

**A Scalability Assessment of the Aging, Community and Health Research Unit (ACHRU)
Community Partnership Program for Diabetes Self-Management for Older Adults
with Multimorbidity and their Care Partners in Ontario**

Final Report

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April 2023

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Executive Summary

This report summarizes the results of a scalability assessment of a self-management intervention for older adults with diabetes and multimorbidity and their caregivers in Ontario (ON), Canada. A provincial working group, including patient partners, health care leaders, and researchers, actively contributed to the scalability assessment. The Intervention Scalability Assessment Tool (ISAT) guided data collection and analysis (Milat et al., 2019). Multiple methods were used to collect data, including an environmental scan, document review, and interviews with key informants. Provincial workshops were held to review preliminary scalability results, determine the program’s scale-up readiness, and identify strategies to enhance scalability. In ON, patient partners, health and social care providers and leaders, provincial decision-makers, and researchers gave high ratings to the intervention’s alignment with practice and strategic policy initiatives. The evidence of effectiveness, delivery setting and workforce, and sustainability domains were rated slightly lower. Participants recommended: 1) focusing on a priority population, which may be more efficient, reduce costs and likely to demonstrate impact; 2) beginning scale-up at targeted sites where the program is a good fit within the existing health care settings and infrastructure; and 3) continuing to gather evidence on program effectiveness and implementation to motivate and support continued scale-up.

Most Critical Factors and Next Steps to Scaling-up the ACHRUCPP in Ontario

Identify a backbone organization and funding strategies to support scale-up of the program. Connect with policy- and decision-makers at Ontario Health to garner feedback and support for the program.
Develop a phased horizontal approach to implementation and scale-up (i.e., across different sites or groups) .
Integrate changes to improve reach and acceptability of the program: <ul style="list-style-type: none"> • Use data-informed approaches to clearly define and recruit a priority population that could benefit from the intervention (e.g., racialized communities, socially isolated). • Integrate a health equity lens and engage local community leaders, providers, and patient partners to adapt the program to meet the needs of the target population. • Engage providers who have strong knowledge and understanding of the local community and the patient population (i.e., language, culture, values, and preferences) to support cultural and linguistic adaptations. • Engage community ambassadors, community groups and faith-based organizations to reach the target population and deliver the program in an accessible community-based setting. <ul style="list-style-type: none"> • Encourage uptake of the program by older adults and their family caregivers by defining, “what’s in it for them”, fostering hope, and emphasizing the value of their contributions to the community and to other older adults and caregivers who are living with diabetes and multimorbidity or caring for an older adult with diabetes and multimorbidity. • Facilitate transitions and offer support upon completion of the 6-month program.
Explore how the ACHRUCPP can be integrated into workflow of current primary care practice and minimize any additional burden associated with delivery of the program.
Pursue further evaluation funding opportunities recognizing the need for changes to improve reach and accessibility in different populations in Ontario: <ul style="list-style-type: none"> • Adopt a developmental evaluation approach that includes a values-based assessment to expand and adapt the ACHRUCPP to reach specific groups of older adults. Include cost analysis to inform business case for program integration and expansion. • Implement and evaluate the spread and scale-up of the ACHRUCPP.
Develop a sustainable and targeted communication plan and involve non-governmental organizations (e.g., Diabetes Canada, Alliance for Healthier Communities). Showcase successes of the ACHRUCPP and share these stories broadly with diverse audiences, using the voices of patient partners and other program champions.

Introduction

Diabetes is a global health concern. The World Health Organization reports that the number of people with diabetes worldwide was 422 million in 2014 (World Health Organization, 2016). Diabetes also affects 1.2 million individuals aged 65+ in Ontario. Ontario has a higher prevalence of diabetes (19.2%) among older adults compared to the national prevalence of 17.6% (Statistics Canada, 2022).

Management of older adults with diabetes is particularly challenging. Multimorbidity is common for older adults with diabetes, with an estimated 40% to 50% having 3 or more comorbidities (Fisher et al., 2016). Diabetes Education Programs (DEPs) or Diabetes Education Centres (DECs) in Ontario provide education, self-management support, and counselling to adults aged 18+ years (Ontario North East LHIN, 2022; Ontario Health, 2022a). Scarborough and Toronto have 4 and 51 DECs and DEPs respectively of 351 across the province (Ontario Health, 2022b). YMCAs provide programs for health and fitness in older adults. However, qualitative evidence suggests that older adults in Ontario face barriers to using existing community resources, (e.g., lack of transportation, prohibitive cost) and exercise groups not being tailored to older adults (Markle-Reid et al., 2016). Older adults require tailored diabetes education and additional support with health literacy, as well as a focus on their other chronic conditions, including mental health concerns (Miksch et al., 2009; Miklavcic et al., 2020).

The Aging, Community and Health Research Unit, Community Partnership Program (ACHRU-CPP), is a complex, integrated 6-month self-management intervention for community-living older adults with diabetes and multimorbidity and their caregivers. The ACHRU-CPP aims to improve self-management for older adults with diabetes and other chronic conditions by enhancing mental and physical functioning, and to support their family/friend caregivers. The ACHRU-CPP was co-designed by patients, caregivers, home and community-care providers, and researchers, in response to a gap identified by older adults in the self-management of their diabetes and other conditions. Markle-Reid et al., (2016) established the feasibility, acceptability and preliminary effectiveness of the program through a pilot study conducted with a primary care-based Diabetes Education Program in a primary care setting and a community seniors' centre. Subsequently, a pragmatic randomized controlled trial (RCT) in Ontario (ON) and Alberta found that older adults who received the ACHRU-CPP experienced greater improvements in quality of life, and self-management, and greater reduction in depressive symptoms compared to those who received usual diabetes care, at no additional cost to society (Markle-Reid et al., 2018). The current multi-phase study aimed to examine the implementation and effectiveness of the ACHRU-CPP in diverse populations (e.g., high system users) and primary care and community settings (Ploeg et al., 2022). A multi-site implementation-effectiveness RCT design (Curran et al., 2012), was used to evaluate ACHRU across three Canadian provinces, (i.e., ON, Quebec and Prince Edward Island [PEI]), and six study sites (2 sites per province) (Ploeg et al., 2022). The trial was completed successfully in ON and PEI but was not completed in Quebec, due to impacts of the COVID-19 pandemic.

As the final phase of the current research program, independent assessments of the scalability of the ACHRU-CPP were also conducted for ON and PEI. This report outlines the methods, results, and conclusions of the scalability assessment conducted in ON. Scalability refers to the *ability* of a health intervention demonstrated to be effective, to be expanded into routine practice to reach an eligible population while remaining effective (Milat et al., 2019). Scale up is the actual process of integrating the intervention into routine practice expansion (Milat et al., 2019). Assessing the scalability of promising programs is important as many are scaled up without supporting evidence (Indig et al., 2017) and conversely, others with demonstrated effectiveness are not translated into the health care system (Ben Charif, 2017).

Methods

The Intervention

The ACHRU-CPP was collaboratively delivered by an intervention team that consisted of primary care providers (a registered nurse [RN] and registered dietitian [RD]) and a community program coordinator (e.g., kinesiologist). Key components of the program included virtual or in-person home visits by the RN or RD; group wellness sessions by the RN, RD and a community program coordinator that provided health education, low-impact physical activity and peer support; team-based case conferences to discuss individualized plans of care; caregiver support; interprofessional collaboration; and nurse-led care coordination and system navigation.

Settings and Partner Sites

Scarborough and Toronto served as study locations in ON. Clinical and community partners included the Scarborough Health Network (SHN) Diabetes Education Program and Carefirst Seniors and Community Services Association (hereafter, Carefirst), in Scarborough, and St. Michael's Hospital Academic Family Health Team Diabetes Education Program, and the YMCA of Greater Toronto, in Toronto.

SHN is enhancing capacity in diabetes care by leveraging its existing services, community partners, and patients and families. SHN is home to one of the largest chronic kidney disease programs in ON, and its diabetes education program is delivered across all three affiliated hospital sites (i.e., Birchmount, Centenary, General); one of which is a centre for complex diabetes care.

Carefirst is a non-profit charitable community services agency that offers a range of client-centered social, health care, and supportive services planned and delivered through an integrated model of care by an effective team of professionals and volunteers. The organization serves clients with diverse cultural backgrounds, including older adults, representing Chinese, South Asian, and new immigrant communities.

St. Michael's Academic Family Health Team's core business is to deliver high-quality clinical care to a diverse patient population across their lifespan, with a strong focus on addressing social determinants of health. The family health team clinic in Regent Park, in downtown Toronto, provides care to over 50,000 adults, including many older adults; approximately 30% of whom have diabetes (J. Chen, personal communication, December 15, 2022).

The YMCA of Greater Toronto is committed to building healthy communities and is experienced in working with older adult populations, including those who are living with chronic conditions. They offer accessible and inclusive programs to support older adults in the self- management of their chronic conditions.

Study Design for Scalability Assessment

Multiple methods were used to assess the scalability of the ACHRU-CPP. These included the analysis of publicly available documents, semi-structured interviews with key stakeholders, review of the current trial results and evidence from prior ACHRU-CPP trials/studies, and feedback and recommendations arising from a provincial knowledge exchange workshop to discuss and rate the scalability of the ACHRU-CPP.

The Intervention Scalability Assessment Tool

The Intervention Scalability Assessment Tool (ISAT) (Milat et al., 2020) was used as a framework to guide both data collection and analysis. The purpose of the ISAT is to support practitioners and policy makers in conducting systematic assessments of the suitability of health interventions for population scale-up within health and community settings of high-income countries.

The tool consists of 10 domains and a total of 19 readiness assessment questions. Investigators adapted the 19 questions to fit the current study. The first 5 domains in Part A of the ISAT examine the problem that is being addressed (diabetes among community-living older adults with multimorbidity); the intervention proposed to address the problem (the ACHRU-CPP); its effectiveness, costs, and benefits, and political/environmental contexts. The remaining 5 domains in Part B of the ISAT include questions about intervention implementation (e.g., reach, acceptability, delivery setting and workforce), and sustainability. Part C provides a summative assessment generated from the scoring of readiness assessment questions in Parts A and B of the ISAT.

Data Collection and Analysis

Four main data sources were used to inform the ISAT questions: 1) input from members of the provincial scalability working group, 2) document analysis, 3) key informant interviews, and 4) feedback and recommendations arising from a provincial knowledge exchange workshop to share findings from the scalability assessment with stakeholders. A description of the methods for each component of the scalability assessment follows. Ethical approval for this study was obtained from the research ethics boards of all partner sites. Verbal informed consent was obtained from all participants, prior to their participation in the scalability assessment.

Scalability Assessment Working Group

Provincial working groups were formed to provide guidance to the core research team throughout the scalability assessment process. Participants included members of the study's steering committee and local community advisory board members, including patient and public research partners, researchers, primary care and

community service providers and administrators, and policy- and decision-makers in each province. Working group members contributed to the scalability assessment by, a) identifying potential key informants, b) advising on relevant literature and policy documents, c) reviewing a summary of the scalability assessment of the ACHRU-CPP, and d) participating in a provincial knowledge exchange workshop to provide feedback on the findings of the scalability assessment and to rate the scalability of the ACHRU-CPP in their province.

Document Analysis

Data from several sources informed the scalability assessment, including: a) an environmental scan of current community-based diabetes programs and services within the province, b) a review of national, provincial and regional health policy documents regarding older adults with diabetes and multimorbidity and their caregivers, and current research initiatives relevant to community-based diabetes care for older adults, and c) a review of published and grey literature on the prevalence and impact of diabetes and multimorbidity in community-living older adults and effective community-based programs for this population, and d) evidence from the foundational studies on the ACHRU-CPP (Markle-Reid et al., 2016, 2018) and the qualitative and quantitative findings from the current RCT of the program's implementation and effectiveness.

Scalability Key Informant Interviews

Individual semi-structured interviews (n=5) were conducted virtually with a purposeful sample of key stakeholders, including policy- and decision-makers at the local, provincial, and national levels, to answer questions in the ISAT that could not be addressed using other sources. Content analysis was used to analyze the interview data to address the questions within each of the ISAT domains (Hsieh & Shannon, 2005).

Provincial Knowledge Exchange Workshop

A virtual provincial knowledge exchange workshop was held over 2 half-days in December 2022. The purpose of the workshop was to, a) review and gather feedback on the preliminary findings of the scalability assessment performed by the research team; b) identify components of the intervention that need to be strengthened and barriers that need to be addressed to enhance the scalability of the program; and c) to finalize the rating of the scalability of the program and its readiness for scale-up. A comprehensive summary of the findings of the scalability assessment from the document review and the key informant interviews was shared with all workshop participants in advance of the event (see **Appendix A**).

Workshop participants included provincial scalability working group members, key informants who participated in individual interviews, as well as others who had expertise in policy or scale-up of interventions. Day 1 of the workshop focused on Part A of the ISAT (Setting the Scene) and Day 2 focused on Part B of the ISAT (Intervention Implementation Planning). The McMaster research team members provided a brief overview of the preliminary findings of each domain and workshop participants were encouraged to share their questions, feedback, and reflections on the findings. Lastly, participants were invited to rate the readiness for scale-up for each ISAT domain, with the option to abstain from rating. Research team members did not participate in the rating exercise.

A facilitator led the workshop and used a software program to collect participants' anonymous responses to each ISAT question in real time. Questions were rated on a four-point scale; not at all (0), to a very small extent (1), somewhat (2), to a large extent (3), for each domain of the ISAT. Participants were encouraged to discuss the rationale for their ratings or to enter it anonymously into the software. Scores for each question in a domain were averaged across all scorers (except the research team) and averaged across questions within a domain to create a final score for an ISAT domain, as per the ISAT guidance (Milat et al., 2019). A radar plot was used to create a visual representation of the average score for each ISAT domain. The radar plot helped to highlight differences in scalability across the 10 domains, to focus subsequent discussions on strategies to address domains where scalability was lower.

Scalability assessment results can be used to inform provincial recommendations about the appropriateness of developing a scale-up plan across various settings and populations, the need for further analysis, and actions to enhance intervention scalability. The workshop also facilitates the next phase of the scale-up process at the provincial level by providing opportunities to build meaningful partnerships.

Results

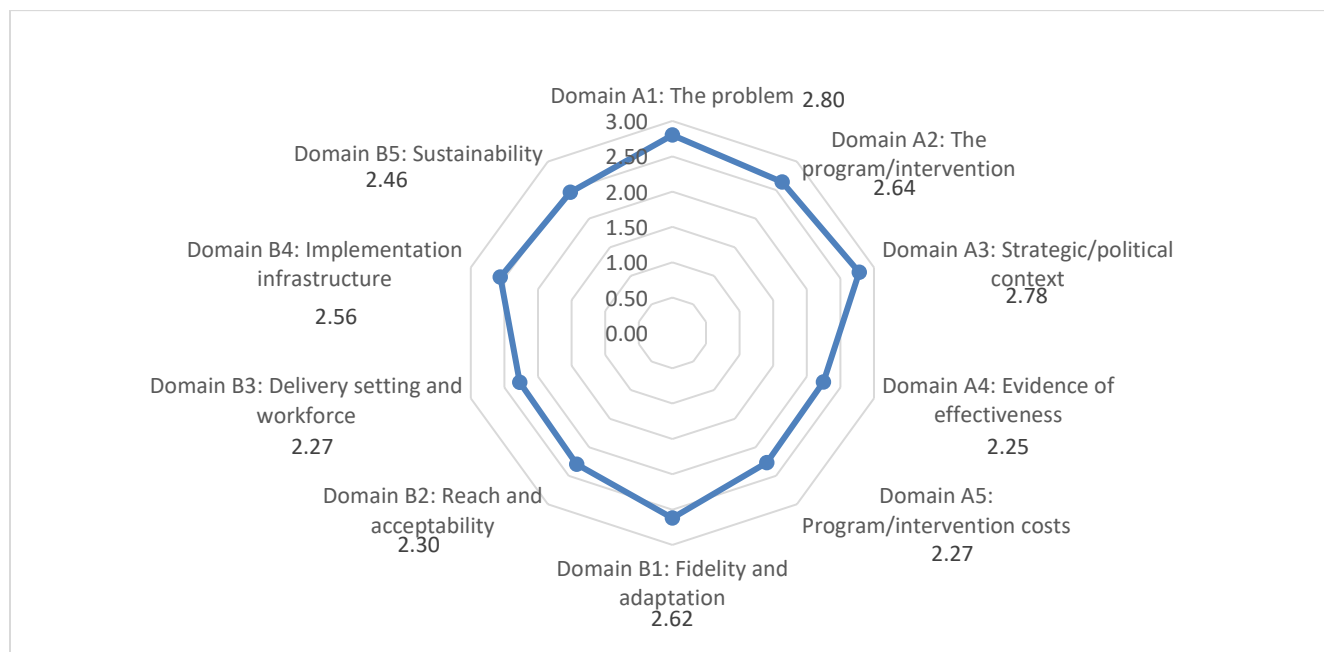
Participants

Eleven participants attended Day 1 and 12 participants attended Day 2 of the knowledge exchange workshop; 11 participants attended both workshop days while one patient partner attended Day 2 only. These included participants representing Diabetes Action Canada, Healthcare Excellence Canada, Ontario Health, SHN, Carefirst, St. Michael's Hospital Academic Family Health Team, YMCA of Greater Toronto, and four patient and public research partners who were ON Scalability Assessment Working Group members.

Assessment of Scalability

Overall, the potential scalability of the ACHRU-CPP was highly rated. Each readiness assessment question scored between 2.0 and 3.0 on average, on a 0-to-3-point scale. **Figure 1** depicts the ISAT radar plot that provides a summary of the scalability assessment completed at the knowledge exchange workshop. Mean scores for each domain are summarized in **Appendix B**. Domain A1, The Problem, received the highest relative mean score of all ISAT domains (2.80), followed by Domain A3, Strategic and Political Context (2.78). Evidence of Effectiveness, Domain A4, received the lowest relative mean score of all ISAT domains (2.25).

Figure 1. ISAT Radar Plot of the ACHRU-CPP Scalability Assessment Mean Scores for Ontario



Scalability Assessment, Part A: Setting the Scene

Domain A1: The Problem

Domain A1 asked participants to consider if diabetes among community-living older adults with multimorbidity is of sufficient priority to warrant scale-up of the ACHRU-CPP to address the problem. This domain received the highest relative mean score in Part A of the ISAT tool, 2.80 (SD=0.13). The program's value in addressing Quintuple Aim outcomes, 1) population health, 2) patient/caregiver experience, 3) provider experience, 4) cost and 5) equity, was noted. Participants also appreciated the potential benefit of the program's focus on multimorbidity which addresses a broader range of chronic conditions beyond diabetes.

One participant noted that it is important to consider why the high prevalence of diabetes persists among older adults despite existing programs to support those living with the diabetes. Participants suggested that this is reflective of several factors. For example, partners from SHN noted that their involvement in the trial generated more questions and identified a need for more information to understand the extent of the problem of diabetes and

multimorbidity among older adults in Scarborough. Another participant noted that many provinces continue to focus on chronic disease management, instead of prioritizing diabetes separately. Participants emphasized the importance of using a health equity approach, considering why existing programs are not reaching vulnerable older adults, and demonstrating why the ACHRU-CPP should be given priority (i.e., its effectiveness, usefulness) over other initiatives. Finally, it was suggested that the following points should be included in key messages targeting decision-makers: a description of the problem itself (i.e., the specifics regarding the magnitude and population); the causes and drivers of the problem; and the effects and impact of the problem on people, providers, and the health care system.

Domain A2: The Intervention

Domain A2 asked participants to consider whether the intended outcomes of the intervention addressed the needs of the target population and/or the problem (i.e., supporting self-management for older adults with diabetes and multimorbidity). This domain received a mean score of 2.64 (SD=0.16).

Participants appreciated that the intervention is holistic, patient-centred and is tailored to the individual needs of the older adult, and that it provides opportunities for both individual (home visits) and group experiences (group wellness (education) sessions). Participants agreed that while the intervention is composed of core components (i.e., home visits, group wellness sessions, team-based care, and care coordination and system-navigation), it can be tailored to meet both the individual needs and preferences of the older adult and their caregiver, as well as those of the local setting (i.e., the community and the implementing organization).

Participants made the following recommendations to consider when making adaptations to the intervention and outcomes to meet the unique needs of local populations:

- Use data-informed approaches to clearly identify and recruit a priority population that could benefit the most from the intervention.
- Adapt the intervention to local contexts to enhance acceptability of the program (e.g., ethno-cultural communities, those who are socially isolated).
- Use a health equity lens to understand the local population needs and implement resources that respond to those needs (e.g., similar to targeted vaccine uptake strategies to reach high-risk populations for COVID-19).

Domain A3: Strategic/Political Context

Domain A3 asked participants to consider to what extent addressing the problem of diabetes and multimorbidity in community-living older adults is consistent with current policy, strategic directions, or priorities, and if scaling up the ACHRU-CPP would be strategically useful agencies that fund the delivery of the program. This domain received an overall mean score of 2.78 (SD=0.04).

Participants agreed that addressing the problem of diabetes and multimorbidity among older adults is well aligned with current provincial priorities, including the 2022-2023 Ontario Health Business Plan (Ontario Health, 2022c), the 2020-2023 Ontario Chronic Disease Prevention Strategy (Ontario Health, n.d.), and the Ontario Health Teams Integrated Care Pathways (Ministry of Health, 2022). The program is also strongly aligned with the Diabetes 360 Framework (Diabetes Canada, 2018) and the Public Health Agency of Canada (2022) Framework for Diabetes. One participant noted that, “addressing the needs of older persons with diabetes and multiple chronic conditions is central to all population health management priorities in Ontario. The question is how to enable the health system...to engage researchers and research outcomes into transforming health care practice and policy.”

Participants agreed that scaling up the ACHRU-CPP would be strategically useful to agencies that fund the delivery of the program; however, the need to understand the effectiveness of other existing diabetes programs, and whether the scaling of the ACHRU-CPP would require additional funding or the reorganization of current care delivery, were also noted. Clinical outcome data at a provincial level is currently lacking, however “digital, data and analytics” is a key workstream of Ontario Health Teams. It was suggested that data-informed approaches could occur at the local program level and subsequently inform province-wide approaches.

Domain A4: Evidence of Effectiveness

Domain A4 asked participants to consider if the ACHRU-CPP will be effective in addressing the problem in the target population based on the evidence available. This domain received the lowest relative mean score among all 10 of the ISAT domains, 2.25 (SD=0.20).

Participants' scoring mainly reflected the findings from the most current pragmatic RCT, which found no statistically significant differences between the intervention and control groups in any outcomes. These findings were thought to be largely attributable to implementation challenges encountered due to the COVID-19 pandemic. Results from the previous feasibility study in ON and the RCT run in ON and Alberta demonstrated the effectiveness of the ACHRUCPP, which complement the positive findings from the qualitative interviews that accompanied the current RCT. It was suggested that a longer follow-up period may have been required to capture changes that occurred as a result of the intervention, since outcomes were only measured immediately after the 6-month intervention. As well, participants suggested that new outcome measures may need to be selected to detect additional potential impacts.

Participants agreed that equal attention should be given to the trial's qualitative findings (e.g., perceived impacts by participants and interventionists) when considering scalability, to provide insight on the quantitative findings, for example, implementation barriers and enablers associated with the different components of the intervention, (e.g., home visits, group wellness sessions, team-based case conferences).

Domain A5: Intervention Costs and Benefits

Domain A5 asked participants to consider the known costs of delivering the ACHRUCPP and its quantifiable benefits, and to rate whether these benefits could outweigh the costs of implementing the program. This domain received a mean score of 2.27 (SD=0.15).

Both the current and previous RCTs examined the cost and use of health and social services by older adults using a comprehensive and societal perspective. Unlike the previous RCT, which found no significant differences in total health and social services costs between the intervention and control groups, and a median per-person intervention cost of \$1,039.85 for in-person-delivery of the intervention, the current trial yielded significantly higher total health services costs for participants in the intervention group, than those in the control group, and this difference was primarily attributable to the cost of the intervention. The median per-person intervention cost for in-person or virtual delivery of the intervention was \$559.20, which was lower compared to previous trials due to the lower cost of virtual delivery. Participants suggested that a cost-benefit analysis be used instead of a cost analysis in future ACHRUCPP evaluations.

Participants discussed the benefits of the ACHRUCPP considering the mixed quantitative and qualitative results and agreed that the experience gained through the recent trial contributed to changes to current practice. Partners at SHN credited their participation in the trial with initiatives to further integrate community partners and services in diabetes care, and improving the process of value-stream mapping, which strengthens care pathways. Improving understanding of the current patient population and its flow between services has contributed to more efficient, standardized and coordinated diabetes care across all three sites. SHN is planning to expand the scope and scale of the ACHRUCPP within its diabetes program while leveraging its services, community partnerships, and its electronic patient health records (i.e., [EPIC](#)) and primary care e-referral system (i.e., [Ocean](#)).

The qualitative findings offer valuable insight into the needs and barriers faced by older adults with diabetes and multimorbidity from the perspective of program recipients, (i.e., older adults and family/friend caregivers) and providers and highlight some of the advantages and disadvantages of in-person and virtual approaches to providing care. For example, a representative from St. Michael's Hospital Academic Family Health Team, noted that the virtual delivery of the ACHRUCPP provided an opportunity to reach and stay connected with older adults who may not have accessed care in person. Another participant noted that conducting the wellness sessions virtually may have negatively affected the development of interpersonal connections compared to in-person delivery and reduced the impact of peer support. From the clinical partner's perspective, trial participation reinforced the importance of using a variety of approaches to provide care to support equity and access for all.

Both clinical partner sites also noted that home visits conducted during the trial provided practitioners with a better understanding of the older adults' living situations and the barriers they face, such as food insecurity, that impact their ability to manage diabetes and other chronic conditions and affect their overall health. Through their participation in the trial, both clinical partner sites also recognized the value of developing collaborative partnerships, in the community and in the clinical setting, to offer supports in a more efficient and holistic way.

Participants also stressed the importance of sharing the benefits that participating older adults and their family caregivers had with the ACHRUCPP with a variety of stakeholder groups whose work is impacted by the disease (e.g., leaders in the care of chronic kidney disease). A suggestion was made to consider using

psychographics to showcase results (<https://www.cbinsights.com/research/what-is-psychographics/>). Participants felt that further evaluation of the ACHRUCPP is needed to better understand how to tailor the virtual delivery of the program to those who could benefit from this approach. A developmental evaluation approach to continuous quality improvement was suggested as a method to further examine the program's impacts and costs.

Scalability Assessment, Part B: Intervention Implementation Planning

Domain B1: Fidelity and Adaptation

Domain B1 asked participants if there were any changes/adaptations to the core components of the intervention to maximize its scalability. This domain received the highest relative mean score in Part B of the ISAT tool, 2.62 (SD=0.1).

Most suggestions were focused on improving access to the program and maximizing engagement. For example, participants suggested continuing to build on existing relationships with clinical and community partner sites, to identify high risk and vulnerable groups and adapting the program to meet their needs; addressing ethnocultural and language barriers to accessing the program; and considering strategies to encourage more consistent participation by older adults as well as family/friend caregivers. While some participants suggested resuming in-person delivery of the intervention as much as possible, others supported the use of a hybrid model, of both in-person and virtual delivery approaches, depending on the needs of the older adult. Participants suggested that future examination of the uptake of in-person and virtual group wellness sessions could offer additional insight to support engagement by older adults and caregivers at scale-up. Other suggested adaptations included building capacity among provider teams in group facilitation (with programs such as the Stanford Self-Management Training model) to support older adults' and caregivers' engagement and providing opportunities for ongoing feedback on the program from older adult and caregiver participants. Participants felt that suggested adaptations to the program would positively impact health behaviours of older adults with diabetes and multimorbidity, promote social connection, and reduce social isolation.

Domain B2: Reach and Acceptability

Domain B2 asked participants to consider the reach and acceptability of the ACHRUCPP for community-living older adults with diabetes and multimorbidity. This domain received an overall mean score of 2.30 (SD=0.01). Participants offered several recommendations to improve both the reach and acceptability of the program, as summarized below.

- Target more marginalized communities, including those that are more ethnoculturally and linguistically diverse.
- Engage local community leaders, providers and patient partners with strong knowledge and understanding of the local community and the patient population (i.e., language, culture, health behaviours, values, and beliefs) in adapting the program to meet the needs of the specific ethnocultural groups in the language of the target population.
- Engage community ambassadors, grassroots organizations, community groups and faith-based organizations to reach members of the target population and deliver the program in accessible community-based settings.
- Encourage uptake of the program by older adults and their family caregivers by defining, "what's in it for them", fostering hope, and emphasizing the value of their contributions to the community and to other older adults and caregivers who are living with diabetes and multimorbidity or caring for an older adult with diabetes and multimorbidity.
- Facilitate care transitions from receiving formal services through the program to self-managed care upon completion of the 6-month program.

Domain B3: Delivery Setting and Workforce

In Domain B3, participants were asked to consider the setting in which the ACHRUCPP is delivered and the workforce (i.e., the individuals who would be directly involved in implementing the program to the target population at scale). This domain received a mean score of 2.27 (SD=0.03).

Participants indicated that it would be feasible to integrate the ACHRU-CPP into existing diabetes education programs and community support programs. They also noted that the process may be influenced by the development of Ontario Health Teams, as they are in varying stages of maturity across the province and are using a phased approach to introduce integrated clinical pathways for people living with chronic conditions, including diabetes (Ministry of Health, 2022). They suggested that the integration of the program would require buy-in and support from community leaders and partnering organizational champions. To begin scale-up of the program, participants suggested starting with those programs that are most willing to engage. It was also suggested that, to improve access to the program, self-referrals should be considered.

Regarding the delivery workforce, participants suggested that, given the current health human resource shortage in the community, scale-up is more likely if existing diabetes education program resources could be leveraged and reorganized to integrate the program without creating additional burden on providers. They also noted that scale-up is more likely if redundancy and overlap in roles (e.g., between RNs and RDs) is reduced, and the scope of practice of each provider is maximized. Participants suggested that an additional strategy is to integrate other providers or volunteers who could help to support older adults with diabetes and multimorbidity.

Domain B4: Implementation Infrastructure

Domain B4 asked participants to consider the feasibility of acquiring the implementation infrastructure that would be required to scale up the ACHRU-CPP. This includes the organizational and workforce support systems required to implement the program at scale (e.g., training, education, feedback and monitoring systems, accreditation processes, or clinic and community facilities etc.). The mean score for this domain was 2.56 (SD=0.17).

Participants noted that successful integration of the ACHRU-CPP by Ontario Health Teams would provide the necessary infrastructure to support scale-up. They identified the main barrier to scale-up as securing adequate health human resources to deliver the program, given existing shortages.

Participants agreed with the proposed infrastructure requirements identified through the scalability assessment, and thought that they would be feasible to acquire (i.e., standardized training curriculum and ongoing education, local community advisory board to support implementation and adaptation of the program, leadership support and buy-in, clinical/organizational champions, a program coordinator, information technology systems for documentation in health records and ongoing program monitoring). However, sustainable funding for the ACHRU-CPP as part of a range of services provided at diabetes education programs would need to be negotiated.

Domain B5: Sustainability

Domain B5 domain asked participants to consider the potential long-term outcomes of scaling up the ACHRU-CPP and how the program could become sustainable in the medium- and long-term, once it has been scaled-up. This domain received a mean score of 2.46 (SD=0.04).

Participants identified that program sustainability will depend on ongoing support from public funders and agencies, such as the Ontario Ministry of Health and Long-Term Care, Ontario Health, and Ontario Health Teams who could, either individually or in combination, serve as the backbone organization for the intervention. They also suggested that aligning with Ontario Health Teams' priorities related to integrated person-centered care and prevention would facilitate ongoing monitoring and evaluation of the program outcomes.

Participants also noted that sustainability of the program will depend on ongoing collaboration with and capacity building of clinical and community partners, patient and public research partners, and champions to support the program. Investigators also noted that a knowledge translation toolkit (i.e., an ACHRU-CPP implementation guide) has been developed as part of the trial but would need to be tailored to the individual setting and co-created with collaborating clinical and community partners to support scale-up of the program in the setting.

Implications of the Scalability Assessment

Table 1 provides a summary of the most critical factors and next steps to scaling up the program in Ontario, as identified by participants in the scalability assessment process. These factors focus on the issues in the domains that were rated the lowest.

Table 1. Most Critical Factors and Next Steps to Scaling-up the ACHRU-CPP in Ontario

Identify a <i>backbone organization</i> and funding strategies to support scale-up of the program. Connect with policy- and decision-makers at Ontario Health to garner feedback and support for the program.
Develop a <i>phased horizontal approach to implementation and scale-up (i.e., across different sites or groups)</i> .
Integrate changes to <i>improve reach and acceptability</i> of the program: <ul style="list-style-type: none"> • Use data-informed approaches to clearly define and recruit a priority population that could benefit from the intervention (e.g., racialized communities, socially isolated). • Integrate a health equity lens and engage local community leaders, providers, and patient partners to adapt the program to meet the needs of the target population. • Engage providers who have strong knowledge and understanding of the local community and the patient population (i.e., language, culture, values and preferences) to support cultural and linguistic adaptations. • Engage community ambassadors, community groups and faith-based organizations to reach the target population and deliver the program in an accessible community-based setting. <ul style="list-style-type: none"> • Encourage uptake of the program by older adults and their family caregivers by defining, “what’s in it for them”, fostering hope, and emphasizing the value of their contributions to the community and to other older adults and caregivers who are living with diabetes and multimorbidity or caring for an older adult with diabetes and multimorbidity. • Facilitate transitions and offer support upon completion of the 6-month program.
Explore how the ACHRU-CPP can be <i>integrated into workflow</i> of current primary care practice and minimize any additional burden associated with delivery of the program.
Pursue <i>further evaluation funding opportunities</i> recognizing the need for changes to improve reach and accessibility in different populations in Ontario: <ul style="list-style-type: none"> • Adopt a developmental evaluation approach that includes a values-based assessment to expand and adapt the ACHRU-CPP to reach specific groups of older adults. Include cost analysis to inform business case for program integration and expansion. • Implement and evaluate the spread and scale-up of the ACHRU-CPP.
Develop a sustainable and <i>targeted communication plan</i> and involve non-governmental organizations (e.g., Diabetes Canada, Alliance for Healthier Communities). Showcase successes of the ACHRU-CPP and share these stories broadly with diverse audiences, using the voices of patient partners and other program champions.

Summary

This report summarizes the results of an assessment of the scalability and readiness for scale-up of the ACHRU-CPP, a six-month community-based self-management program for older adults with diabetes and multimorbidity and their caregivers, in Ontario. In addition to evidence from the foundational studies on the ACHRU-CPP and the qualitative and quantitative findings from the current hybrid RCT of the program’s implementation and effectiveness, a variety of sources and strategies informed the scalability assessment. These included an environmental scan of relevant provincial documents and resources, key informant interviews with a small purposeful sample of provincial stakeholders, the advice of a provincial working group, and a virtual workshop to review and obtain feedback on the findings from the scalability assessment and discuss next steps.

Overall, the ACHRU-CPP received relatively high scalability ratings from participants. All agreed strongly that diabetes among older adults with multimorbidity is a significant problem in Ontario and warrants the scale up of the ACHRU-CPP. Participants felt that the ACHRU-CPP was well aligned with the strategic direction of the province, especially given the focus on improving care pathways for persons with diabetes, however they acknowledged that designated and ongoing funding for the program may be challenging to acquire with the competing system demands in the pandemic recovery. Participants agreed that the key components of the ACHRU-CPP are reasonable and meet the needs of older adults with diabetes and multimorbidity; however, it was also suggested that the program would need to be tailored to support different ethnic groups. Further research is required to identify a priority population that could benefit the most from the ACHRU-CPP, and thus represent the focus of initial scale-up efforts.

Evidence of effectiveness, Domain A4, scored the relative lowest of all ISAT domains. This is not surprising given that quantitative findings from the current RCT showed no statistically significant differences between intervention and control groups; however, participants appreciated the positive qualitative findings from program participants and the providers who delivered the program. Participants suggested that further consideration should be given to the outcomes used to measure the program's effectiveness. Domain B3, Delivery Setting and Workforce was also rated lower given the significant health human resource challenges in the province.

Strengths and Limitations

The ISAT tool provided a structured approach to the scalability assessment. Rating each domain in real time, followed by reflection and discussion, facilitated information sharing and idea generation. We had a diverse and knowledgeable group of participants, including patient and public research partners.

Participants identified a lack of clarity around some of the readiness assessment questions (e.g., Domains B1 and B4) and required clarification from investigators. This could have contributed to the lower scores of some domains. Given the ongoing risks related to travel and in-person events, the workshop had to be held on-line, rather than in-person as originally planned.

Conclusions

Consensus among the participants in the scalability assessment process was that the ACHRU-CPP should be adapted and implemented with strong community and partner involvement. The Scarborough site already has plans to expand and integrate the ACHRU-CPP into their existing diabetes program. Participants are committed to sustaining the collaborative working relationships developed during the trial and to seeking further funding opportunities to evaluate the new implementation projects locally to support the scale-up of the ACHRU-CPP into routine care of older adults with diabetes and multimorbidity.

Acknowledgements

We wish to thank our clinical and community partners: Scarborough Health Network, Unity Health Toronto – St. Michael's Hospital Academic Family Health Team, Carefirst Seniors and Community Services Association, and the YMCA of Greater Toronto, for their time, commitment, and ongoing collaboration on this research. Special thanks to Diabetes Action Canada for championing this work. We also thank representatives of Ontario Health and Healthcare Excellence Canada for their contributions to the scalability assessment, and all those who served as key informants, working group members and workshop participants. Special thanks also go to the Ontario patient and public research partners for their valued experience and support of this work.

Funding

This study is supported, in part, by funding from the Canadian Institutes of Health Research Strategy for Patient-Oriented Research (SPOR) Primary and Integrated Health Care Innovations Network: Programmatic Grants (Funding Reference Number: KPG-156883) in partnership with: Diabetes Action Canada, a Canadian Institutes for Health Research (CIHR) Strategy for Patient-Oriented Research Network in Chronic Disease (project reference #1.1.1ACHR); McMaster Institute for Research on Aging (Hamilton, ON); McMaster University School of Nursing; Réseau-1 Québec; Fonds de Recherche du Québec (FRQS); Scarborough Health Network Foundation. This research was also undertaken, in part, thanks to the funding from Dr. Markle-Reid's Tier 2 CIHR Canada Research Chair.

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Appendix A. Ontario Summary of Intervention Scalability Assessment:

ACHRU Community Partnership Program for Diabetes Self-Management for Older Adults with Multimorbidity and the Care Partners

Domain	Summary
A. Setting the Scene	
<p>A1. The problem. Consideration of the problem that is being addressed. The questions in this domain seek a description of the problem, who it affects, what it affects and how it is currently being addressed (if at all).</p>	<p><u>Prominent issue with negative consequences.</u> Older adults with diabetes and multiple chronic conditions experience reduced function and quality of life, increased health service use, and high mortality. <u>Highly prevalent problem.</u> Over 40% of people with diabetes have three or more chronic conditions. The prevalence of diabetes in Ontario for people aged 65+ years is 19.2%, with significant sex differences (23% in males; 16% in females). In Scarborough, the prevalence of diabetes for all ages is 7.9%, compared to provincial average of 6.9%. The slightly higher prevalence in Scarborough may in part reflect a higher proportion of certain populations at higher risk of diabetes (e.g., 70% of the Scarborough population are visible minorities and 60% are immigrants). In Toronto, patients served by St. Michael’s Hospital have a higher burden of illness and are more likely to have diabetes and mental health conditions than other University of Toronto-affiliated family practice groups. <u>In the Current Pragmatic RCT,</u> Ontario older adult participants (n=88) were an average of 75 years of age (SD=6.39) and reported an average of 6 chronic conditions (SD=2.33). An equal proportion of participants were male and female (50%), 44.3% were Caucasian, 19.3% were Black and 17.0% were Asian. While all spoke English, 45.5% reported speaking languages other than English. Over one-third (36.4%) of older adults reported living alone. Almost half (47.2%) reported an annual household income of \$20,000-\$49,000, and almost one-quarter (23.6%) reported an annual household income of <\$20,000. <u>How the problem is currently being managed in ON.</u> Diabetes Education Programs (DEP) and Diabetes Education Centres (DEC) offer education, self-management support, and counselling to adults aged 18+ years. Care in DEPs/DECs is provided by teams of Registered Dietitians (RD), Diabetes Nurse Educators, and/or social workers and chiropractors responsible for facilitating individual or group sessions. Fifty-six (56) DEPs and DEC exist in Scarborough and Toronto. YMCAs provide programming for health and fitness in older adults (e.g., Bright Spot virtual program) with some locations providing fitness programs for chronic condition management broadly and specifically for diabetes but not in Toronto/Scarborough. Qualitative evidence from the recent randomized controlled trial (RCT) of the ACHRU-CPP suggests that older adults face barriers to using existing community resources, such as transportation and exercise groups not being tailored to older adults. Older adults require diabetes education and support with health literacy that also considers their other chronic conditions, including mental health concerns.</p>
<p>A2. The intervention. Description of the proposed service to address the problem.</p>	<p>The <u>ACHRU-CPP</u> was developed based on best practice guidelines, published research, and qualitative research with providers, older adults with diabetes and MCC, and their caregivers. The theory underpinning the intervention is Bandura’s Social Cognitive Theory. The ACHRU-CPP is a 6-month program provided in addition to usual care (e.g., services offered by primary care or DECs/DEPs) and delivered by an interprofessional team including Registered Nurses (RNs), RDs/Nutritionists, and a Program Coordinator (e.g., kinesiologist, exercise specialist) from a</p>

Appendix A. Ontario Summary of Intervention Scalability Assessment

Domain	Summary
	<p>community partner organization. The intended program outcomes include reduction in nutritional risk and improvements to physical and mental health functioning, diabetes self-management, and physical activity levels. Core <u>program components</u> include: (a) up to three <u>home visits</u> by the RN and/or RD/Nutritionist; (b) up to six <u>monthly group wellness sessions</u> that include health education, physical activity, and peer support; (c) tailored nurse-led <u>care coordination</u> and system navigation to link clients to other health and community services, as needed; (d) ongoing <u>caregiver engagement</u> and support during the visits and group wellness sessions; (e) <u>monthly intervention team case conferences</u> to discuss and evaluate clients’ care plans; and (f) <u>collaboration with primary care</u> and specialists, as needed. A <u>care plan</u> is developed with the client at the beginning of the program to meet their individual needs and preferences. Progress towards achieving care plan goals is discussed at each visit and modified, as needed.</p>
<p>A3. Strategic / political context. Consideration of the current strategic/political/ environmental contextual factors that are potentially important influences on the service to be scaled up.</p>	<p><u>The ACHRU-CPP is strongly aligned with provincial and national priorities.</u> Addressing the problem of diabetes in older adults is consistent with priorities outlined in the 2022 Public Health Agency of Canada (PHAC) framework for diabetes, the 2018 National Diabetes 360 framework, the 2022-23 Ontario Health Business Plan, and the 2020-2023 Ontario Chronic Disease Prevention strategy. Opportunities identified in the PHAC framework are directly aligned with the ACHRU-CPP, including building capacity for diabetes care in different community contexts, including rural communities, increasing collaboration between interdisciplinary teams of professionals and services, providing person-centred diabetes care, targeting intervention research that addresses the social determinants of health, and health equity. Recommendations in the Diabetes 360 framework are directly aligned with the ACHRU-CPP, including making lifestyle coaching programs available, ensuring each patient is fully supported in managing their diabetes, and improving the overall well-being of people living with diabetes. A key priority of Ontario Health, as outlined in their 2022-23 Business plan, is to establish a strategy to advance care for those living with diabetes, in collaboration with stakeholders and local communities. The ACHRU-CPP directly aligns with OH priorities, including advancing clinical integration and chronic disease care, support people in the community (integrate home care to points of care), transforming person-centred care, and reducing health inequities (focusing on the full continuum, including OH and the health system’s role in contributing to upstream social determinants of health and preventative care). The ACHRU-CPP also aligns with the goals, strategic objectives, and actions of the 2020-23 Ontario Chronic Disease Prevention strategy, including working in partnership with government to champion chronic disease prevention in Ontario, providing evidence-based strategies for preventing chronic disease, focus on primary, secondary and tertiary prevention to reduce the onset or worsening of chronic conditions (including diabetes), and improving the evidence base and understanding of chronic disease prevention.</p>
<p>A4. Evidence of effectiveness. Consideration of the level of evidence available to support the scale-up of the</p>	<p><u>Feasibility study.</u> The feasibility and acceptability of the ACHRU-CPP were established in a study conducted with a primary care-based DEP and a community seniors’ centre in Ontario (ON). <u>Pragmatic RCT (ON and Alberta [AB]).</u> The ACHRU-CPP was adapted based on patient and provider feedback from the feasibility study and tested in an RCT in four sites in ON and three in AB. ON participants receiving the ACHRU-CPP had significantly greater improvements in self-management and mental functioning, and a greater reduction in depressive symptoms, compared to those receiving usual care alone. AB intervention group participants showed greater improvements in mental</p>

Appendix A. Ontario Summary of Intervention Scalability Assessment

Domain	Summary
<p>proposed service, such as scientific literature and/or other known evaluations of the intervention.</p>	<p>functioning for participants with low baseline mental functioning. These improvements were achieved at no additional cost, from a societal perspective. <u>Current Pragmatic RCT (ON, Quebec [QB], PEI)</u>. The ACHRUCPP was further adapted and tested in a pragmatic, multi-site RCT in two ON sites, two PEI sites, and two QB sites. The primary outcome was mental functioning. Secondary outcomes were physical functioning, depressive symptoms, diabetes self-management, anxiety, physical activity, nutrition risk, social support, and activities of daily living and instrumental activities of daily living. No significant group differences were seen in the primary or secondary outcomes. No group differences were also seen in a range of sensitivity analyses, which included multiple imputation, delivery format (virtual vs. in-person), sites with strong fidelity (which included the two in-person ON sites), sex-disaggregation, and different levels of baseline self-management. The COVID-19 pandemic impacted implementation across all sites, such as a low uptake of (or reduced access to) healthcare services of all kinds and the potential dilution of effectiveness with the shift to virtual delivery. The lower use of healthcare services seen during the pandemic that was cited in a recent CIHI report would have also impacted the trial. The risk of hospitalizations and emergency department (ED) visits during the intervention period did not differ between the groups (relative risk [RR] of hospitalization and ED visits in the intervention compared to the control group = 1.14 [0.51, 2.58] and 1.14 [0.65, 2.02] respectively). <u>Qualitative Evidence (Perceived effects)</u>. Providers', managers', and older adult participants' experiences with the ACHRUCPP were positive. Intervention group participants credited the intervention plus usual care with several benefits (e.g., increased ability to self-manage diabetes, opportunities for socialization and shared experiences at group sessions, gained new knowledge about their diabetes, and community resources). Participants felt heard, understood and respected, and appreciated person-centred care received from the providers and that providers were responsive by addressing questions/concerns. Caregiver participants' experiences were also positive. Caregivers noted that they gained new knowledge about diet, exercise, and available services for caregiver support and mental health. They also indicated that they felt heard and understood and received consistent messaging from providers. Intervention providers indicated that they gained new knowledge related to community services, use of clinical assessment tools, home visiting, and mental health. Providers also credited the intervention with improving interprofessional teamwork and enhancing their understanding of other providers' roles. One study site indicated that implementation of the ACHRUCPP resulted in enhancing their knowledge of and relationships with community-based organizations. They also indicated that they have applied key learnings to other initiatives/programs within their organization.</p>
<p>A5. Intervention costs and benefits. Consideration of the known costs of the service delivery as well as any quantifiable benefits.</p>	<p><u>Pragmatic RCT (ON and AB)</u>. No difference in total health and social service costs were seen between intervention and control groups. <u>Current Pragmatic RCT (ON, QB, PEI)</u>. Participants receiving the ACHRUCPP had significantly higher total health service use costs at 6-months compared to usual care; these increased costs are entirely attributable to the cost of delivering the intervention (i.e., interventionist training, delivering in-person or virtual visits, monthly team case conferences, group wellness sessions, provision of a tablet and internet access for selected participants). There were no significant differences between the groups in the cost of use of any other services.</p>

Appendix A. Ontario Summary of Intervention Scalability Assessment

Domain	Summary
B. Intervention Implementation Planning (scale up)	Considers both CURRENT SITUATION (existing trial) and SCALE-UP (what might change from current situation if the intervention is to be scaled up)
B1. Fidelity and adaptation. Consideration of whether there are any proposed changes to the service required for scale-up.	<p><u>Adaptations:</u> At the <u>Toronto</u> site: joint home visits were done by RN and RD due to safety concerns. Two community program coordinators (PCs), rather than one, delivered the exercise component at monthly group wellness sessions. The PCs demonstrated how to adapt the exercises from a sitting or a standing position. Participants at the Toronto site received exercise (resistance) bands to use during the exercise component of the virtual group wellness sessions.</p> <p><u>Imposed changes due to COVID-19 pandemic.</u> On March 16, 2020, with the start of the COVID-19 pandemic, all in-person activity was put on hold. At the <u>Scarborough site</u>, phone visits were done by the RN/RD to finish the intervention for those who were further along in the intervention; group wellness sessions were stopped; monthly team case conferences were held by phone; certain assessments could not be completed virtually (e.g., home environment, mobility, Clinical Frailty scale, or mental status (confusion, cognition)). The intervention restarted in August 2020, using virtual approaches (phone or videoconference). Participants who had limited opportunity to receive the intervention before the pandemic were offered virtual home visits by the RN and RD, and group wellness sessions by the RN, RD and PCs. At the <u>Toronto site</u>, all study activity (recruitment, data collection and delivery of the intervention) was put on hold temporarily on March 16, 2020, and was restarted in November 2020, with the virtual intervention. In addition to virtual home visits by the RN and RD, and group wellness sessions by the RN, RD and PCs, participants who did not wish to join the group wellness sessions could request a brief 1:1 virtual consultation with the PC.</p> <p><u>Proposed changes to the CPP for scale up.</u> Reduced number of standardized assessments (e.g., cognition, mood); home visit preferable to phone visit; more training related to system navigation, community resources, mental health support; access to patient/medical information for all team members; address barriers to accessing the program, such as language, and ethnocultural values and beliefs related to diet, lifestyle, norms and stigma; sustain the program's benefits by identifying the next local program and/or resource.</p>

Appendix A. Ontario Summary of Intervention Scalability Assessment

Domain	Summary
<p>B2. Reach and acceptability. Consideration of the reach and acceptability of the intervention for the target population.</p>	<p><u>Target population:</u> older adults aged 65+ with type 1 or 2 diabetes and at least one other chronic condition. <u>How recruited:</u> From health records at the DEP, telephone eligibility screening. Intent to recruit old adults who were considered high emergency and hospital system users, but this did not materialize because few exist thus a more direct approach is needed to identify them. <u>Reach:</u> 88 older adults were enrolled in ON (44 in Scarborough and 44 in Toronto), and 43 were randomized to receive the CPP (22 in Scarborough and 21 in Toronto). Reasons for exclusion at eligibility screening included: experiencing a language barrier but no interpreter (n=77). <u>Engagement rate and dose:</u> 37 (86%) received at least one home visit (19 in Scarborough and 18 in Toronto) and 6/43 (14%) did not receive the intervention (3 in Scarborough and 3 in Toronto). The mean number of home visits was 2.21 (2.05 in Scarborough and 2.38 in Toronto). The mean number of group wellness sessions attended was 2.53 (2.18 in Scarborough and 2.90 in Toronto). <u>Acceptability.</u> Older adults expressed overall satisfaction with the care received through the ACHRU-CPP and would recommend the program. However, barriers to accessing the program, such as language and ethnocultural values and beliefs related to diet, lifestyle, norms and stigma need to be addressed. Caregivers were not engaged as expected, only 14 participated. Home visits: older adults enjoyed the home visits noting that they were more relaxed and flexible than clinic visits. Older adults also found it easier to share more sensitive information during a visit compared to a group setting. Group wellness sessions: older adults, caregivers, and providers noted the sessions supported socialization and a sense of belonging. Participants found the educational content helpful, appreciated the light lunches, but the physical activity did not meet all participants’ needs (i.e., pain). Virtual sessions were less acceptable for some older adults related to technology challenges, but others appreciated the virtual option (e.g., in bad weather). <u>Potential target populations for scale-up:</u> populations who experience barriers such as low income, social isolation; new immigrants, racialized communities, and Indigenous older adults, who have higher prevalence of diabetes; living with frailty, e.g., persons with amputations; living with mental health conditions; no access to a primary care provider. <u>Potential recruitment strategies for scale-up:</u> establish clear eligibility criteria (e.g., hospitalization in last 6 months, taking more than 10 medications, high emergency department use), identification of priority population through OHT Data Dashboards, use of algorithms in primary care practices, self-referral.</p>
<p>B3. Delivery setting and workforce. Consideration of the setting within which the intervention is delivered as well as the delivery workforce.</p>	<p><u>Delivery setting.</u> The intervention was delivered by two separate teams of providers. <u>In Scarborough,</u> the intervention was delivered by certified diabetes educators, RN and RD from the DEP at Scarborough Health Network, in collaboration with a community program coordinator (a registered kinesiologist from Carefirst Seniors and Community Services Association). Prior to the pandemic, monthly group wellness sessions were held at Carefirst. <u>In Toronto,</u> the intervention was delivered by certified diabetes educators, RN and RD from the DEP at Unity Health Toronto – St. Michael’s Hospital, in collaboration with a program manager from the Greater Toronto Area YMCA (GTA YMCA) who served as community program coordinator. A second program manager from the GTA YMCA, who was experienced in delivering exercise programs to older adults, also joined the group wellness sessions to demonstrate modified low impact exercises. Prior to the pandemic, monthly group wellness sessions were held at the YMCA. Key informants suggested that Family Health Teams, Nurse Practitioner Led Clinics, Indigenous Primary</p>

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Domain	Summary
	<p>Health Care Organizations, Community Health Centres and DECs could support the ACHRU-CPP. Cross-sectoral partnerships that include community service organizations were noted to be important to implement the program. <u>Acceptability</u>. Providers and managers noted that the ACHRU-CPP has the potential to help address older adults’ health and social needs. The <u>holistic approach</u> to the program, and its focus on self-management, health promotion and education were noted as advantages. <u>Home visits</u> promoted older adults’ one-to-one access to health care professionals and supported tailored health education and disease management; reduced the need for travel to the clinic; more convenient for older adults. Scheduling home visits was challenging with hard-to-reach participants. Providers noted that <u>group wellness sessions</u> provided the benefit of physical activity which is not typically provided in usual care; appreciated the facilities available to support group wellness sessions (e.g., clean environment, equipment, and the transportation provided when needed). However, coordinating the monthly sessions (e.g., scheduling the sessions to accommodate older adults’ needs, securing adequate space, and coordinating transportation) was a challenge. <u>Workforce</u>. Existing primary care infrastructure and human resource capacity were identified as facilitators of the program’s implementation by key informants.</p>
<p>B4. Implementation Infrastructure. Consideration of the potential implementation infrastructure required for scale-up.</p>	<p><u>Train the trainer approach and a standardized online training curriculum</u>. The training for the program must include program objectives, underlying principles and assumptions, roles, intervention components, patient-centred care and multimorbidity, clinical assessment, self-management, medication review, mental health, physical activity, healthy eating, cultural safety, caregiver support, team-based care, care coordination and system navigation. Identified a need for on-going education as providers did not tend to return to online training site after orientation. <u>Local community advisory board</u> (i.e., community-based health and social services representatives and patient partners) and <u>monthly outreach meetings with the research team</u> were regarded as helpful structures to facilitate implementation. Organizational leaders from the clinical and community partner sites (e.g., Toronto: Jacqueline Chen, St. Michael’s Hospital; Samantha Casmeay, GTA YMCA; Scarborough: Ethel Macatangay, Scarborough Health Network and Helen Leung, Carefirst) also provided important support to providers. Cross-sectoral partnerships (shared resources) and clinical <u>leadership support and buy-in</u> were identified as necessary infrastructure to support the delivery of the program at scale. According to key informants, <u>other required infrastructure</u> includes: human resource capacity; consistent funding within primary care services; development of population health data packages; documentation and IT systems; and quality metrics, including patient-reported experience measures (PREMS) and patient-reported outcomes measures (PROMS) to monitor the ACHRU-CPP effectiveness and efficiency over time.</p>
<p>B5. Sustainability. Consideration of the potential longer-term outcomes of the scale-up and how, once scaled up, the intervention could</p>	<p>While the COVID-19 pandemic impacted the recent trial, previous evidence supports its effectiveness. Sustainability considerations identified by key informants include: alignment of the program with policy directions and initiatives (e.g., goal of mature OHTs to ensure Ontarians receive whole-person care that is proactively managed by a primary care team), having clinical champions support their peers across the province in integrating the CPP into usual care, implementing different models of physician remuneration to support value-based care, developing a system to evaluate new programs’ effectiveness without adding administrative burden,</p>

Appendix A. Ontario Summary of Intervention Scalability Assessment

Domain	Summary
become sustainable over the medium to longer term.	formally assessing readiness to spread new programs to new areas based on evidence-informed criteria, which requires support in organization's base budgets, using local level health data to identify high needs communities to target those patients. Opportunity to plan for scale-up and enhance scalability is workshop in early 2023 in collaboration with Scarborough Health Network, Abbott, and Alpha Labs focused on Integrated Care for Older Adults with Diabetes and Complex Chronic Conditions.

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Appendix B. Ontario Scalability Assessment Mean Scores by ISAT domain

ISAT DOMAIN Readiness Assessment Question(s)	n	Mean	SD
DOMAIN A1: THE PROBLEM	10	2.80	0.13
Q1. In your opinion, is diabetes among community-living older adults with multimorbidity of sufficient priority to warrant scale up of the ACHRUCPP to address this problem?	10	2.80	0.13
DOMAIN A2: THE INTERVENTION	11	2.64	0.16
Q2. Do you think the outcomes intended by the ACHRUCPP address the needs of the target group (and/or) problem (diabetes and multimorbidity)?	11	2.64	0.16
DOMAIN A3: STRATEGIC AND POLITICAL CONTEXT	11	2.78	0.04
Q3. To what extent is addressing the problem of diabetes and multimorbidity in community-living older adults consistent with policy/strategic directions or priorities?	11	2.91	0.10
Q4. Do you think scaling up the ACHRUCPP would be strategically useful to funders/funding agency?	11	2.64	0.16
DOMAIN A4: EVIDENCE OF EFFECTIVENESS	12	2.25	0.20
Q5. Based on the evidence available, do you think the ACHRUCPP will be effective in addressing the problem in the target population?	12	2.25	0.20
DOMAIN A5: INTERVENTION COSTS AND BENEFITS	11	2.27	0.15
Q6. Based on the evidence available, do you think that the benefits of the ACHRUCPP could outweigh the costs?	11	2.27	0.15
DOMAIN B1: FIDELITY AND ADAPTATION	12	2.62	0.01
Q7. What changes/adaptations to the core components, if any, are recommended to maximize the scalability of the ACHRUCPP? ^a	n/a	n/a	n/a
Q8. If the core components of the ACHRUCPP are changed/adapted as recommended, are the impact(s) likely to be favourable?	12	2.50	0.17
Q9. To what extent can the changed/adapted ACHRUCPP be monitored and/or maintained if it is implemented at scale?	11	2.73	0.15
DOMAIN B2: REACH AND ACCEPTABILITY	12	2.30	0.01
Q10. Do you think the ACHRUCPP in its current form has the potential to reach the intended target population at scale?	12	2.17	0.18
Q11. Do you think the ACHRUCPP will likely be acceptable to the target population at scale-up?	12	2.42	0.16
DOMAIN B3: DELIVERY SETTING AND WORKFORCE	12	2.27	0.03
Q12. Is the delivery setting(s) selected to deliver the ACHRUCPP at scale consistent with that used in previous studies?	12	2.08	0.21
Q13. Is the workforce intended to deliver the program at scale consistent with that used in previous studies?	12	2.33	0.16
Q14. Is the ACHRUCPP likely to be acceptable to the delivery workforce involved in its delivery at scale?	12	2.25	0.14
Q15. As the ACHRUCPP requires integration into existing organizational or community structures, do you think this is likely to be feasible?	12	2.42	0.16
DOMAIN B4: IMPLEMENTATION INFRASTRUCTURE	9	2.56	0.17
Q16. Do you think the implementation infrastructure requirements for scale-up will be feasible to acquire?	9	2.56	0.17
DOMAIN B5: SUSTAINABILITY	8	2.46	0.04
Q17. In your opinion, is the level of integration of the ACHRUCPP into delivery settings required for implementation at scale sustainable?	8	2.75	0.14
Q18. In your opinion, is the level of resourcing required to implement the ACHRUCPP at scale sustainable?	8	2.38	0.16
Q19. In your opinion, is the delivery workforce required for implementation at scale sustainable?	8	2.25	0.22

- a. Investigators modified readiness assessment question #7 for clarity. Participants abstained from scoring this question and provided open-ended feedback only.