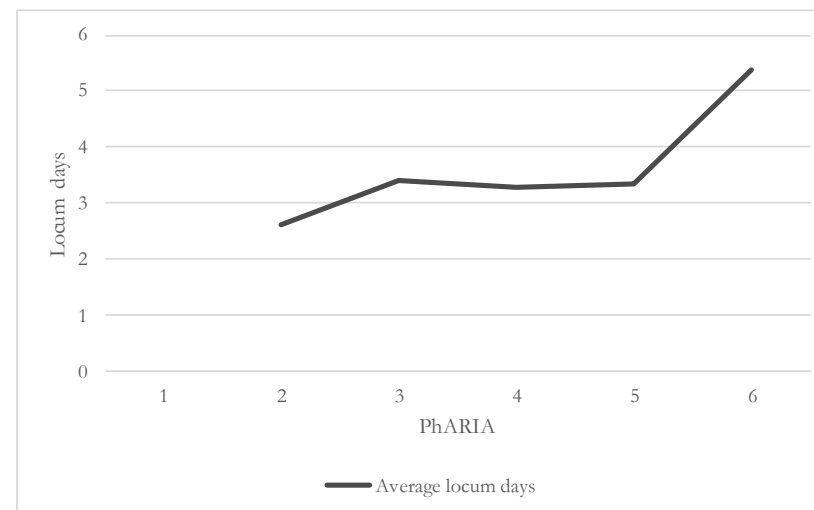


Figure 3.5: Average length of ELS locum by PhARIA*, 2010–11 to 2015–16



*As only one ELS request was made from PhARIA 1, the average was not calculated.

Similarly, the 16 ELS recipients that responded to the online survey indicated that the ELS program was very important (94%) or important (6%). Ten respondents (63%) indicated that they would probably have had to close their pharmacy temporarily if the program had not been available. Most respondents (n=14, 88%) ‘strongly agreed’ that the ELS is effective in helping pharmacies maintain communities’ access to pharmacy services. However, only 64% (n=11) agreed that the ELS was effective in encouraging pharmacists to practise in a rural location.

Pharmacists consulted indicated that the ELS program is vital during times of emergency. However, pharmacists also reiterated the difficulties in securing locums to cover absences in non-emergency situations, such as for CPD events.

Effectiveness assessment 11: The ELS is a highly valued program among non-metropolitan pharmacists, as reflected by the increase in demand over the last five years, which reduces temporary closures of pharmacies.

3 WORKFORCE RETENTION PROGRAMS

Effectiveness assessment 12: Demand is highest in PhARIA 3 and above locations, with PhARIA 6 pharmacists requiring the greatest length of locum days. This indicates that the ELS program achieves its aim of supporting rural and remote communities to retain access to community pharmacy services.

Efficiency

The average annual costs of the ELS program (ELS allowance plus administration costs) was estimated at \$165,814 (based on the two financial years for which data was available \$157,949 in 2013–14 and \$173,679 in 2014–15). This equates to an average unit cost of \$3,346 per claim.

Although each allowance is capped at \$2,500, the average allowance amount equated to \$2,662 over the two years (2013–14 and 2014–15). Therefore, exceptions to the \$2,500 limit must have been granted. The administrative component of the ELS program is relatively low at an average of 21% of the unit cost. This is in part due to the use of one service provider (LocumCo) that manages the day-to-day processing of ELS claims.

Efficiency assessment 7: A single unit cost per ELS recipient was estimated at \$3,346 comprising 20% administration overhead costs. This was considered within the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

To improve efficiency, the ELS program should aim to improve clarity and transparency of eligibility criteria, including items covered by the service, acceptable length of service and expected co-payments by pharmacists.

Several survey respondents commented that they felt the ELS service had ‘double-dipped’ by receiving funds through the ELS program and being paid by the pharmacy. It is unclear from the comments if this can be attributed to a lack of

understanding of how the funds are administered and of expected pharmacist contributions for the service.

In addition, further clarity on length of placements or when exceptions may be made is required to reduce confusion among pharmacists. Many pharmacists consulted were unaware of the program or thought they were ineligible as they were a pharmacy manager but not the owner. Increased marketing and additional clarity on eligibility or application process may increase program usage.

The limitation of the ELS program to cover only locum travel costs may also be a barrier to use by some pharmacists. In some remote locations, it may not be practical for locums to travel from home each day. In these instances, the pharmacists are disadvantaged if they need to cover the accommodation costs for the locum as well as the locum salary.

In the two financial years for which funding data was available, the ELS program used only approximately half of the budgeted funding (the remaining funding was subsequently redistributed among other pharmacy programs with permission of the Department). This indicates that the program has capacity to cope with increased demand that may be created through additional marketing activities or through increasing the allowances to include accommodation as required.

Some pharmacists also felt that the ELS program should partially cover locum salaries, but further investigation is required to determine if locum salaries through the ELS program are higher than metropolitan counterparts. Economic modelling would also be required to demine the financial implications for the program if salaries were partially subsidised.

Minor modifications to the ELS program could be made to improve the overall efficiency of the program. However, the economic impact of the modifications would need to be considered.

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3.3 INTERN INCENTIVE ALLOWANCE FOR RURAL PHARMACIES AND EXTENSION PROGRAM

3.3.1 Context

Target population

The Intern Incentive Allowance for Rural Pharmacies (IIARP) and Extension Program (IIARP-EP) supports community pharmacies or hospital authorities in rural areas employing pharmacy interns in (PhARIA 2–6) or newly registered pharmacy graduates in (PhARIA 4–6), respectively. [41]

Program aim

The IIARP and IIARP-EP aims to attract, retain and support an adequate rural pharmacy workforce, by supporting and enabling rural and remote community pharmacies to engage pharmacy interns and new graduates in their intern and post intern year.

Program delivery method

Both the IIARP and the IIARP-EP provide financial support to community pharmacies or hospital authorities to assist with employing a pharmacy intern (in PhARIA 2–6 areas) or new graduate (PhARIA 4–6 areas).

Under the IIARP, interns must be employed for a continuous period of six to 12 months. A maximum allowance of \$10,000 is available for 12 months' employment, or \$5,000 for six months' employment. [42]

Under the IIARP-EP, funding is available for community pharmacies or hospital authorities employing new graduates that participated in the IIARP for 12 months at their pharmacy in PhARIA 4–6 areas. New graduates must be employed for a continuous 12-month period beyond their intern year, for which an allowance of \$20,000 is available. [41]

Under IIARP and IIARP-EP, payments are made to the community pharmacy or hospital authority in three stages for 12-month allowances on approval, mid-way and upon completion. IIARP six-month allowances are paid upon commencement and at completion. See Table 3.6.

Table 3.6: Comparison of the IIARP and IIARP-EP allowances

Program	IIARP 6 month	IIARP 12 month	IIARP-EP
Commencement payment (reporting – application documentation)	\$2,500	\$5,000	\$10,000
Mid-payment (reporting – pharmacist only)	n/a	\$2,500	\$5,000
Completion payment (reporting – pharmacist and intern / new graduate reports) (\$2,500	\$2,500	\$5,000
Total funds	\$5,000	up to \$10,000	\$20,000
Length	6 months	6–12 months	12 months
PhARIA	2–6		4–6
Intern / new graduate prerequisite	Completed Pharmacy Board of Australia approved course and eligible to undertake intern training		Participated in IIARP for 12 months at the same pharmacy

Program volumes

Over the four calendar years for which IIARP program data was available, 272 IIARP allowances commenced. This equates to an average of 68 IIARP per year (range from 61 in 2012 to 77 in 2014). The majority of IIARP allowances were for the full 12 months (251 allowances, 92.3%). See Table 3.7.

The IIARP-EP program has an annual cap of 10 allowances per financial year. However, this maximum was only reached in the 2015–16 financial year. The data in Table 3.7 is presented by calendar year (of commencement date) for consistency

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with the IIARP program data. This shows that from 2012 to 2015, a total of 26 IIARP-EP allowances were funded, equating to an average of 6.5 per year (range 5 in 2014 to 8 in 2012).

Table 3.7: IIARP and IIARP-EP allowances by calendar year

Start year	IIARP				IIARP-EP
	6 months	6–12 months	12 months	Total	
2012	3	3	55	61	8
2013	3	2	58	63	7
2014	3	1	73	77	5
2015	4	2	65	71	6
Grand Total	13	8	251	272	26

*IIARP-EP cap of 10 allowances is per financial year, not calendar year.

3.3.2 Evaluation findings

Appropriateness

Numerous studies explore the effect of rural internship on future rural practice. Most studies relate to the medical profession, such as an Australian survey of medical students that identified students are more likely to express interest in practising rurally if exposed to rural practice during placements or an internship year. [10] Further, a Victorian study of medical graduates found a statistically higher proportion of GPs who had undertaken a non-metropolitan internship went on to practise outside metropolitan areas than metropolitan interns (44% versus 13% respectively). [21] Another longitudinal study of James Cook University medical graduates found undertaking an internship in rural areas (ASGC-RA 3–5) was a significant predictor of rural practice at five years post-graduation.

In the pharmacy field, a survey of over 600 rural and metropolitan pharmacists practising in Victoria identified undertaking a rural internship was the strongest predictor of future rural practice and this effect was statistically significant. [22]

This is confirmed by analysis of recent pharmacist workforce data [23]. As shown in Table 3.8, the data shows that the majority of first year general registered pharmacists in 2015 in inner or outer regional locations had completed an internship (provisional registration) the preceding year (2014) in the same location (76% for inner regional and 68% for outer regional, red text in Table 3.8). Although, only 21% of remote / very remote pharmacists had undertaken an internship the preceding year in a remote or very remote area, an additional 29% had completed an internship in an inner regional area (red text in Table 3.8). Similar trends were observed in 2013 and 2014 data (not shown). The data analysis is consistent with the evidence found in the literature.

Table 3.8: Location of general registered pharmacists (2015), by location of internship the preceding year (2014)

Intern location, 2014	General registered pharmacist location, 2015 n (%)			
	Major cities	Inner Regional	Outer Regional	Remote/Very Remote
Major cities	937 (96)	38 (19)	17 (19)	6 (43)
Inner Regional	31 (3)	150 (76)	7 (8)	4 (29)
Outer Regional	9 (1)	7 (4)	61 (68)	NP
Remote/Very Remote	NP	NP	5 (6)	3 (21)
Total#	977 (100)	197 (100)	90 (100)	14 (100)

Source: National Health Workforce Dataset (NHWDS) 2013–2015. Provisional registered pharmacist location 2014, general registered pharmacist location 2015. Location defined by ABS Remoteness Area (RA) classification. [23]

*NP = numbers too small to publish (2 or fewer). # Totals may exceed sum of values because of non-published (NP) data

Appropriateness assessment 12: The evidence from the literature and Health Workforce Data analysis indicates a significant link between undertaking an internship in a rural location and future rural practice for health professionals, including pharmacists.

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Despite the importance of rural exposure for future rural practices, during consultation, many rural pharmacists indicated that they experience difficulties in attracting interns of suitable quality to their area. Aside from the lesser desirable perception of rural pharmacy, common reasons cited for the difficulty in intern recruitment included the need to pay a higher wage to attract interns and the need pay re-location, and sometimes accommodation, costs for the intern.

However, there was no literature found exploring the effect of financial support to pharmacies / practices in increasing rural internships or new graduates. Two of the four peak body representatives consulted with considered that providing funding to the pharmacy rather than interns / new graduates is the most appropriate way to distribute funds under these programs, as it acknowledges the significant costs associated with employing and supervising an intern.

In contrast, many pharmacists believed more guidance and transparency was required regarding how the funds were to be used (e.g. intern / new graduate salary top-up, relocation costs for interns / new graduates). Many pharmacists felt the lack of transparency made the distribution of funds to interns / new graduates inequitable.

Appropriateness assessment 13: There is only anecdotal evidence to suggest that financial support for pharmacies is an appropriate method to recruit interns / new graduates in non-metropolitan areas. Further evidence is required to support the anecdotal claims.

Effectiveness

There is substantial evidence supporting the correlation between undertaking a non-metropolitan internship and future practice in non-metropolitan areas. However, there is a paucity of data on the best practice mechanism to attract or support non-metropolitan internships.

There is limited data to determine the effectiveness of the IIARP and IIARP-EP programs regarding benefit of financial assistance to pharmacies for intern / new graduate recruitment, thus supporting the recruitment or retention of non-

metropolitan pharmacists. In lieu of a specific program objective, it is speculated the intended performance measures of the IIARP and IIARP-EP programs may be an increase in the number of interns / new graduates employed in non-metropolitan areas, or increased growth of internships in PhARIA 2–6 areas.

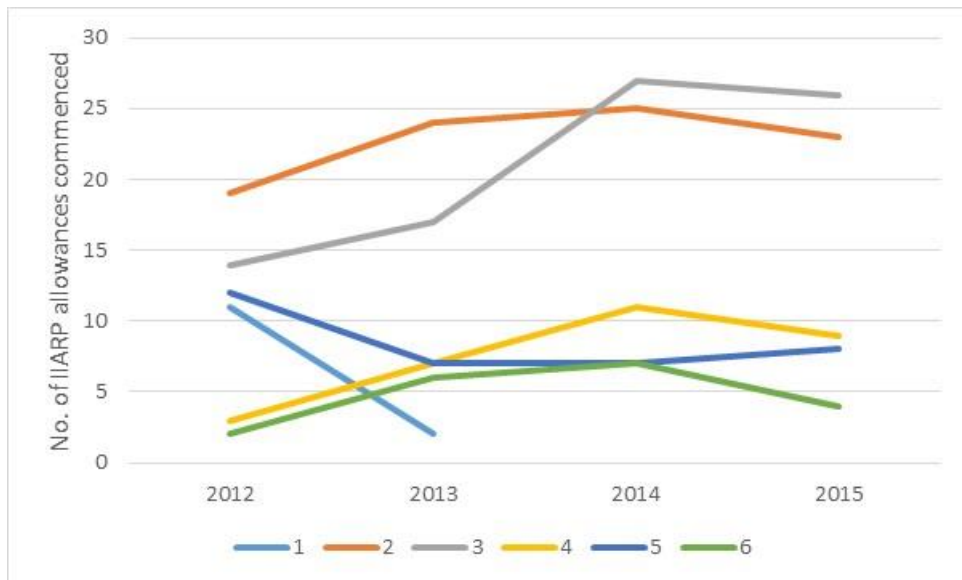
IIARP program data was available for 2012 to 2015. The data showed that there were small increases in IIARP allowances commenced in PhARIA 3 and 4 locations. However, these fluctuations need to be interpreted with caution, as the actual numbers are very small (range of 14 to 27 allowances in PhARIA 3; and range of 3 to 11 allowances in PhARIA 4). See Table 3.9 and Figure 3.6.

Table 3.9: Number of IIARP allowances by commencement year and PhARIA

Start year	PhARIA						Total
	1	2	3	4	5	6	
2012	11	19	14	3	12	2	61
2013	2	24	17	7	7	6	63
2014		25	27	11	7	7	77
2015	1	23	26	9	8	4	71
Grand Total	14	91	84	30	34	19	272

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Figure 3.6: Number of IIARP allowances commenced by PhARIA and year



The number of IIARP allowances commenced was also compared to the total number of interns in non-metropolitan areas where data was available. This analysis showed that IIARP allowances were available for less than 30% of interns in non-metropolitan areas 2013 and 2014 (see Table 3.10). This implies that over 70% of non-metropolitan internships do not benefit from the IIARP allowance, and that other factors must influence an intern’s choice of location and a pharmacist’s capability of attracting interns.

Table 3.10: IIARP recipients as proportion of total number of interns in non-metropolitan areas, 2013-2014

	2013	2014
Non-metro interns	217	280
IIARP recipients	63	77
Proportion	29.0%	27.5%

Source: National Health Workforce Dataset (NHWDS) 2013 – 2015. Provisional registered pharmacist location 2013 and 2014 [23] and IIARP program data from the Pharmacy Guild of Australia

No quantitative data was available on the way in which pharmacists distributed the funds made available through the IIARP or IIARP-EP programs, preventing more detailed analysis of these aspects.

Anecdotally, the IIARP and IIARP-EP programs were considered valuable by peak body groups and pharmacists. The financial assistance offered through the programs was considered to be a major contributor to enabling pharmacist to employ an intern or new graduate. More generally, the programs were considered to contribute to the community, such as bringing more young people into communities and energising rural pharmacies.

Effectiveness assessment 13: The IIARP and IIARP-EP programs somewhat meet the aim to enable rural and remote pharmacies to engage pharmacy interns and new graduates. Some pharmacies may not be able to employ an intern or new graduate without these programs. However, other factors influence the number of non-metropolitan interns and new graduates. Unfortunately, there was insufficient data to determine what the impact of the IIARP and IIARP-EP programs are in relation to other influencers.

Efficiency

The average annual cost of the IIARP was estimated at \$794,472 (based on the two financial years for which data was available \$826,608 in 2013–14 and \$762,335 in 2014–15). This equates to an average unit cost of \$10,593 per IIARP allowance.

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The administrative component for the IIARP is very low, estimated at 6% of the unit cost.

The average annual cost of the IIARP-EP was estimated at \$185,792 (based on the two financial years for which data was available \$185,679 in 2013–14 and \$185,907 in 2014–15). This equates to an average unit cost of \$20,644 per IIARP-EP allowance.

The administrative component for the IIARP-EP is very low, estimated at 3% of the unit cost.

Efficiency assessment 8: A single unit cost per IIARP recipient was estimated at \$10,593 comprising 6% administration overhead costs, while the single unit cost per IIARP-EP recipient was \$20,644 comprising 3% of administration overhead costs. These figures were considered within the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

Pharmacists and peak body groups consulted with and surveyed were generally supportive of the IIARP and IIARP-EP programs. However, several limitations were noted, as follows:

- the need to review the allowance amounts to reflect increased costs associated in intern / new graduate employment
- the need to review hospital eligibility criteria
- the need for greater guidance on how the allowance should be distributed, and
- the restrictiveness of the PhARIA classification criteria.

Several stakeholders including pharmacists and peak bodies suggested that IIARP funding allowance needed to be increased to better reflect the costs associated with attracting interns of suitable quality to non-metropolitan areas. Many pharmacists commented on the need to advertise internships at a higher wage than metropolitan counter parts, as well as the need to compensate for re-location costs. Some pharmacists also needed to include accommodation costs in the intern package to

recruit suitable candidates. If the IIARP continues as is, HMA feels that a further investigation into the additional costs incurred by pharmacists to employ interns (and new graduates) in non-metropolitan areas is warranted.

The eligibility criteria for hospital authorities was considered prohibitively restrictive by one peak body group. Currently, the criteria state that hospital pharmacies must be 30 kilometres away from a community pharmacy in order to be eligible for the IIARP allowance. This creates difficulties when hospital and community pharmacies wish to co-sponsor an intern. HMA can see merit in creating more flexible eligibility criteria that promotes co-sponsorship, but would suggest further investigation is required. This would ascertain if hospital pharmacies experience the same difficulties as community pharmacies in attracting interns in non-metropolitan areas, before the allowance is opened up to hospital pharmacies more generally.

Many pharmacists and peak bodies commented that there is great variability in how the IIARP (and IIARP-EP) allowance is distributed. Greater guidance on appropriate use of the funds, including what proportion should be attributed to the intern (or new graduate) wage, would be welcomed by stakeholders. Currently, the way in which the funds are allocated by pharmacists and the impact this has on attracting or retaining an intern (or new graduate) is not reported or analysed. HMA feels that further investigation in these areas would be meaningful.

The PhARIA classification was an issue for several respondents who queried why eligibility for the IIARP-EP was limited to PhARIA 4–6 pharmacies. Workforce data indicates that inner and outer regional locations are able to retain a considerable proportion of interns in the following year (see Table 3.8). In contrast, remote and very remote areas only retain 21% of interns as new graduates. Therefore, HMA can see the value in limiting the IIARP-EP to areas of most need. However, HMA queries why the IIARP-EP is capped at 10 allowances and not made available for all IIARP recipients in PhARIA 4–6 locations.

Minor modifications to the IIARP and IIARP-EP programs could be made to improve the overall efficiency of the programs. However, the economic impact of the modifications would need to be considered. Further investigation into the best mechanisms to attract interns to non-metropolitan areas is required.

4 OTHER SUPPORT PROGRAMS

4.1 RURAL PHARMACY LIAISON OFFICER PROGRAM

4.1.1 Context

Target population

The Rural Pharmacy Liaison Officer (RPLO) Program supports the broader rural pharmacy workforce, including through a range of local level projects led by RPLOs. [43]

Program aim

The aim of the RPLO Program is to implement local level projects that will:

- provide support to both practising rural community pharmacies and to pharmacy students undertaking clinical placements in rural areas
- promote inter-professional collaboration with pharmacies, pharmacists, pharmacy students, and other universities
- strengthen mentoring and advisory arrangements for pharmacies, pharmacists and pharmacy students, and
- facilitate professional development and networking opportunities for pharmacies, pharmacists and pharmacy students.

Program delivery method

RPLOs are employed by universities and associated UDRHs under the RPLO Program and operate within UDRHs and pharmacy schools to implement a range of activities that address program aims, including:

- promoting rural pharmacy as a career choice

- identifying local areas of need and facilitating local arrangements, in collaboration with other health professionals, to improve patient health outcomes
- supporting and maintaining the rural pharmacy workforce
- promoting and supporting local links between pharmacy and other health professionals, and
- providing local support structures for pharmacy students undertaking clinical placements. [43]

Program data from 2014–2016 and consultation with RPLOs provided information on the range of activities undertaken as part of the program. [44] Some examples include:

- planning and execution of immersive rural placement experiences for undergraduate pharmacy students
- coordination of local site visits and community activities for student placements in the area
- hosting of CPD events for local pharmacists and other health professionals, and
- cultural awareness training for pharmacy students.

Program funding provides for employment of RPLOs at 0.4 FTE. Currently, the length of contracts between The Guild and the employing universities of the RPLOs are six months.

Program volumes

In 2012, ten of the 12 UDRH sites had contracts with RPLOs. During the consultation period, HMA identified eight sites with RPLO contracts. Table 4.1 details the UDRH sites that had RPLO contracts during the consultation period.

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Table 4.1: Current RPLO contracts by UDRH

UDRH site	Jurisdiction	RPLO contract
Centre for Remote Health, Alice Springs	NT	✓
University Centre for Rural Health – North Coast	NSW	✓
University of Newcastle Department of Rural Health	NSW	✓
Mount Isa Centre for Rural and Remote Health	Qld	✓
UniSA Department of Rural Health, Division of Health Sciences	SA	✓
Monash University Department of Rural and Indigenous Health	Vic	✓
Department of Rural Health, University of Melbourne	Vic	✓
Western Australian Centre for Rural Health	WA	✓
Flinders Rural Health SA, Flinders University	SA	X
Centre for Rural Health, University of Tasmania	Tas	X
Deakin Rural Health	Vic	X
Broken Hill University Department of Rural Health	NSW	X

4.1.2 Evaluation findings

Appropriateness

Australian Rural Health Education Network (ARHEN) representatives were in strong support of the RPLO program and stated it meets the needs of rural pharmacists, students and communities by advocating on a number of levels. RPLOs ensure pharmacy students have positive placement experiences. They argued that RPLOs are the voice of rural pharmacy and advocate for students, rural health educators and for issues relevant to rural pharmacists. They also considered RPLOs and UDRHs pivotal in supporting and planning high-quality student placements and providing CPE, clinical updates and networking opportunities to rural pharmacists. The RPLO Program also benefits the community by involving the students in local activities and charities during their placements.

The professional isolation faced by rural health practitioners and students who choose to train in rural areas is recognised by UDRHs and addressed through other programs including the Mental Health Academics project. [45] Mental Health Academics operate under similar KPIs to RPLOs, including providing education and training to rural mental health and other professionals, and mentoring and supervising undergraduate and postgraduate students completing rural training.

Appropriateness assessment 14: The RPLO program responds to the support, training and advocacy needs of rural pharmacists, students and the wider community. The Australian Government recognises the need for additional support for rural health professionals through the development of other UDRH-run programs including Mental Health Academics project.

Effectiveness

As stated previously, the aims of the RPLO program include:

- (1) Providing support to practising rural community pharmacies and to pharmacy students undertaking clinical placements in rural areas.
- (2) Promoting inter-professional collaboration with pharmacies, pharmacists, pharmacy students, and other universities.
- (3) Strengthening mentoring and advisory arrangements for pharmacies, pharmacists and pharmacy students.
- (4) Facilitating professional development and networking opportunities for pharmacies, pharmacists and pharmacy students.

The RPLOs consulted estimated they spend most of their funded 0.4 FTE promoting rural placements to students and developing immersive placement plans that incorporate various activities in pharmacies, health services and the community (aim 1). Survey data indicated 70% of RPLOs spent the majority of their time arranging rural placements. Students completing a rural placement arranged by an RPLO said the RPLO was vital in creating a positive placement experience and providing support to students while away from home. Further investigation is required to determine whether students who completed RPLO-supported rural

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placements are more likely to practise in a rural area upon graduation. Stakeholders suggested RPLOs should be supported to undertake research that builds the evidence base for effective workforce recruitment and retention initiatives. However, this is currently outside the scope of the RPLO role.

Survey data indicated 20% (n=2) of RPLOs spend the majority of their role facilitating CPE activities for pharmacists and students (aim 4). Sixty-two percent (n=17) of surveyed pharmacists stated they had been invited to or attended a networking or education activity organised or facilitated by an RPLO. Rural community pharmacists who participated in consultations reported strong relationships with their local RPLO. However, it should be noted the project team only consulted with students and pharmacists in contact with the RPLO at each UDRH site, which may have skewed feedback.

With the limited hours funded under the RPLO program, RPLOs can only dedicate a small amount of time to aims 2 and 3. However, 85% of surveyed pharmacists agreed RPLOs enhance the profile of pharmacy in rural, remote and very remote locations and foster collaboration between community pharmacists, students and UDRHs.

Five of the six RPLOs consulted had expanded roles funded by their UDRH to carry out activities associated with rural pharmacy not covered under the RPLO KPIs. RPLOs consulted identified short (six-month) contracts and limited funded hours (0.4 FTE) restricted their capacity to plan future activities and dedicate more time to achieving aims 2 and 3.

Effectiveness assessment 14: The RPLO program is highly regarded by peak body stakeholders, rural pharmacists and pharmacy students for the support RPLOs provide to rural pharmacy. RPLOs achieve each of the aims of their role with particular emphasis on supporting rural placements.

Effectiveness assessment 15: The RPLO program is restricted by the current scope of the role (and FTE) and the administration arrangements of the program including inability to secure long term contracts and the lack of research capacity.

Efficiency

Program expenditure data was only available for 2013–14 and 2014–15 financial years. Program expenditure for 2013–14 was \$882,696 (budget \$793,560) and decreased in 2014–15 to \$775,442 (budget \$840,988). Based on expenditure data, the average annual program cost was \$836,778, which includes administration overhead allocation of \$770 (comprising 1% of total program cost).

Assuming ten RPLO contracts were held during this time based on 2012 numbers, the unit cost of employing one RPLO was estimated at \$83,678 per annum (including administration overhead).

Efficiency assessment 9: A single unit cost per RPLO was estimated at \$83,678 comprising 1% administration overhead costs. This was considered within the acceptable range for administration overheads.

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Options for improving program operation

Currently, only eight of the 12 UDRH sites hold contracts with RPLOs. RPLOs perceived their roles as unstable due to the renewal of contracts on a six-monthly basis. Further, some RPLOs noted 0.4 FTE is insufficient time to achieve the aims of the program. As a result, RPLOs often completed this work in their own time. Conducting research about rural pharmacy workforce issues and initiatives currently is outside of the scope of the RPLO program. Any research undertaken by RPLOs is conducted outside of their funded FTE.

ARHEN provided recommendations for the ongoing implementation and scope of the RPLO program. ARHEN suggested removing the RPLO program from the 6CPA and integrating the program into the Rural Health Multidisciplinary Training Program (RHMTTP) with funding distributed and managed through UDRHs. ARHEN anticipates incorporating the RPLO program into the RHMTTP funding stream would enable UDRHs to strengthen and develop the RPLO program, improve its impact and align it more effectively with the broader objectives of the RHMTTP. This would include a focus on developing the evidence base for the efficacy of training and other support programs for rural pharmacy workforce

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outcomes. Further, it would enable a focus on working with pharmacy schools to re-design student programs to include extended rural placements that provide a variety of pharmacy and inter-professional learning activities.

RPLOs and UDRH Directors consulted agreed with this approach. The Guild also agreed the services provided under the RPLO program were now more clearly the responsibility of the UDRH program.

Removing the RPLO program from the 6CPA and redirecting funding and administration responsibility to UDRHs under the RHMTTP may resolve administrative problems, promote alignment with RHMTTP objectives and improve the overall effectiveness of the program. However, issues regarding program scope and requirements arising from a change in governance must be considered.

Regardless of whether the RPLO program remains part of the 6CPA or is repositioned within the UDRH program, the length of RPLO contracts must be reviewed. If remaining within the 6CPA, consideration should be given to extending the length of RPLO contracts beyond six months to increase job security and stability for employed RPLOs.

4.2 ADMINISTRATIVE SUPPORT TO PHARMACY SCHOOLS

4.2.1 Context

Target population

Administrative Support to Pharmacy Schools is intended to support Australian Universities offering pharmacy courses that lead to a registrable qualification as a pharmacist. [46]

Program aim

The Administrative Support to Pharmacy Schools aims to provide financial support to pharmacy schools to organise placements for students in rural and remote areas

and to promote the Rural Pharmacy Student Placement Allowance, the Rural Pharmacy Scholarship Scheme and the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme.

Placement coordinators employed using funding from the Administration Support to Pharmacy Schools collaborate with RPLOs to deliver rural placements. However, they each have distinct yet complimentary roles. Placement coordinators are responsible for arranging the logistics of rural placements including identifying and notifying preceptor pharmacies, arranging accommodation for students, undertaking assessments and applying for the Rural Pharmacy Student Placement Allowance on behalf of students.

RPLOs create immersive placement programs and help to familiarise students with the community in which they are placed. RPLOs do not typically administer placements or arrange accommodation or travel for students.

Program delivery method

Program data from 2014–2016 indicates administrative support funding was used to implement activities including (but not limited to):

- employment of clinical placement coordinators and liaison officers
- sourcing and coordinating student placements and travel arrangements
- maintenance of university-wide scholarship databases, student intranet and website, and
- development and conduct of information sessions, videos and resources to promote pharmacy programs. [28]

Program volumes

During 2013–14 and 2014–15 financial years, financial support was provided to 16 Australian universities including the following:

- University of Tasmania
- University of Sydney
- University of Queensland

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- Monash University
- Latrobe University
- Charles Sturt University
- University of South Australia
- Curtin University
- James Cook University
- University of Newcastle
- University of Canberra
- Griffith University
- Charles Darwin University
- Queensland University of Technology
- University of New England, and
- University of Technology, Sydney.

4.2.2 Evaluation findings

Appropriateness

The literature scan did not identify any similar programs or evidence supporting similar programs. However, the main intent of supporting students to undertake rural placements is supported by literature – see section 2.4.2.

Consultations with placement coordinators confirmed arranging a placement in a rural pharmacy was more time consuming than arranging a metropolitan placement. Placement officers identified a more pronounced workload burden for universities that had compulsory rural placements or sent staff to visit students on placements and conduct assessments. Placement coordinators at three universities with compulsory rural placements stated that, without funding from the Administration Support, rural placements could no longer be compulsory and the number of students going rural would significantly decrease.

Appropriateness assessment 15: No literature was identified to support the financial assistance of pharmacy schools to arrange rural placements. However,

the efficacy of rural placements in influencing a student's future rural practice is supported by evidence.

Effectiveness

As shown in section 2.4.2, the number of placement allowances decreased from 731 in 2011 to 373 in 2014 and increased slightly to 389 in 2015. When the number of placement allowances paid per university was compared to 2013–2015 administration support expenditure, no linear trend was identified. The *Program Specific Guidelines* do not specify how administration support is allocated to each university. The lack of a clear association of administration support with rural placement volume or enrolment volume suggests administration support is allocated by another factor, perhaps staff salary.

Program data was not sufficiently granular to identify whether more placement coordinators had been employed over the life of the 5CPA or whether awareness of the Rural Pharmacy Scholarship Scheme, Rural Pharmacy Student Placement Allowance or the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme increased over the 5CPA.

Effectiveness assessment 16: The Administration Support to Pharmacy Schools program has not led to an increase in the number of rural placements provided by universities over the life of the 5CPA. However, it is unclear whether the program has prevented further decrease in placements. Further investigation is required to determine whether the program has met its aims of increasing the number of placement coordinators employed by universities, and increasing awareness of other recruitment programs.

Efficiency

Audited statements from 2013–14 and 2014–15 financial years state annual program expenditure was \$501,340 and \$565,264, respectively. The program was assumed to have a low administration burden given only 16 payments are made per annum. It was estimated the total unit cost (i.e. the cost to support one pharmacy school) was

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\$33,959.33 per annum. The unit cost includes an average estimated administration allocation of \$628, comprising 2% of total unit cost.

Actual payments to universities varied greatly with University of Queensland receiving the highest payment in 2014–15 (\$55,772) and University of Sydney and University of Technology, Sydney receiving the lowest payments (\$16,875 each).

Effectiveness assessment 17: A single unit cost per supported university was estimated at \$33,959 comprising 2% administration overhead costs. This was considered within the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

In consultations, a representative of The Guild stated the program offered no benefit as universities are already obligated to provide placements. The Guild suggested either centralising funds rather than allowing funds to be managed by the 16 universities or abolishing the program and redirecting funds elsewhere in the 6CPA. However, placement coordinators, particularly those contracted to universities with compulsory rural placements, stated they could not offer as many rural placements without the Administration Support program. HMA did not identify a valid reason to cease the Administrative Support program. However, further investigation is required to identify the effectiveness of the program.

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5.1 ABORIGINAL AND TORRES STRAIT ISLANDER PHARMACY ASSISTANT TRAINEESHIP SCHEME

5.1.1 Context

Target population

The Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme supports community pharmacies that employ and support an Aboriginal and Torres Strait Islander pharmacy assistant. [47]

Program aim

The aim of the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme is to increase Aboriginal and Torres Strait Islander participation in the pharmacy workforce, allowing those pharmacies to better meet the needs of their local communities. The aim of the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme are:

- to improve quality use of Pharmaceutical Benefits Scheme (PBS) medicines by Aboriginal and Torres Strait Islander people through the community pharmacy network in rural and urban Australia
- to encourage and support Aboriginal and Torres Strait Islander people to become trained as pharmacy assistants and pharmacy technicians, and
- to increase the Aboriginal and Torres Strait Islander health workforce in community pharmacies, thereby assisting in meeting the needs of their communities.

Program delivery method

The Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme provides financial support to community pharmacies to enable them to employ and support an Aboriginal and Torres Strait Islander pharmacy assistant undertaking a nationally accredited pharmacy assistant training course. [47] Community pharmacies may receive an allowance of \$10,000 to cover the training costs of the pharmacy assistant and contribute to the pharmacy assistant's wages.

Program volumes

Program data indicates 48 traineeships were supported from 2012 to 2016. The number of funded traineeships peaked in 2013–14 as shown in Table 5.1.

Table 5.1: Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme volumes by financial year

Financial year	2012–13	2013–14	2014–15	2015–16
Traineeships supported	8	18	8	14

5.1.2 Evaluation findings

Appropriateness

While the literature scan did not identify any programs similar to the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme nor any evidence supporting similar programs, consultations with peak body stakeholders confirmed the appropriateness of the program's aim.

The National Aboriginal Community Controlled Health Organisation (NACCHO) representative noted pharmacy assistants are often the first point of contact for

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Aboriginal and Torres Strait Islander people entering a pharmacy. Assistants can help translate information about medicines to the community and assist pharmacists to deliver culturally-responsive care. The Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme has the potential to improve health outcomes and quality use of medicines among Aboriginal and Torres Strait Islander communities. Further, the NACCHO representative appreciated that the program catered to pharmacy assistants from metropolitan and rural areas as this breaks the stereotype of Aboriginal and Torres Strait Islander communities primarily living in remote areas. NACCHO agreed the focus on training Aboriginal and Torres Strait Islander pharmacy assistants is appropriate, as it introduces young people to pharmacy with the possibility of career growth (e.g. pharmacy management).

However, the NACCHO representative noted that the organisation has not been engaged in the recent delivery or promotion of the program. Further, the representative expressed concern that the needs of Aboriginal and Torres Strait Islander communities may not be appropriately addressed by the traineeship and scholarship schemes, as they queried whether a community-needs assessment had been undertaken. The representative suggested a community-needs assessment should be undertaken and Aboriginal Community Controlled Health Organisations (ACCHOs) should be engaged in this process.

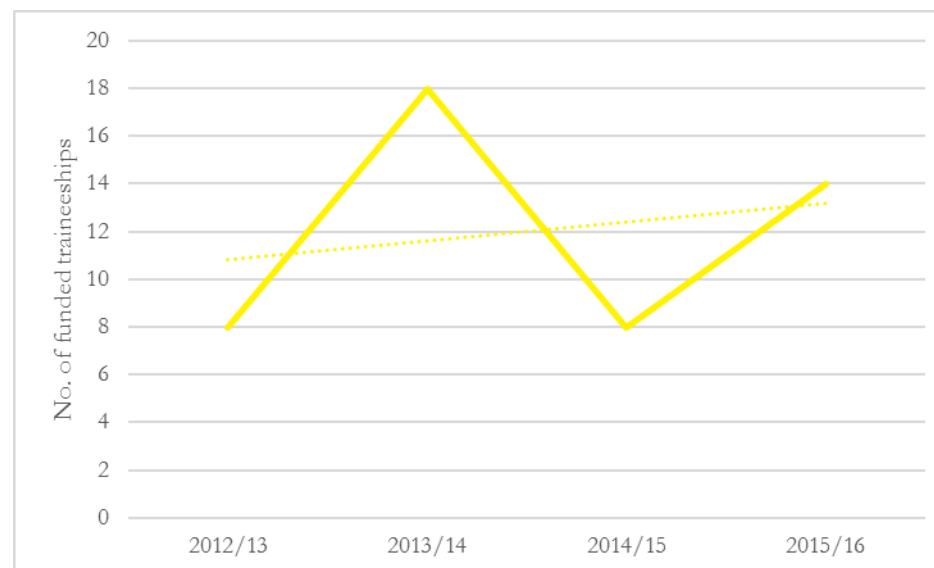
Appropriateness assessment 16: While no literature was identified to support the aim of the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme, consultation with NACCHO supported the program's aim. However, it is unclear whether community consultation was undertaken when developing the program and, as such, may not be fully responsive to the needs of Aboriginal and Torres Strait Islander communities.

Effectiveness

Program data indicates fluctuation in the number of pharmacy assistant traineeships funded between 2012 and 2016, as shown in Figure 5.1. Because the number of traineeships funded in any given year is small, variations in program volume appear

larger when analysed over time. Overall, there was a slight increase in traineeships funded from 2012 to 2016.

Figure 5.1: Traineeships funded from 2012–13 to 2015–16 financial years



Forty-eight percent of funded traineeships were undertaken in New South Wales pharmacies, followed by 29% in Queensland pharmacies, as shown in Table 5.2.

Table 5.2: Traineeships funded, by jurisdiction

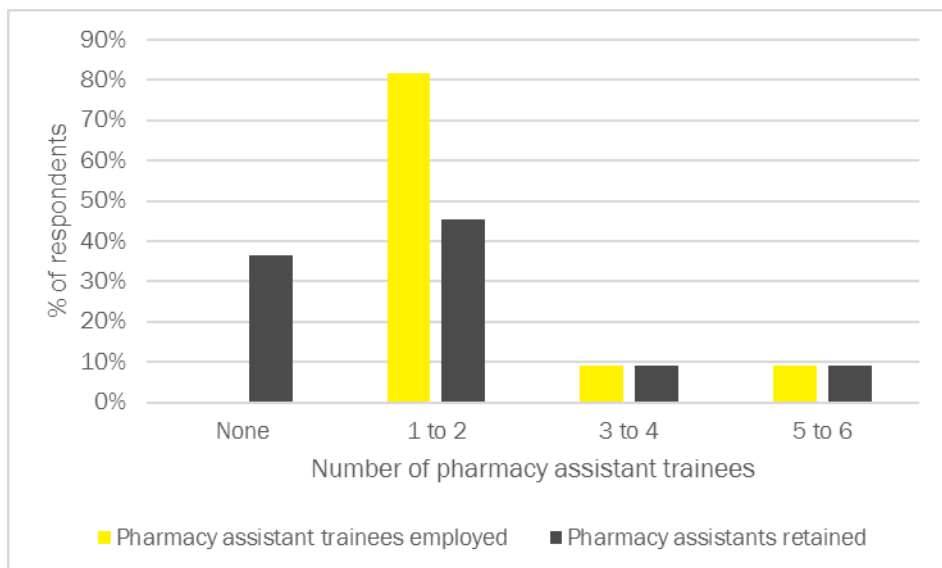
Jurisdiction	No. of traineeships	% of traineeships
NSW	23	48%
QLD	14	29%
SA	4	8%
VIC	3	6%
TAS	2	4%
NT	1	2%
WA	1	2%
Total	48	100%

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Further analysis using 2011 Aboriginal and Torres Strait Islander population data revealed 92% (n=44) of funded traineeships were undertaken in areas with an Aboriginal and Torres Strait Islander population greater than the national average (3% in 2011). [48]

Available data was not sufficiently detailed to determine whether the number of Aboriginal and Torres Strait Islander pharmacy assistants employed in community pharmacies had increased over the life of the 5CPA. However, survey data from pharmacists participating in the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme shows most (n= 9, 82%) respondents employed one to two Aboriginal and Torres Strait Islander pharmacy assistant trainees under the Scheme. As shown in Figure 5.2, 45% (n=5) of pharmacists retained one to two pharmacy assistants beyond their traineeship, 9% (n=1) retained three to four, 9% (n=1) retained five to six and 36% (n=4) did not retain any pharmacy assistants beyond their traineeship.

Figure 5.2: Number of pharmacy assistant trainees employed and later retained by pharmacists



Most surveyed pharmacists (n=13, 82%) and trainees (n=6, 83%) who participated in the Scheme agreed that the Scheme was effective in encouraging Aboriginal and Torres Strait Islander people to enter a career in pharmacy.

Effectiveness assessment 18: Available data was not sufficiently detailed to determine whether the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme led to an increase in the number of Aboriginal and Torres Strait Islander pharmacy assistants over the life of the 5CPA. However, program participants agreed the Scheme was effective in encouraging Aboriginal and Torres Strait Islander people to enter a career in pharmacy.

Efficiency

The average annual cost of the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme was estimated at \$177,972.79 (based on the two financial years for which data was available \$234,669 in 2013–14 and \$121,276 in 2014–15). This equates to an average unit cost of \$14,098 per traineeship.

The administrative component for the Aboriginal and Torres Strait Islander Pharmacy Assistant Traineeship Scheme is within the acceptable range, estimated at 29% of the unit cost.

Efficiency assessment 10: A single unit cost per traineeship recipient was estimated at \$14,098 comprising 29% administration overhead costs. This was considered within the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

The peak body stakeholders and trainees consulted mentioned the need to promote the program to boost employment of pharmacy assistants. One stakeholder suggested reviewing the funding to offer a larger incentive to pharmacists to take on an assistant trainee. Trainees suggested increasing awareness of the Scheme and its

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benefits, in particular, marketing the program to schools in Aboriginal and Torres Strait Islander communities.

Two stakeholders suggested trainees would benefit from a support person or mentor to assist during their studies. HMA considers this to be an important inclusion, as the literature supports the efficacy of mentorship for Aboriginal and Torres Strait Islander students.

5.2 ABORIGINAL AND TORRES STRAIT ISLANDER PHARMACY SCHOLARSHIP SCHEME

5.2.1 Context

Target population

The Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme) supports Aboriginal and Torres Strait Islander people studying a degree at an Australian university that leads directly to a registrable qualification as a pharmacist. [49] It is not necessary for eligible students to reside in rural or remote areas.

Program aim

The aim of the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme is to increase the number of Aboriginal and Torres Strait Islander pharmacists working in community pharmacies, thereby assisting in meeting the needs of their communities.

The aims of the Scholarship Scheme are:

- to encourage and enable Aboriginal and Torres Strait Islander students to undertake undergraduate and graduate studies at an Australian university leading to a registrable qualification as a pharmacist, and

- to increase the number of Aboriginal and Torres Strait Islander pharmacists, particularly in rural and remote practice, through offering appropriate incentives and enhancing the attractions of pharmacy practice.

According to the objectives initially set out in the 3CPA, it was anticipated that the resulting Program outcomes will be:

- an increase in the number of practising Aboriginal and Torres Strait Islander pharmacists, and
- an increase in the number of Aboriginal and Torres Strait Islander communities with access to culturally appropriate pharmacy services.

Program delivery method

The Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme provides financial support in the form of scholarships to Aboriginal and Torres Strait Islander pharmacy students. [49] Scholarships have a value of \$15,000 (GST exempt) per calendar year, per student. Students may apply for the scholarship at any point during their studies, with a maximum value of \$60,000 over four years.

Program volumes

Three new scholarships are awarded each year. Program data from 2014–2016 indicates that, on average, seven scholarships are funded each calendar year, which includes both new and continuing scholarships. [50] From 2011/12 to 2014/15, 25 scholarships have been awarded.

5.2.2 Evaluation findings

Appropriateness

The literature scan identified limited research on the impact of scholarships on Aboriginal and Torres Strait Islander students. One study conducted interviews with 22 Aboriginal and Torres Strait Islander nursing students and identified scholarships as an important factor impacting students' ability to attend university. A rapid search of the literature (using search terms including 'Aboriginal' OR 'Aboriginal and

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Torres Strait Islander' OR 'Indigenous' AND 'Australia' AND 'scholarship' AND 'tertiary' AND 'retention') only identified articles which were descriptive in nature, not intervention trials. Other articles have reflected the lack of peer-reviewed research into the effectiveness of scholarships for Aboriginal and Torres Strait Islander tertiary students. [51] However, several other scholarship schemes targeting Aboriginal and Torres Strait Islander students have been made available including the Puggy Hunter Memorial Scholarship Scheme, [52] the Australian Rotary Health Indigenous Health Scholarships Program, [53] and the Australian Medical Associate Indigenous People's Medical Scholarship Trust Fund. [54]

The NACCHO representative commented on the potential benefits of the Scholarship Scheme, including exposure of Aboriginal and Torres Strait Islander students to university study. Universities also benefit from the Scheme through the sharing of knowledge with Aboriginal and Torres Strait Islander students. However, the representative queried whether consultation had occurred with Aboriginal and Torres Strait Islander communities and organisations to ensure the Scheme met the needs of this group. This is particularly important as there is little evidence to suggest scholarships are an effective means of recruiting Aboriginal and Torres Strait Islander pharmacy students.

Appropriateness assessment 17: Evidence supporting the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme is limited. Peak body stakeholder consultation supported the program. However, it is unclear whether community consultation occurred to inform the aims of the program.

Effectiveness

As shown in Figure 5.3, the number of Aboriginal and Torres Strait Islander pharmacists increased from 55 in 2013 to 67 in 2015, representing an overall increase of 21%. Each year, an average of three scholarship recipients become qualified pharmacists. This may account for up to 60% of the increase in pharmacist headcount seen from 2014 to 2015.

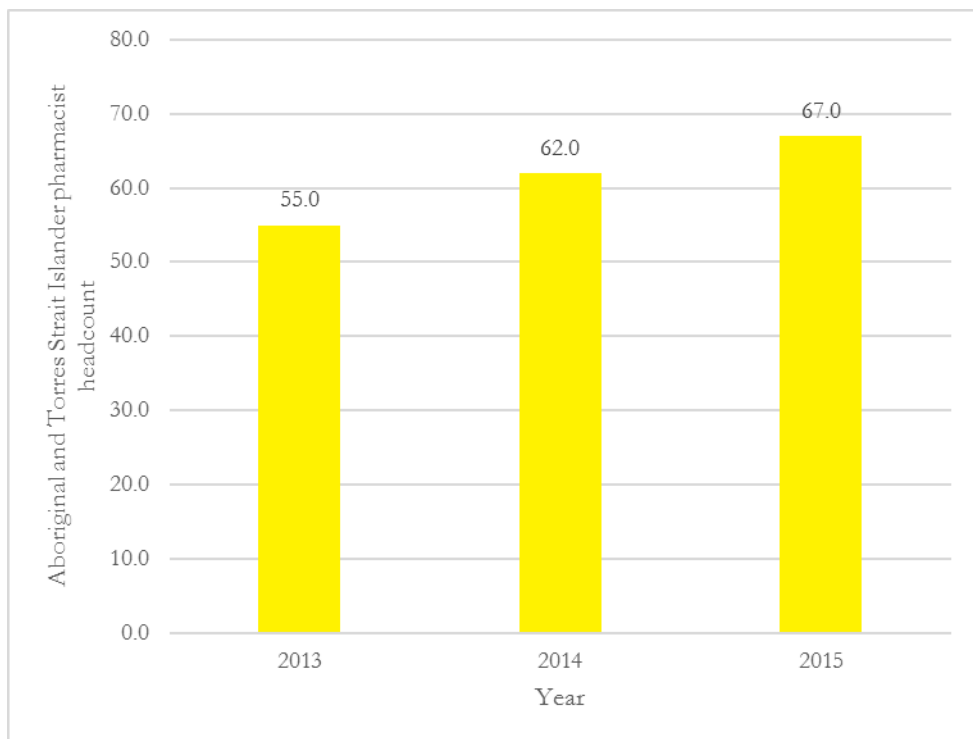
⁶ Australian Bureau of Statistics, *Population Distribution, Aboriginal and Torres Strait Islander Australians, 2006*; Australian Bureau of Statistics, *Estimates of Aboriginal and Torres Strait Islander Australians, June 2011*

Scholarship recipients were targeted in an online survey. However, the response rate was very low with only five recipients completing the survey. Of these recipients, two (40%) were practising as community pharmacists and three (60%) were still studying. Both respondents who were practising pharmacists were working in PhARIA 1 locations that had Aboriginal and Torres Strait Islander populations above the national average of 3% total population⁶.

All respondents agreed the scholarship value of \$15,000 per annum was a helpful contribution to the costs of their study. However, when asked if the availability of the scholarship influenced their decision to study pharmacy, four of the five respondents (80%) selected '*not at all*' and one respondent selected '*somewhat*'. This finding suggests scholarship recipients had a prior interest in studying pharmacy.

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Figure 5.3: Aboriginal and Torres Strait Islander pharmacist headcount, 2013–15



Source: AHPRA [55]

Effectiveness assessment 19: Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme recipients may account for a significant proportion of the increase in Aboriginal and Torres Strait Islander pharmacists. However, it is unclear if increasing workforce is the most appropriate means of increasing access to culturally appropriate pharmacy services for Aboriginal and Torres Strait Islander people.

Efficiency

The average annual cost of the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme was estimated at \$129,179 (based on the two financial years for which data was available \$117,242 in 2013–14 and \$141,117 in 2014–15). This equates to an average unit cost of \$19,098 per scholarship.

The administrative component for the Aboriginal and Torres Strait Islander Pharmacy Scholarship Scheme is within the acceptable range, estimated at 21% of the unit cost.

Efficiency assessment 11: A single unit cost per traineeship recipient was estimated at \$19,098 comprising 21% administration overhead costs. This was considered within the acceptable range for administration overheads. However, further investigation is required to assess actual time spent administering the program.

Options for improving program operation

The NACCHO representative agreed that scholarships are an effective means of increasing the number of Aboriginal and Torres Strait Islander pharmacists. However, a multifaceted approach is required to provide culturally responsive care to Aboriginal and Torres Strait Islander communities (e.g. employing pharmacists in Aboriginal Medical Services (AMSs) and co-locating pharmacies with community-controlled health services). These issues are elaborated upon in the *Final Report*.

During consultation, a representative of The Guild suggested the Scholarship Scheme could be supplemented by a program to assist Aboriginal and Torres Strait Islander students to access alternative pathways to university if they did not receive the requisite score to enter a pharmacy degree. The Guild also noted that three annual scholarships are not enough to increase the number of Aboriginal and Torres Strait Islander pharmacists.

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