FINAL REPORT

A social return on investment evaluation following the expansion of the allied health student training program in the Lachlan region, New South Wales

Three Rivers Department of Rural Health,

Charles Sturt University

Health Workforce Program:

Expansion of the Rural Health Multidisciplinary Training Program in More Remote Settings

Prepared By: Associate Professor Natasha Brusco

Alpha Crucis Group

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Project Team and Affiliations

1. Natasha Brusco; tash@alphacrucisgroup.com.au Alpha Crucis Group; & Rehabilitation, Ageing and Independent Living (RAIL) Research Centre, Monash University, Frankston, Victoria, 3199, Australia
2. Louise French; lfrench@csu.edu.au Three Rivers Department of Rural Health; Charles Sturt University; Forbes, New South Wales, 2871, Australia
3. Chelsea Lander; chlander@csu.edu.au Three Rivers Department of Rural Health; Charles Sturt University; Forbes, New South Wales, 2871, Australia
4. Elyce Green; elgreen@csu.edu.au Three Rivers Department of Rural Health; Charles Sturt University; Wagga Wagga, New South Wales, 2678, Australia
5. Micheal Anderson; apo@ncentral.org.au Neighbourhood Central, Parkes, New South Wales, 2870, Australia
6. Melissa Nott; mnott@csu.edu.au Three Rivers Department of Rural Health; Charles Sturt University; Albury, New South Wales, 2640, Australia

List of Abbreviations

RHMT: Rural Health Multidisciplinary Training program

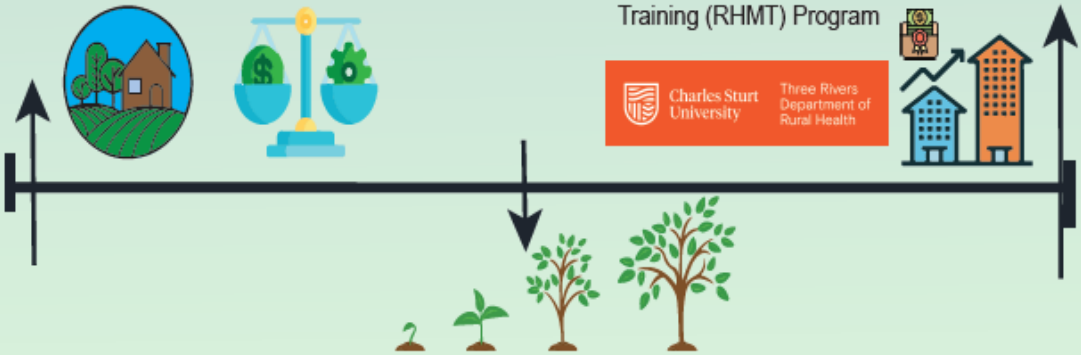
SROI: Social Return on Investment

Executive Summary

Introduction

20 years ago health professional student placements in rural and remote areas of Australia were identified as an important rural recruitment strategy and funding priority

In late 2021 Charles Sturt University, Three Rivers Department of Rural Health, was awarded a Commonwealth Government grant to expand the Rural Health Multidisciplinary Training (RHMT) Program



Since then, there has been a growing body of research investigating the value, impact, barriers, and facilitators of student placements in rural and remote areas of Australia

Aim

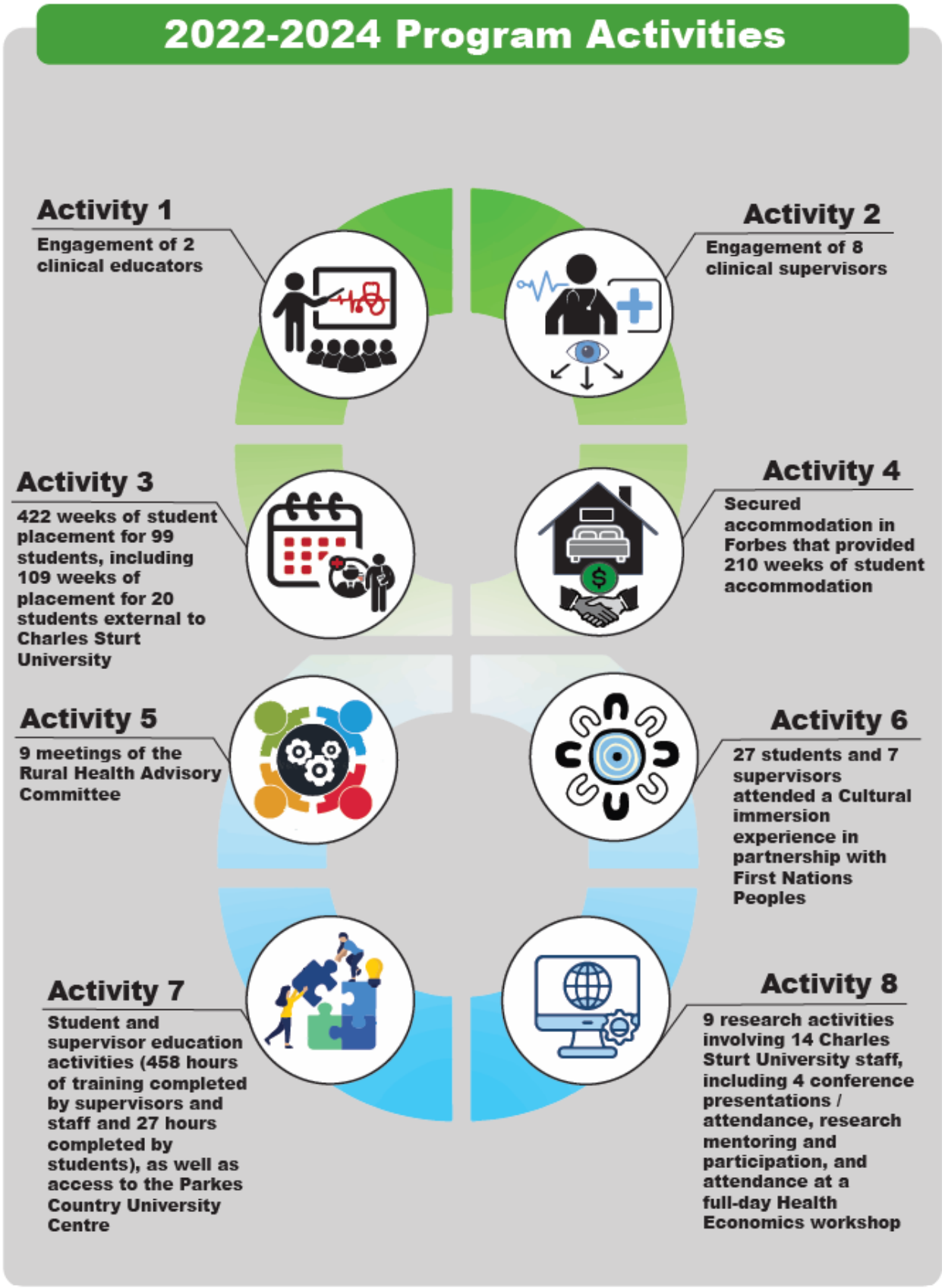
The RHMT program was designed to increase multi-disciplinary student placements in rural and remote areas of Australia. The aim of this study was to determine if the expanded RHMT had a positive social return on investment (SROI)

Methods

The RHMT Program expanded into the Forbes, Parkes, and Lachlan, local government areas (inclusive of Condobolin)

Data collection methods comprised from this

with students, host organisations, supervisors, and community members including First Nations peoples


2022-2024 Program Activities
Activity 1
Engagement of 2 clinical educators
Activity 2
Engagement of 8 clinical supervisors
Activity 3
422 weeks of student placement for 99 students, including 109 weeks of placement for 20 students external to Charles Sturt University
Activity 4
Secured accommodation in Forbes that provided 210 weeks of student accommodation
Activity 5
9 meetings of the Rural Health Advisory Committee
Activity 6
27 students and 7 supervisors attended a Cultural immersion experience in partnership with First Nations Peoples
Activity 7
Student and supervisor education activities (458 hours of training completed by supervisors and staff and 27 hours completed by students), as well as access to the Parkes Country University Centre
Activity 8
9 research activities involving 14 Charles Sturt University staff, including 4 conference presentations / attendance, research mentoring and participation, and attendance at a full-day Health Economics workshop

Analyses

SROI quantified:

- the "investment" required to implement the RHMT Program
- the "social return" on the RHMT program from the student, organisational, supervisor, and community perspective

The combined investment cost was compared to the combined financial return, to establish the SROI. The analysis takes a societal perspective, including a 3 year time horizon, and all costs are presented in $AUD 2023

Results

$2,334,403
3-year value on investments

$2,967,768
3-year social value created

For every **$1** spent on the RHMT program, there was a **$1.27** social return on investment

- Study participants identified additional social value elements
- However, the research team was unable to ascertain a value for these elements with the data available
- As such, the true SROI may be greater than the reported $1.27

Conclusion

This evaluation demonstrates a positive social return on investment

Consequentially, national scaling and implementation of the program should be carefully considered to realise the benefit Australia-wide

Section 1: Background

Twenty years ago, health professional student placements in rural areas of Australia were identified as an important rural recruitment strategy and funding priority.[1] However, barriers exist to rural health professional student placements, such as availability of clinical supervisors, the financial impact of unpaid placements on the students, and access to accommodation during the placement.[2] An additional barrier is the cancellation of student placements during health outbreaks,[3] including the COVID-19 pandemic which impacted health professional student placements at a level not seen before in Australia.[4] The combination of COVID-19 related Government public health measures (including travel restrictions and physical distancing requirements), as well as the fact that some health professional services could not be delivered using telehealth methods,[5] resulted in either cancelled or redesigned rural student placement experiences, further limiting health professional student exposure, workforce training, and new graduate pathways, in rural Australia.

There has been a growing body of research investigating the value, impact, barriers, and facilitators to health student placements in rural Australia.[2, 4, 6-8] The financial burden for students includes direct costs such as accommodation, travel and uniforms; indirect costs such as a loss of income, rent on the primary place of residence and childcare; as well as hidden costs such as parking and road tolls.[2] While the financial burden and cumulative commitment required for a rural placement are noted as prohibitive for some students, many students who do participate in a rural placement report a positive and supportive rural experience.[2, 7, 8]

Following a rural student placement, students may consider rural employment post-graduation; however, rural employment can be influenced by multiple factors. Rural origin has been established as the most influential factor for rural employment post-graduation.[7-10] In fact, a recent longitudinal study across two Australian universities found that allied health and nursing rural origin graduates were more than 4-times more likely to have a post-graduation 'Rural principal place of practice,' compared to their metropolitan origin

graduate counterparts.[11] A recent systematic review also found that engagement in quality rural student placements may influence intention for rural employment post-graduation amongst unsure students, and may reinforce the intent of rural employment post-graduation for student previously interested in rural employment.[9] There is conflicting evidence of the impact of the length of a student placement on rural employment post-graduation, with some evidence of no effect, and some evidence of a positive effect,[9] for example, in a single study it was reported that engagement in a rural student placement did impact the likelihood for rural employment post-graduation, however, the impact was only seen when the placement days were 20 or greater.[11]

More broadly, increasing rates of chronic disease, multimorbidity, disability, and ageing in the Australian population, has led to a growing demand for health professional services, included allied health.[12] Growing demand on allied health services has been exacerbated by the expansion of national disability and aged care services over the past two decades which includes the $37B per annum no-fault National Disability Insurance Scheme and a recent $30B investment in aged care services.[13] With allied health demand outstripping supply, market gaps have been documented nation-wide, and this gap is greater for people living in rural areas, when compared to metropolitan areas.[14, 15]

In late 2021, Charles Sturt University's Three Rivers Department of Rural Health, was awarded a Commonwealth Government grant to expand the Rural Health Multidisciplinary Training (RHMT) program across the Lachlan region (Forbes, Parkes and Lachlan shire boundaries), which is located in central west New South Wales with a population of around 26,332 people, 14% of whom identify as Aboriginal or Torres Strait Islander.[16] The RHMT is designed to expand multi-disciplinary student placements in rural and remote areas of Australia, and it has been previously reported that the broader program which includes medical, dental and allied health students, represents good value for money.[6] The current expansion of the RHMT program focuses on increasing allied health student training through high quality rural education experiences (both traditional and non-traditional

placement types); while ensuring students are rural ready and culturally sensitive; and engage effectively and collaboratively with rural communities.

A social return on investment (SROI) is a framework for identifying, measuring, and valuing the impact of an activity. A SROI accounts for the social, economic and environmental value that can come as a result of said activity, and assigns a monetary value to these impacts.[17-19] SROI methods are being increasingly used to evaluate different health sector programs.[20] However, whilst there have been some SROI evaluations in relation to health services provided to specific populations or in a particular health settings,[21, 22] to date there is limited research that has examined SROI of strategic program investment in rural multidisciplinary health professional student education. The current evaluation aimed to address this evidence gap, by determining if the Charles Sturt University's Three Rivers Department of Rural Health's expanded RHMT had a positive SROI.

To meet this aim, three research questions were posed:

1. What "investment" was required to implement the RHMT Program?
2. What "social return" on the RHMT program was achieved from the student, organisational, supervisor and community perspective, including First Nations peoples?
3. For every $1 spent, what was the SROI for the RHMT program?

Section 2: Methods

The study protocol for this SROI was published in BMJ Open in 2024 (Appendix 1).[23] This study has been reported per the Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022; Appendix 2),[24] and was approved by the Charles Sturt University Human Research Ethics Committee (reference number H23589) and the Aboriginal Health and Medical Research Council of New South Wales (reference number 2130/23) prior to the research commencing. Figure 1 presents the social return on investment principles that were followed for the current project.[17-19] For this study, the compilation of 'social return' is inclusive of many diverse areas including learning, connection, capabilities, experience, skills, belonging, referrals, prevention, education, teamwork, and employment retention.[17-19] The investment refers to the Commonwealth grant to fund the extended RHMT program, in addition to the in-kind and/or cash resources provided by Charles Sturt University, the students, organisations, supervisors and community.

Figure 1: Principles of the Social Return on Investment

Engagement with healthcare consumers and other stakeholders affected by the study:
Community consultation regarding the program of work began prior to the grant application being submitted in late 2021. This included 30 letters of support provided from organisations operating in the local community. Extensive consultation and collaboration have continued with these community partners following the grant approval and this was documented and submitted monthly to the Rural Allied Health Advisory Committee, who provided governance to this project. This research was discussed with, and approved by, the Rural Allied Health Advisory Committee.

The research team includes three members who live in the research locale, and have been able to undertake consultation with community on the research methods. Through formal and informal feedback processes, the research team received advice from community members about what type of data could and should be collected. The team adjusted the research methods in response to this feedback. One example is that in conversation with local First Nations community members it was identified that First Nations Peoples would like to be able to self-identify as being a First Nations Person and that their data should be included within the whole community dataset, rather than being separate. In line with AH&MRC requirements, the research team submitted a document to this ethics committee outlining the community consultation process which commenced a year before the AH&MRC ethics application for the research was submitted.

Intervention: The RHMT program aimed to deliver eight activities including (1) engagement of clinical educators, (2) engagement of clinical supervisors, (3) provision of student placements, (4) provision of student accommodation, (5) governance via the Rural Health Advisory Committee, (6) Cultural Immersion experiences for students and supervisors, (7) education activities for students and supervisors, as well as (8) research activities. An overview of the project is presented in Figure 3 (project logic model) and Figure 2 (theory of change).

Figure 2: Project Logic Model (reproduced from published protocol[23] - Appendix 2)

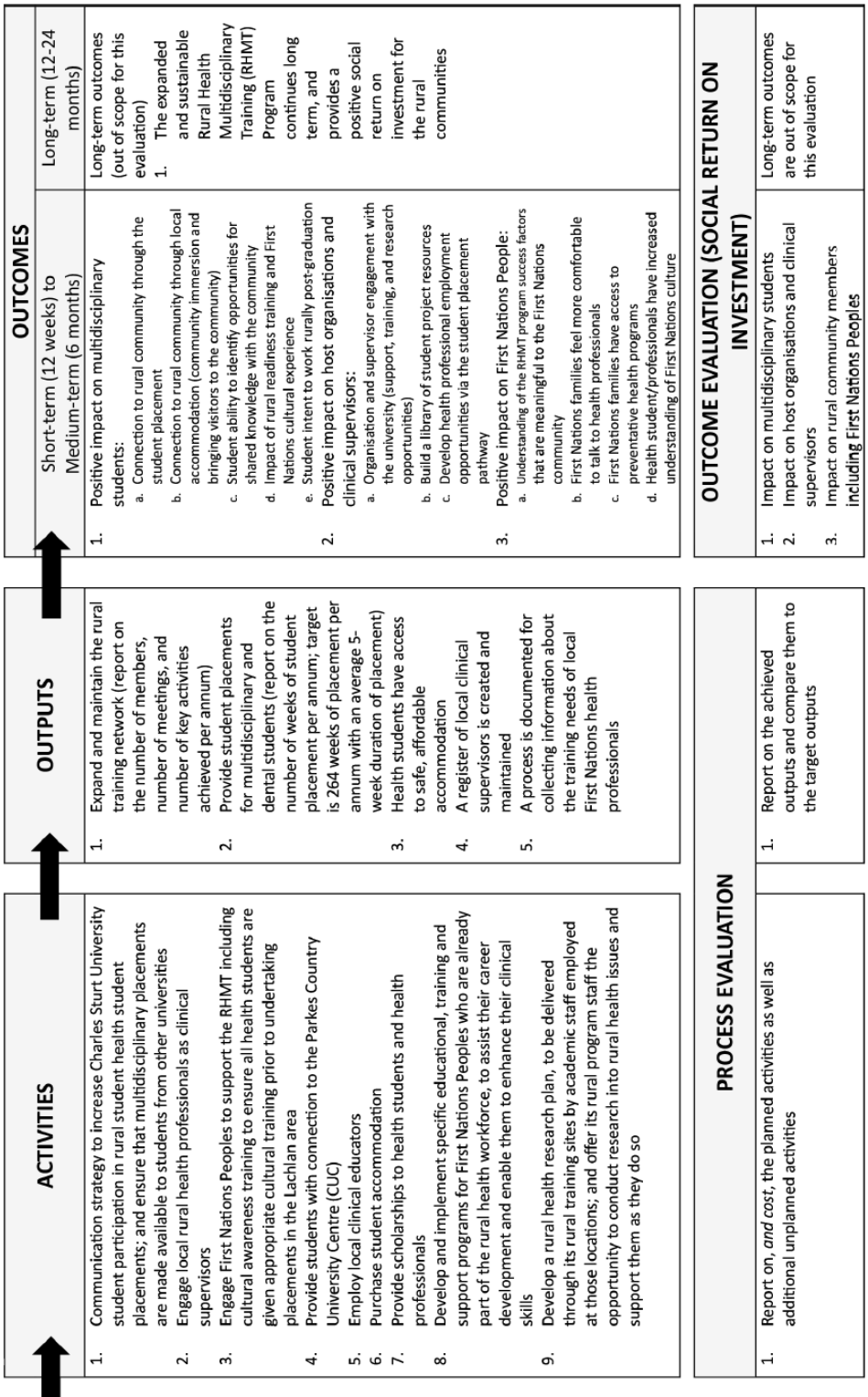
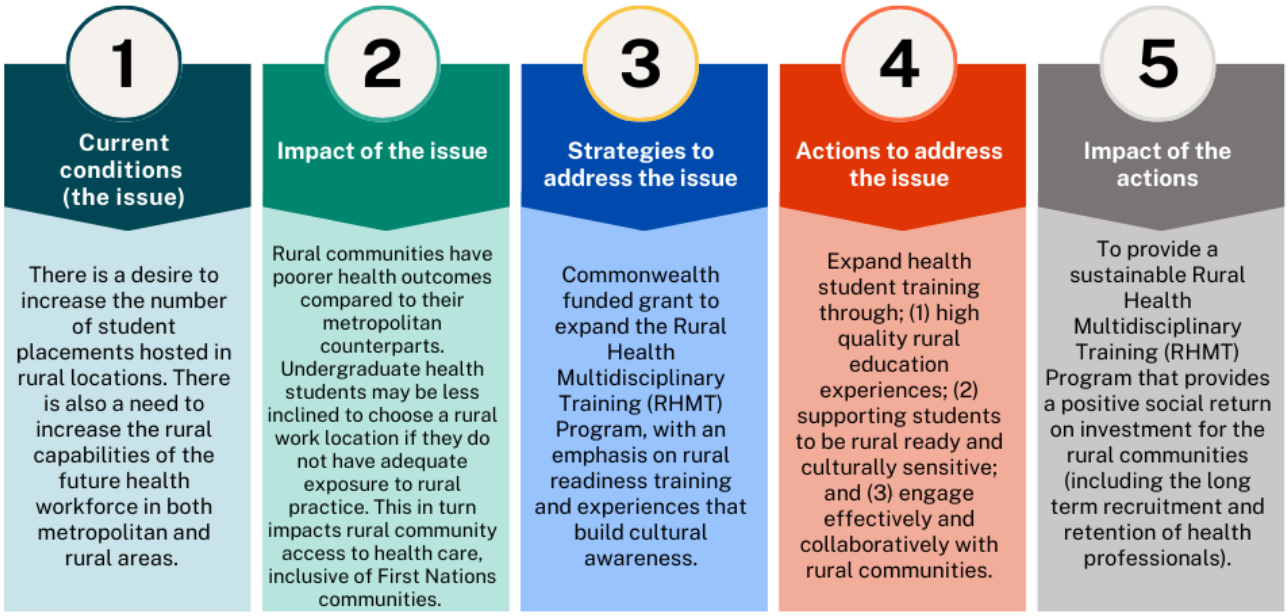


Figure 3: Project Theory of Change (modified from published protocol[23] - Appendix 2)



Methodological approach: The SROI combined the actual impact with the potential impact of the RHMT. The actual (or evaluative) impact is the observed impact of the RHMT within the specified time horizon, such as stimulation of the local economy. [25] The potential (or forecast) impact is based on the value that will be created if the intended outcomes are achieved, such as future allied health workforce recruitment to rural areas.[25] Activity data were compared to pre-determined project targets, with qualitative data collected to provide context. Data collection methods comprised collecting program outputs, program costs, and conducting surveys and interviews. Interviews were conducted either 1:1 or as small group interviews or a yarning circle, depending on the preference of participants. Copies of the data collection tools are attached to the report (see Appendix 3-7). Interviews were recorded with participant consent.

Setting and location: The RHMT Program expanded into the Forbes, Parkes, and Lachlan local government areas (Condobolin and surrounds) of New South Wales (Australia) where there is a population of 26,332 people, including 3,743 First Nations peoples.

Study population and consent: A HREC-approved written Project Explanatory Statement and Consent Form were used in this project and provided in plain language, with language adjustment for First Nations peoples by the First Nations project investigator (MA). There were four participant groups in this study:

1) **Multidisciplinary health professional students** were invited to participate in a post placement survey and interview. The inclusion criteria were students aged 18+ years of age, undertaking a health professional student placement through, or in partnership with, the RHMT Program. Participants were excluded if they did not meet the inclusion criteria. Participant recruitment was via student email via a member of the Charles Sturt University staff. Signed consent was required using the HREC-approved project consent form prior to commencing survey and/or participating in an interview.

2) **Host organisation staff** were invited to participate in a post placement survey and interview. Inclusion criteria were staff employed at a host organisation (aged 18+ years) who had contact with the RHMT Program. Participants were excluded if they did not meet the inclusion criteria. Participant recruitment was via workplace email via a member of the Charles Sturt University staff. Signed consent was required prior to the person commencing the survey and/or participating in an interview.

3) **Clinical supervisors** were invited to participate in a post placement survey and interview. Inclusion criteria were clinical supervisors (aged 18+ years) who provided student supervision within the RHMT Program. Participants were excluded if they did not meet the inclusion criteria. Participant recruitment is via workplace email via a member of the Charles Sturt University staff. Signed consent was required prior to commencing the survey and/or participating in an interview.

4) **Community members including First Nations Peoples** were invited to participate in interviews or a yarning circle. Inclusion criteria were community members (aged 18+ years) who were potentially or actually impacted by the RHMT Program (aiming for representation across the Condobolin, Peak Hill, Parkes, and Forbes areas). Participants were excluded if they did not meet the inclusion criteria. Participant

recruitment was via direct approach by project investigators (who were not members of the participating organisations, to avoid coercion), such as the projects local First Nations project investigator (MA). Signed consent was required prior to commencing the interview or a yarning circle.

Impact of, and response to, participant withdrawal: Following the informed consent process, participants could withdraw from the project up until the point of the data being de-identified. At this point it was not possible to remove data. This detail was provided in the project explanatory statement.

Comparators: There were no comparators in this study.

Perspective: The SROI refers to the impact from the student, host organisation, clinical supervisor, and local community including First Nations peoples', perspective.

Time horizon: This SROI had a 3-year time horizon (January 2022 – December 2024). Initially it was intended that data from January 2022 to December 2023 would be based on actual data (evaluative) and that January 2024 to December 2024 would be based on future data (forecast). However, the prospective project data collection timeline was extended to December 2024, meaning that this SROI was based on actual data (evaluative) and not on future data (forecast), with the exception of health professional recruitment post student placement which remained a forecast impact with a 20% discount rate applied.

Data Collection: Data were collected by Charles Sturt University, Three Rivers Department of Rural Health staff who were working on the project team. In October 2024, three additional 'economic specific' focus groups were conducted by Charles Sturt University and A/Prof Natasha Brusco from the evaluation team. These three additional 'economic specific' focus groups focused on SROI data and were deemed necessary by the evaluation team as the interim analysis revealed a gap in the SROI data that was available in the interview

transcripts to date. One focus group was held in Forbes, one was held in Parkes, and one was held online.

Data collection tools are presented in Appendices 3 - 7. These include:

- Appendix 3 – Multi-disciplinary students (data collection via survey and interviews);
- Appendix 4 – Host organisation staff and supervisors (data collection via survey and interviews);
- Appendix 5 – Community Members including First Nations peoples (data collection via interviews); and
- Appendix 6 – Student Placement Details and Supervisor / Student activity Logs.
- Appendix 7 – Questions from the additional 'economic specific' focus groups.

Discount rate, dead weight and attribution: Impacts were reviewed for dead weight, displacement and attribution.[25] Dead weight indicates that an outcome, or a portion of the outcome, would have occurred anyway, without the RHMT. For example, growth in the local economy was the same for the areas impacted by RHMT, as it was for neighbouring areas that were not impacted by RHMT. Displacement indicates that the RHMT activity replaced other activity that was already contributing to the impact. For example, if a health service had an initiative to recruit health professionals, but ceased this to pursue the RHMT program, the outcome of the RHMT initiative need to consider the program that was displaced. Attribution indicates that an outcome, or a portion of the outcome, occurred due to a separate intervention. For example, if a health service was going to commence an initiative with or without the RHMT, the outcome of the initiative could not be attributed to the RHMT. During the three 'economic specific' focus groups (Appendix 7), impacts were discussed in relation to dead weight, displacement and attribution. During the focus groups, responses ascertained that the impact reported by participants did not include dead weight or attribution, and as such a 0% discount rate was applied to dead weight and attribution. However, a 25% displacement discount was applied to the value created by potential rural employment following student engagement within the RHMT program, as there were rural health student placements occurring in the region prior to the RHMT program. Finally, we considered the future impact of rural employment following student engagement with the RHMT program, with an additional 20% discount rate applied to the value created through

rural employment post-graduation, due to the delay between clinical placement and subsequent post-graduation employment.

Measurement and valuation of investment and return: Selection, measurement, and valuation of the investment and the return have been detailed in Tables 1 and 2.

Of particular note, a priori, it was identified that one of the key program returns would be rural employment following student engagement with the RHMT program. Determining the percentage of rural employment has required several assumptions, and these have been outlined below.

- Assumption 1: Determining the percentage of students that will engagement in rural employment post-graduation is difficult, as there is mixed evidence about the impact of a rural clinical placement on subsequent rural employment. In addition, rural clinical placements are one of multiple factors that influences rural employment, for example rural origin also influences rural employment. A recent systematic review identified that for students intending to work rurally post-graduation, a quality rural clinical placement can strengthen this resolve, and for student who are undecided about working rurally post-graduation, a quality rural clinical placement can positively influence this intention, however across the included studies there were mixed findings (see Appendix 8 for a summary of this literature).[9] A single high-quality study within the systematic review reported that 1-year post graduation, 50% of the 198 included students (across six allied health degrees) that has undertaken a rural placement were working rurally,[26] with variable percentages presented by other studies.[9]
    - Based on the available evidence, and on direct feedback from the focus group participants who reported successful rural employment post-graduation, a rate of 32% rural employment was selected.
- Assumption 2: A displacement discount must be applied to the selected 32% rate of rural employment following student engagement with the RHMT program, as there were rural health student placements occurring in the region prior to the RHMT program, albeit these prior placements did not have the same level of student,

supervisor or organisational support as those within the RHMT program. The displacement discount applied was 25%, taking to 32% rate of rural employment down to 24%, which was applied to the SROI analyses.

The additional 'economic specific' focus groups confirmed that there is increased allied health rural employment following student engagement with the RHMT program, and that this increased employment can (1) create a return for the organisation with respect to a *reduction in recruitment costs*, and (2) create a return for the community with respect to *filling vacant allied health positions*. To ensure an appropriate value was attributed to these returns, we explored the value of these returns in detail during the additional 'economic specific' focus groups and supplemented this with published literature.

- Reduction in recruitment costs: Focus group participants noted that the direct recruitment of students post-placement could negate much of the organisation's usually high recruitment costs, which were previously estimated at $32,126 per position due to the complexity of the current rural recruitment process that can require significant people-time associated with multiple rounds of advertising and interviews to secure a candidate.[27]
    - Base cost $32,126,
    - Minus 50% reduction in cost due to efficiency (*estimated during the focus group due to the efficiency of directly recruiting students, compared to the usual, and often complex, pathway for recruitment*),
    - Minus 20% as this is a forecast value,
    - Resulting in a final value of $12,850 being created, per student recruited.
- Filling vacant allied health positions: Focus group participants also noted that filling a vacant position creates value to the community due to the increased access to health professionals. Filling a vacant position for 12-months was valued at the cost to employ a health professional (current EBA).
    - Base rate value $101,691,
    - Addition of organisational on-costs at 25%,
    - Minus 20% as this is a forecast value,

- Resulting in a final value of $101,691 being created, per student recruited.

Data sovereignty: Data sovereignty,[28] as it relates to intellectual property ownership, was carefully discussed with the study participants prior to data collection. This was particularly important for the First Nations participants, as non-Indigenous researchers collected First Nations knowledge and experiences through the interview process. In the context of this study, data sovereignty included who can access, utilise and benefit from information that is held within First Nations communities, and who has the opportunity and right to define, use and interpret data relating to First Nations communities. In addition to the data sovereignty defined by the study participants, the analysis of the data included: (1) a First Nations researcher (MA); (2) First Nations members of the Rural Allied Health Advisory Committee; and (3) First Nations stakeholders by explicitly asking if the proposed SROI analysis included things that matter and that are material and, if not, what should be included.

Currency, price date, and conversion: All costs are reported in $AUD 2023/24. Costs data collected prior to this time were inflated by consumer price index (CPI) via the Reserve Bank of Australia Inflation Calculator.[29]

Rationale and description of the economic evaluation model: Not applicable, as this SROI analysis does not include modelling.

Analytics: Each impact reported in the data had a reference value applied (Table 2). If an impact did not have a reference value, we underwent a suitable process to establish the value, such as referring to previously published literature, and asking the interview participants their views on willingness to pay for the outputs and outcomes achieved. The investment costs were compared to the combined financial return, to establish the SROI. This is presented as a ratio of return-to-investment. To characterise sources of uncertainty in the analyses, each resource/cost (investment) and outcome (return) was examined with respect to evidential and decision uncertainty.[30] Evidential uncertainty included uncertainty

in the sources that contribute to the evidence base (i.e., missing or poor-quality data), and decision uncertainty included uncertainty in the sources that substantially contribute to conclusions drawn from the SROI analysis. The identified sources of uncertainty were addressed through sensitivity analyses where the source of uncertainty was adjusted by a factor of 0.75 and 1.50, to understand the impact of that individual source on the SROI findings.

Section 3: Results

In summary, the RHMT program completed actions across all eight of the intended program activities (Table 1; Figure 4). The 3-year investment in the RHMT was **$2,334,403** (Table 2). The social value created from the RHMT program was **$2,967,768** (Table 3). This indicates that for every $1 spent on the RHMT program, there was a **$1.27 SROI** (i.e., SROI 1:1.27).

Impact of natural disaster

It was noted that the RHMT program was significantly impacted by the COVID-19 pandemic and by floods across the region in 2021 (preparation year) and 2022 (first year of the RHMT program), resulting in significant delays to the RHMT program implementation, and subsequent outputs and outcomes reported in this results section. RHMT activity did not gain full momentum until 2023.

Activities

The RHMT program completed actions across all eight of the intended program activities (Table 1; Figure 4).

Investment

The 3-year investment in the RHMT was $2,334,403 (Table 2). There were 5 investment elements that made up 94% of the 3-year investment. These included $792,000 of costs incurred by the students to participate in a rural health student placement (e.g., transport, accommodation, lost income); $841,911 of costs for TRDRH staff to lead the project, including the two Clinical Educators; $339,770 of costs to engage local rural health professionals to engage as clinical supervisors, including their salaries and wages; $129,757 of costs to purchase / refurnish student accommodation; and $90,235 of costs to provide scholarships to health students and health professionals, with a total of 117 scholarships allocated at an average value of $771.

Return

The social value created from the RHMT program was $2,967,768 (Table 3).

Connecting to country

During the RHMT program 27 students and 7 supervisors attended a *Connection to Country* cultural immersion experience that included an on-country experience with a local indigenous uncle. During the interviews and focus groups, participants were requested to value the *Connection to Country,* with a value of $650 suggested by the participants. However, when this request was presented to a focus group that included the local indigenous uncle who facilitated the *Connecting to Country* experiences, he noted that "I can't put a price on it because I take them to where my mum was taken, I take them to a sacred women's site in town. I can't put money on that." Following these insights, it was decided that the *Connection to Country* experiences had an immeasurable value. Similarly, this study was not able to value engagement activity between Charles Sturt University and First Nations peoples, which was essential to realise the outcomes that relate to First Nations peoples. The occasions of engagement included two CEOs of the local Aboriginal Medical Services being members of the Rural Health Advisory Committee, as well as connecting with local organisations to understand the professional development needs of First Nations staff.

Forecast impact of allied health recruitment and employment

Of the 99 students involved in the 3-year RHMT program (79 Charles Sturt University students and 20 non-Charles Sturt University students), the additional 24% who were expected to work rurally post-graduation represents 24 students. Ninety-three percent of the return on the RHMT related to the forecast (future) recruitment of the students as qualified health professionals for the return variables of recruitment costs and filling a vacant position. For the forecast 24 students impacted, the reduction in recruitment cost was valued at $308,410, and the value for filling a vacant position for 12-months was $2,440,560.

Enhanced supervisor skills

In the focus groups, participants from the organisations highlighted the value of the RHMT program on enhancing the supervisor and staff skills. The first aspect was training and support from the two *RHMT clinical educators*, to build local clinician skills to supervise students. The second aspect was the *student-led presentations* to the supervisors and staff, as well as the *student-led development of resources* that could have continued used beyond the students' placement. Participants noted that they often pay substantial fees for external educators to come into their organisation and provide similar presentations and resources. In the focus groups, participants from the organisations were able to value this impact, and the value ranged from $3,000 to $23,000 per student who attended. Subsequently, this SROI applied a conservative value of $3,000, and applied this value to 50% of the students, to acknowledge not all students provided this value to their supervisor and the staff.

Unintended impacts

It is noted that additional social value elements of the SROI were identified in the participant focus groups, however, the research team was unable to capture a quantity or value for these elements with available data. The unintended impacts include the following:

- During focus groups organisations reported that there were unexpected connections to other similar organisations, initiated when they shared the student resources with these similar organisations.
- During focus groups supervisors and organisations reported that they valued it when students requested to return for another placement with the supervisor / organisation, due to the increased likelihood of returning as a health professional.

Social return on investment

For every $1 spent on the RHMT program, there was a **$1.27 SROI** (i.e., 1:1.27).

Sensitivity analyses

Table 4 details the SROI ratios for the sensitivity analyses. The 1:1.27 SROI from the primary analysis, increased to 1:1.86 when the variables of (1) recruitment costs and (2) filling a vacant position was increased by 50%; decreased to 1:0.98 when these same variables were reduced by 25%; and further reduced to 1:0.68 when the percentage of additional students employed rurally post-graduation was reduced from 24% to 12% (i.e., 50% of the primary analysis value).

Table 1. RHMT program activity and scholarships 2022 - 2024

Activity	2022	2023	2024	Total
Charles Sturt University students and placement weeks, as well as their use of Charles Sturt University accommodation	25 students; 84 weeks	31 students; 136 weeks	23 students; 93 weeks	79 students; 313 weeks
	No Charles Sturt University accommodation this year	Accommodation: 11 students; 48 weeks	Accommodation: 23 students; 124 weeks	Accommodation: 34 students; 172 weeks
Non-Charles Sturt University students and placement weeks, as well as their use of Charles Sturt University accommodation	6 students; 32 weeks	6 students; 35 weeks	8 students; 42 weeks	20 students; 109 weeks
	No Charles Sturt University accommodation this year	Accommodation: 9 students; 38 weeks	No Charles Sturt University accommodation this year	Accommodation: 9 students; 38 weeks
Number of RMHT clinical supervisors (*new from the previous year*)	5	2	1	8
Rural Health Advisory Committee meetings	0	5	4	9
Cultural Immersion experience in partnership with First	0 students; 0 supervisors	17 students; 2 supervisors	10 students; 5 supervisors	27 students; 7 supervisors

Activity	2022	2023	2024	Total
Nations Peoples: students; supervisors				
Education activities for students and supervisors / staff	27 hours of training by students and 458 hours of training by supervisors / staff			
Research Activities	9 research activities involving 14 Charles Sturt University staff; 4 conference presentations / attendances; research mentoring; and Charles Sturt University staff attended a full-day Health Economics workshop in 2024			
Accommodation: Forbes and Lake Cargelligo	-	13 students (58 weeks)	23 students (111 weeks)	36 students (169 weeks)
Placement Grant: Charles Sturt University student only	-	31 students (147 weeks / $27,000)	23 students (95 weeks / $19,500)	54 students (242 weeks / $36,500)
Travel Support Scheme Grant: non-Charles Sturt University students only	-	5 students (29 weeks / $2,500)	8 students (38 weeks / $5,400)	13 students (67 weeks / $7,900)
Outreach Visit Support Scheme	-	-	1 student (4 nights / $720)	1 student (4 nights / $720)
Rural Adventure Grant	-	-	3 students ($183)	3 students ($183)
Lachlan Allied Health Bonus	-	-	10 students (38 weeks / $3,800)	10 students (38 weeks / $3,800)
Rural Health Honours Scholarships	-	-	2 students ($22,665)	2 students ($22,665)

Figure 4. RHMT program activity 2022 - 2024

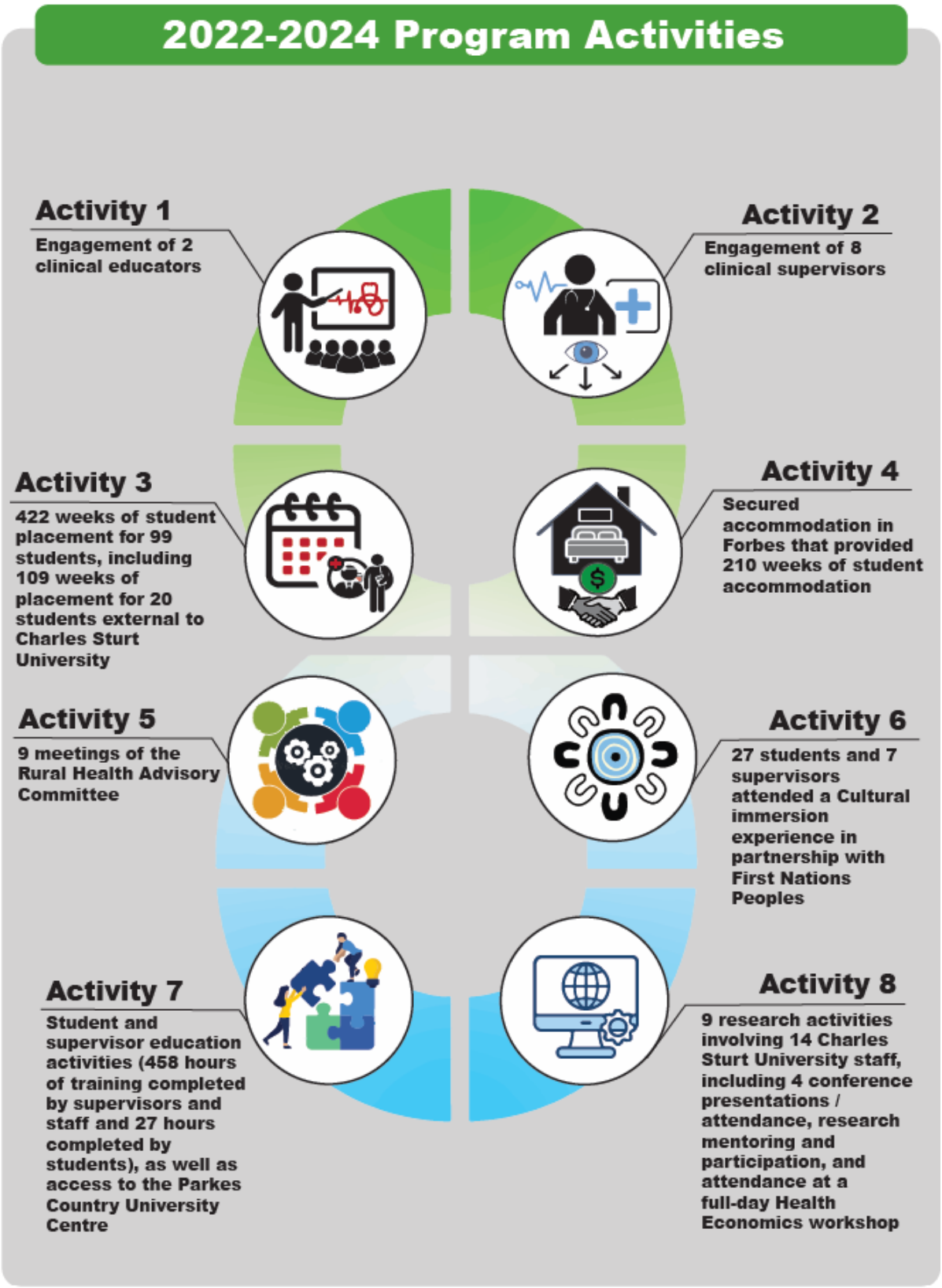


Table 2. Investment into the RHMT program (AUD$2023/24)

	Elements of the social return on investment analysis	What will change?	How much was invested (e.g. amount / time)?	Number of people affected	Investment per person	Value of investment
INVESTMENT: Expanded RHMT Program	Costs for RHMT staff to lead the project	RHMT will be led by the staff at Charles Sturt University	4 part-time positions employed through Charles Sturt University over 3 years (including the 2 RHMT clinical educators)	N/A	N/A	$841,911
	Costs for RHMT program governance	RHMT will be given guidance from the Advisory Board	9 meetings, average 9 participants per meeting	N/A	N/A	$8,000
	Costs for communication strategy to increase student participation in rural student health placements	Potential students are made aware of the RHMT program	Investment over 3-years from project budget	99	$130	$13,000
	Costs to engage local rural health professionals to engage as clinical supervisors	Local rural health professionals to engage as clinical supervisors	Over 3 years there were 8 local rural health professionals engaged as clinical supervisors	8	$42,471	$339,770
	Costs to engage First Nations Peoples to support the RHMT including cultural awareness training to ensure all health students are given appropriate cultural training	First Nations Peoples support the RHMT Program	Cost for the production of the student video and for cultural training	99	$505	$50,000

	Elements of the social return on investment analysis	What will change?	How much was invested (e.g. amount / time)?	Number of people affected	Investment per person	Value of investment
	prior to undertaking placements					
	Costs to provide students with connection to the Parkes Country University Centre (CUC)	Parkes Country University Centre (CUC) is utilised by supervisors and students	At the CUC and other similar locations, there was 27 hours of training by students and 458 hours of training by supervisors. As these locations are offered free to the public, no cost was allocated to this element	107 (99 students and 8 supervisors)	$0	$0
	Costs for student accommodation	Student accommodation is acquired	Renovations and fees for services rendered	43	$3,018	$129,757
	Costs to provide scholarships to health students and health professionals	Scholarships are provided to health students and health professionals	117 scholarships were allocated to students	117	$771	$90,235
	Costs to develop and implement specific educational, training and support programs for First Nations Peoples who are part of the rural health workforce	To assist First Nation peoples career development and enable First Nation peoples to enhance clinical skills	This cost was embedded into the cost category of “RHMT staff to lead the project"	N/A	N/A	N/A
	Costs to develop and implement a rural health research plan	Research plan is developed / implemented with health	This cost was embedded into the cost category of “RHMT staff	N/A	N/A	N/A

	Elements of the social return on investment analysis	What will change?	How much was invested (e.g. amount / time)?	Number of people affected	Investment per person	Value of investment
		professional engagement	to lead the project"			
	Enhanced supervisor experience during placement	A small number of organisations received funds for equipment and resources	Six of the organisations received funds from the RHMT program to enhance both the student and supervisor experience	N/A	N/A	$28,150
INVESTMENT: Students	Costs incurred by the student to participate in a rural health student placement (such as transport, accommodation, carbon footprint)	The expanded RHMT Program is developed and implemented in the area	Interviews indicated that student cost could range from $4,000 to $20,000 per placement, with an average amount of $8,000 attributed per placement	99	$8,000	$792,000
INVESTMENT: Organisations/supervisors	Costs incurred by the supervisors to support a rural health student placement (such as transport, accommodation, carbon footprint)	The organisation invests in the RHMT Program	Interviews indicated that supervisors spent dedicated time with students, but little on other costs	99	$320	$31,680
	Costs incurred by the organisations to support a rural health student placement (such as HR support)	The organisation invests in the RHMT Program	Interviews indicated that organisations needed to dedicate time to onboard the students	99	$100	$9,900

	Elements of the social return on investment analysis	What will change?	How much was invested (e.g. amount / time)?	Number of people affected	Investment per person	Value of investment
INVESTMENT: Community	Costs incurred by the community to support a rural health student placement (such as social inclusion, transport, accommodation, carbon footprint that relates to a student-activity)	The expanded RHMT Program is developed and implemented in the area	Interviews indicated that there was little to no cost to the community to host student placements	N/A	N/A	N/A
INVESTMENT TOTAL					**$2,334,403**	

Table 3. The return on the RHMT program (AUD$2023/24)

	Elements of the social return on investment analysis	What will change?	How much was the return (e.g. amount / time)?	Number of people affected	Return per person	Value of the return
RETURN: Students	Student intent to work in the rural area post-graduation	One student / health professional who is influenced to work, or continue to work, in a rural area	A cost of $16,063 was applied to 24% of the 99 students due to the avoided cost of the usual rural health workforce recruitment strategy following staff turnover; with a 20% discount applied to $16,063 as it is a future (forecast) impact (resulting value $12,850)	24	$12,850	**$308,410**
	Students have an increased understanding of First Nations cultures (ways of knowing, being and doing that are contextually relevant to the Lachlan region)	Students have an increased understanding of First Nations cultures	During focus groups supervisors reported that this increased understanding could be valued at that of a short online course (value $199, https://courses.aboriginalinsights.com.au/courses/cultural-awareness-101/)	99	$199	**$19,701**
	Student connection to the First Nations community and connection to Country	Improved student connection to the First Nations community and to Country	One participant, a local indigenous uncle, indicated during the focus group that a value cannot be placed on creating a Connection to Country (refer to text)	99	N/A	**See text for description**
	Enhanced student learning	Enhanced student learning	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	99	N/A	**N/A**
	Enhanced student connection with the community	Enhanced student connection with the community	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	99	N/A	**N/A**

	Elements of the social return on investment analysis	What will change?	How much was the return (e.g. amount / time)?	Number of people affected	Return per person	Value of the return
	Enhanced student capabilities / skills	Enhanced student capabilities / skills. Each skill identified will be specified and valued	Supervisors valued enhanced student communication gained through the RHMT program as $25, equal to that of a short online course in health professional communication, e.g., https://www.cqu.edu.au/courses/825891/effective-communication-in-health-care	99	$25	**$2,475**
	Enhanced student experience during placement	Enhanced student experience during placement	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	99	N/A	**N/A**
	Enhanced student sense of community belonging	Enhanced student sense of community belonging	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	99	N/A	**N/A**
	Enhanced student teamwork within the placement organisation	Enhanced student teamwork within the placement organisation	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	99	N/A	**N/A**
	Enhanced student teamwork external to the placement organisation	Enhanced student teamwork external to the placement organisation	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	99	N/A	**N/A**
	Unintended impacts described during the data collection period	N/A	During focus groups students did not identify any additional unintended impacts of the RHMT program	N/A	N/A	**N/A**

	Elements of the social return on investment analysis	What will change?	How much was the return (e.g. amount / time)?	Number of people affected	Return per person	Value of the return
RETURN: Organisations and clinical supervisors	Health staff / supervisors have an increased understanding of First Nations cultures (ways of knowing, being and doing that are contextually relevant to the Lachlan region)	Health staff / supervisors have an increased under-standing of First Nations culture	During focus groups supervisors reported that this increased understanding could be valued at that of a short online course (value $199, https://courses.aboriginalinsights.com.au/courses/cultural-awareness-101/)	8	$199	**$1,592**
	Supervisor connection to the First Nations community	Increased supervisor connection to the First Nations community	One participant, a local indigenous uncle, indicated during the focus group that a value cannot be placed on creating a Connection to Country (refer to text)	8	N/A	**See text for description**
	Enhanced supervisor connection with the community	Enhanced supervisor connection with the community	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	N/A	N/A	**N/A**
	Enhanced supervisor capabilities / skills	Enhanced supervisor capabilities / skills. Each skill identified will be specified and valued	Organisations highly valued this impact, and the value ranged from $3,000 to $23,000 per student who attended (with a conservative average of $3,000 selected, and applied to the 50% of students who provided this value-add) *Note number represent students who created the value, not supervisors who received the value*	50	$3,000	**$150,000**
	Enhanced supervisor experience during placement	A small number of organisations received funds for equipment	Six of the organisations received funds from the RHMT program to enhance both the student and supervisor experience	N/A	N/A	**$28,150**

	Elements of the social return on investment analysis	What will change?	How much was the return (e.g. amount / time)?	Number of people affected	Return per person	Value of the return
		and resources				
	Enhanced supervisor sense of community belonging	Enhanced supervisor sense of community belonging	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	N/A	N/A	**N/A**
	Enhanced supervisor teamwork within the placement organisation	Enhanced supervisor teamwork within the placement organisation	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	N/A	N/A	**N/A**
	Enhanced supervisor teamwork external to the placement organisation	Enhanced supervisor teamwork external to the placement organisation	During focus groups supervisors reported that while this impact occurred during the RHMT program, they could not place a value on the impact	N/A	N/A	**N/A**
	Unintended impacts described during the data collection period	N/A	During focus groups supervisors and organisations reported the following unintended impacts: students requested to return for another placement with the supervisor; and organisational connections to other organisations	N/A	N/A	**See text for description**
RETURN: Rural community	Health worker employment and/or retention in rural areas	Increased health worker employment and/or retention in rural areas	12 months employment in rural setting (value of having a vacant position filled by a Grade 2 allied health professionals who did a RHMT placement, https://vahpa.asn.au/wp-content/uploads/2023/01/AHP-Vic-Public-Sector-Single-Interest-Employers-EA-2021-26.pdf); Base rate value $101,691	24	$101,690	**$2,440,560**

	Elements of the social return on investment analysis	What will change?	How much was the return (e.g. amount / time)?	Number of people affected	Return per person	Value of the return
			Organisational on-costs of 25% added; Discount rate of 20% applied as it is a future (forecast) impact; Resulting value = $101,691			
	Stimulation of the local economy (including additional visitors in the region and student engagement in community activities)	Stimulation of the local economy	$40 per week of student placement x 659 weeks	All of community	N/A	**$16,880**
	Increase in community referrals to health services (including the First Nations community)	Increase in community referrals to health services	During focus groups supervisors reported that they were not sure if this impact occurred during the RHMT program, therefore no value was placed on the impact	N/A	N/A	**N/A**
	Increase in community referrals to community-based programs (including the First Nations community)	Increase in community referrals to community-based programs	During focus groups supervisors reported that they were not sure if this impact occurred during the RHMT program, therefore no value was placed on the impact	N/A	N/A	**N/A**
	Increase in community engagement in health prevention programs (including the First Nations community)	Increase in community engagement in health prevention programs	During focus groups supervisors reported that they were not sure if this impact occurred during the RHMT program, therefore no value was placed on the impact	N/A	N/A	**N/A**
	Increase in community engagement in health education	Increase in community engagement in health	During focus groups supervisors reported that they were not sure if this impact occurred during the RHMT program,	N/A	N/A	**N/A**

	Elements of the social return on investment analysis	What will change?	How much was the return (e.g. amount / time)?	Number of people affected	Return per person	Value of the return
	programs (including the First Nations community)	education programs	therefore no value was placed on the impact			
	First Nations families Community members feel more comfortable talking to health professionals	First Nations families Community members feel more comfortable talking to health professionals	During focus groups supervisors reported that they were not sure if this impact occurred during the RHMT program, therefore no value was placed on the impact	N/A	N/A	**N/A**
	Community members First Nations families build knowledge of health conditions	Community members First Nations families build knowledge of health conditions	During focus groups supervisors reported that they were not sure if this impact occurred during the RHMT program, therefore no value was placed on the impact	N/A	N/A	**N/A**
	Unintended impacts described during the data collection period	See text	During focus groups community members did not identify any additional unintended impacts of the RHMT program for the community	N/A	N/A	**N/A**
TOTAL RETURN					**$2,967,768**	

Table 4. Sensitivity analyses for the return on the RHMT program (AUD$2023/24)

Variable	Modification	Investment (AUD$)	Return (AUD$)	SROI ratio (AUD$)
Primary analysis	N/A	$2,334,403	$2,967,768	Positive SROI 1:1.27
Value of the impact of students who are employed rurally post-graduation	Increase the value of the variables of (1) recruitment costs and (2) filling a vacant position by 50% (i.e., 150% of the primary analysis value)	$2,334,403	$4,342,252	Positive SROI 1.86
Value of the impact of students who are employed rurally post-graduation	Decrease the value of the variables of (1) recruitment costs and (2) filling a vacant position by 25% (i.e., 75% of the primary analysis value)	$2,334,403	$2,280,525	Close to neutral SROI 0.98
Percentage of students who are employed rurally post-graduation	Decrease the percentage of students employed from 24% to 12% (i.e., 50% of the primary analysis value), for the variables of (1) recruitment costs and (2) filling a vacant position	$2,334,403	$1,593,283	Negative SROI 0.68

Section 4: Discussion

The expansion of the RHMT produced a positive social return on investment in the primary analysis (1:1.27), alongside completion of the core project activity including the provision of additional health student placements to the Lachlan region, in New South Wales. Benefits captured by this SROI study included future recruitment of health professionals to the area, local economy stimulation, as well as a self-reported positive impact on First Nations peoples.

The vast majority of the current expanded allied health RHMT program return was attributed to a 24% increase in the number of students who were expected to work rurally post-graduation. This primarily related to a reduction in recruitment cost for the host organisations (valued at $308,410), and increased value to the community by filling vacant allied health positions (valued at $2,440,560). While the 24% increase in the number of students who were expected to work rurally post-graduation resulted in a positive SROI (1:1.27), a lesser value of 12% was not able to maintain a positive SROI (1:0.68). A recent systematic review identified that for students intending to work rurally post-graduation, a quality rural clinical placement can strengthen this resolve, and for students who are undecided about working rurally post-graduation, a quality rural clinical placement can positively influence this intention, however across the included studies there were mixed findings. For example, one of the included studies quantified the impact by reporting that exposure to rural clinical placements can increase post-graduate employment in rural health by 26% (from 24% when combining students exposed and not exposed to rural placements, to 50% when only including students exposed to rural placements).[10] Similarly, another of the included studies reported on rural practice in the second year post-graduation across seven health disciplines, stating that at year 2 of practice 18% of participants were in a rural area, and the authors found that rural origin and more rural placement days positively influenced graduate rural practice destinations.[11] Finally, another included study reported that 31.4% of allied health professionals who had undertaken a rural placement surveyed reported that they had worked in a rural or remote location (MMM 4-7) after graduation.[31]

In the current expanded allied health RHMT program, $792,000 (or 34%) of the investment were costs incurred by the students to participate in a rural health student placement. During the interviews and focus groups, the students indicated that their costs could range from $4,000 to $20,000 per placement, pending on placement length and personal factors, noting that the SROI analysis applied an average of $8,000 per placement. A recent scoping review also examined the financial implications of unpaid clinical placement across a range of health students in Australia.[2] The scoping review described direct, indirect and hidden costs, with one of the included studies from 2019 reporting that the direct costs for nursing and allied health placements was $1,204, and this was exclusive of indirect costs such as loss of income or the rent or mortgage on the primary place of residence, which were included in the current study.[32]

With some parallels to the current expanded allied health RHMT program, a medical student initiative and evaluation was completed between 2018 and 2021 for medical students undertaking extended rural health student placements in Queensland, Australia.[33] The medical extended rural clinical placement program also reported a positive return on investment ($7.60 of social value created for every $1 spent), in addition to improved clinical confidence and competence, with greater numbers of medical students planning to work in rural areas post-graduation. Both the current RHMT program and the medical extended rural clinical placement program reported that the vast majority of the return was related to a forecast of increased work in rural areas post-graduation (91% for the current expanded allied health RHMT program, and 95% for the medical extended rural clinical placement program).

Conclusion

As this evaluation demonstrates a positive SROI, national scaling and implementation of the program should be carefully considered to realise the benefit Australia-wide.

Section 5: Variations to the published protocol

Time horizon

This SROI had a 3-year time horizon (January 2022 – December 2024). Initially it was intended that data from January 2022 to December 2023 would be based on actual data (evaluative) and that January 2024 to December 2024 would be based on future data (forecast). However, the project data collection timeline was extended to December 2024 meaning that this SROI was based on actual data (evaluative) and not on future data (forecast), with the exception of health professional recruitment post student placement which remained a forecast impact.

Data Collection

Data were collected by Charles Sturt University Three Rivers Department of Rural Health staff who were working on the project team. In October 2024, three additional focus groups were conducted by Charles Sturt University and A/Prof Natasha Brusco from the evaluation team. These three additional focus groups focused on SROI data and were deemed necessary by the evaluation team as the interim analysis revealed a gap in the SROI data that was available in the interview transcripts to date. One focus group was held in Forbes, one was held in Parkes, and one was held online.

Additional cost elements

For clarity, costs for RHMT program governance (time for the Charles Sturt University staff to lead the program and for the participants on the advisory board) were put into a separate cost element (previously included in the broad category of “strategy to increase Charles Sturt University student participation in rural student health student placements”).

Section 6: Strengths and Limitations

Strengths

1. First Nations peoples have been involved in the conceptualisation and design of this expanded Rural Health Multidisciplinary Training (RHMT) Program evaluation, as the study involves and impacts First Nations peoples.
2. The 3-year time horizon for the expanded RHMT Program evaluation provides a strong foundation for providing a SROI analysis (compared to a time horizon of 12 months or less).

Limitations

1. The planned data collection identified previously unknown factors of "value" that stemmed from the expanded RHMT Program. To reduce potential bias, these unknown factors of "value" were independently clarified, quantified, and valued during the data collection process. It is noted that additional social value elements of the SROI were identified in the participant interviews, however, the research team was unable to capture a quantity or value for these elements with available data.
2. Charles Sturt University staff collected data on a program they implemented. However, attempts to manage any potential bias arising from this were put in place by data analyses being delivered by researchers independent from the program delivery.
3. In 2021 (preparation year) and 2022 (first year of the RHMT program), the RHMT program was significantly impacted by the COVID-19 pandemic and by floods across the region. These two events resulted in significant delays to the RHMT program implementation, and subsequent outputs and outcomes.

Section 7: Declarations

Acknowledgments

We would like to acknowledge Dr Jane Havelka, a First Nations researcher and academic, who provided critical review and development of the study protocol, especially in relation to the study aims.

Ethics approval and consent to participate

This study has been approved by the Charles Sturt University Humans Research Ethics Committee (reference number H23589) and the Aboriginal Health and Medical Research Council of New South Wales (reference number 2130/23). All participants provided informed consent prior to participation in this study.

Competing interests

The authors declare that they have no competing interests.

Funding

This study was funded by the Australian Commonwealth Government for the 2022-2024 "Health Workforce Program: Expansion of the Rural Health Multidisciplinary Training Program in More Remote Settings (GO4898)" scheme. The funder had no role in the identification, design, conduct, and reporting of the analysis.

Parts of this evaluation report have been replicated from our published protocol

Attached as Appendix 1: Nott M, Green E, Anderson M, French L, Lander C, McAleer R, et al. Does an expanded allied health student training programme in regional New South Wales (Australia) result in a positive social return on investment? A protocol for a single-university education-based economic evaluation. BMJ open. 2024;14(8):e081419.

Dissemination

Plans for dissemination of the project include publication of the protocol (completed; Appendix 1) and part of this report in peer-reviewed journals, and presentation at relevant conferences. In addition, at the end of each survey and interview, participants were provided with the opportunity to provide a valid email / postal address so that they could obtain a copy of the project report 12 months following project completion. A post-program community event will also be hosted by Three Rivers Department of Rural Health to share project outcomes and findings with key stakeholders and community members of the Lachlan region. Plans for sharing and/or future use of data that is not covered in the current ethics application will be subject to a further application for Human Research Ethics Committee approval.

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Section 9: Appendices

Appendix 1 – Published Social Return on Investment Protocol

Nott M, Green E, Anderson M, French L, Lander C, McAleer R, et al. Does an expanded allied health student training programme in regional New South Wales (Australia) result in a positive social return on investment? A protocol for a single-university education-based economic evaluation. BMJ open. 2024;14(8):e081419.

Open access Protocol

BMJ Open

Does an expanded allied health student training programme in regional New South Wales (Australia) result in a positive social return on investment? A protocol for a single-university education-based economic evaluation

Melissa Nott ,[1] Elyce Green ,[1] Micheal Anderson,[2] Louise French,[1] Chelsea Lander,[1] Rachael McAleer,[3] Natasha Brusco [4]

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For numbered affiliations see end of article.

Correspondence to
Dr Melissa Nott;
mnott@csu.edu.au

ABSTRACT

Introduction 20 years ago, health professional student placements in rural areas of Australia were identified as an important rural recruitment strategy and funding priority. Since then, there has been a growing body of research investigating the value, impact, barriers and facilitators of student placements in rural areas of Australia. Charles Sturt University, Three Rivers Department of Rural Health, was recently awarded an Australian Government grant to expand their Rural Health Multidisciplinary Training (RHMT) programme, designed to increase multi-disciplinary student placements in rural areas of New South Wales (NSW), Australia. The aim of this study is to determine if the expanded RHMT has a positive social return on investment (SROI).

Methods and analyses The RHMT Programme will expand into the Forbes/Parkes/Lachlan local government areas of NSW where there is a population of 21 004 people, including 3743 First Nations peoples. Data collection includes collecting programme outputs, programme costs and conducting surveys and interviews with students, host organisations, supervisors and community members including First Nations peoples. The SROI will quantify the 'investment' required to implement the RHMT programme, as well as the 'social return' on the RHMT programme from the student, organisational, supervisor and community perspectives. The SROI will compare the combined cost with the combined return, from a societal perspective, including a 3-year time horizon, with cost data presented in $A 2024/25.

Discussion The findings of this SROI study may influence future Australian government investment in RHMT as a mechanism for supporting rural allied health recruitment and for investing in the local rural economy.

Ethics and dissemination This study has been approved by the Charles Sturt University Human Research Ethics Committee (#H23589) and the Aboriginal Health and Medical Research Council of New South Wales (#2130/23). Results will be disseminated via a peer-review journal publication, as well as conference presentations.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ First Nations peoples have been involved in the conceptualisation and design of this expanded Rural Health Multidisciplinary Training (RHMT) Programme evaluation, as the study involves and impacts First Nations peoples.
⇒ The 3-year time horizon for the expanded RHMT Programme evaluation provides a strong foundation for a social return on investment analysis (compared with a time horizon of less than 12 months).
⇒ The planned data collection is likely to identify currently unknown factors of 'value' that stem from the expanded RHMT Programme; to reduce potential bias, these unknown factors of 'value' will be independently clarified, quantified and valued during the data collection process.

INTRODUCTION

Compared with a traditional cost-effectiveness or cost-benefit analysis, a social return on investment (SROI) analysis takes on a wider economic perspective[1] and is defined as 'a framework for measuring and accounting for the much broader concept of value'.[2] A SROI captures the health and non-health benefits by considering the social, economic and environmental costs and benefits and, in doing so, shifts the focus from outputs to impact.[1–4] A SROI can be applied to multiple interventions such as those in the health, justice and education settings, including education that pertains to rural student placements for health professionals.[1 5–8]

20 years ago, health professional student placements in rural and remote areas of Australia were identified as an important rural recruitment strategy and funding priority.[9] Since then, there has been a

growing body of research investigating the value, impact, barriers and facilitators to student placements in rural and remote areas of Australia.[10–15] Rural recruitment pathways have been previously described as vague and interrupted, with an inconsistent return of graduates to the rural setting post-graduation.[15] While the financial burden and cumulative commitment required for a rural placement can be prohibitive for some potential students, many who do participate in a rural placement report a positive and supportive rural experience.[12 15] In 2020, COVID-19 impacted rural and remote health student placements in Australia, resulting in either cancelled placements or participation in an adapted placement.[10]

In late 2021, Charles Sturt University, Three Rivers Department of Rural Health, was awarded a Commonwealth Government grant to expand the Rural Health Multidisciplinary Training (RHMT) Programme. The RHMT is designed to expand multi-disciplinary student placements in rural and remote areas of Australia, and it has been previously reported that for every $1 spent under a RHMT Programme in Australia, another $1 is generated in the local economy,[11] indicating a positive SROI. The current expansion of the RHMT programme will focus on an increase in health student training through high-quality rural education experiences (both traditional and non-traditional placement types); and additional programmes to ensure students are rural ready and culturally sensitive and engage effectively and collaboratively with rural communities. The aim of this study is to determine if the expanded RHMT has a positive SROI.

METHODS AND ANALYSES

This study protocol has been reported in accordance with the Consolidated Health Economic Evaluation Reporting Standards 2022, CHEERS 2022; online supplemental additional 1.[14] This project has been approved by the Charles Sturt University Human Research Ethics Committee (reference number H23589) and the Aboriginal Health and Medical Research Council of New South Wales (reference number 2130/23). The RHMT Programme will expand into the Forbes, Parkes and Lachlan local government areas (inclusive of Condobolin) of New South Wales (Australia) where there is a population of 21 004 people, including 3743 First Nations peoples.

An overview of the project is presented in figure 1 (theory of change) and figure 2 (project logic model). In summary, the RHMT programme will aim to deliver the following activites: (a) appoint local clinical educators with demonstrable skills in cultural awareness to lead the programme expansion; (b) empower local health professionals to conduct clinical supervision of health students and offer them support via the Rural Health Education team at Three Rivers; (c) provide 264 weeks of allied health student placements per year in the Lachlan area ensuring that students undertaking a placement complete cultural awareness training, that has been designed and delivered by local First Nations community members and that First Nations students have access to the Charles Sturt mentoring programme; (d) acquire dedicated student accommodation; (e) establish a Rural Allied Health Advisory Committee to provide governance and direction for the RHMT Programme and to support strategies to improve long-term rural workforce recruitment and

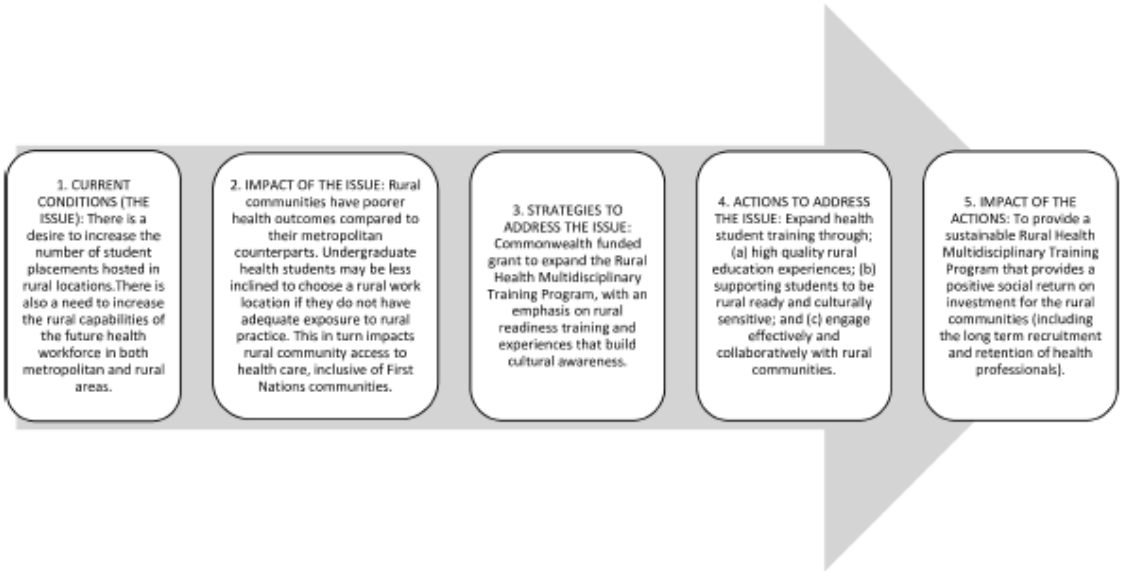

Figure 1 Project theory of change.

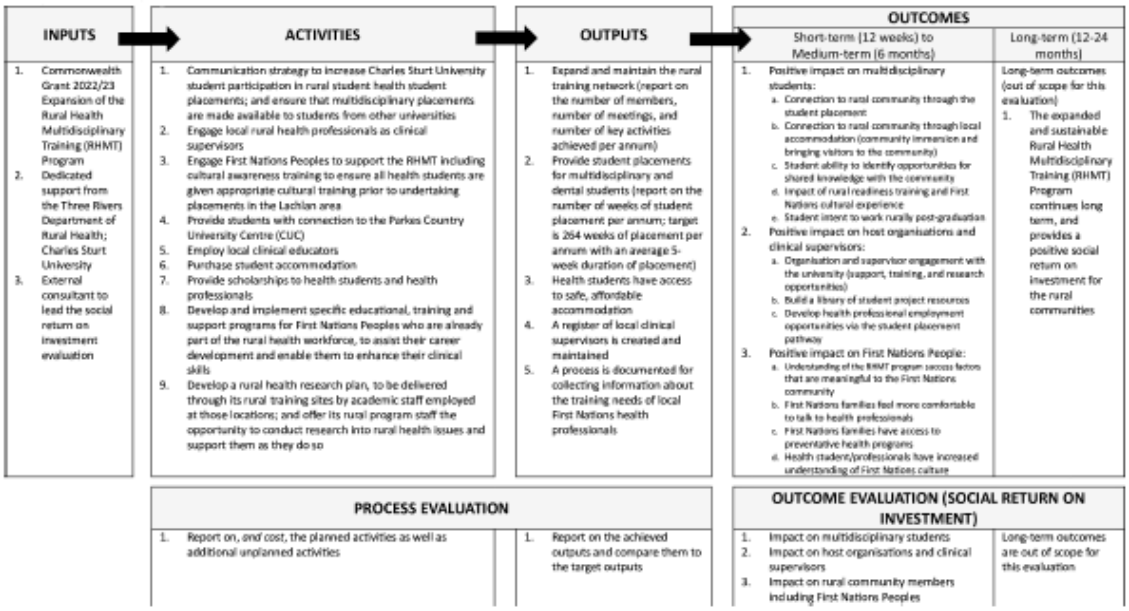

Figure 2 Project logic model.

retention; (f) partner with First Nations Peoples to enable students to develop cultural understanding and cultural responsiveness through cultural safety/rural readiness experiences and training; (g) collaborate with the Parkes Country University Centre to provide support and social connection to health students in the area; and (h) progress an evidence base by contributing to the Three Rivers research agenda via research and higher degree research student appointments, together with clinical-researcher partnership research models.

The aim of this study is to determine if the expanded RHMT has a positive SROI. To address this aim, the primary study question being answered is 'Does an expanded allied health student training programme in regional New South Wales (Australia), result in a positive social return on investment?', and this is broken down into the following individual research questions:

1. What 'investment' was required to implement the RHMT Programme?
2. What 'return' on the RHMT programme was achieved from the student perspective?
3. What 'return' on the RHMT programme was achieved from the organisational and supervisor perspective?
4. What 'return' on the RHMT programme was achieved from the community perspective, including First Nations peoples?

Methodological approach

The SROI will combine the actual impact with the potential impact of the RHMT. The actual (or evaluative) impact is the observed impact of the RHMT within the specified time horizon (in this case 1 year). The potential (or forecast) impact is based on the value that will be created if the intended outcomes are achieved over the total time horizon (in this case 3 years).[4] Activity data will be compared with pre-determined project targets, with qualitative data collected to provide context. Data collection methods include collecting programme outputs, programme costs and conducting surveys and interviews. Interviews may be conducted as a 1:1 interview or as a small group interview/yarning circle (n=2–6), depending on the preference of the participants. Where consent for recording an interview is provided, interviews will be recorded; however, if consent is not provided, detailed notes will be taken. To increase rigour, all *investment* and *return* data will be entered into the freely accessible Excel-based Value Map, developed by Social Value International, and will be analysed within this Value Map.[15]

Study population and consent

1. Multidisciplinary health students will be invited to participate in a post placement survey and interview. We will aim to recruit ~20 students.
   a. Inclusion criteria: students aged 18+ years undertaking a health student placement through, or in partnership with, the RHMT Programme. No exclusion criteria. Participant recruitment is via the students' email. Informed consent is required prior to commencing the survey or participating in an interview.
2. Host organisations will be invited to participate in a post placement survey and interview. We will aim to recruit ~8 staff from host organisations.
   a. Inclusion criteria: staff employed at the host organisation (aged 18+) who have had contact with the

Table 1 Defining the INVESTMENT elements of the social return of investment analysis (to be converted into $A 2024/25)

	Elements of the social return of investment analysis	Number of people potentially affected	Number of people actually affected	What will change?	How will this be measured?
INVESTMENT: Expanded RHMT Programme	Costs for communication strategy to increase Charles Sturt University student participation in rural student health student placements and ensure that multidisciplinary placements are made available to students from other universities	TBC	TBC	Potential students are made aware of the RHMT programme	Number of students who express interests in the RHMT programme and the number who participate in the RHMT Programme
	Costs to engage local rural health professionals as clinical supervisors	TBC	TBC	Local rural health professionals to engage as clinical supervisors	Will determine via record of payments associated with the expansion of the RHMT (grant application)
	Costs to engage First Nations peoples to support the RHMT including cultural awareness training to ensure all health students are given appropriate cultural training before undertaking placements in the Lachlan area	TBC	TBC	First Nations peoples support the RHMT Programme	Will determine via record of payments associated with the expansion of the RHMT (grant application)
	Costs to provide students with connection to the Parkes Country University Centre (CUC)	TBC	TBC	Parkes Country University Centre (CUC) is utilised by supervisors and students	Routinely collected RHMT data that include student and supervisor use of the Parkes Country University Centre • 1/hour of individual time $4.75 • 1/hour of group time $4.75 X number of attendees Note: Capital costs, have been calculated per Brusco et al 2014, (21) then inflated by the consumer price index https://www.abs.gov.au/
	Costs to employ local clinical educators	TBC	TBC	Employment of local clinical educators into the RHMT Programme	
	Costs to purchase student accommodation	TBC	TBC	Student accommodation is acquired	
	Costs to provide scholarships to health students and health professionals	TBC	TBC	Scholarships are provided to health students and health professionals	
	Costs to develop and implement specific educational, training and support programmes for First Nations peoples who are already part of the rural health workforce, to assist their career development and enable them to enhance their clinical skills	TBC	TBC	Costs to develop and implement specific educational, training and support programmes for First Nations peoples who are already part of the rural health workforce, to assist their career development and enable them to enhance their clinical skills	Will determine via record of payments associated with the expansion of the RHMT (grant application)
	Costs to develop and implement a rural health research plan, to be delivered through its rural training sites by academic staff employed at those locations, and offer its rural programme staff the opportunity to conduct research into rural health issues and support them as they do so	TBC	TBC	A rural health research plan is developed and implemented and the health professions engage in the research agenda	
INVESTMENT: Students	Costs incurred by the student to participate in a rural health student placement (such as transport, accommodation, carbon footprint)	TBC	TBC	The expanded RHMT Programme is developed and implemented in the area	Source: self-reported via survey/interview Recall of direct and indirect student costs associated with participation in a rural health student placement
INVESTMENT: Organisations and clinical supervisors	Costs incurred by the supervisors to support a rural health student placement (such as transport, accommodation, carbon footprint)	TBC	TBC	The organisation invests in the RHMT Programme	Source: self-reported via survey / interview Recall of direct and indirect supervisor costs associated with participation in a rural health student placement
	Costs incurred by the organisations to support a rural health student placement (such as HR support, office consumables, carbon footprint)	TBC	TBC	The organisation invests in the RHMT Programme	
INVESTMENT: Rural community	Costs incurred by the community to support a rural health student placement (such as social inclusion of the student, as well as transport, accommodation, carbon footprint that relates to a student activity)	TBC	TBC	The expanded RHMT Programme is developed and implemented in the area	Source - Self reported via survey/interview Recall of direct and indirect community costs associated with participation in a rural health student placement

RHMT Programme. No exclusion criteria. Participant recruitment is via workplace emails. Informed consent is required before commencing the survey or participating in an interview.

3. Clinical supervisors will be invited to participate in a post placement survey and interview. We will aim to recruit ~5 clinical supervisors.
   a. Inclusion criteria: clinical supervisor (aged 18+) who is involved in the RHMT Programme. No exclusion criteria. Participant recruitment is via workplace emails. Informed consent is required before commencing the survey or participating in an interview.
4. Community members including First Nations peoples will be invited to participate in interviews/yarning circle. We will aim to recruit ~10 community members including at least four First Nations peoples.
   a. Inclusion criteria: community members aged 18+ who are impacted or potentially impacted by the RHMT Programme (aiming for the representation from the Condobolin, Peak Hill, Parkes and Forbes areas). No exclusion criteria. Participant recruitment is via a direct approach by project investigators (not members of the health service) and local First Nations research team member (MA). Informed consent is required before commencing the interview.

Impact of, and response to, participant withdrawal

Following the consent process, participants can withdraw from the project up until the point of the data being de-identified. At this point, it is not possible to remove data.

Setting and location

Rural New South Wales, Australia.

Comparators

There are no comparators.

Perspective

'Social return' refers to the impact from the student, host organisation, clinical supervisor, local community and First Nations peoples' perspective.

Time horizon

3-year project (January 2022 – December 2024).

Discount rate, dead weight, displacement, attribution and drop off

The potential future (or forecast) impacts will have a 3.5% discount rate applied per annum to represent a reduced value on future impacts. In addition to the time-related discount rate, both the actual (or evaluative) impacts and potential (or forecast) impacts will be reviewed for dead weight, displacement, attribution and drop off, using data collected during the projects surveys and interviews, as well as data available in the literature.[4] Once the different impacts have been reviewed for dead weight, displacement, attribution and drop off, the determined rates for each will be applied to the social return values. It is expected that there will be different rates applied to the different impacts and that there may be overlap of certain impacts that require the 'repeat-impact' to be reduced in value, or valued at $0, for example, the student who intend to work rurally post-graduation potentially overlaps with the community placing value on increased health professional recruitment. Finally, participants will also report the importance of each impact, and while this will not influence the value via a weight, it will establish the importance from the stakeholder's perspective.

- Dead weight indicates that an outcome, or a portion of the outcome, would have occurred anyway, without the RHMT.[4] For example, the growth in the local economy was the same for the areas impacted by RHMT, as it was for neighbouring areas that were not impacted by RHMT.
- Displacement indicates that another activity did not occur to accommodate the activity of interest.[4] For example, a health service did not initiative a new clinic, so the staff could focus on the RHMT.
- Attribution indicates that an outcome, or a portion of the outcome, occurred due to a separate intervention.[4] For example, if a health service was going to commence an initiative with or without the RHMT, the outcome of the initiative cannot be attributed to the RHMT.
- Drop off indicates that while the value of an outcome may last for many years, it may decline in value in the future years.[4] For example, the value of 'enhanced student teamwork' would decline in value over the coming years if the student goes on to work as a solo private practitioner.

Measurement and valuation of resources and costs (investment), as well as selection, measurement, and valuation of outcomes (return), have been detailed in tables 1 and 2.

Data collection/gathering

Data will be collected by Charles Sturt University, Three Rivers Department of Rural Health staff, and only de-identified data will be provided to the members of the research team who are external to the university. Data collection/gathering techniques are detailed in online supplemental additional 2–5,and these include Additional file 2: Data Collection Form 1—Multidisciplinary students (data collection via survey and interviews); Additional file 3: Data Collection Form 2—Host organisation staff and supervisors (data collection via survey and interviews); Additional file 4: Data Collection Form 3—Community Members including First Nations peoples (data collection via interviews); and Additional file 5: Data Collection Form 4—Student Placement Details and Supervisor/Student Activity Logs (data collection via current programme data collection processes).

Table 2 Defining the RETURN elements of the social return on investment analysis (to be converted into $A 2024/25)

	Elements of the social return of investment analysis	Number of people potentially affected	Number of people actually affected	What will change?	How will this be measured and valued*†
RETURN: Students	Student's intent to work in the rural area post-graduation	TBC	TBC	One student/health professional who is influenced to work, or continue to work, in a rural area	Reference point: cost of rural allied health workforce turnover, inflated by the consumer price index https://www.abs.gov.au/
	Students have an increased understanding of First Nations cultures (ways of knowing, being and doing that are contextually relevant to the Lachlan region)	TBC	TBC	Students have an increased understanding of First Nations cultures	This will be explored with First Nations peoples, as well as students, supervisors, host organisation staff and the community, during the interviews. Where appropriate, this will be further defined, quantified and valued from the different perspectives
	Student connection to the First Nations community	TBC	TBC	Improved student connection to the First Nations community	
	Enhanced student learning	TBC	TBC	Enhanced student learning	
	Enhanced student connection with the community	TBC	TBC	Enhanced student connection with the community	
	Enhanced student capabilities/skills	TBC	TBC	Enhanced student capabilities/skills. Each skill identified will be specified and valued	
	Enhanced student experience during placement	TBC	TBC	Enhanced student experience during placement	In addition to interview and survey data, the literature will be reviewed to further quantify the value
	Enhanced student sense of community belonging	TBC	TBC	Enhanced student sense of community belonging	
	Enhanced student teamwork within the placement organisation	TBC	TBC	Enhanced student teamwork within the placement organisation	
	Enhanced student teamwork external to the placement organisation	TBC	TBC	Enhanced student teamwork external to the placement organisation	
	Unintended impacts described during the data collection period	TBC	TBC	TBC	
RETURN: Organisations and clinical supervisors	Health staff/supervisors have an increased understanding of First Nations cultures (ways of knowing, being and doing that are contextually relevant to the Lachlan region)	TBC	TBC	Health staff/supervisors have an increased understanding of First Nations cultures	This will be explored with First Nations peoples, as well as students, supervisors, host organisation staff and the community, during the interviews. Where appropriate, this will be further defined, quantified and valued from the different perspectives
	Supervisor connection to the First Nations community	TBC	TBC	Increased supervisor connection to the First Nations community	
	Enhanced supervisor connection with the community	TBC	TBC	Enhanced supervisor connection with the community	
	Enhanced supervisor capabilities/skills	TBC	TBC	Enhanced supervisor capabilities/skills. Each skill identified will be specified and valued	
	Enhanced supervisor experience during placement	TBC	TBC	Enhanced supervisor experience during placement	In addition to interview and survey data, the literature will be reviewed to further quantify the value
	Enhanced supervisor sense of community belonging	TBC	TBC	Enhanced supervisor sense of community belonging	
	Enhanced supervisor teamwork within the placement organisation	TBC	TBC	Enhanced supervisor teamwork within the placement organisation	
	Enhanced supervisor teamwork external to the placement organisation	TBC	TBC	Enhanced supervisor teamwork external to the placement organisation	
	Unintended impacts described during the data collection period	TBC	TBC	TBC	This will be explored with supervisors and host organisation staff during interviews

Continued

Table 2 Continued

	Elements of the social return of investment analysis	Number of people potentially affected	Number of people actually affected	What will change?	How will this be measured and valued*†
RETURN: Rural community	Health worker employment and/or retention in rural areas	TBC	TBC	Increased health worker employment and/or retention in rural areas	Reference point: cost of rural allied health workforce turnover, inflated by the consumer price index https://www.abs.gov.au/
	Stimulation of the local economy (including additional visitors in the region and student engagement in community activities)	TBC	TBC	Stimulation of the local economy	
	Increase in community referrals to health services (including the First Nations community)	TBC	TBC	Increase in community referrals to health services	
	Increase in community referrals to community-based programmes (including the First Nations community)	TBC	TBC	Increase in community referrals to community-based programmes	In addition to interview and survey data, the literature will be reviewed to further quantify the value
	Increase in community engagement in health prevention programmes (including the First Nations community)	TBC	TBC	Increase in community engagement in health prevention programmes	
	Increase in community engagement in health education programmes (including the First Nations community)	TBC	TBC	Increase in community engagement in health education programmes	
	First Nations families and community members feel more comfortable talking to health professionals	TBC	TBC	First Nations families and community members feel more comfortable talking to health professionals	This will be explored with First Nations peoples during interviews. Where appropriate, this will be further defined, quantified and valued from the perspective of First Nations peoples
	First Nations families and community members build knowledge of health conditions	TBC	TBC	First Nations families and community members build knowledge of health conditions	
	Unintended impacts described during the data collection period	TBC	TBC	TBC	This will be explored with members of the community, during interviews

*Data collection will involve valuing the unit for each element and establishing the number of units for each element to allow extrapolation of costs across the RHMT programme.
†Where the value of a benefit cannot be captured as a dollar value via the surveys and interviews, the literature will be reviewed for a proxy valuation, and if this is not successful, a value will not be applied, and the benefit will only be described.

Data sovereignty

Data sovereignty,[16] as it relates to intellectual property ownership, will be carefully discussed with the study participants before data collection. This is particularly important for the First Nations participants, as non-Indigenous researchers will collect First Nations knowledge and experiences through the interview process. In the context of this study, data sovereignty will include who can access; use and benefit from information that is held within First Nations communities, as well as who has the opportunity and right to define; and use and interpret data relating to First Nations communities. In addition to the data sovereignty defined by the study participants, at a minimum, it is intended that the analysis of the data will include First Nations researcher (MA), First Nations members of the Rural Allied Health Advisory Committee and First Nations stakeholders by explicitly asking if the proposed Social Return of Investment analysis includes things that matter and that are material, and if not, what should be included.

Currency, price date and conversion

All costs will be reported in $A 2024/25. Costs data collected before this time will be inflated by consumer price index via the Reserve Bank of Australia Inflation Calculator.[17]

Rationale and description of the economic evaluation model

Not applicable as this social return of investment analysis does not include modelling as there are objective cost measures for the economic outcomes.

Analytics and assumptions

A social return of investment is a framework for identifying, measuring and valuing the impact of an activity, and it accounts for the social, economic and environmental values that can come as a result of said activity. It will assign a monetary value to the social, economic and environmental impact.[7 8 18] The following social return on investment principles will be followed for the current project: involving stakeholders, understanding what changes, valuing the things that matter, only including what is material, not overclaiming, being transparent and verifying the results.[7 8 18] For this study, the compilation of 'social return' is inclusive of many diverse areas including learning, connection, capabilities, experience, skills, belonging, referrals, prevention, education, teamwork, employment retention, etc. The investment refers to the Commonwealth Government grant to fund the extended RHMT programme, in addition to the in-kind resources provided by Charles Sturt University.

Following the identification of the key stakeholders, contact will be made with the key stakeholders to introduce the social return of investment methodology. Activities from the project logic model (figure 2) will be costed based on the university record of spending. Where cost data are not available, market rates will be applied. A combination of surveys, 1:1 interviews and small-group interviews will be used to understand what may change, as the impact captured via outputs and outcomes, to ensure the evaluation includes things that matter and that are material and that there is no overclaiming. The impacts will be categorised per the project logic model (figure 2). Quantified outputs and outcomes will have a reference value applied. However, should an output or outcome not have a reference value, we will undergo a suitable process to establish the value. Processes may include techniques such as a Willingness to Pay analysis, the Delphi Technique or a Discrete Choice Experiment. The combined investment cost will be compared with the combined financial return to establish the SROI.

Each impact reported in the data will be defined as an actual (or evaluative) impact or as a potential (or forecast) impact. The results will apply a monetary value to all actual impacts and provide a sub-total for this; then apply a monetary value for all potential impacts and provide a sub-total for this; followed by a combined total for the actual and potential impacts. The *investment* and *return* data will be analysed within the Excel-based Value Map developed by Social Value International.[15]

Characterising heterogeneity, distributional effects and uncertainty

First Nations peoples will be able to self-identify in the surveys and interviews and we will estimate how the results of SROI analysis vary for First Nations peoples, including how the impacts are distributed across this priority group.

To characterise sources of uncertainty in the analysis, each resource/cost (investment) and outcome (return) will be examined with respect to evidential and decision uncertainty.[19] Evidential uncertainty includes uncertainty in the sources that contribute to the evidence base (ie, missing or poor-quality data), and decision uncertainty includes uncertainty in the sources that substantially contribute to conclusions drawn from the SROI analysis. The identified sources of uncertainty will be addressed through sensitivity analyses where the source of uncertainty will be adjusted by a factor of 0.75 and 1.50 to understand the impact of that individual source on the SROI findings.

Patient and public involvement statement

Community consultation regarding the programme of work began before the grant application was submitted, and this included 30 letters of support provided from organisations operating in the local community. Extensive consultation and collaboration have continued with these community partners following the grant approval, and this is documented and submitted monthly to the Rural Allied Health Advisory Committee. The research to conduct a social return on investment was discussed with and approved by the Rural Allied Health Advisory Committee, and the research team includes three members who live in the research locale and have been able to continue consultation with community on the research methods proposed. Through formal and

informal feedback processes, the research team has received advice from community members about what type of data could and should be collected. The research team adjusted the research methods in response to this feedback. One example is that in conversation with local First Nations community members, it was identified that First Nations peoples would like to be able to self-identify as being a First Nations person and that their data should be included within the whole community dataset, rather than being separate. In line with AH&MRC requirements, the research team submitted a document to this ethics committee outlining the community consultation process, which commenced a year before the ethics application for the research was submitted.

DISCUSSION

Should the expansion of the RHMT produce a positive return of investment, alongside completion of the core project activity including additional health student placements, there will be several tangible benefits to the rural Lachlan region community, in New South Wales. These include recruitment of health professionals to the area, local economy stimulation and a self-reported positive impact on First Nations peoples. The potential positive impact on First Nations peoples includes improving access to health services, improving self-understanding of health conditions and improving health professionals understanding of First Nations cultures. It is, however, noted that in 2022, early stages of the RHMT project implementation plan were limited by the COVID-19 pandemic and regional flooding, which resulted in cancelled or adapted health student placements and reduced the planned data collection period.

With parallels to the current proposed study, a similar initiative and evaluation was completed between 2012 and 2018 for medical students undertaking extended rural health student placements in Queensland, Australia.[5] The medical extended rural clinical placement programme reported a positive return of investment, in addition to improved clinical confidence and competence, with greater numbers of medical students planning to work in rural areas post-graduation.[5]

Should this evaluation demonstrate a positive social return on investment, alongside completion of the core project activity including additional health student placements, national scaling and implementation of the programme should be carefully considered to realise the benefit Australia-wide.

ETHICS AND DISSEMINATION

This study has been approved by the Charles Sturt University Human Research Ethics Committee (reference number H23589) and the Aboriginal Health and Medical Research Council of New South Wales (reference number 2130/23). Plans for dissemination of the project results include publication in a peer-review journal, in addition to being presented at relevant conferences. In addition, at the end of each survey and interview, participants are provided with the opportunity to provide a valid email/postal address so that they can obtain a copy of the project report in 12 months, and a post-programme community event will be hosted by Three Rivers Department of Rural Health to share project outcomes and findings with key stakeholders and community members of the Lachlan region. Plans for sharing and/or future use of data that is not covered in the current ethics application will be subject to a further application for ethical approval.

Author affiliations
[1]Three Rivers Department of Rural Health, Charles Sturt University, Wagga Wagga, New South Wales, Australia
[2]Neighbourhood Central, Parkes, New South Wales, Australia
[3]La Trobe Rural Health School, La Trobe University, Bendigo, Victoria, Australia
[4]Rehabilitation, Ageing and Independent Living (RAIL) Research Centre, Monash University, Frankston, Victoria, Australia

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ORCID iDs
Melissa Nott http://orcid.org/0000-0001-7088-5826
Elyce Green http://orcid.org/0000-0002-7291-6419
Natasha Brusco http://orcid.org/0000-0002-8825-5109

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Appendix 2 - Consolidated Health Economic Evaluation Reporting Standards (CHEERS) 2022 Checklist

Topic	No.	Item	Report section where item is reported
Title			
	1	Identify the study as an economic evaluation and specify the interventions being compared.	Title
Abstract			
	2	Provide a structured summary that highlights context, key methods, results, and alternative analyses.	Abstract
Introduction			
Background and objectives	3	Give the context for the study, the study question, and its practical relevance for decision making in policy or practice.	Introduction
Methods			
Health economic analysis plan	4	Indicate whether a health economic analysis plan was developed and where available.	Methods
Study population	5	Describe characteristics of the study population (such as age range, demographics, socioeconomic, or clinical characteristics).	Methods
Setting and location	6	Provide relevant contextual information that may influence findings.	Methods
Comparators	7	Describe the interventions or strategies being compared and why chosen.	Methods
Perspective	8	State the perspective(s) adopted by the study and why chosen.	Methods
Time horizon	9	State the time horizon for the study and why appropriate.	Methods
Discount rate	10	Report the discount rate(s) and reason chosen.	Methods
Selection of outcomes	11	Describe what outcomes were used as the measure(s) of benefit(s) and harm(s).	Methods
Measurement of outcomes	12	Describe how outcomes used to capture benefit(s) and harm(s) were measured.	Methods
Valuation of outcomes	13	Describe the population and methods used to measure and value outcomes.	Methods
Measurement and valuation of resources and costs	14	Describe how costs were valued.	Methods
Currency, price date, and conversion	15	Report the dates of the estimated resource quantities and unit costs, plus the currency and year of conversion.	Methods
Rationale and description of model	16	If modelling is used, describe in detail and why used. Report if the model is publicly available and where it can be accessed.	Methods
Analytics and assumptions	17	Describe any methods for analysing or statistically transforming data, any extrapolation methods, and approaches for validating any model used.	Methods
Characterising heterogeneity	18	Describe any methods used for estimating how the results of the study vary for subgroups.	Methods

Topic	No.	Item	Report section where item is reported
Characterising distributional effects	19	Describe how impacts are distributed across different individuals or adjustments made to reflect priority populations.	Methods
Characterising uncertainty	20	Describe methods to characterise any sources of uncertainty in the analysis.	Methods
Approach to engagement with patients and others affected by the study	21	Describe any approaches to engage patients or service recipients, the general public, communities, or stakeholders (such as clinicians or payers) in the design of the study.	Methods
Results			
Study parameters	22	Report all analytic inputs (such as values, ranges, references) including uncertainty or distributional assumptions.	Results
Summary of main results	23	Report the mean values for the main categories of costs and outcomes of interest and summarise them in the most appropriate overall measure.	Results
Effect of uncertainty	24	Describe how uncertainty about analytic judgments, inputs, or projections affect findings. Report the effect of choice of discount rate and time horizon, if applicable.	Results
Effect of engagement with patients and others affected by the study	25	Report on any difference patient/service recipient, general public, community, or stakeholder involvement made to the approach or findings of the study	Results
Discussion			
Study findings, limitations, generalisability, and current knowledge	26	Report key findings, limitations, ethical or equity considerations not captured, and how these could affect patients, policy, or practice.	Discussion
Other relevant information			
Source of funding	27	Describe how the study was funded and any role of the funder in the identification, design, conduct, and reporting of the analysis	Declarations
Conflicts of interest	28	Report authors conflicts of interest according to journal or International Committee of Medical Journal Editors requirements.	Declarations

From: Husereau D, Drummond M, Augustovski F, et al. Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022) Explanation and Elaboration: A Report of the ISPOR CHEERS II Good Practices Task Force. Value Health 2022

Appendix 3 – Data collection form – students (survey & interview)

Data collection will be via a **survey** administered to all students at the conclusion of their placement. The survey is designed to capture the experience and impact (both intended and unintended impact) of the clinical placement.

Interviews, based on purposeful sampling, will also be conducted to further explore survey questions in detail. Recruitment for the interviews is via the survey (additional question at the end of the survey).

Lachlan student evaluation
SURVEY

PART 1: INSTRUCTIONS

This survey should be completed at the **conclusion of your placement.**

The survey results are used for evaluation of our placements to provide students with the best experience possible. We greatly value you taking the time to provide information about your experiences. We will not contact you in relation to any of your survey responses unless you give us permission to do so, or request to be contacted.

Please click on this link and review the Participant Information Sheet prior to completing the survey [LINK].

PART 2: CONSENT

By clicking on the 'start survey' button, this tells us you want to take part in the study, and consent to do so.

[START SURVEY BUTTON]

PART 3: ABOUT YOU AND YOUR PLACEMENT

Current residential location: Metro / Rural

Age _____

What course you are studying _____

Accommodation during placement _____

Did you receive a grant to support you on placement (yes / no)

Placement organisation _____

Placement organisation location _____

Placement type (e.g. hospital, aged care, childcare) _____

Length of placement (weeks) _____

Topic for your student project____

Project presentation details (e.g. presented to 3 staff and 5 families)____

Did you have visitors while on placement (e.g. family or friends) _____

If so, how many ____ and how long did they stay _____?

Did you engage with any community groups while on placement? Please list _____

Have you attended the Parkes Country University Centre (CUC), either on-site or via an online platform? (yes / no)

If so, please provide context (e.g. 3 hours per week as a study space; or attend on-site for a 1-hour training/education session).

Can you please list all the costs that you have incurred because of this rural clinical placement? For example, meals, travel, lost work, etc.

PART 4: IMPACT

Your placement was designed to impact multiple areas.

Can you please reflect on how this placement has impacted [FREE TEXT FOR EACH OPTION – LEAVE BLANK IF NO IMPACT ON AN AREA]:

a. Your learning
b. Your connection with the rural community in general, and specifically in relation to:
    - The student project
    - Bringing visitors to the region (student friends and family)
    - Student involvement in extracurricular activities e.g. community activities
    - Student connection to the First Nation community
c. Your understanding of First Nation culture (consider the impact of the rural readiness training module and First Nations cultural experience)
d. Your capabilities
e. Your experience
    - Consider the student mentoring program (if applicable)
f. Your skills
g. Your sense of belonging
h. Community referrals to health services
i. Community referrals to community programs
j. Community engagement in health prevention programs
k. Community access to education
    - Are you able to identify specific opportunities for shared knowledge with the community
l. Teamwork internal to your placement organization
m. Teamwork external to your placement organization
n. Health worker employment and/or retention in rural areas
o. The local economy (student spending, visitor spending etc)

Can you think of any other way this placement has had an impact (positive, negative or neutral)? [FREE TEXT RESPONSE]

Please reflect on the barriers and facilitators to achieving the impacts described above. [FREE TEXT RESPONSE]

Student intent to work rurally post-graduation (adapted from previous published surveys [34, 35]):

Variables	Question
Rural/non-rural background	Prior to this placement, have you previously lived in a Regional, Rural, Remote area?
Cohort	In what year are you currently studying? (e.g. 2nd year of study)
Conscription status	Did you choose to complete this placement through (or affiliated with) the Charles Sturt University's Three Rivers Department of Rural Health? Yes it was my choice / I needed encouragement to choose this option / No, it was the only feasible option
Current intended work location	Please answer the following two questions, reflecting on how you feel now, at the **conclusion of this placement**. When you have completed your course, in what area do you intend to work? (Metropolitan, Outer Metro, Regional, Rural, Remote)
Current level of interest in intended work location	How strong is your interest in working in that location (your answer to the previous question)?
	On a scale of 1 to 5, with 1 = not very strong at all, and 5 = very strong, please circle which applies to you.
Previous intended work location	Please answer the same two questions, reflecting on how you felt **prior to this placement**. When you have completed your course, in what area do you intend to work? (Metropolitan, Outer Metro, Regional, Rural, Remote)
Previous level of interest in intended work location	How strong is your interest in working in that location (your answer to the previous question)?
	On a scale of 1 to 5, with 1 = not very strong at all, and 5 = very strong, please circle which applies to you.
Impact of the placement	How strongly do you agree / disagree with this statement: This placement has encouraged me to consider living and working in a Regional, Rural, Remote location after I graduate.
	On a scale of 1 to 5, with 1 = not very strong at all, and 5 = very strong, please circle which applies to you.
Specialty	At this point in time, in what clinical area do you plan to work?

PART 5: PLACEMENT OVERVIEW

Finally, can you please reflect on your most recent placement experience in the Lachlan area and rate the following statements using the scale from 1-5:

	1. Strongly **disagree** (1)	2. Somewhat disagree (2)	3. Neither agree nor disagree (3)	4. Somewhat agree (4)	5. Strongly **agree** (5)
The placement met my expectations (1)	○	○	○	○	○
The placement met my learning objectives (2)	○	○	○	○	○
I felt welcomed by the host organisation (3)	○	○	○	○	○
I received an adequate placement orientation (4)	○	○	○	○	○
I had adequate access to clinical learning opportunities and learning resources (5)	○	○	○	○	○
I was satisfied with the process by which I received feedback on my performance (6)	○	○	○	○	○
I was satisfied with the clinical supervision I was provided during the placement (7)	○	○	○	○	○
I felt I had a say in the planning and outcomes of this placement (8)	○	○	○	○	○
The outcomes of this placement met the intended goals (9)	○	○	○	○	○
I contributed to the activity or service capacity of the host organisation (10)	○	○	○	○	○
The skills and experiences gained through the placement were relevant to my future health career (11)	○	○	○	○	○
I had the opportunity to become immersed in the local community (12)	○	○	○	○	○
I felt I belonged in the host organisation and community I was placed in (13)	○	○	○	○	○

An identified community need or organisational gap was met by this placement (14)	○	○	○	○	○
Cultural safety was maintained during this placement (15)	○	○	○	○	○
I had the opportunity to engage with professions different to my own (16)	○	○	○	○	○
I feel that the outcomes achieved by this project have the potential to have a sustainable impact on the community and / or organisation (17)	○	○	○	○	○
I feel that the outcomes of the project will be implemented in the future (18)	○	○	○	○	○
I would recommend this placement to other students (19)	○	○	○	○	○

We are always seeking to improve the placement experiences we provide students. Please use this space to let us know what worked well or what could be improved.

_____
_____
_____
_____
_____

PART 6: ADDITIONAL CONSENT

A) We are interested to understand whether your placement experience effects where you work in future, and how it has influenced you personally or professionally. To help us understand this, would like to link your survey responses to your workplace location in future.

Do you consent to the research team accessing the AHPRA Australian Health Practitioner Regulation Agency - Home (ahpra.gov.au) website, to report on your location of work postcode; and metro versus rural), noting all data would be de-identified and aggregated prior to publication? **Yes / No**

I consent to my survey responses being linked to my workplace postcode at the following intervals

☐ First year of practice (1)

☐ Five years post graduation (2)

☐ Ten years post graduation (3)

B) We would also like to speak to students who have been on placement in the Lachlan area to explore your experience of the placement.

Do you consent to be contacted regarding participation in a 30-45 minute interview to further explore these survey questions in detail?

- ○ Yes, please contact me via:
- ○ No, thank you

C) Would you like to be sent the results of this study in about 12 months time?

- ○ Yes, please send me the results (provide email address):
- ○ No, thank you

D) Would you like to subscribe to Three Rivers Department of Rural Health monthly newsletter?

- ○ Yes, I will subscribe by clicking on the following link [LINK]
- ○ No, thank you

End of survey. Thankyou for your time. Please press the submit button [SUBMIT]

End of Survey

Lachlan student evaluation
INTERVIEW GUIDE

PART 1: INSTRUCTIONS

This interview will occur at the **conclusion of your placement.** The interview results are used for evaluation of our placements to provide students with the best experience possible. We greatly value you taking the time to provide information about your experiences.

The interview will take between 30 and 45 minutes. We will only record the interview if you give us permission to do so. Your interview will be combined with multiple other interviews to ensure that you remain anonymous.

PART 2: CONSENT

Prior to commencing ensure the participant has read and understood the Participant Information Sheet and has provided written informed consent (check for consent to record the interview).

PART 3: ABOUT YOU AND YOUR PLACEMENT

Current residential location: Metro / Rural

Age _____

What course you are studying _____

Accommodation during placement _____

Did you receive a grant to support you on placement (yes / no)

Placement organisation _____

Placement organisation location _____

Placement type (e.g. hospital, aged care, childcare) _____

Length of placement (weeks) _____

Did you have visitors while on placement (e.g. family or friends) _____

If so, how many ____ and how long did they stay _____?

Have you attended the Parkes Country University Centre (CUC), either on-site or via an online platform? (yes / no)

If so, please provide context (e.g. 3 hours per week as a study space; or attend on-site for a 1-hour training/education session).

Can you please list all the costs that you have incurred because of this rural clinical placement? For example, meals, travel, lost work, etc.

PART 4: IMPACT

Your placement was designed to impact multiple areas.

Can you please reflect on how this placement has impacted (choose a few areas to explore and continually ask about the "value" of the impact):

a. The impact on you, and on other students, to work in Regional, Rural, Remote areas post graduation
b. Your learning
c. Your connection with the rural community in general, and specifically in relation to:
    - The student project
    - Bringing visitors to the region (student friends and family)
    - Student involvement in extracurricular activities e.g. community activities
    - Student connection to the First Nation community
d. Your understanding of First Nation culture (consider the impact of the rural readiness training module and First Nations cultural experience)

e. Your capabilities
f. Your experience
    - Consider the student mentoring program (if applicable)
g. Your skills
h. Your sense of belonging
i. Community referrals to health services
j. Community referrals to community programs
k. Community engagement in health prevention programs
l. Community access to education
    - Are you able to identify specific opportunities for shared knowledge with the community
m. Teamwork internal to your placement organization
n. Teamwork external to your placement organization
o. Health worker employment and/or retention in rural areas
p. The local economy (student spending, visitor spending etc)

Can you think of any other way this placement has had an impact (positive, negative or neutral)?

Please reflect on the barriers and facilitators to achieving the impacts described above.

PART 5: ADDITIONAL CONSENT

A) Would you like to be sent the results of this study in about 12 months time?

○ Yes, please send me the results (provide email address):

○ No, thank you

B) Would you like to subscribe to Three Rivers Department of Rural Health monthly newsletter?

○ Yes, I will subscribe by clicking on the following link [LINK]

○ No, thank you

End of Interview

Appendix 4 – Data collection form - student supervisors and host organisations (survey & interview)

Data collection will be via a **survey** administered to all supervisors and host organisations at the conclusion of the student placement. The survey is designed to capture the experience and impact (both intended and unintended impact) of the clinical placement.

In addition, A QR code will be developed to provide a direct link to the survey. The QR code will be advertised during student end-of-placement presentations as another method for recruiting supervisors and host organisation staff to complete the survey.

Interviews, based on purposeful sampling, will also be conducted to further explore survey questions in detail. Recruitment for the interviews is via the survey (additional question at the end of the survey).

Lachlan supervisor and host organisation evaluation
SURVEY

PART 1: INSTRUCTIONS

This survey should be completed at the **conclusion of your students placement.**

The survey results are used for evaluation of our placements to provide students with the best experience possible. We greatly value you taking the time to provide information about your experiences. We will not contact you in relation to any of your survey responses unless you give us permission to do so, or request to be contacted.

Please click on this link and review the Participant Information Sheet prior to completing the survey [LINK].

PART 2: CONSENT

By clicking on the 'start survey' button, this tells us you want to take part in the study, and consent to do so.

[START SURVEY BUTTON]

PART 3: ABOUT YOUR MOST RECENT STUDENT PLACEMENT AND YOUR ORGANISATION

Placement organisation _____

Placement organisation location _____

Placement type (e.g. hospital, aged care, childcare) _____

What placement disciplines do you supervise / host _____

Length of placement (weeks) _____

Have you attended the Parkes Country University Centre (CUC), either on-site or via an online platform? (yes / no)

> If so, please provide context (e.g. 3 hours per week as a study space for post-grad studies; or attend on-site for a 1-hour training/education session).

PART 4: IMPACT

The student placement was designed to impact multiple areas.

Can you please reflect on how this placement has impacted [FREE TEXT FOR EACH OPTION – LEAVE BLANK IF NO IMPACT ON AN AREA]:

p. The impact on your student, and on other students, to work in Regional, Rural, Remote areas post-graduation
q. Student learning
r. Student connection with the rural community in general, and specifically in relation to:
    - The student project
    - Bringing visitors to the region (student friends and family)
    - Student involvement in extracurricular activities e.g. community activities
    - Student connection to the First Nation community
s. Student understanding of First Nation culture (consider the impact of the rural readiness training module and First Nations cultural experience)
t. Student capabilities
u. Student experience
    - Consider the student mentoring program (if applicable)
v. Student skills
w. Student sense of belonging
x. Your sense of belonging (as a supervisor or a staff member at the host organisation)
y. Community referrals to health services
z. Community referrals to community programs
aa. Community engagement in health prevention programs
bb. Community access to education
    - Are you able to identify specific opportunities for shared knowledge with the community
cc. Teamwork internal to your placement organization
dd. Teamwork external to your placement organization
ee. Health worker employment and/or retention in rural areas
ff. The local economy (student spending, visitor spending etc)

Can you think of any other way this placement has had an impact (positive, negative or neutral)? [FREE TEXT RESPONSE]

Please reflect on the barriers and facilitators to achieving the impacts described above. [FREE TEXT RESPONSE]

PART 5: PLACEMENT OVERVIEW

Finally, can you please reflect on your most recent student supervision / host experience in the Lachlan area and rate the following statements using the scale from 1-5:

	1. Strongly **disagree** (1)	2. Somewhat disagree (2)	3. Neither agree nor disagree (3)	4. Somewhat agree (4)	5. Strongly **agree** (5)
The placement met my expectations (1)	○	○	○	○	○
I felt confident providing the supervision for this placement (2)	○	○	○	○	○
An identified community need or organisational gap was met by this placement (3)	○	○	○	○	○
I was aware of the student/s learning objectives for this placement (4)	○	○	○	○	○
The student/s were provided with an adequate placement orientation (5)	○	○	○	○	○
I felt I had a say in the planning and outcomes of this placement (6)	○	○	○	○	○
The outcomes of this placement met the intended goals (7)	○	○	○	○	○
The student/s contributed to the activity or service capacity of the host organisation (8)	○	○	○	○	○
The skills and experiences gained through the placement were relevant to the student/s future health career (9)	○	○	○	○	○
The student had the opportunity to become immersed in the local community (10)	○	○	○	○	○
I felt supported by Three Rivers during the clinical supervision (11)	○	○	○	○	○
I feel that the outcomes achieved by this project have the potential to have a sustainable impact on	○	○	○	○	○

the community and / or organisation (12)					
Cultural safety was maintained during this placement (13)	○	○	○	○	○
I feel that the outcomes of this project will be implemented in the future (14)	○	○	○	○	○
I would recommend this work to other supervisors (15)	○	○	○	○	○

We are always seeking to improve the placement experiences we provide students. Please use this space to let us know what worked well or what could be improved.

_____
_____
_____
_____
_____

PART 6: ADDITIONAL CONSENT

E) We would also like to speak to supervisors, and staff from the host organsiation, in the Lachlan area to further explore your experience of the placement.

Do you consent to be contacted regarding participation in a 30-45 minute interview to further explore these survey questions in detail?

○ Yes, please contact me via:

○ No, thank you

F) Would you like to be sent the results of this study in about 12 months time?

○ Yes, please send me the results (provide email address):

○ No, thank you

G) Would you like to subscribe to Three Rivers Department of Rural Health monthly newsletter?

- ○ Yes, I will subscribe by clicking on the following link [LINK]
- ○ No, thank you

End of survey. Thankyou for your time. Please press the submit button [SUBMIT]

End of Survey

Lachlan supervisor and host organisation evaluation
INTERVIEW GUIDE

PART 1: INSTRUCTIONS

This interview will occur at the **conclusion of your students placement.** The interview results are used for evaluation of our placements to provide students and supervisors with the best experience possible. We greatly value you taking the time to provide information about your experiences.

The interview will take between 30 and 45 minutes. We will only record the interview if you give us permission to do so. Your interview will be combined with multiple other interviews to ensure that you remain anonymous.

PART 2: CONSENT

Prior to commencing ensure the participant has read and understood the Participant Information Sheet and has provided written informed consent (check for consent to record the interview).

PART 3: ABOUT YOUR MOST RECENT STUDENT PLACEMENT AND YOUR ORGANISATION

Placement organisation _____

Placement organisation location _____

Placement type (e.g. hospital, aged care, childcare) _____

What placement disciplines do you supervise / host _____

Length of placement (weeks) _____

PART 4: IMPACT

The student placement was designed to impact multiple areas.

Can you please reflect on how this placement has impacted (choose a few areas to explore and continually ask about the "value" of the impact):

a. The impact on your student, and on other students, to work in Regional, Rural, Remote areas post-graduation
b. Student learning
c. Student connection with the rural community in general, and specifically in relation to:
    - The student project
    - Bringing visitors to the region (student friends and family)
    - Student involvement in extracurricular activities e.g. community activities
    - Student connection to the First Nation community
d. Student understanding of First Nation culture (consider the impact of the rural readiness training module and First Nations cultural experience)
e. Student capabilities
f. Student experience
    - Consider the student mentoring program (if applicable)
g. Student skills
h. Student sense of belonging
i. Your sense of belonging (as a supervisor or a staff member at the host organisation)
j. Community referrals to health services
k. Community referrals to community programs
l. Community engagement in health prevention programs
m. Community access to education
    - Are you able to identify specific opportunities for shared knowledge with the community
n. Teamwork internal to your placement organization
o. Teamwork external to your placement organization
p. Health worker employment and/or retention in rural areas
q. The local economy (student spending, visitor spending etc)

Can you think of any other way this placement has had an impact (positive, negative or neutral)?

Please reflect on the barriers and facilitators to achieving the impacts described above.

PART 5: ADDITIONAL CONSENT

C) Would you like to be sent the results of this study in about 12 months time?

○ Yes, please send me the results (provide email address):

○ No, thank you

D) Would you like to subscribe to Three Rivers Department of Rural Health monthly newsletter?

○ Yes, I will subscribe by clicking on the following link [LINK]

○ No, thank you

End of Interview

Appendix 5 – Data collection form – community members (interview guide)

Data collection will be via 1:1 interviews, as well as small group interviews (or yarning circles), with community members including First Nations Peoples. The interviews are designed to capture the experience and impact (both intended and unintended impact) of the Rural Health Multidisciplinary Training (RHMT) Program, in addition to the desired impact of the RHMT. Interviews will be based on purposeful sampling across the Lachlan area (inclusive of Parkes, Forbes, Peak Hills and Condobolin LGAs).

Lachlan community evaluation
INTERVIEW GUIDE

PART 1: INSTRUCTIONS

This interview will occur towards the end of 2023**.** The interview results are used to evaluate the experience and impact of the Rural Health Multidisciplinary Training (RHMT) Program. We greatly value you taking the time to provide information about your experiences.

The interview will take between 30 and 45 minutes. We will only record the interview if you give us permission to do so. Your interview will be combined with multiple other interviews to ensure that you remain anonymous.

PART 2: CONSENT

Prior to commencing ensure the participant has read and understood the Participant Information Sheet and has provided written informed consent (check for consent to record the interview).

PART 3: ABOUT YOU

Current residential location: Parkes, Forbes, Condobolin, Peak Hills, other_____

Age group (18-30; 31-40; 41-50; 51-60; 61-70; 70+)

Do you identify as Aboriginal and Torres Strait Islander People? Yes / No / Prefer no to say

Have you had any interaction with the Rural Health Multidisciplinary Training (RHMT) Program (Yes / No)

If yes, what was the interaction? (examples below)

a. Students engaging in rural readiness and Indigenous cultural training
b. Students on placement
c. Engaging with program staff
d. Engaging with health professionals involved in the program

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PART 4: IMPACT

Facilitator to provide a brief overview of the Rural Health Multidisciplinary Training (RHMT) Program.

- Explain that the program and placements were designed to impact multiple areas.
- Explain that we would like a discussion to understand the RHMT program success factors that are meaningful to the community.
- Explain that we would like to explore the real and desired impact of the RHMT.

Ask the participants to reflect on how the program has impacted, or could impact, the community (choose a few of the intended impact areas below to explore, and continually ask about the participant would "value" the impact):

ESTABLISH POTENTIAL COMMUNITY IMPACT

q. Facilitate a discussion to understand the RHMT program success factors that are meaningful to the community.
r. Explore the desired impact of the RHMT.

ESTABLISH POTENTIAL FIRST NATIONS COMMUNITY IMPACT

s. Facilitate a discussion to understand if the RHMT program actually has, or potentially could, help:
    - First Nations families Community members feel more comfortable talking to health professionals
    - Community members First Nations families build knowledge of health conditions
    - Health staff and students have an increased understanding of First Nations cultures (ways of knowing, being and doing that are contextually relevant to the Lachlan region)

DISCUSS AREAS OF INTENDED RHMT IMPACT (choose areas that relate to the participants interactions with the RHMT)

t. The impact on students working in Regional, Rural, Remote areas post-graduation
u. Student connection with the rural community in general, and specifically in relation to:
    - The student project
    - Bringing visitors to the region (student friends and family)
    - Student involvement in extracurricular activities e.g. community activities
    - Student connection to the First Nation community
v. Student understanding of First Nation culture (consider the impact of the rural readiness training module and First Nations cultural experience)
w. Student capabilities, experience (consider the student mentoring program, if applicable), skills, and sense of belonging.
x. Community referrals to health services
y. Community referrals to community programs
z. Community engagement in health prevention programs
aa. Community access to education
bb. Teamwork internal to your placement organization
cc. Teamwork external to your placement organization
dd. Health worker employment and/or retention in rural areas
ee. The local economy (student spending, visitor spending etc)

Can you think of any other way this program has, or could have, had an impact on the community (consider real and desired impacts; including positive, negative and neutral impacts)?

Community members' reflections on barriers and facilitators to achieving these impacts

a. Appropriate / preferred communication style
b. Engagement
c. Resources
d. Other

PART 5: ADDITIONAL CONSENT

E) Would you like to be sent the results of this study in about 12 months time?

- ○ Yes, please send me the results (provide email or postal address):
- ○ No, thank you

F) Would you like to subscribe to Three Rivers Department of Rural Health monthly newsletter?

- ○ Yes, I will subscribe by clicking on the following link [LINK]
- ○ No, thank you

End of Interview

Appendix 6 – Data collection form - routinely collected program data

The Charles Sturt University team will collect the following data on an ongoing basis:

- Weeks of student placements completed, detailing:
    - The allied health discipline
    - Utilisation of the new 3-bedroom house in Forbes
- The number of members, meetings and attendees at the Rural Allied Health Advisory Committee meetings; as well as the number of co-designed strategies developed by the team to improve long term rural workforce recruitment and retention
- The number and type of occasions when the RMHT extension program contributes to the Three Rivers research agenda (for example via Research and HDR student appointments, or clinical-researcher partnership research models)
- A description of the partnerships established with First Nations Peoples, as well as the activities that evolve from said partnerships

Where appropriate, actual data will be compared to pre-determined project targets, with qualitative data collected to provide context.

Using current "business as usual" data collection processes, the following data will be collected:

Key costs associated with the expansion of the RHMT
Record of payments associated with the expansion of the RHMT (grant application)
Internal (Charles Sturt University) student placement data: reported monthly
Accommodation Facility
Discipline
Suburb of placement
Placement Start Date
Placement End Date
Duration
Accommodation booking length (days)
External (non-Charles Sturt University) service-learning placement data reported 6 monthly
Discipline
Suburb of placement
Placement Start Date
Placement End Date
Duration
Student supports - accommodation data: reported 6 monthly (would only include non-Charles Sturt University)
Accommodation Facility
Arrival/Check In Date
Departure/ Check Out Date
University
Discipline
Suburb of placement
Placement Duration (Days)
Heard About TRUDRH Accommodation?

Student supports - grants data: reported 6 monthly
Payment Amounts-Amount Paid/Allocated this Period
Charles Sturt University Enrolment Details-Course Name Enrolled or Preference 1
Subject Code
Placement Town or City
Start date of placement
End date of placement
Total Weeks Supported

Health professional education sessions: log kept
Date
Topic
Presenter
Num of attendees
% satisfaction

Student activities: log kept
Date
Topic
Presenter
Num of attendees
% satisfaction

OTHER DATA COLLECTION
Minutes from the regional leadership team;
o Number of members and attendees at each meeting,
o A list of co-designed strategies to improve long term rural workforce recruitment and retention which have been reported by the regional leadership team,
Country University Centre support;
o A list of supportive student activities created with or promoted through the CUC, number of invitees/attendees
Participation in research activity;
o Student, staff and partner participation in research activity will be reported.

Appendix 7 – Data collection form – additional economic evaluation questions

Focus Group Questions	
In this focus group, we are going to think about the **impact** of the expanded Rural health Multi-disciplinary Training program. We will consider the impact of the program on the students, the host organisations, the supervisors, and the community. For each impact identified, we would like the focus group participants to place a "**value**" on this impact. There is no right or wrong for the suggested value, just your best estimate of the value. While you can choose how you value the impact, some options include your personal value of the impact, or estimating what the Government or a health service should pay for this impact.	
Can each of you tell me a bit about yourself? Location, time living in rural areas/rural origin, etc. Are you: • A student? • From a host organisations? • A supervisor? • From the community?	
Would you like to be identified in the data we are collecting as: • Aboriginal • Torres Strait Islander • Aboriginal and Torres Strait Islander • neither Aboriginal or Torres Strait Islander, or • prefer not to say?	

Defining the INVESTMENT elements of the social return on investment analysis			
	Elements of the social return on investment analysis	**Discussion notes from focus group:** ***"Description and value of the investment"***	**How will this be measured?**
INVESTMENT: Students	Costs incurred by the student to participate in a rural health student placement (such as transport, accommodation, carbon footprint)		Source - Self reported via survey / interview Recall of direct and indirect student costs associated with participation in a rural health student placement
INVESTMENT: Organisations and clinical supervisors	Costs incurred by the supervisors to support a rural health student placement (such as transport, accommodation, carbon footprint)		
	Costs incurred by the organisations to support a rural health student placement (such as HR support, office consumables, carbon footprint)		
INVESTMENT: Rural community	Costs incurred by the community to support a rural health student placement (such as social inclusion of the student, as well as transport, accommodation, carbon footprint that relates to a student-activity)		

Defining the RETURN elements of the social return on investment analysis			
	Elements of the social return on investment analysis	**Discussion notes from focus group:** ***"Description and value of the return"***	**How will this be measured and valued?[1,2]**
RETURN: Students	Student intent to work in the rural area post-graduation		Reference point - Cost of rural allied health workforce turnover (20), inflated by the consumer price
	Students have an increased understanding of First Nations cultures (ways of knowing, being and doing that are contextually relevant to the Lachlan region)		This will be explored with First Nations peoples, as well as students, supervisors, host organisation staff and the community, during the interviews. Where appropriate, this will be further defined, quantified, and valued from the different perspectives.
	Student connection to the First Nations community (via the cultural immersion experience)		
	Enhanced student learning		In addition to interview and survey data, the literature will be reviewed to further quantify the value
	Enhanced student connection with the community		
	Enhanced student capabilities / skills		
	Enhanced student experience during placement		
	Enhanced student sense of community belonging		
	Enhanced student teamwork within the placement organisation		
	Enhanced student teamwork external to the placement organisation		
	Unintended impacts described during the data collection period		

Defining the RETURN elements of the social return on investment analysis			
	Elements of the social return on investment analysis	**Discussion notes from focus group:** ***"Description and value of the return"***	**How will this be measured and valued?[1,2]**
RETURN: Organisations and clinical supervisors	Health staff / supervisors have an increased understanding of First Nations cultures (ways of knowing, being and doing that are contextually relevant to the Lachlan region)		This will be explored with First Nations peoples, as well as students, supervisors, host organisation staff and the community, during the interviews. Where appropriate, this will be further defined, quantified, and valued from the different perspectives.
	Supervisor connection to the First Nations community (via the cultural immersion experience)		
	Enhanced supervisor connection with the community		In addition to interview and survey data, the literature will be reviewed to further quantify the value
	Enhanced supervisor capabilities / skills		
	Enhanced supervisor experience during placement		
	Enhanced supervisor sense of community belonging		
	Enhanced supervisor teamwork within the placement organisation		
	Enhanced supervisor teamwork external to the placement organisation		
	Unintended impacts described during the data collection period		This will be explored with supervisors and host organisation staff, during the interviews

Defining the RETURN elements of the social return on investment analysis			
	Elements of the social return on investment analysis	**Discussion notes from focus group:** ***"Description and value of the return"***	**How will this be measured and valued?[1,2]**
RETURN: Rural community	Health worker employment and/or retention in rural areas		Reference point - Cost of rural allied health workforce turnover (20), inflated by the consumer price
	Stimulation of the local economy (including additional visitors in the region and student engagement in community activities)		In addition to interview and survey data, the literature will be reviewed to further quantify the value
	Increase in community referrals to health services (including the First Nations community)		
	Increase in community referrals to community-based programs (including the First Nations community)		
	Increase in community engagement in health prevention programs (including the First Nations community)		
	Increase in community engagement in health education programs (including the First Nations community)		
	First Nations families Community members feel more comfortable talking to health professionals		This will be explored with First Nations peoples during the interviews. Where appropriate, this will be further defined, quantified, and valued from the perspective of First Nations peoples
	Community members First Nations families build knowledge of health conditions		
	Unintended impacts described during the data collection period		This will be explored with members of the community, during the interviews

Appendix 8 – Summary of literature regarding allied health rural employment following rural student placements (prepared by A/Professor Elyce Green)

A recent systematic review has provided mixed evidence with respect to allied health rural employment following rural student placements. A summary of the key included papers includes:

Brown et al. (2017): Brown et al. reported 50% of graduates, across six allied health degrees, who undertook a rural clinical placement were working rurally one-year post graduation. In addition, a 38.3% positive change in intention to work rurally due to a placement was reported. This included students who went from agreeing they wanted to work rurally to strongly agreeing. However, this was reduced to 24% when it only included students who moved from disagree/strongly disagree/ neutral to agree/strongly agree.

Brown et al. (2017): Brown et al. reported that the proportion of graduates who completed a rural clinical placement, working in a rural or remote areas was 52% at one-year post-graduation, and 24% of first year grads said they chose their location due to a rural placement.

Campbell et al. (2021): Found that 31.4% of those they surveyed, i.e., those who had undertaken a rural placement, reported that they had worked in a rural or remote location (MMM 4-7) after graduation. The proportion of those who were AHPRA eligible who had ever worked in a rural or remote location was 27.6%. They also report a strong positive influence of rural placement (76%) but note that there were other factors at play (i.e., 16% were already committed to working rurally – before even going on placement).

Farrugia et al. (2021): Looked at medical radiation scientists two years into practice. Multivariate analysis found that a rural background was the sole predictor of rural practice.

Johnson et al. (2019): Looked at dentistry graduates at two time points post-graduation. Participants in the voluntary rural placements were significantly more likely to be working rurally than non-participants at initial follow-up but not at the second follow-up two years later. Both rural experience prior to the placement and pre-placement rural intentions were significant independent predictors of an increased likelihood for rural employment and rural retention.

Playford et al. (2006): The two placement factors that were significantly, positively associated with future rural practice, when controlling for rural background, were where the placement was rated by students as 'excellent' for their professional development as well as those whose rural placement was for four weeks or less.

Playford et al. (2019): Looked at place of practice at one year, then again at 15-17 years post-graduation. No rural placement characteristics significantly associated with long-term rural practice, only whether the first job after graduation was in a rural location.

Skinner et al. (2022): Looked at employment in metropolitan, regional, rural, or remote areas in early years of practice. Multiple regression analysis indicates that where students are from is the strongest predictor of where they end up practicing. The location where students did their placement was a significant predictor of their primary place of practice. The more placements they completed in rural areas, the more likely they were to work in regional and rural areas.

Sutton et al. (2021): Rural practice in second year post-graduation was examined. At year 2 of practice, 18% were in a rural area (sample of graduates who completed their degree in 2017 across seven disciplines at two universities). Rural origin and more rural placement days positively influenced graduate rural practice destinations.

Taylor et al. (2009): Rural placement was positively associated with rural practice intention but was only approaching significance. Rural background was the only significant factor found. Authors were looking at intention for rural practice in predominantly metropolitan pharmacy students.

Wolfgang et al. (2019): This study explored students' placement evaluations responses. It was reported: "There was a positive shift in intention to work rurally for students of both rural and urban background post-placement, but this was only statistically significant in the group from an urban background ($p \leq 0.001$). This study highlights the importance of positive supported placement experience for students from both rural and urban backgrounds."

Your Alpha Crucis Group Consultant – Contact Details

Associate Professor Natasha Brusco

Principal Consultant

Health Economist

PhD, MPhysio, BPhysio

M: 0408 251 124

E: tash@alphacrucisgroup.com.au