International Journal of Integrated Care

Hawkins S et al, 2026, Measuring the Value of Integrated Geriatric Emergency Care: A Return on Investment Evaluation of Ontario's Central East GEM Program. International Journal of Integrated Care 26(S2):480 DOI: doi.org/10.5334/ijic.ICIC26480

POSTER ABSTRACT

Measuring the Value of Integrated Geriatric Emergency Care: A Return on Investment Evaluation of Ontario's Central East GEM Program

International Conference on Integrated Care (ICIC26), Birmingham, 13-15 April 2026

Stacey A. Hawkins[1,2], Terry Li[1,3]

1: Seniors Care Network, Canada
2: Ontario Tech University, Canada
3: University of Toronto, Canada

Background: Older adults represent nearly 1/3 of emergency department (ED) users and experience the highest rates of hospital admission, length of stay, and functional decline. The Central East Geriatric Emergency Management (GEM) Program was developed to provide specialized geriatric assessment and care within EDs across nine hospitals in Ontario, Canada. Led by nursing specialists, GEM aims to improve patient outcomes, enhance system integration with community and specialized geriatric services, and strengthen the capacity of ED teams to deliver senior-friendly care. This evaluation examined both the clinical and economic outcomes.

Approach: Using a ROI methodology, this mixed-methods evaluation included assessment of program elements across six data levels (inputs, reaction, confidence, application, impact, ROI), whilst linking program inputs to tangible and intangible program outcomes. Data were collected from: GEM clinicians (n=9; interviews and self-report surveys); ED staff at three hospital sites (n=29; survey responses); regional GEM metrics and financial data (administrative reports); Hospital decision-support data (retrospective), and prospective data collection.

Comparative analyses between GEM patients and a non-GEM case control group were undertaken to isolate program effects on admissions, length of stay (LOS), alternative-level-of-care (ALC) rates, and revisits. Financial proxies were applied using standard hospital costing data to estimate the ROI. Stakeholder engagement—including GEM clinicians, ED staff, and regional program leads—guided indicator selection, interpretation, and validation of findings.

Results: Across sites, GEM services primarily operate weekdays (8-hour shifts) with most sites staffed by a single GEM clinician (advanced practice nurse and/or nurse practitioner) working as part of an interprofessional team. GEM nurses were highly qualified: all held national gerontology certification, and 2/3 possessed or were pursuing graduate degrees.

Both GEM and ED staff expressed strong program buy-in: over 90% agreed GEM improves patient care, supports safe discharge, and reduces unnecessary hospital stays. GEM clinicians reported

high confidence in targeted geriatric assessment, care planning, and community referral skills, and routinely applied these competencies to divert avoidable admissions and facilitate appropriate transitions.

Intangible impacts included increased gerontological knowledge among ED teams (capacity building), improved patient and caregiver satisfaction, and stronger linkages with Specialized Geriatric Services and community partners.
Tangible outcomes demonstrated measurable system benefits: per site, GEM was associated with 161 fewer inpatient admissions and 99 fewer ALC admissions annually, translating to estimated savings of $1.56 million CAD. While GEM was associated with increased average ED length of stay and revisit rates, overall net ROI remained positive at +354%, confirming that program benefits significantly exceeded costs (outcomes and operations).

Implications: This evaluation provides one of the first quantifiable ROI evaluations of a regional geriatric emergency management model in Canada. Findings affirm that embedding specialized geriatric expertise within EDs yields both clinical and economic benefits, and strengthens integration between acute and community sectors. Beyond monetary return, GEM contributes to safer, person-centred transitions, and builds system capacity for senior-friendly, dementia-sensitive care.

Future work will expand services across sites, and explore digital tools to enhance access and follow-up. The ROI framework offers a replicable approach for jurisdictions seeking to demonstrate the value of integrated geriatric care models.