Community Paramedicine in Australian community health

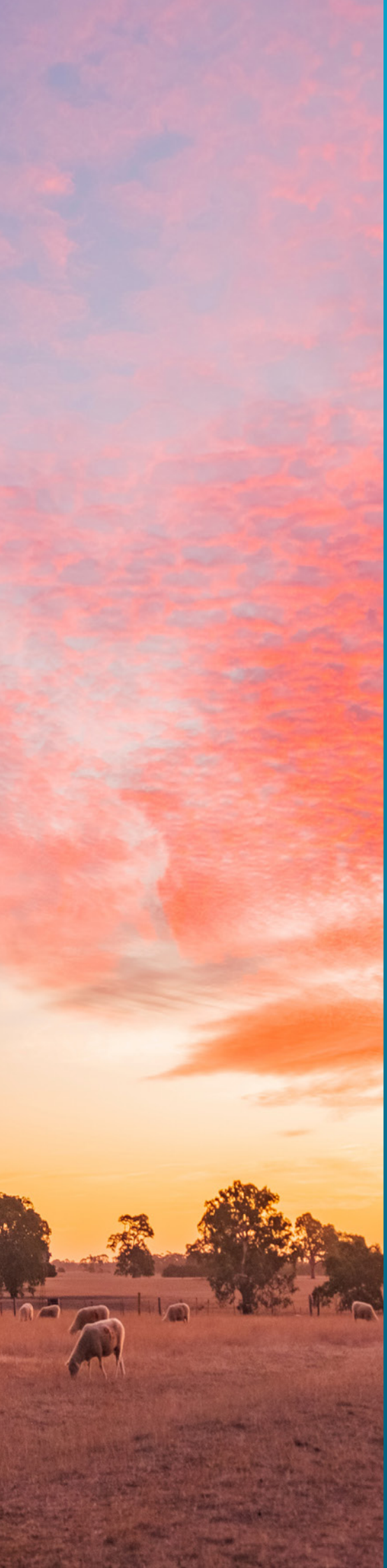
Implementation of the CP@clinic program

A COLLABORATION BETWEEN

CP@clinic Family Medicine McMaster University

LA TROBE UNIVERSITY Violet Vines Marshman Centre For Rural Health Research

SCHS Sunraysia Community Health Services



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Community Paramedicine in Australian community health

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THE PROBLEM AND THE PROJECT

New models of healthcare delivery are required to address the multiple challenges facing our healthcare system. One emerging model is **community paramedicine (CP)**, where paramedics use their knowledge and skills beyond emergency health responses to focus on preventative and rehabilitative health.

McMaster University in Canada have a **well-established and evidenced CP@clinic program** which La Trobe University co-implemented and evaluated with Sunraysia Community Health Services (SCHS). Community paramedics on locations across the Mildura LGA provide easy, free, walk-in access to health care.

The key innovative feature of this program is the **use of an available workforce** (paramedics) in a setting where they are not normally employed: **community health**.

FINDINGS

Over 10 months, the program grew from one clinic and 8 attendees to 5 clinics servicing 111 people. 57% of participants were 65 or over; 78% had 3 or more chronic diseases; 94% had a moderate to high risk of diabetes and 36% had no GP.

The CP@clinic model of care works on many levels:

- It reaches underserved **clients** with limited healthcare access.
- It extends into the **community** and builds social connections.
- It provides a welcome professional expansion for **paramedics**, who, on average, remain only 5 years in the ambulance service.
- CP programs reduce pressures in **health systems**, including reducing ambulance callouts and ED presentations.

NEXT STEPS

The CP@clinic implementation in Australia is **ready to expand**. To ensure success, the following need to be considered:

- There is a need to **embed** this role structurally **in the primary healthcare system** and the **paramedic profession**. Funding streams should be reviewed, and we need to shift from restrictive 'scope of practice' discussions to a skills and capabilities approach.
- Models that allow paramedics to work in **both emergency and community settings** should be explored.
- Home visits and/or a mobile service should be trialled.
- Maintaining close engagement with McMaster University and La Trobe University is crucial to establish **long-term efficacy**.
- Community paramedics are **a known player, but in a new role**. **Familiarity** with this new role needs to be built amongst healthcare providers and the wider community.
- Continuous program funding is needed to measure sustainability and impact.
- Early results suggest that the **long-term impact and cost effectiveness** will mirror the Canadian experience, including significant reductions in emergency service usage and improved chronic disease management.

Executive Summary

INTRODUCTION

In response to growing demands on the healthcare system and increasing difficulty in accessing care by consumers, particularly in rural areas, new models of healthcare delivery are emerging. One of these emerging models is community paramedicine (CP). Here paramedics use their knowledge and skills beyond emergency health responses to focus on preventative and rehabilitative health. Global evidence demonstrates that this new role for paramedics improves individual health, has high patient satisfaction, reduces health service demand, and has strong potential to meet the needs of under-serviced rural communities.

The CP model appears to be a good fit for rural Australia where there is a chronic shortage of health care providers, and a high level of chronic and other health issues. Additionally, Australia has a surplus workforce of trained paramedics who cannot be employed by an ambulance service. A CP program could utilise this available workforce capacity, allowing for the development of the paramedic profession independent of the ambulance service, similarly to nurses working outside of a hospital setting.

The CP@clinic model developed at McMaster University Canada has a strong evidence base of improved health outcomes and reduced emergency callouts whilst being cost-effective. In a close collaboration between La Trobe University (LTU) and McMaster University, CP@clinic was translated to the Australian context and implemented at Sunraysia Community Health Services (SCHS). Two paramedics were employed to staff clinics at several community locations at set times each week, where people could access their services free of charge and with no need to make an appointment.

AIM

The aim of this feasibility study was to investigate the adaptation and implementation of CP@clinic at SCHS in the Mildura community.

METHODS AND SAMPLE

Over 10 months, the program grew from one clinic and 8 attendees to 5 clinics servicing 111 people. It successfully targeted people with multimorbidity and limited healthcare access. 57% of participants were 65 or over; 78% had 3 or more chronic diseases; 94% had a moderate to high risk of diabetes and 36% had no GP.

We used the Proctor Framework to evaluate the feasibility and fit of the CP@clinic program in an Australian context. The framework explores acceptability, adoption, appropriateness, fidelity, implementation costs, penetration, and sustainability. We collected quantitative and qualitative data. Data was obtained from the CP@clinic database, meeting notes, and interviews with SCHS staff, CP@clinic clients and external stakeholders.

CONCLUSION AND RECOMMENDATIONS

The partnership between McMaster University and LTU and SCHS has enabled the successful adaptation of the CP@clinic Program in an Australian context. The CP@clinic Program is an excellent out-of-the-box program that was adapted to the Australian context and population. It has been able to fulfill the needs of SCHS and the community.

CP@clinic is an innovative model of care that works on many levels. It is:

Good for clients – the program successfully targets underserved clients due to its low access threshold, with a free drop-in service close to home. It increases social connectedness and reduces isolation.

Good for the community - the program clearly has a broad approach to health with its focus on prevention and rehabilitation. It addresses the social determinants of health which is evident from expansions such as walking groups and joint meals.

Good for paramedics – the role provides a welcome professional expansion, allowing for more career options and extended use of the skills and capabilities of these well-trained health care professionals. It might even help to boost paramedic retention rates from the current average of 5 years.

Good for the healthcare system – community paramedicine programs have been shown to take pressure off the healthcare system by identifying health issues at an early stage, thus preventing disease escalation, and reducing ambulance callouts. CP programs increase interdisciplinary collaboration and make use of an available qualified workforce.

IMPLEMENTATION AND EXPANSION

The CP@clinic implementation in Australia is ready to expand into other communities. The results of the feasibility study are very promising but longer-term data is needed to establish the impact on health outcomes and service utilisation. Maintaining close engagement with McMaster University and LTU will be crucial especially in the next stage of evaluating for efficacy. Continuous program funding and implementation is recommended to measure program sustainability and impact. Based on the current trajectory, it is expected to have the same long-term impact and cost effectiveness as demonstrated by the Canadian research evidence.

To successfully scale up the implementation, the following needs to be considered:

Expand the reach of the program

- The service could be expanded to other settings, such as home visits or a mobile health service.

Embed the community paramedic role in the primary health care system.

- The work practice of community paramedics is restricted by scope of practice discussions which focus on setting limits on what a community paramedic can do. Defining the role positively, around skills and capabilities, may lead to a broader perspective on what community paramedicine could look like.
- Current health care funding streams are inflexible and not conducive to innovative approaches, especially those exploring alternative workforces. This is reflected in the current practice of multiple pilot programs without ongoing funding commitments.
- Streamlining inward and outward referral pathways and promoting cross-disciplinary collaboration is important. This might include a simple ED referral tool for frequent attenders or inviting other disciplines to attend CP@clinic on occasion.

Embed the community paramedic role in the paramedic profession

- Community paramedicine is a well-recognised and established branch of the paramedic profession in Canada, the USA, and the UK. In Australia, the profession needs to develop more confidence in, and understanding of, this professional expansion. The Australasian College of Paramedics' definition of a community paramedic provides an initial direction.
- The paramedics in this study expressed some concerns about loss of acute skills while also acknowledging the new skills they were gaining. A focus on skills and capabilities rather than the limiting scope of practice, is needed.
- Provide paramedics with broader work options outside of an ambulance service, which should include well developed salary, promotion, and career structures.

Make everyone more familiar and comfortable with the role

- Whilst paramedics in an ambulance are well-known and trusted, the role of a community paramedic is very unfamiliar. Very few community members, GPs, ED staff or other health workers are aware of this role. We can learn from overseas examples of well implemented programs to increase familiarity.
- We can use the positive familiarity with paramedics in general to our advantage. Community paramedics are a well-known player, just in a new role.

ACKNOWLEDGEMENT

First and foremost, we would like to thank Simone Heald, CEO of Sunraysia Community Health Services at the time of this study and chair of the advisory group. Simone is an exceptional visionary and innovator in health care. The introduction of paramedics into community health would not have happened without her.

We would like to acknowledge the members of the advisory group that supported this study:

Mr David Burns - La Trobe University
Adjunct A/Prof Alan Eade - former Chief Paramedic Officer for Victoria
Dr Angela Martin - Australasian College of Paramedicine
Ms Alecka Miles - Australasian College of Paramedics
Professor Peter O'Meara - Monash University
A/Prof Louise Reynolds - Chief Paramedic Officer for Victoria
Dr Brodie Thomas - Ambulance Victoria
Dr Kane Treble - General Practitioner

Background

COMMUNITY PARAMEDICINE

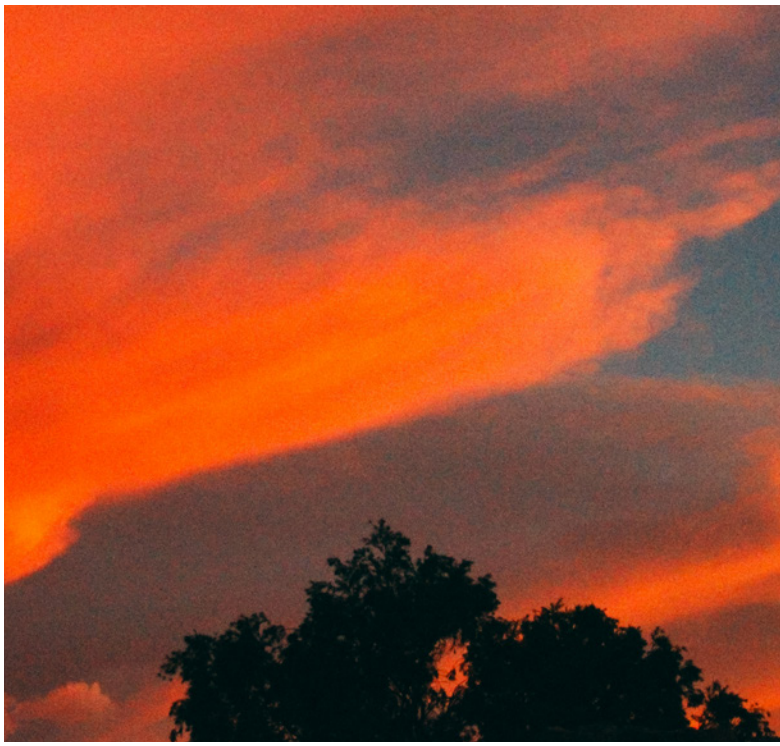
Community Paramedicine (CP) is an emerging model developed in response to growing demands on the healthcare systems. Over the past decades, the healthcare workforce, jurisdictional authorities, and healthcare organisations are becoming more differentiated and are embracing inter-professional collaboration as well as task substitution or task shifting. This growing international trend in healthcare policy is a shift away from historical workforce hierarchies and silos in care, towards allocating roles based on professional accomplishment [1-4].

In a CP model paramedics use their knowledge and skills beyond emergency health responses to focus on preventative and rehabilitative health. This includes the treatment of minor conditions in the field; onward referral of patients to health and social services; assessment and monitoring of chronic conditions; and the provision of preventive health education as part of an integrated healthcare effort [5-8].

CP programs in North America, the United Kingdom and certain parts of Australia, as presented in our literature review, have shown promising results on patient health and a reduction of stress on the health care system [9,10]. One of the most well-established and evidence-based programs is the CP@clinic program, developed at McMaster University in Canada [5, 7, 11-15].

HEALTH IN RURAL AUSTRALIA A ROLE FOR COMMUNITY PARAMEDICINE?

The Australian health system battles to provide primary health services to underserved and disadvantaged populations. This is compounded by health workforce shortages in rural areas, most prominently access to affordable General Practitioners (GPs), leading to inequitable health care access. This impacts disproportionately on the approximately 7 million Australians (28% of the population) who live in regional, rural, or remote (rural hereafter) areas [16]. People living in rural areas experience significantly poorer health outcomes than people living in metropolitan areas, with higher hospital admission rates and a greater burden of chronic disease



and injuries, as well as lower levels of medical trust [17]. CP suggests a feasible and financially viable approach to address health inequities in rural areas. Additionally, Australia has a surplus workforce of trained paramedics who cannot be employed by an ambulance service. A CP program could utilise this available workforce capacity, allowing for the development of the paramedic profession independent of the ambulance service, similarly to nurses working outside of a hospital setting. This would also help address the lack of familiarity with what CPs can do, when working within as well as outside of an ambulance service. Following a visit to McMaster University and learning about the use of CPs in its CP@clinic program, La Trobe University (LTU) introduced the concept of CP to Sunraysia Community Health Services (SCHS). SCHS were interested and a feasibility study was designed, with SCHS undertaking the implementation; McMaster providing their expertise, the CP@clinic program, paramedic training and database; and LTU supporting the implementation and evaluation in the Australian context. In this report, we describe the results of this feasibility study.

AIM

The aim of this feasibility study was to investigate the adaptation and implementation of CP@clinic at SCHS in the Mildura community.

Methods

THE CP@clinic

The CP@clinic program is an innovative, chronic disease risk-assessment, prevention and management health promotion program owned by McMaster University with a strong Canadian evidence base. It was developed in 2010 by a team of highly experienced clinicians and researchers at McMaster University Department of Family Medicine in recognition of the surge of 911 calls from social housing buildings in Hamilton, Ontario. The CP@clinic Program was created to address the high needs of this vulnerable, hard to reach population and the high 911 call rate.

The CP@clinic program was first tested through a pilot study and then again in a large, multi-community pragmatic randomized controlled trial, both rendering very positive results. The CP@clinic Program has also been adapted to be delivered as a home visit and is referred to as CP@home and features all of the same assessments and tools used by community paramedics. This innovative CP@clinic program has been successfully adapted to multiple settings and is being implemented by over half of Ontario Paramedic Services and is spreading across Canada. It has not been trialed outside of an ambulance jurisdiction. This project therefore was a feasibility study of the program in a different context.

Dr Agarwal and her team are funded to scale, spread and provide knowledge translation of the CP@clinic program. Implementation was supported by the expertise of Dr. Agarwal and the McMaster Community Paramedicine Research Team with the provision of a standardized CP@clinic program of validated health risk assessments, CP@clinic Paramedic Training Program and the CP@clinic Database. This smart database is designed to assist paramedics in administering validated primary healthcare assessments to patients that provides guided actions using evidence-based decision support and an online training platform for paramedics specific to their expanded role.

THE CP@clinic DATABASE

McMaster University adapted the existing CP@clinic program for the Australian context. The database is used during every CP@clinic session to collect and store client data from their initial visit and any follow-up visits they attend. It was developed to allow the paramedic personnel to easily move through the various risk assessments with the client. It also has built-in algorithms to provide real-time decision support. After the health risk assessments have been completed, the community paramedics (CPs) are provided with a summary of client risk factors. The client and paramedic can decide which risk factors they would like to manage together, and the database provides a list of local resources that can be shared with the client. Included are automated alerts to notify the paramedic when repeat health risk assessments are to be conducted and reports that can be sent to the client's GP.

THE MILDURA ADAPTION

The work was undertaken in Mildura, a Local Government Area (LGA) in Victoria. Like many other parts of rural and regional Australia, Mildura experiences health workforce shortages which impact on access to health services. SCHS is a publicly funded community health service providing a range of primary healthcare services to the community, with a focus on vulnerable and underserved populations.

All iterations of CP@clinic in Canada have operated within ambulance jurisdictions. This adaptation was unique in that it was implemented outside of an ambulance jurisdiction, in a community health setting. Following formal discussions with LTU, McMaster and SCHS, two paramedics were employed from March 2022. The paramedics completed the CP@clinic Paramedic Training Program developed by McMaster, made connections with service providers across the community, and identified potential clinic sites. The CP@clinic Database was modified to fit the new setting, including the incorporation of Australian health education resources, local referral pathways and contact details.

The first clinic opened in a local community centre in August 2022, with five other locations added over six months. All clinics provided a 3-hour free drop-in service to anyone seeking health screening or advice. The clinic presence was signposted with a sandwich board outside the building and flyers were distributed locally. Anyone with a health concern could walk in and talk with the paramedic in a private room. Guided by the CP@clinic database, the paramedics undertook an initial health risk assessment, including measures of weight and blood pressure, and followed up with advice or organising onward referrals to other health providers or social support services. People who attended were encouraged to visit again at any time. The paramedics were later joined by community connectors (lived experience workers) at several locations, who complemented the CP@clinic Program by providing food relief, community meals and walking groups.

EVALUATION

The evaluation of the feasibility study in Australia was undertaken by LTU in close collaboration with McMaster University and SCHS. LTU also took charge in providing an external network in Australia to help embed the service.

To govern the project, we installed an implementation team and a paramedic advisory group. In addition, regular meetings were held between the three mentioned key partners, McMaster University, LTU and SCHS.

For the evaluation we used the Proctor Framework to explore the feasibility and fit of the CP@clinic program in an Australian context. The framework explores acceptability, adoption, appropriateness, fidelity, implementation costs, penetration, and sustainability.

We collected quantitative and qualitative data. Data was obtained from the CP@clinic database, meeting notes, and interviews with SCHS staff, CP@clinic clients and external stakeholders.

ETHICS APPROVAL

Ethical approval was obtained from LTU (HEC22038).

Results

ACCEPTABILITY

Clients and external stakeholders were unanimously and consistently positive about the program. Clients reported that the paramedics were more approachable, accessible, and had more time than their usual healthcare providers.

"Like friendly, more friendly or you could class them as a friend, in a way. […] You can rely on them yeah." - *Client 12*

"I think they're a lot easier to talk to than your GP." - Client 4

"There's no awful things that happen here. And you feel safe." - Client 8

This created a safe non-judgemental environment that encouraged open discussions about health, enabling clients to address concerns like mental health and social isolation, as well as gaining assistance with chronic disease self-management and health monitoring.

"They're willing to sit and listen. Like, I live by myself, and I know many of us do the ageing ones… it's wonderful just to have someone to sit there and listen and not judge and not say, oh, you could… What are you doing, you know? There's no judging whatsoever and it's all positive." - Client 5

"I'm a worrier I've suffered from depression all my life…So if something is worrying me I come in and speak to [the paramedics] … And talk through it" - Client 14

Paramedics also had the skills to respond to health emergencies (which was required on several occasions), and this increased the reassurance provided by their presence.

"I get a check every week and everything's great. But it'll be like if something started to happen, you're gonna catch it early and I think that makes a big difference." - Client 2

External stakeholders acknowledged the program's success in targeting underserved populations, especially socially isolated individuals.

"I just commend the vital work that they're doing. That it's hitting the right targets for the isolated and vulnerable." - External Stakeholder

Service providers recognized the program's value in addressing workforce shortages and unmet health needs. They highlighted relationship building and time investment as fundamental aspects of the service.

"…a lot of people come in just wanting to have their blood pressure done. But I think once they realise that you're a safe and trustworthy person, they end up telling us a lot more about their health." - CP

> *"…you could class them as a friend, in a way […] You can rely on them."*
>
> *Client 12*

These features also provided increased job satisfaction, with paramedics reporting a greater sense of 'making a difference' in their CP role, compared to the emergency response setting.

"… you actually feel like you're helping people more in this environment than you do in an acute sort of setting." - CP

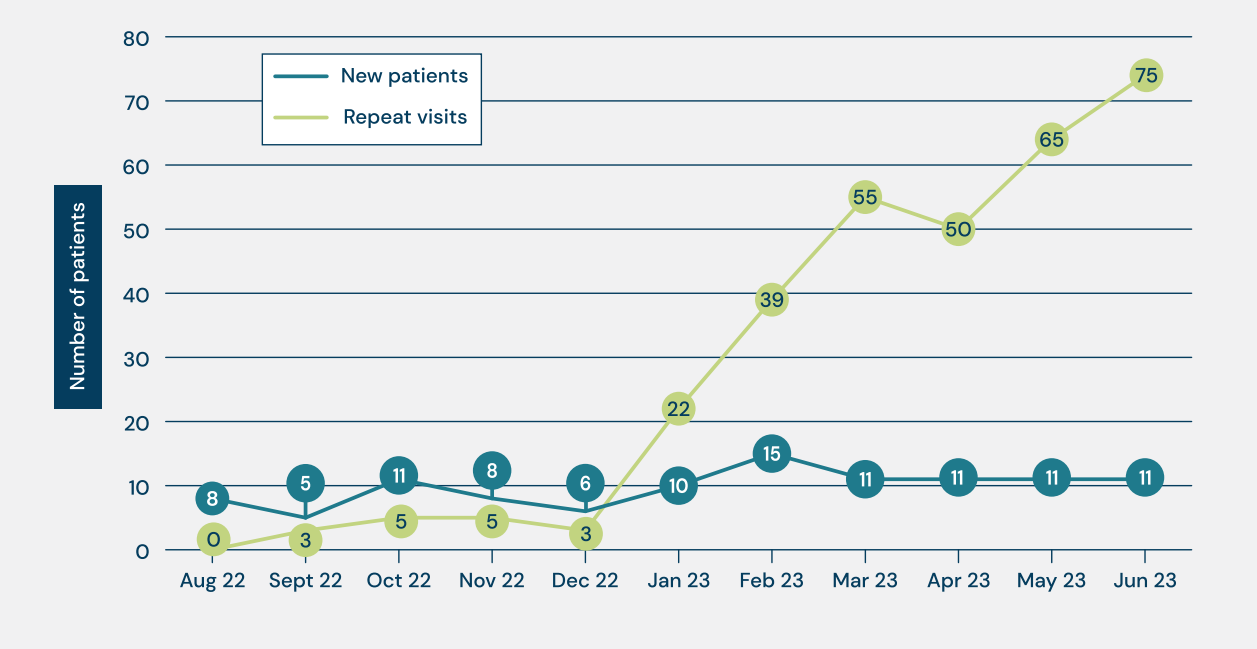
The structured CP@clinic training and database was a strength, but the focus on chronic disease prevention and management was a new and different role for the paramedics. The CPs were surprised by the level of emotional burden resulting from ongoing involvement with complex clients, and ongoing training, debriefing, and clinical supervision will be required to support them.

"You might not be able to fix it entirely. Because these situations have taken a long time to arise, so they're not going to be fixed in a day, so it's just about small changes that you can make for them…(that) is what's helped me." - CP

CPs also expressed some concerns about the loss of 'hard' technical skills, since the psychosocial skillset needed for CP@clinic was perceived to be far greater than the clinical skillset required.

ADOPTION

Figure 1. Participation numbers August 22 to June 23



The original choice of CP@clinic locations was based on prior SCHS experience in community engagement. Clients were attracted to clinic locations through local advertising, word-of-mouth, and active promotion by community connectors. The program commenced with one clinic and 8 attendees and expanded over 10 months to 5 clinics servicing 111 people. Uptake varied across locations, with settings comparable to the Canadian CP@clinic (retirement villages with the clinic in a community room) experiencing higher uptake. Provision of food and meals increased uptake at several locations. Communities with very low trust, or a walking distance of more than a few minutes were more difficult to engage. Several interviewees suggested home visits as a way of targeting individuals who might otherwise be reluctant to engage.

Service providers identified several locations where CP@clinic may be of benefit but which lacked suitable meeting spaces for clinics, e.g., in an area with multiple public housing units.

APPROPRIATENESS

Clients appreciated that the clinic was free, close to home, in a community (rather than medical) setting and did not require appointments. Limited transport and few GP bulk-billing options locally were common barriers to accessing healthcare. The community location and drop-in nature created a sense of safety and comfort where clients could relax and chat to others while waiting for the CPs. This also facilitated social connections, which often expanded beyond the clinic sessions.

"It's more of an open and free... It's not in a small office. You got other people walking around in the foyer, then you have a community lunch which is at the same place. And it just feel like you're...it's like a little family get to know each other." - Client 8

"I go over there, because it's lovely because I know some of the ladies and it's nice for me, you know, just while we're waiting to be seen to." - Client 10

For many people the CP consults provided direction and advice if they weren't sure when a GP was needed. The additional steps taken by the paramedics when generating onward referrals, such as organising an appointment for those with limited phone credit or providing a 'warm handover' could make the difference for clients who were reluctant to engage with healthcare.

"When they took my blood pressure and that, it was pretty high, so they got in touch with [community health organisation]. And made an appointment with one of their doctors. And they sent me for a pile of tests at pathology. And since then, the medication they put me on, I'm feeling a lot better." - Client 5

External stakeholders re-iterated the value of community location and a no-cost service as effectively targeting those most in need and least likely to engage in healthcare.

"Catches people before health problems arise as well, and it's a free service. It's not intimidating, whatsoever. And it's getting to the people that really need it." - External Stakeholder

Service providers echoed similar themes in terms of the community location, regular drop-in service and opportunities to build social connections. The program was considered to align strongly with the needs of clients. Many clients had retired to Mildura without family; poor computer literacy made it difficult to access

> *"Catches people before health problems arise [...] it's getting to the people that really need it"*
>
> *External Stakeholder*

healthcare and social services; and many clients were not linked to any health service or GP.

"We were finding people and places that were just so under serviced that we started to base clinics around those sorts of areas. So that was really pivotal at the start." - CP

Operating CP@clinic from a community health service rather than within an ambulance jurisdiction (compared to the Canadian model) fitted well with the primary healthcare and chronic disease focus and facilitated access to multiple CH services. However, it did lead to difficulties related to paramedics working outside of the ambulance jurisdiction.

"The key difference though, between us and Canada. So, because Canada still will function as community paramedics under their jurisdiction, ambulance service, whereas we step outside and then that's where all our problems arise." - CP

FIDELITY

Fidelity to the CP@clinic guidelines was assessed through an observational checklist and monitoring of missing records in the CP@clinic database.

The CP@clinic program was adapted locally by including community meals, food relief and walking groups which enhanced social connections. The additional services were facilitated by the community connectors, lived experience experts who worked alongside the CPs to assist with community engagement and linkages.

> *"My Aged Care has been a big learning curve in terms of on onward referral for clients."*
>
> *CP*

Barriers to program fidelity were related firstly to onward referral processes and secondly, to managing clients who did not fit the CP@clinic profile. Onward referral challenges related both to cost (seeing a GP or medical specialist, paying for medications) and workforce availability (GP appointment times, allied health waitlists and priorities). The complexity of funding and navigation for primary healthcare, especially the My Aged Care system, was a steep learning curve for paramedics used to the acute care setting.

"My Aged Care has been a big learning curve in terms of on onward referral for clients…basically just knowing where people fit for funding, I think, has been a challenging process." – CP

"If the person has been seen in the community by the CP@clinic then they should be able to get in to an appointment here easily, in a timely manner…We've still had some challenges with that around funding, priority and waiting lists." – SCHS staff

Dealing with presenting clients who fell outside of the CP@clinic protocol, especially an acute mental health or substance use presentation, was a challenge at times. Whilst they were not eligible for the CP@clinic service, there was a need for a clear management pathway.

"Being able to integrate an acute pathway into CP@clinic, obviously there's limitations to that and we're not trying to recreate an ambulance service. But just to have some leeway to provide some acute interventions, or at least an acute assessment pathway within CP@clinic." – CP

IMPLEMENTATION COSTS

The program was affordable. Costs included paramedic salaries, transport, equipment, promotional materials, and administration time. All community spaces were provided free of charge by the community centres, and one community centre also funded a weekly community meal.

The CP@clinic Paramedic Training Program, software, CP@clinic Program Database, and its administration was provided free of charge by McMaster University, as was its program evaluation led by LTU. Ongoing guidance and expertise were freely provided by LTU, McMaster University and the Community Paramedicine Advisory Group. This was a key enabler to the program, but ongoing costs of training, database administration and evaluation will need to be accounted for in the future.

PENETRATION

The program effectively targeted older clients with multimorbidity and limited access to primary care. 57% of participants were 65 or over; 78% had 3 or more chronic diseases; 94% had a moderate to high risk of diabetes and 36% had no GP.

Table 1. Participant demographics & health status

Demographics	**% of participants**
Gender	50.5% female
Age	56.7% ≥ 65
Does not have a GP	36%
Reporting social isolation	21.6%
Reporting income insecurity	27%
Health status	**% of participants**
Has 3 or more chronic diseases	78.4%
Moderate to high diabetes risk	94.1%
Elevated blood pressure at first visit	37.8%
Overweight or obese	56.8%
Reporting at least slight pain or discomfort (EQ-5D)	45.9%
Reporting at least slight anxiety or depression (EQ-5D)	39.6%

By utilising onward referral pathways, the service increased accessibility to a range of health and social services. Clients also felt that the relationship-building undertaken by the CP clinic led directly to increased social engagement across the broader community, resulting in new social activities that were independent of the CP presence in several locations.

"You see these elderly people coming down who never used to come out. They come out and mix up and talk and have a chat." - Client 1

"But it's more than that, it's… coming here and other people from the other units are coming too, and it kind of has this ripple effect that I've noticed that since this has been happening here, people are communicating a lot more outside of here as well. And that's really, really good to see." - Client 2

"It's made an impact. We've become closer to people and it's made us…there's about four or five of us get together on a Friday or Saturday night over there" - Client 4

External stakeholders and service providers supported these observations, remarking on increased social interaction and attendance at community activities. This was felt to be connected to the CP clinic and its atmosphere of trust and safety.

Penetration of the CP clinic in relation to other health and social service providers was variable. Connections were building with the wider SCHS organisation and other local social care organisations (housing, transport, mental health) although complex referral pathways created some challenges. Penetration was more limited amongst local GPs, the hospital, and the ambulance service, with little awareness of the CP clinic. This is important to address since the Canadian CP@ clinic was designed to support complex or high-risk clients that are frequent ED attenders or ambulance callers.

"I had one GP ring me and say, "I've got your letter, but I really don't know who you are and what you do." He then later rang me about that same client to see if he could gain my assistance to do something like basically a welfare check… It was great to develop that relationship." - CP

SUSTAINABILITY

Participant numbers and locations built steadily over the trial period, and interviewees suggested many ways to expand the service further, including home visits; a mobile clinic; inviting other health providers (e.g. allied health, mental health clinicians) to attend the clinics periodically; and conducting health education workshops.

Challenges to sustainability include the lack of ongoing program funding and a series of systemic barriers affecting the recognition and integration of paramedics within community health and ambulance services.

Reflections and next steps

THE BENEFITS

The key innovative feature of this program is the use of an available, familiar, and trusted workforce (paramedics) in a setting where they are not normally employed (community health). CP@clinic is an innovative model of care that works on many levels. It is:

Good for clients – the program successfully targets underserved clients due to its low access threshold, with a free drop-in service close to home. It increases social connectedness and reduces isolation.

Good for the community - the program clearly has a broad approach to health with its focus on prevention and rehabilitation. It addresses the social determinants of health which is evident from expansions such as walking groups and joint meals.

Good for paramedics – the role provides a welcome professional expansion, allowing for more career options and extended use of the skills and capabilities of these well-trained health care professionals. It might even help to boost paramedic retention rates from the current average of 5 years.

Good for the healthcare system – community paramedicine programs have been shown to take pressure off the healthcare system by identifying health issues at an early stage, thus preventing disease escalation, and reducing ambulance callouts. CP programs increase interdisciplinary collaboration and make use of an available qualified workforce.

THE RISKS

Whilst our trial has shown that community paramedicine is both feasible and ideally suited to underserved populations, significant barriers were observed in the current health care system that threaten sustainability of this new model of care. The novelty of both the workforce and the setting created specific challenges which may need system changes.

Two main overarching issues are:

- The current funding streams in health care prevent sustainable innovation in health care and have resulted in numerous innovation pilots that dry up as soon as the money runs out.
- The current focus on 'scope of practice' in health care supports the siloing of health care professions and is more concerned with boundaries and limitations than opportunities. A move to looking at skills and capabilities would support innovative approaches to addressing some of the wicked problems in health care.

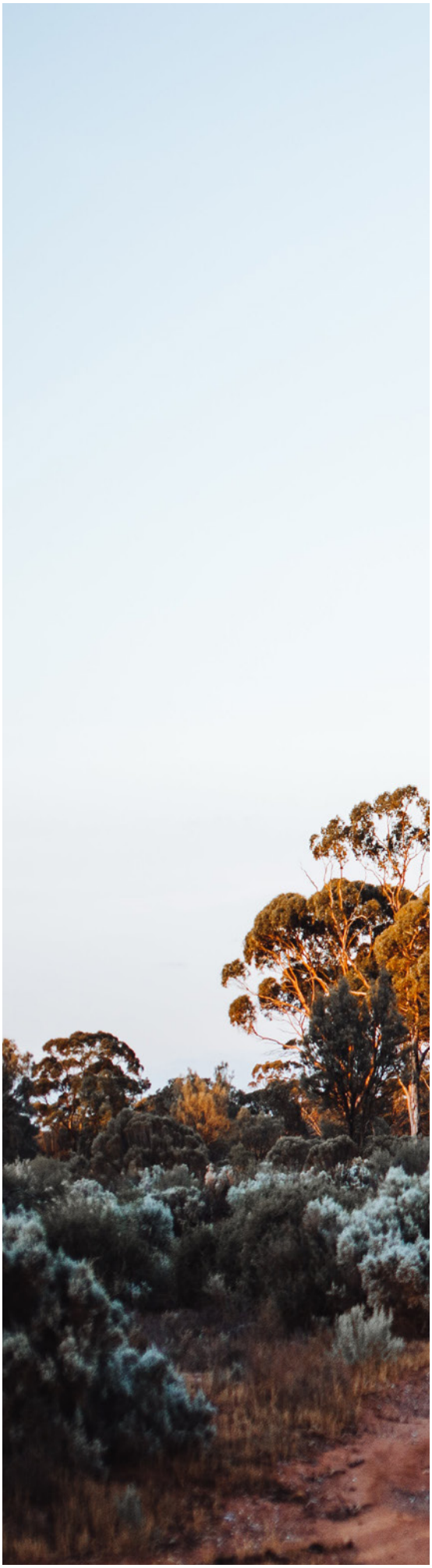
More specific barriers relate to community health and to the ambulance sector. These impact on health care delivery and equally on career opportunities for paramedics and the development of the paramedic profession and are discussed in more detail below.

Barriers related to the community health sector

- The community health sector does not recognise paramedics as health providers. Community health block funding is reserved for nurses and specified allied health workers, and there is no community health EBA that includes paramedics, excluding them from a salary and promotion pathway. Additionally, paramedics cannot access alternative funding via a Medicare provider number, unlike most other health providers.

Barriers related to Ambulance Victoria

- Victorian paramedics cannot have a permanent part-time contract with Ambulance Victoria (AV) and also work set hours outside of the ambulance service. This is equivalent to a nurse being denied



the ability to work part-time across both hospital and community sectors, as occurs routinely. This contractual inflexibility requires a paramedic to resign in order to work elsewhere and was reflected in the difficulty we experienced in recruiting paramedics, despite a reported paramedic surplus. Having to resign from AV limits the paramedics' ability to maintain their skills in an acute scope of practice, and this is compounded by the lack of well-defined and supported career pathways for paramedics in the primary and community health settings. These concerns were articulated by both paramedics participating in our trial.

Threats and opportunities to the paramedic profession

- On average, paramedics currently work only 4-5 years in an ambulance service. This is a massive loss of well-trained health care professionals in the context of widespread workforce shortages. Whilst we do not know what happens after people leave the paramedic profession, it is likely that providing alternate career development opportunities, such as community paramedicine, may help to stem the flow.
- In Australia the role of CP is relatively new, especially outside of the ambulance service, and the recently developed definition of a community paramedic, by the Australasian College of Paramedicine (ACP) is an important first step in achieving a consensus. A CP was defined as follows: "A community paramedic provides person-centred care in a diverse range of settings that address the needs of the community. Their practice may include provision of primary healthcare, health promotion, disease management, clinical assessment and needs based interventions. They should be integrated with interdisciplinary healthcare teams which aim to improve patient outcomes through education, advocacy, and health system navigation."
- For community paramedicine to be a realistic career pathway, the systemic barriers described above must be addressed. From Canadian examples, we know that the emergency and community roles can be combined, and in fact that paramedics benefit from this combination, allowing them to keep their acute care skills as well as develop new important skills in preventative and rehabilitative care. Operating CP@clinic from a community health service provides strong linkages with primary healthcare and chronic disease services and expertise but creates barriers for paramedics. The reality is that the CP@clinic program could be undertaken by other disciplines in community health. This would address some of the above challenges, but there is no doubt that the profession of paramedicine would be poorer as a result.

THE NEXT STEPS

The CP@clinic implementation in Australia is ready to expand into other communities. The results of the feasibility study are very promising but longer-term data is needed to establish the impact on health outcomes and service utilisation. Maintaining close engagement with McMaster University and LTU will be crucial especially in the next stage of evaluating for efficacy. To successfully scale up the implementation, the following needs to be considered.

Expand the reach of the program.

• The service could be expanded to other settings, such as home visits or a mobile health service.

Embed the community paramedic role in the primary health care system.

• The work practice of community paramedics is restricted by scope of practice discussions which focus on setting limits on what a community paramedic can do. Defining the role positively, around skills and capabilities, may lead to a broader perspective on what community paramedicine could look like.

• Current health care funding streams are inflexible and not conducive to innovative approaches, especially those exploring alternative workforces. This is reflected in the current practice of multiple pilot programs without ongoing funding commitments.

• Streamlining inward and outward referral pathways and promoting cross-disciplinary collaboration is important. This might include a simple ED referral tool for frequent attenders or inviting other disciplines to attend CP@clinic on occasion.

Embed the community paramedic role in the paramedic profession

• Community paramedicine is a well-recognised and established branch of the paramedic profession in Canada, the USA, and the UK. In Australia, the profession needs to develop more confidence in, and understanding of, this professional expansion. The Australasian College of Paramedics has now developed a definition of a community paramedic which is a good start.

• The paramedics in this study expressed some concerns about loss of acute skills while also acknowledging the new skills they were gaining. A focus on skills and capabilities rather than the limiting scope of practice, is needed.

• Provide paramedics with broader work options outside of an ambulance service, which should include well developed salary, promotion, and career structures.

Make everyone more familiar and comfortable with the role

• Whilst paramedics in an ambulance are well-known and trusted, the role of a community paramedic is very unfamiliar. Very few community members, GPs, ED staff or other health workers are aware of this role. We can learn from overseas examples of well implemented programs to increase familiarity.

• We can use the positive familiarity with paramedics in general to our advantage. Community paramedics are a well-known player, just in a new role.

CONCLUSION

The partnership between McMaster University and LTU has enabled the successful adaptation of the CP@clinic Program in an Australian context with SCHS. CP@clinic has provided SCHS with an excellent out-of-the-box program that is evidence-based and is adaptable to the new surroundings and population.

The study has highlighted the importance and relevance of the work community paramedics do in connecting people with care and helping them take care of their own health, which benefits both clients and the health care system.

Continuous program funding and implementation is recommended to measure program sustainability and impact. Based on the current trajectory, it is expected to have the same long-term impact and cost effectiveness as demonstrated by the Canadian research evidence.

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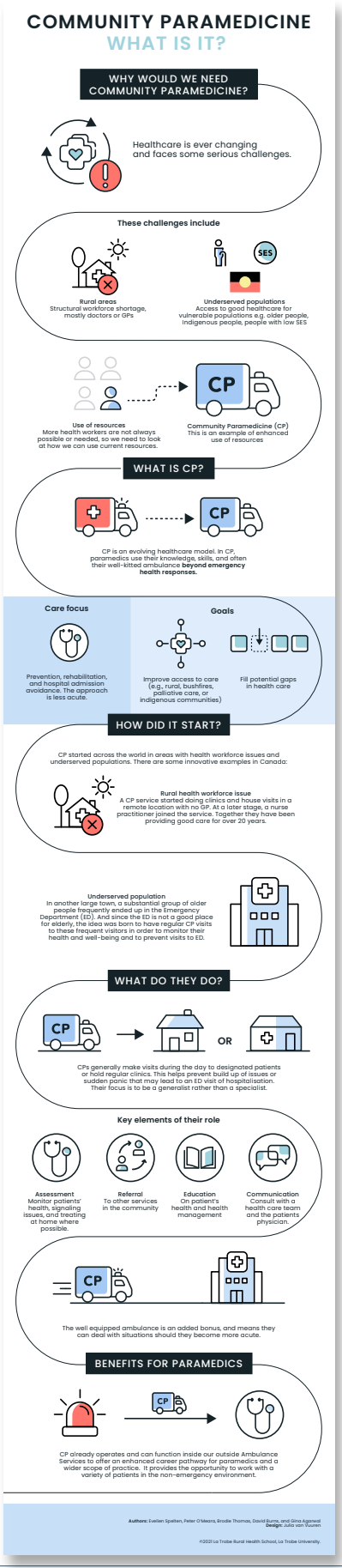
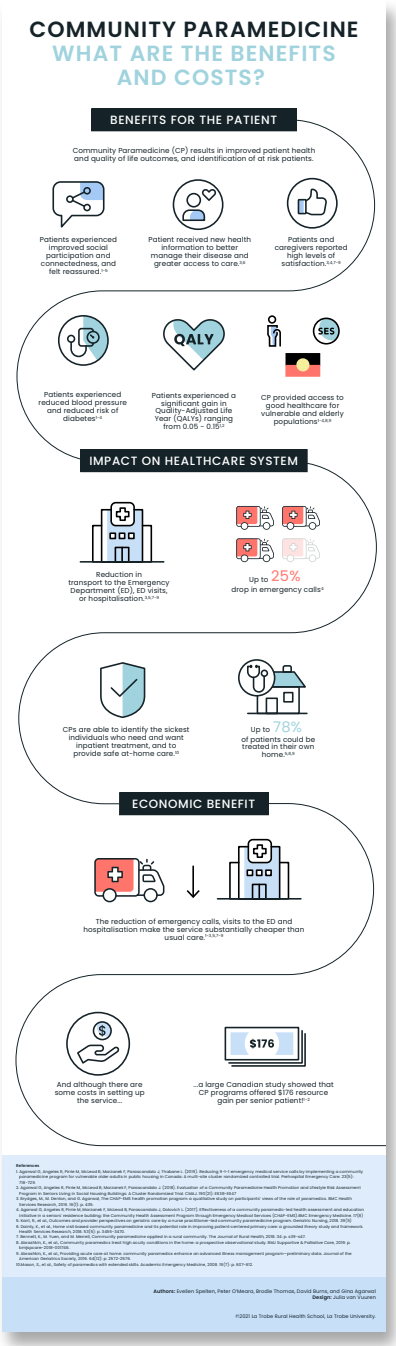
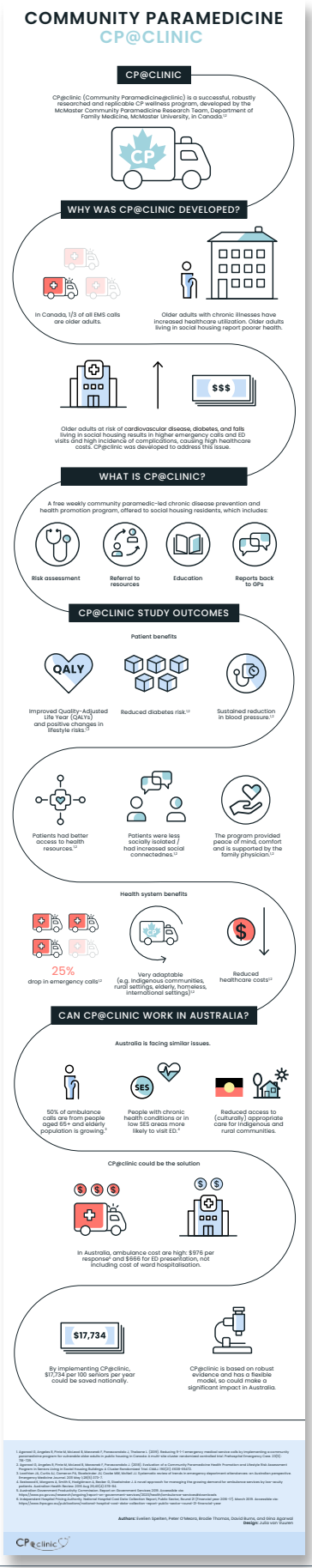
Appendices

APPENDIX 1: INFOGRAPHICS ON CP AND CP@clinic

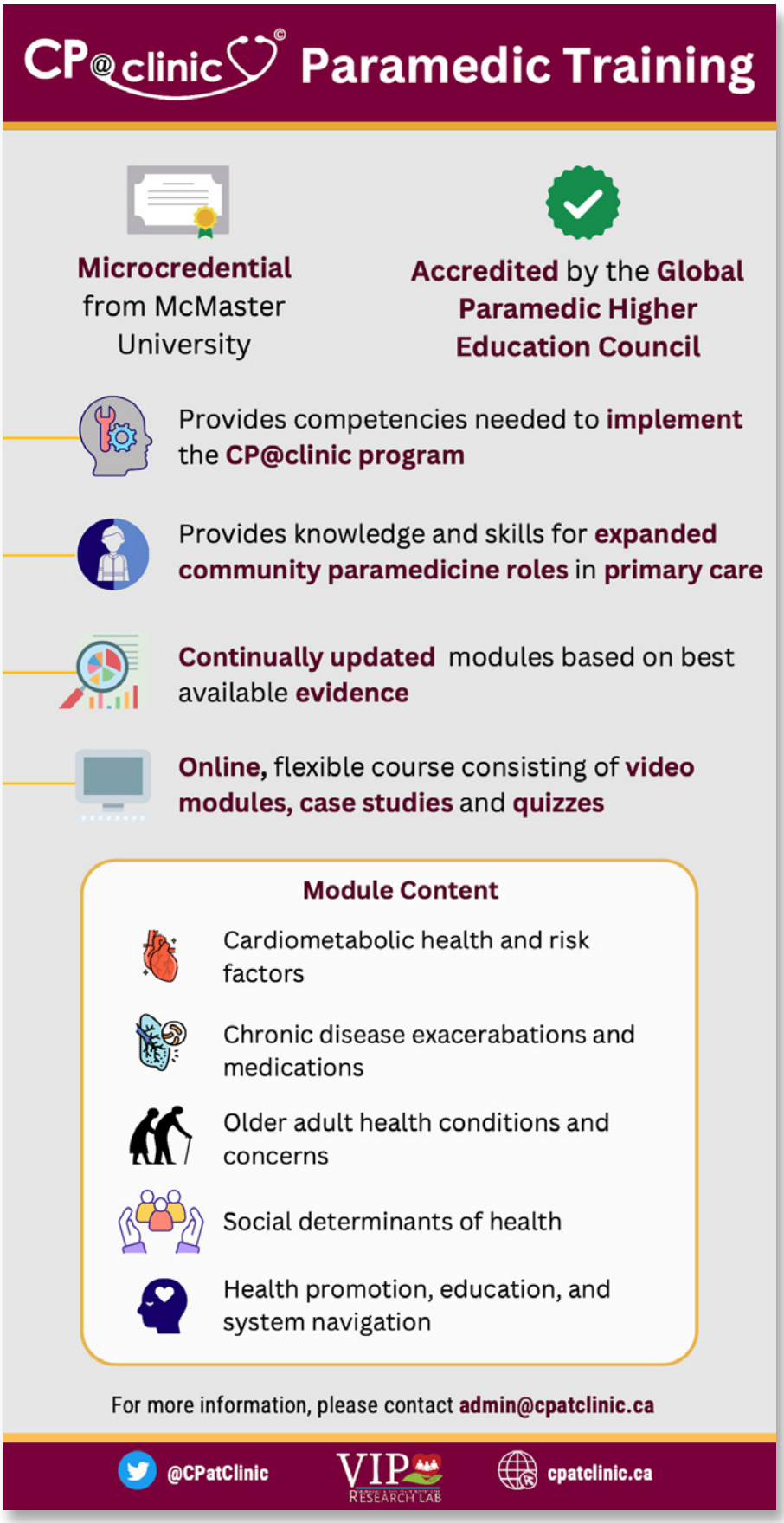






Appendices

APPENDIX 2: MCMASTER COURSE ON CP@clinic



Community Paramedicine in Australian community health

Implementation of the CP@clinic program

A COLLABORATION BETWEEN

CP@clinic© Family Medicine McMaster University

La Trobe University Violet Vines Marshman Centre For Rural Health Research

SCHS Sunraysia Community Health Services

Community Paramedicine in Australian community health

Implementation of the CP@clinic program

THE PROBLEM AND THE PROJECT

New models of healthcare delivery are required to address the multiple challenges facing our healthcare system. One emerging model is **community paramedicine (CP)**, where paramedics use their knowledge and skills beyond emergency health responses to focus on preventative and rehabilitative health.

McMaster University in Canada have a **well-established and evidenced CP@clinic program** which La Trobe University co-implemented and evaluated with Sunraysia Community Health Services (SCHS). Community paramedics on locations across the Mildura LGA provide easy, free, walk-in access to health care.

The key innovative feature of this program is the **use of an available workforce** (paramedics) in a setting where they are not normally employed: **community health**.

FINDINGS

Over 10 months, the program grew from one clinic and 8 attendees to 5 clinics servicing 111 people. 57% of participants were 65 or over; 78% had 3 or more chronic diseases; 94% had a moderate to high risk of diabetes and 36% had no GP.

The CP@clinic model of care works on many levels:

- It reaches underserved **clients** with limited healthcare access.
- It extends into the **community** and builds social connections.
- It provides a welcome professional expansion for **paramedics**, who, on average, remain only 5 years in the ambulance service.
- CP programs reduce pressures in **health systems**, including reducing ambulance callouts and ED presentations.

NEXT STEPS

The CP@clinic implementation in Australia is **ready to expand**. To ensure success, the following need to be considered:

- There is a need to **embed** this role structurally **in the primary healthcare system** and the **paramedic profession**. Funding streams should be reviewed, and we need to shift from restrictive 'scope of practice' discussions to a skills and capabilities approach.
- Models that allow paramedics to work in **both emergency and community settings** should be explored.
- Home visits and/or a mobile service should be trialled.
- Maintaining close engagement with McMaster University and La Trobe University is crucial to establish **long-term efficacy**.
- Community paramedics are **a known player, but in a new role**. **Familiarity** with this new role needs to be built amongst healthcare providers and the wider community.
- Continuous program funding is needed to measure sustainability and impact.
- Early results suggest that the **long-term impact and cost effectiveness** will mirror the Canadian experience, including significant reductions in emergency service usage and improved chronic disease management.

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