



ANNUAL REPORT 2024

Prepared by :

MCMaster COMMUNITY PARAMEDICINE RESEARCH TEAM

 cpatclinic.ca

 [CP@clinic](#)

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Family Medicine

McMaster
**Community
Paramedicine**
Research Team

Land Acknowledgement

McMaster University recognizes and acknowledges that it is located on the traditional territories of the Mississauga and Haudenosaunee nations, and within the lands protected by the “Dish with One Spoon” wampum agreement.

The McMaster Community Paramedicine Research team honours the peoples and land of the Algonquins and all First Nations, Inuit and Métis peoples.

We invite you to learn more about the people who have inhabited the land you are on. We recognize that we still have much to learn: reconciliation is an ongoing process for us all.

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Message from Dr. Gina Agarwal, Program Director

Dr. Gina Agarwal

Program Director, CP@clinic



It is with great enthusiasm that I introduce the 2024 Community Paramedicine at Clinic (CP@clinic) Annual Report. Reflecting on the past year, I am filled with pride in our collective accomplishments and the growing impact that continues to define CP@clinic. This report highlights the remarkable progress we've made in not only advancing population health and strengthening health systems, but also in expanding and deepening the program's reach to benefit thousands of individuals across diverse communities.

"In 2024, CP@clinic continued to grow beyond its roots in Ontario, with successful implementation in British Columbia and Australia. These milestones reflect the program's adaptability across diverse healthcare systems and settings, as well as its sustained effectiveness in addressing the health needs of vulnerable populations and improving population health outcomes."

This year also brought the launch of the 'CP@clinic Paramedic Training Program Microcredential' through McMaster University. This microcredential formally recognizes the skills, knowledge, and competencies required to implement CP@clinic. The 'Community Paramedicine Continuing Medical Education for Family Physicians' was developed to introduce family physicians to community paramedicine and has been certified by the McMaster University Continuing Professional Development Program for 1 Mainpro+ credit. These recognitions are significant as it supports professional development, promotes community paramedicine, and affirms the essential role of community paramedics in delivering evidence-based, community-focused care.

Message from Dr. Gina Agarwal, Program Director

Academic research remains central to CP@clinic's innovation, evaluation, and continuous improvement. We have included key publications in this report to underscore its role in informing policy, guiding decision-makers, and demonstrating the program's effectiveness in supporting vulnerable populations.

This annual report is a celebration of our values, mission, and the meaningful impact we continue to build. I extend my deepest gratitude to all our partners and paramedic services who have dedicated their time, resources, and support to the CP@clinic Program. Your commitment has been essential to the success and scale up of CP@clinic. Together, we are advancing health equity, fostering system change, and shaping a healthier future for our communities.



This report was prepared by the McMaster Community Paramedicine Research Team. From left to right: Christie Koester, Mikayla Plishka, Jasdeep Brar, Melissa Pirrie, Dr. Gina Agarwal, Guneet Mahal, Francine Marzanek, and Ric Angeles.

Not pictured: Sahar Popal, Manasvi Vanama



Mission

We are committed to initiating, building and cultivating collaborative partnerships to support paramedic services in the planning, delivery and evaluation of CP@clinic across Canada and internationally.

Vision

To integrate CP@clinic as the standard Community Paramedicine wellness clinic model in the Canadian healthcare landscape and thereby improve the health of vulnerable populations.

The Evolution of CP@clinic



Research Timeline

CP@clinic Program Expansion and Canadian Healthcare Integration



CP@clinic Pilot Project in Hamilton

2010

of Partnered Paramedic Services



Multi-site RCT begins

2014

5



Multi-site RCT Published in *CMAJ*



CP@home RCT begins

2018

14



Multi-site RCT Published in *Prehospital Emergency Care*

2019

15



Santé Canada Health Canada



Endorsement for Scale-Up



Cost-effectiveness analysis Published in *BMJ Open*

2020

19

Spring 2020



CP@clinic Virtual Adaptation

2021

22

Expansion to British Columbia

Winter 2021



CP@home CP@clinic as a Home Visit

CP@clinic Pilot Project in Australia

2022

26



CP@home recruitment published in *BMC Health Services*

2023

30



Administrative data linkage Published in *JAMA Netw Open*

2024

33

Expansion to Quebec



CP@home RCT published in *BMC Health Services*

2024 By The Numbers: CP@clinic's Community Impact



18,544

Health Risk Assessments



1,117

Initial Visits



9,608

Follow-up Visits



1,872

people helped through CP@clinic



162

people helped through CP@home



MILESTONES TO DATE



16,000+

low-income older adults reached in

2

Countries



3

Canadian Provinces
(ON, BC, QC)

78%

Ontario Paramedic Services implemented CP@clinic



CP@clinic is a nationally and internationally recognized, evidence-based model improving access to care for vulnerable populations!

Building Capacity *Paramedics*



MCMaster UNIVERSITY MICROCREDENTIAL CP@CLINIC PARAMEDIC TRAINING PROGRAM

Paramedics who complete the CP@clinic Program Training earn a 'CP@clinic Paramedic Training Program Microcredential' from McMaster University. The Microcredential is official recognition of a paramedic's skills, knowledge, and competencies needed to implement the CP@clinic Program



1,337

Paramedics trained through the CP@clinic Training Program to date



122

Microcredentials Issued in 2024

DATABASE TRAINING



4

Database Training Sessions in 2024



18

Paramedics Trained Using a ***Train the Trainer*** Format in 2024



36

Database Training Sessions to date



126

Paramedics Trained to date

Expanded to **32 paramedic services across Ontario**, the provincial **British Columbia Emergency Health Services (BCEHS)**, and **3 Australian community health services**

Building Capacity

Family Physicians



MAINPRO+ CREDIT FOR COMMUNITY PARAMEDICINE CME FOR FAMILY PHYSICIANS

The Community Paramedicine Continuing Medical Education for Family Physicians was developed to introduce family physicians to community paramedicine with an aim to facilitate collaboration with community paramedics in order to foster improved patient care.

This is a one-credit, one-hour online learning program that will enable its learners to understand what community paramedicine is, how it relates to family physicians in Ontario, what the Community Paramedicine at Clinic (CP@clinic) is and how it is (or can be) integrated within family practice medicine.

The Community Paramedicine Continuing Medical Education for Family Physicians is available free of charge to family physicians, residents, students and nurse practitioners.

The Community Paramedicine Continuing Medical Education for Family Physicians learning program meets the certification criteria of the College of Family Physicians of Canada. It has been certified by the McMaster University Continuing Professional Development Program for 1 Mainpro+ credit. The Continuing Professional Development Office (CPD) at McMaster University is fully accredited by the Committee on Accreditation of Continuing Medical Education (CACME) to provide CFPC Mainpro+ study credits for Continuing Medical Education.



Health Sciences

Building Capacity

Family Physicians



MAINPRO+ CREDIT FOR COMMUNITY PARAMEDICINE
CME FOR FAMILY PHYSICIANS

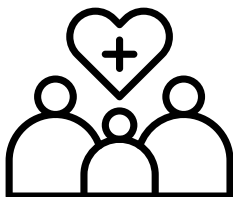
*What Family Physicians are
saying about Community
Paramedicine after the CME*



Great way for patients to still access care from their home
and allow me more remote monitoring of patients who find
it hard to get into the office



Helpful to fill gaps in care



Many vulnerable patients would benefit



It would lessen the burden of seeing and managing
some of the challenging, time-consuming patients

The Year in Review

Partner Engagement

72

Paramedic Service Quarterly Reports



Individualized paramedic service reports summarize the evaluated performance measures of the health risk assessments conducted with participants at CP@clinic Program Sessions.



Site specific reports enable paramedic services to determine if the program is meeting their target outputs and whether there is a need to modify their implementation.

6

Executive Committee Meetings



Paramedic service partners who provide their expertise operationalizing CP@clinic to guide the scale out of CP@clinic in Canada.

4

Community of Practice Sessions



The CP@clinic/CP@home Community of Practice was designed to engage community paramedics in peer learning and knowledge sharing to enhance individual and collective knowledge and skills, have an exchange of experiences and foster problem-solving.



Research & Program Highlights

Infographics

CP@clinic[®] Program Benefits for Paramedic Services



Structured program (compared to a standard 'wellness' check) that includes **multiple** health **risk assessments** with built-in, **real time decision support**



Improves patient **quality of life** by managing their **cardiometabolic risk** factors, **chronic disease** exacerbations and **medications**, **social determinants** of health, and **more**



Includes a **secure, user-friendly database** to **store** your **patient information**



Provides **site-specific system navigation** by giving **patient-tailored resources and referrals** specific to the risk factors that are impacting their health



32 out of the **47 fields** (~ 70%) needed to complete your **Ministry of Health and Ministry of Long Term Care Reporting** requirements are covered in the standardized CP@clinic Program



Tables/Metrics can be **downloaded in a few simple steps** to assist in completion of the **Ministry of Health, Ministry of Long Term Care, and Ontario Health quarterly reports**, as well as any other reports required

What the CP@clinic[®] team can do for you



Support patient continuity of care by **sending quarterly fax reports** to the patient's **family physician**



Send your paramedic service **quarterly reports** that can be used for **quality assurance, teaching, & sending to external partners, funders, & council members**



Provide CP@clinic **specific program training** that is **accredited** and offers a McMaster University **microcredential** in addition to database training



Provide **program materials** (Health Risk Assessment cards, patient information sheets) and **advertising materials**

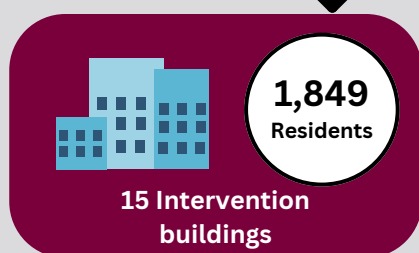
Community Paramedicine Program in Social Housing and Health Service Utilization: A Cluster-Randomized Clinical Trial



This study aimed to evaluate the effects of the CP@clinic program versus usual care on health service utilization outcomes

Pragmatic cluster-randomized controlled trial

5 Communities



CP@clinic

Mean age:
72.8 years
Female: 65%



CP@clinic

Key Findings

Comparisons between CP@clinic attendees (intervention) vs control



Home care services*

35% vs 27%



Transfers to long-term care*

2% vs 5%

CP@clinic increased connections to home care services and reduced transfers to long-term care from social housing

*significant difference



Primary care visits*

7 visits vs 6 visits



Antihypertensive medication

initiation*

24% vs 9%

CP@clinic increased primary care visits and increased antihypertensive medication initiation

*significant difference



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COVID-19 and Social Care Screening for Older Adults in Social Housing: A CP@clinic[®] Adaptation



This study examined a telephone adaptation of the Community Paramedicine at Clinic (CP@clinic) Program during the COVID-19 pandemic for older adults residing in social housing.



COMMUNITY PARAMEDICS:



SCREENED FOR:

COVID-19

EMERGENCY PREPAREDNESS

SOCIAL HEALTH FACTORS
(social isolation & food insecurity)

EDUCATED ON:

STAYING SAFE

SELF-ISOLATING

SELF-MONITORING



Participant Characteristics

Average Age (n=134):
75.6 years

Average
Neighbourhood
Household Income
(n=184):
\$58,995

Social Health Factor Screening by Number of Visits

	Social Isolation	Food Insecurity
Visit 1 (n=168)	43 (25.6%)	9 (5.4%)
Visit 2 (n=65)	17 (26.2%)	2 (3.1%)
Visit 3+ (n=8)	8 (100%)	0 (0%)



FROM COMMUNITY PARAMEDICS' NOTES:

THEME 1: Participant experiences adapting to daily life in the pandemic

Groceries delivered (n=50)

Precautions taken to stay safe (n=61)

Medications delivered (n=30)

Ran their own errands (n=36)

THEME 2: Participant emotional experiences during the pandemic

Good spirits or doing well (n=33)

Boredom (n=6)

Coping with the help of family, friends, and/or church group (n=42)

Feelings of loneliness and/or isolation (n=13)

THEME 3: CP@clinic paramedics supporting participants during the pandemic

Encouraged participant to call when needed (n=7)

Provided tailored COVID-19 safety education (n=18)

Participants appreciated engaging with paramedics (n=11)

Discussed other (non-COVID) health concerns (n=27)



CP@clinic provided paramedics a platform to contact a large number of older adults to increase access to healthcare services and public health information during a time of great health need.



Community Paramedicine at Home (CP@home) is a **primary-care home visit program** conducted by trained community paramedics

Program objectives: **Chronic disease prevention and management and health promotion**

Eligible Populations



Frequent EMS Callers

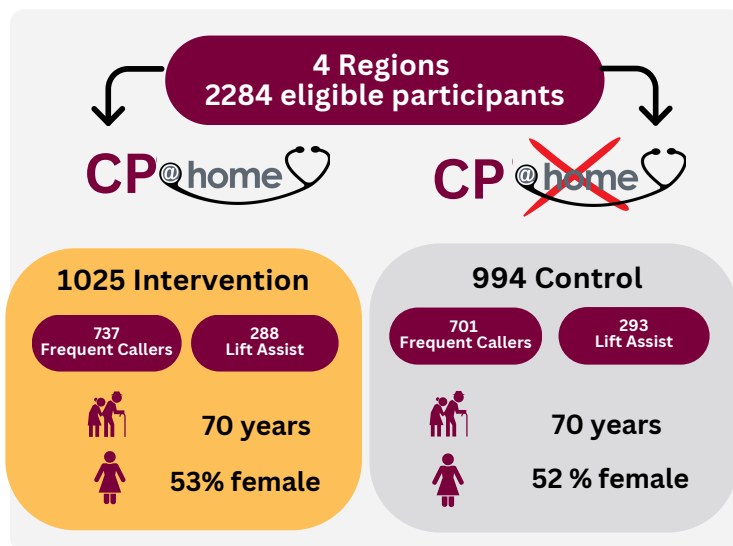
≥ 3 calls within 6 months &
≥ 1 call within 1 month for an ambulance



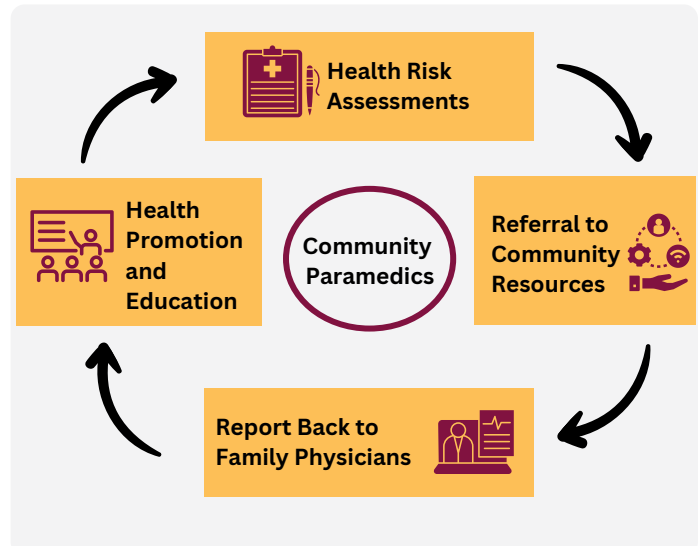
Lift Assist Callers

≥ 1 call for lift assist within 1 month

CP@home Randomized Controlled Trial



CP@home Intervention



OUTCOMES OF CP@home



reduced



ambulance calls among frequent callers

13 fewer 911 calls per 100 people



reduced



lift assist calls

114 fewer 911 calls per 100 people



Allows for:

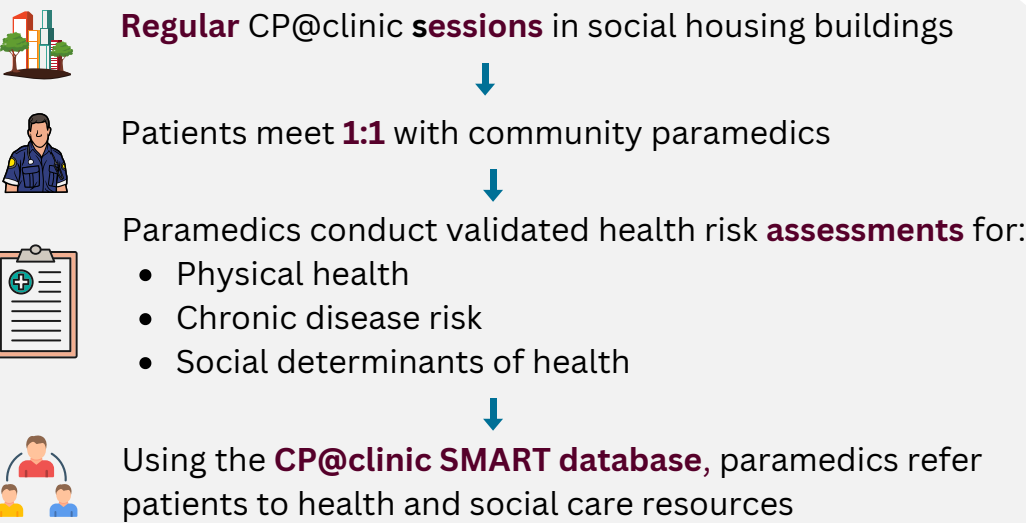
- Better healthcare at home
- Improved chronic disease management
- Reduced hospitalization



The Community Paramedicine at Clinic (CP@clinic) Program: Improving Participant Health While Preserving Healthcare System Resources

What is CP@clinic?

A community paramedicine chronic disease prevention, management, and health promotion program



Other Delivery Formats



Implemented In



Future outlook

CP@clinic has the potential to become the **standardized wellness clinic model** across Canada and internationally

Evidence-Based

Multi-site, pragmatic, community-based cluster randomized controlled trial

Significantly improved participant health & quality of life

20% reduction in EMS calls

Economic evaluation

Every \$1 spent on the CP@clinic Program saves the emergency care system \$2

Key Take-away

CP@clinic **addresses** patient and healthcare system **needs** while **saving money** for the emergency care system

A Unique Program

- Guided database with decision support
- Standardized paramedic training
- Easily adaptable to different settings
- Facilitates interprofessional care
- Serves vulnerable, underserved populations

CP@clinic[®] Locations

CANADA



AUSTRALIA



THANK YOU

CP@clinic Executive Committee

We would like to acknowledge the contributions of Brent McLeod (Hamilton Paramedic Services), Natalie Kedzierski (York Region Paramedic Services), Brad Jackson (Bruce County Paramedic Service), and Julie Cole (Sault Ste. Marie Paramedic Services) as members of the CP@clinic Executive Committee.

Partner Organizations - Canada

BC Emergency Health Services	Lambton EMS
Beausoleil First Nation EMS	Niagara EMS
Brant-Brantford Community Paramedic	Norfolk County Paramedic Services
Bruce County Paramedic Service	Northwest EMS
Chatham-Kent EMS Paramedic	Oxford County Paramedic Services
Cochrane District EMS	Peel Regional Paramedic Services
Cochrane District SSAB	Peterborough County-City Paramedics
Region of Durham Paramedic Services	Prescott-Russell Paramedic Service
Essex-Windsor EMS	Sault Ste. Marie District Social Services
Frontenac Paramedic Services	District of Sault Ste. Marie Paramedic Services
Grey County Paramedic Services	County of Simcoe Health and Emergency Services
Grey County	City of Greater Sudbury Paramedics
Guelph-Wellington Paramedic Service	Greater Sudbury Housing Corporation
Halton Region Paramedic Services	District of Timiskaming SSAB
Hamilton City Housing	WAHA Paramedic Service
Hamilton Public Health Services	The Corporation of the County of Wellington
Hamilton Paramedic Services	York Region Paramedic Services
Hastings-Quinte Paramedic Services	York Region
Kingston & Frontenac Housing Corporation	

Partner Organizations - International

Gateway Health	Sunraysia Community Health Services
Primary Care Connect	Grampians Health

Family Medicine

