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**CONFERENCE ABSTRACT****The EMBOLDEN study: Using intervention co-design to enhance physical and community mobility in older adults**

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***Introduction***

Physical mobility and social participation are key to maintaining independence and quality of life as one ages. Barriers to mobility and engagement lead to social isolation, and poor physical and mental health, which are precursors to frailty. To date, most mobility-enhancing interventions in older persons have been designed by researchers without older adults' input and delivered in controlled settings; translation to real-world contexts is often impractical and rarely occurs. A model to improve mobility in a manner that aligns with older adults' needs/preferences, addresses health inequities, and builds on existing community health and social services, is necessary for real-world impact.

***Aims Objectives Theory or Methods***

The EMBOLDEN study aims to enhance physical and community mobility of community-dwelling older adults through a novel co-designed intervention. Foundational projects included an environmental scan of local assets/gaps (including COVID-19 impacts) and three systematic reviews for interventions involving: i) group-based physical activity; ii) group-based healthy eating; and iii) system navigation. Utilizing experience-based co-design methodology we explored the experiences of older adults and service providers engaging with community-based health promotion programming. Findings informed priority intervention features and design specifications. A Strategic Guiding Council (SGC) comprised of diverse local health/social service providers and older adults partnered with researchers to co-design the intervention.

***Highlights or Results or Key Findings***

The environmental scan examined community features to explore neighbourhood-level inequities, identify priority neighbourhoods based on key features, and explore assets and gaps in available health and social programs for older adults. Evidence reviews identified a wide range of group-based physical activity, nutrition, and system navigation interventions to promote mobility in older adults. The intervention co-design process integrated this evidence together with lived experiences to identify strategies to address unmet needs and barriers faced by older adults in neighbourhoods

with health inequities and to design the pragmatic trial to test the intervention. For example, the co-design process illustrated recruitment strategies, operational logistics, intervention delivery strategies, and outcomes important to older adults. SGC members were engaged monthly to provide valuable input into study decision-making and understanding of the shifting local context due to COVID-19. SGC engagement is essential for ongoing collaboration, real-world implementation success, and enhanced health and mobility of older adults.

### ***Conclusions***

Partnering with diverse stakeholders including older adults and using multiple sources of evidence is critical to identifying optimal design features of a community-based intervention to promote mobility. Ultimately, we aim to implement and evaluate a feasible, acceptable intervention to address health inequities and effectively improve the lives of older adults.

### ***Implications for applicability/transferability sustainability and limitations***

Central to EMBOLDEN is the collaborative approach to co-designing a program to promote mobility that leverages existing assets, addresses gaps, and can be adapted and implemented in other urban settings. Collaborative program development builds on best practices and existing community assets to support real-world potential for impact, sustainability, and scalability.