Hamilton Paramedic Service

Community Paramedicine for Long-Term Care

Submission to Ministry of Health LTC

Hamilton Paramedic Service

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Executive Summary

As of Aug 2020, there were a total of 4,977 people on the Hamilton long-term care wait list (1). While waiting for a bed these individuals experience deteriorating health, increasing demands on the system, on their caregivers, and increased 911 calls with subsequent stress on hostile resources as well as offload delays.

Aligned to the province's modernization plan the Ministry of Long-Term Care (MOH-LTC) is providing a 3-year provincial funding stream, of up to $2 million/year, to community paramedicine programs in order provide services to individuals who are waiting for placement in a long-term care home or who are soon to be eligible for long-term care.

As described further in the proposal this model is based on 4 guiding principles[(3)]:

1. Accessible
2. Responsive
3. Proactive
4. Safe

Combined with an already existent close collaboration with partners, and aligned with the Hamilton Health Team model and mandate, this funding will enable the creation of an integrated health team approach to preventing avoidable emergency department visits while keeping people safely at home. A set of clinical practice guidelines, or medical directives, will be developed enabling community paramedics to treat the patient in their home and prevent an avoidable ED transport.

Leveraging strong existing partnerships within the Hamilton Health Team, Home and community Care, St Joe's, Long-term care and the CPER Outreach program HPS-MIH will provide enhanced 24/7 service to these individuals. This will be fully supported by base funding for 3 years directly form the MOH-LTC at no cost to the city or HHT**.** There will be a total of 11 appropriately qualified full time staff assigned to the project for the duration of the project funding.

Evaluation will be completed by measuring several key metrics as required by the MOHLTC. Big dot measures will be:

Client Experience **Patient/Family/caregiver Experience (90%)**	System Performance **Referral rates to and from external partner (50 / month)**
Organizational Learning & Growth **Staff/stakeholder/CP satisfaction (90%)**	Financial Performance **# of avoided ED transport**

Background

Individuals in the community who require complex care are often assessed as needing a long-term care bed. As of Aug 2020, there were a total of 4,977 people on the Hamilton wait list, and these people wait an average of 394 days [(1)]. Delayed admission can result in worsening health for both the individual and their caregivers[(2)]. While waiting for a bed these individuals experience increasing demands on the system, on their caregivers, and often on the 911 response system. Calls for 911 service often result in long offload delays, bed blocking within the emergency department and potential increase in alternate level of care bed occupancy within the hospitals.

In Hamilton and other jurisdictions, Community Paramedicine has been shown to help alleviate the stress placed on municipalities resulting from avoidable emergency department transfers. Aligned to the province's modernization plan to address systemic barriers in long-term care bed development and the growing demand for long-term care the Ministry of Long-Term Care (MOH-LTC) is providing a 3-year provincial funding stream, of up to $2 million/year, to community paramedicine programs in order provide services to individuals who are waiting for placement in a long-term care home or who are soon to be eligible for long-term care. This model is based on 4 guiding principles [(3)]:

- Accessible: 24/7 access to community paramedicine services for nonemergency procedures in their own home and health system navigation support.
- Responsive: Prompt, flexible, proactive, and patient-centred response to changing circumstances or medical conditions and if necessary, connection to the right health care provider at the right time in order to avoid escalation and crisis.
- Proactive: Systematic, routine-based remote or home monitoring to prevent emergency incidents or escalation in medical conditions.
- Safe: Certain diagnostic procedures and treatments can be provided at home and if required, under appropriate medical oversight.

Base on a close collaboration with partners and aligned with the Hamilton Health Team model and mandate, this funding will enable the creation of an integrated health team approach to preventing avoidable emergency department visits while keeping people safely at home. CPLTC's objectives are to safely keep individual in their home for as long as possible, reduce avoidable emergency department visits, increase the quality of life for both individuals and their caregivers, and minimize waitlist growth by providing alternative options for those who want to stay in their home longer.

Partnerships & Proposed Model

HPS has worked closely with several partners in previous and existing initiatives. Key partners for this program are already in conversation with HPS. They include:

- Hamilton Health Team
- Public Health
- Primary Care Lead
- Home and Community Care
- Medical direction
- LTC Physicians

Leveraging existing expertise within the Hamilton Paramedic Service, Mobile Integrated Health Community Paramedic (HPS-MIH) program, HPS-MIH will build on existing partnerships and competency to meet the mandate of this funding proposal. A key piece of this will be to enhance and expand on the current one-time funded High Intensity Support program which is scheduled to operate until March 31,2021. The expansion will target all individuals on the LTC wait time list.

Expansion and enhancement will be accomplished by increasing the number of staff assigned and expanding the scope of services to include point of care testing, in home interventions, enhanced assessment tools and closer connections to both home and community care (HCC) as well as primary care. HCC has provided an analysis of the top reasons why individuals are transport to the ED (Appendix A) and this has informed a targeted approach to enhancing current service provision. Table A outlines the proposed services.

Table A: Current and Proposed Interventions Targeted at Reducing Avoidable Emergency Department Transports and 911 Resource Depletion

Service	**Status**	**Notes**
Home visits	Current state	Enhanced collaboration with Home & Community Care Co-Ordinator's
Navigation	Current State	Leverage existing links to various programs which address all social determinants of health
Remote Patient Monitoring	Current State	Expand to include those at home who need regular vital sign monitoring and CP involvement
St Joe's Virtual ED	Current State	Enhance existing relationship with St Joe's virtual ED program enabling ad-hoc virtual visits with an Emergency Physician
Immunization & Disease Prevention	Current / Future State	CPs already deliver influenza vaccines to homebound individuals. Enhance this capacity by adding in COVID-19, Tetanus, Shinglex and Prevnar.
Pandemic Response – Mobile COVID Testing	Current	Enhance mobile testing capacity by enabling these individuals to access in home testing.
Crisis Intervention	Current	Using evidence based approaches helps de-escalate caregiver distress and patient anxiety both of which can lead to avoidable Ed transports.
Point of Care Testing	Future	Enable access to in home point of care testing for various laboratory exams such as electrolytes and CBCs.
IV Therapy	Future	Provide the ability to rehydrate individuals that present with dehydration and associated symptoms which can lead to avoidable hospitalizations.
Antibiotic Administration (IV and P.O.)	Future	Provide the ability for in-home treatment of community acquired pneumonia and other infections which can lead to avoidable hospitalizations.
Urinalysis	Future	Detect and treat urine infections which can lead to avoidable hospitalizations.

Operational aspects of the CPLTC program will be aligned to the model suggested by the MLTC and is diagrammed in figure 1 below.

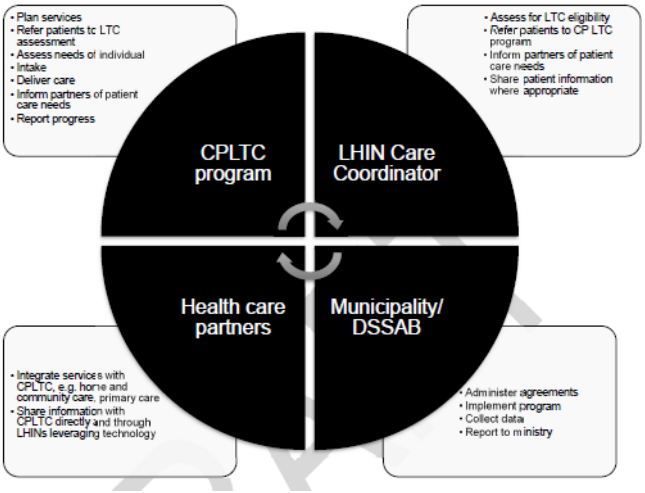

Figure 1: Overall model for the HH- CPLTC program indicating high-level functions of each partner sector.

Staffing Implications

In order to staff this model HPS-MIH will secure 11 FTEs positions to provide 24 hour per day, 7 day per week coverage for 365 days/year. Staff will be placed into the position based on qualifications and seniority as per the Collective Agreement process. The mechanics will involve posting an expression of interest (EOI) for a yearly assignment into this program.

Implementation Plan & Project Milestones

HPS-MIH will leverage existing partnerships involved in the current High Intensity initiative with Home and community Care. This initiative targets the people waiting for LTC placement who are assessed as being "in-crisis". Processes being finalised for this are immediately transferrable to the new CPLTC initiative making implementation relatively smooth. Table B lists high level milestones and projected target dates for project implementation.

Figure 2: Milestone chart for project implementation

Evaluation Plan

Based on the CPLTC Framework Document Table C outlines the evaluation metrics that will be collected and analysed for this program.

Table C: Balanced Scorecard Notes & KPI (HH – CPLTC)	
Client Experience • Equitable access to appropriate health services • Should demonstrate decreased insecurity • Increased satisfaction • Increased knowledge for self care KPIs **Patient/Family/caregiver Experience (90%)** Self-reports depression (5% ?) Self-reported caregiver distress (5% ?) Confidence in client's ability to cope (15% ?)	System Performance • Enhanced information sharing • Just culture of safety approach • Consistent and transparent processes • Ongoing feedback and knowledge exchange KPIs (goals) **Referral rates to and from external partner (50 / month)** Self-reported # of 911 calls Self -reported # of ED visits Hospital admissions / readmissions # of home visits (in-person / virtual) (100 / month) # of new partner agencies (≥1/yr) # CAM, Suicide risk, Caregiver Distress, Med Rec completed (1 / patient) # of adverse events (<1 / 1000 patients)
Organizational Learning & Growth • Increased staff satisfaction • Increased knowledge and appreciation for CP programs • Broader knowledge regarding health care resources and their interface with Paramedicine KPIs **Staff/stakeholder/CP satisfaction (90%)** Comments/month from staff/stakeholders outside CP (≥3/quarter) CP specific CME (≥1/yr)	Financial Performance • Sustainable & spreadable • Reduction in avoidable Ed transports • Decreased TOT when compared with a typical transport to ED KPIs **# of avoided EDtransport** Time on task (<90 minutes) # of recorded 911 calls Favorable ICER (incremental cost effectiveness ratio)

Budget Summary

The Ministry of Long Term Care has identified an annual allocation of $2M for Hamilton CP-LTC program in their 2021/22, 2022/23, and 2023/24 fiscal years. MLTC fiscal year runs from April 1 through March 31.

The current plan is to have the program fully operational, with transition from the existing High Intensity LTC program, on April 1, 2021.

Set-Up and Establishment of the program will occur over the period January 1 through March 31, 2021. The operating budget for this period is being developed based on 25% of the annual allocation for program establishment.

The implementation of the program is being developed based on the full notional annual allocation identified by the MLTC.

References

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2. HQO Wait time for Long-Term Care Homes https://www.hqontario.ca/System-Performance/Long-Term-Care-Home-Performance/Wait-Times#:~:text=Wait%20Times%20for%20Long%2DTerm%20Care%20Homes&text=A%20lower%20number%20of%20days,family%20members%20and%20other%20caregivers. Accessed Dec 20,2020
3. CPLTC Framework for Planning, Implementation & Evaluation https://news.ontario.ca/en/release/59012/ontario-launches-innovative-solution-to-improve-long-term-care)