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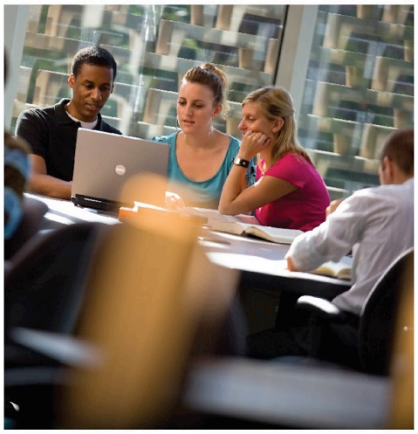
McMaster HEALTH FORUM

USING NON-MEDICAL HOME SERVICES TO SUPPORT OLDER ADULTS

RAPID SYNTHESIS (30-DAY RESPONSE)

24 NOVEMBER 2016



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Rapid Synthesis:
Using Non-Medical Home Services to Support Older Adults

24 November 2016

McMaster Health Forum

For concerned citizens and influential thinkers and doers, the McMaster Health Forum strives to be a leading hub for improving health outcomes through collective problem solving. Operating at regional/provincial levels and at national levels, the Forum harnesses information, convenes stakeholders, and prepares action-oriented leaders to meet pressing health issues creatively. The Forum acts as an agent of change by empowering stakeholders to set agendas, take well-considered actions, and communicate the rationale for actions effectively.

Authors

Kerry Waddell, M.Sc., Co-lead Evidence Synthesis, McMaster Health Forum

Michael G. Wilson, PhD, Assistant Director, McMaster Health Forum, and Assistant Professor, McMaster University

Timeline

Rapid syntheses can be requested in a three-, 10-or 30-business day timeframe. This synthesis was prepared over a 30-business day timeframe. An overview of what can be provided and what cannot be provided in each of the different timelines is provided on the McMaster Health Forum's Rapid Response program webpage (http://www.mcmasterhealthforum.org/policymakers/rapid-response-program).

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Conflict of interest

The authors declare that they have no professional or commercial interests relevant to the rapid synthesis. The funder played no role in the identification, selection, assessment, synthesis or presentation of the research evidence profiled in the rapid synthesis.

Merit review

The rapid synthesis was reviewed by a small number of policymakers, stakeholders and researchers in order to ensure its scientific rigour and system relevance.

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KEY MESSAGES

Questions

- What are the effects of providing a 'basket' of non-medical home-care services (i.e., those additional instrumental activities of daily living that home care does not presently do) for older adults and frail older adults on their quality of life, ability to remain at home longer, reducing or delaying the use of acute services and long-term residential care, and on health system costs?
- What are the effects of specific non-medical home-care services (housekeeping, meal preparation or delivery, transportation and home visiting) for older adults and frail older adults on their quality of life, ability to remain at home longer, reducing or delaying the use of acute services and long-term residential care, and on health system costs?

Why the issue is important

- The number of Canadians aged 65 or older is expected to double in two decades, and the proportion of those over the age of 80 is expected to grow from 27.5% in 2012 to 32% in 2036.
- To contend with these demographic changes, helping older adults age well in their own homes has been a recent focus in health and social policies across Canada.
- Supports that provide help with instrumental activities of daily living that home care does not typically provide can be an important part of home-based care that enable older adults to age well in their homes, and identifying the best available research evidence about such non-medical home services can contribute to identifying and prioritizing those to provide for older adults in efforts to prevent or defer disease and disability.

What we found

- We identified a total of 25 systematic reviews and six primary studies addressing some aspects of the questions posed for this rapid synthesis.
- From these reviews, none directly addressed the first question, but 16 systematic reviews and two primary studies provided indirect evidence (with some focusing on clinical approaches that may also be important for providing non-medical supports), which indicated that:
    - decision-support tools and case-mix systems can be used to determine who can most benefit from different services to avoid admittance to long-term care facilities and hospitalizations;
    - interventions and programs that were successful in improving a range of outcomes for older adults included engaging in goal setting at the beginning of home-care episodes, using multifaceted interventions, providing after-hours support, encouraging physical activity, providing coordination or case management and using interprofessional care teams; and
    - discharge planning and support services have successfully reduced post-discharge complications, and when coupled with education may improve patients' emotional status and adherence to medications.
- Twelve systematic reviews and four primary studies related to the second question found that:
    - home visits including both medical and non-medical interventions were found to possibly reduce admission to long-term care homes, have mixed effects on reducing premature mortality, and have no effect on hospitalization, health outcomes or activities of daily living;
    - there is mixed evidence on the impact of co-creating art between socially isolated older adults and volunteers in older adults' homes;
    - multi-component falls-prevention interventions can be effective at reducing the number of people who fall, and the use of anti-slip devices can reduce the rate of falling in icy conditions;
    - assistive technologies can support the independence of older adults, and environmental-control systems or smart-home technology can increase independence and quality of life; and
    - shopping assistance can help older adults to overcome barriers to grocery shopping such as mobility limitations and transportation issues.

QUESTIONS

- What are the effects of providing a 'basket' of non-medical home-care services for older adults and frail older adults on their quality of life, ability to remain at home longer, reducing or delaying the use of acute services (e.g., use of emergency departments and hospitalization) and long-term residential care, and on health system costs?
- What are the effects of specific services (housekeeping, meal preparation or delivery, transportation and home visiting to prevent social isolation) that are often included in the 'basket' of non-medical home-care services for older adults and frail older adults on their quality of life, ability to remain at home longer, reducing or delaying the use of acute services (e.g., use of emergency departments and hospitalization) and long-term residential care, and on health system costs?

Box 1: Background to the rapid synthesis

This rapid synthesis mobilizes both global and local research evidence about a question submitted to the McMaster Health Forum's Rapid Response program. Whenever possible, the rapid synthesis summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The rapid synthesis does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

Rapid syntheses can be requested in a three-, 10-or 30-business-day timeframe. An overview of what can be provided and what cannot be provided in each of these timelines is provided on the McMaster Health Forum's Rapid Response program webpage (http://www.mcmasterhealthforum.org/policymakers/rapid-response-program).

This rapid synthesis was prepared over a 30-business day timeframe and involved four steps:

1) submission of a question from a health system policymaker or stakeholder (in this case, the British Columbia Ministry of Health);
2) identifying, selecting, appraising and synthesizing relevant research evidence about the question;
3) drafting the rapid synthesis in such a way as to present concisely and in accessible language the research evidence; and
4) finalizing the rapid synthesis based on the input of at least two merit reviewers.

WHY THE ISSUE IS IMPORTANT

The number of Canadians aged 65 or older is expected to double within the next two decades, and the proportion of those over the age of 80 is expected to grow from 27.5% in 2012 to 32% in 2036.(1; 2) This trend holds true in British Columbia (which is where the request came from for this synthesis) where in 2016, 18% of the population was comprised of older adults (65+), and this is expected to rise to 24% by 2030.(3) To contend with this demographic change and in anticipation of the increased demand for health-related services, provinces and territories across Canada have been focused on developing programs and services to support older adults to age at home. Supports that provide help with instrumental activities of daily living that home care does not typically provide can be an important part of home-based care that enable older adults to age well in their homes. For example, the role and impact of personal-care services (grooming, bathing, toileting and dressing) and some community-support services (e.g., housework, meal preparation, shopping, transportation and home visiting to prevent social isolation) as part of home care are not well understood, but some evidence has shown them to increase quality of life for older adults and to optimize the use of available resources.(4) In addition to these benefits, such supports (which we call non-medical home care in this synthesis) have been found to prevent or defer the need for care among older and frail older adults.(4)

Current eligibility for non-medical home services in British Columbia is dependent on the presence or risk of a chronic, health-related issue, and access is prioritized for those individuals with the highest needs.(4) A 2006 report form the Premier's Council on Aging and Senior's Issues entitled *Aging Well in British Columbia,* envisioned a health and social system in which non-medical support services could be provided to those with lower care needs as part of efforts to enhance the

independence of older adults, and to prevent disease and disability. The report identifies the need to explore whether a 'basket of services' approach is appropriate for the delivery of non-medical home-care services for older adults. To do so, we pose the first question given that many home-care services are often provided as a 'basket' and the impact of a specific type of support is difficult or impossible to determine. The second question was posed in order to identify any systematic reviews or Canadian studies that examine four types of non-medical home-care services (housework, meal preparation or delivery, shopping, transportation and home visiting to prevent social isolation) prioritized by the requestor of this synthesis (British Columbia Ministry of Health).

Box 2: Identification, selection and synthesis of research evidence

We identified research evidence for this synthesis by searching for systematic reviews of effects and systematic reviews addressing other types of questions in Health Systems Evidence (www.healthsystemsevidence.org). Using the search filter for reviews relevant to home care, we used the following combination of search terms to identify relevant reviews: "assisted living" OR "activities of daily living" OR "ADL" OR "social support" OR "housekeeping" OR "meal" OR "transportation" OR "home visit". We also requested our merit reviewers to identify any relevant literature that our searches may have missed. We also conducted a search in PubMed to identify relevant primary studies conducted in Canada using the following combination of terms: (transportation OR home visit* OR housekeep* OR meal preparation OR cooking) AND (home care OR homecare) AND (senior OR "older adult" OR elderly) AND Canada

The results from the searches were assessed by one reviewer for inclusion. A document was included if it fit within the scope of the questions posed for the rapid synthesis.

For each review we included in the synthesis, we documented the focus of the review, key findings, last year the literature was searched (as an indicator of how recently it was conducted), methodological quality using

WHAT WE FOUND

We identified a limited number of systematic reviews focused on non-medical home-care services, and the paucity in research may be attributable to inconsistent and context-specific definitions across the home-care literature. However, as detailed below, for the first question we included reviews and select primary studies that are not focused on non-medical home-care services, but provided some relevant insights. For the second question, we found evidence related to home visits that included the provision of medical, non-medical and a mix of medical and non-medical services. We also included systematic reviews that evaluated falls-prevention interventions and the implementation of assistive technology that could provide practical supports in the home.

Within this scope, we identified a total of 25 relevant systematic reviews and six primary studies addressing (at least in part) the questions above. We provide more details about each of the systematic reviews in Appendix 1 and primary studies in Appendix 2.

Question 1 – What are the effects of providing a 'basket' of non-medical home services for older adults and frail older adults on their quality of life, ability to remain at home longer, reducing or delaying the use of acute services (e.g., use of the emergency department and hospitalization) and long-term residential care, and on health system costs?

No systematic reviews were identified that assessed the effects of providing a 'basket' of non-medical home services. However, we found 13 reviews and two primary studies with some relevance to this question, which provide information about:

- factors associated with designing effective multi-component interventions and services for older adults;
- the effectiveness and efficiency of multi-component home-based health-promotion services;

- the use of discharge planning, supports for transitions in care, and follow-up services and supports; and
- decision-support systems for allocating home-care resources to target older adults for home care.

Eight systematic reviews identified success factors for multi-component interventions and services for older adults, including combinations of medical and non-medical services such as case management, patient education on nutrition and stress management, one-on-one social-support visits, home visits to assess activities of daily living (ADLs), medication review, provision of equipment to remain at home, geriatric assessments, and individual counselling. Six of the reviews focused on assessing interventions to achieve specific outcomes (preventing 30-day hospital admission, reducing unplanned hospital admissions, improving physical function, reducing dependency, and reducing social isolation).(5-10) The reviews found that interventions and programs that were successful in improving outcomes for older adults included:

- engaging in goal setting at the beginning of home-care episodes;(10; 11)
- using multifaceted interventions;(11; 12)
- supporting physical activity;(6; 9) and
- providing coordination or case management.(6; 10)

One recent high-quality and one older medium-quality systematic review assessed home-based health promotion for older adults, including health education, nutrition, exercise and emotional and social support, showed significantly lower mortality rates.(7; 13) The reviews further found mixed evidence about the ability of such interventions to reduce the number of falls, retain functional status and improve caregivers' levels of satisfaction.(7; 13)

Lastly, three systematic reviews, two older medium quality and one recent high quality, assessed discharge planning and follow-up care when transitioning from general hospital care back to the home, while one additional recent medium-quality review looked to the factors that supported successful transitions in care. One systematic review found that combining discharge planning with discharge support successfully reduced post-discharge complications, and when coupled with education had a small effect on improving emotional status and adherence to medications.(14) Another review found early-supported discharge resulted in a reduced length-of-hospital stay of approximately seven days.(15) Transitions in care were found to be most successful when they included multimodal and multidisciplinary care throughout the pre-transition, transition and post-transition periods.(16) Finally, in discharging patients from hospital to the community, geriatric evaluation and management schemes were effective in reducing services post discharge.(17) While studies included in the review found mixed evidence on costs, the majority of studies found that the mean cost of treating patients was lower in the geriatric evaluation and management group than in the control group.(17)

The two primary studies included in this synthesis were identified as relevant to this question during the merit-review process for this synthesis. The studies examine the use of decision-support systems and case-mix systems for allocating home-care services across the population.(18; 19) Individuals are vastly different in their ability to benefit from interventions, and therefore determining who should be eligible for what services is as important as considering what services to provide. The two studies assessed the effectiveness of the Method for Assigning Priority Levels (MAPLe) and Resource Utilization Groups version III for Home Care (RUG-III/HC) respectively.(18; 19) The MAPLe system was found to help target the allocation of home-care resources and prioritization of clients, and uses the Resident Assessment Instrument – Home Care (RAI-HC) which is currently used in a number of jurisdictions across Canada. Specifically, it was found to better predict the stratification of patient needs ranging from low to very high for each of rates of admission to long-term care homes within 90 days, caregiver distress, and the perception of being 'better off elsewhere' (i.e., personally felt or were rated by their family or clinicians as being better off living in an environment other than

the current setting in the community).(18) The second primary study included in the review evaluating the case-mix system of the RUG-III/HC which was found to be as effective as RAI-HC in predicting use of resources as measured by formal and informal costs.(19)

Question 2 – What are the effects of specific services (housekeeping, meal preparation/ delivery, transportation and home visiting) that are often included in the 'basket' of non-medical home services for older adults and frail older adults on their quality of life, ability to remain at home longer, reducing or delaying the use of acute services (e.g., use of emergency departments and hospitalization) and long-term residential care, and on health system costs?

Thirteen systematic reviews and four primary studies were identified that addressed this question, with five of the reviews pertaining specifically to home visits. The other eight systematic reviews and four primary studies addressed interventions not identified in the question above, which include co-creating expressive art, falls-prevention interventions, the implementation of assistive technology and an analysis of a grocery shopping assistance program. In addition to the summary below, Table 1 summarizes the findings from the 12 systematic reviews according to the five indicators of interest: 1) quality of life; 2) ability to remain at home; 3) reducing or delaying the use of acute services; 4) use of long-term residential care; and 5) health system costs.

The five reviews that focused on home visits included three older high-quality reviews, one recent high-quality review and one older medium-quality review. The reviews differed in the interventions delivered during home visits with some providing medical, non-medical and a mix of medical and non-medical services. One review in particular noted that one of its limitations was the lack of description of the content of many interventions included. This review, however, suggested that routine social visits to elderly women living alone were met with largely positive responses, but in some cases patients exhibited guilt believing that there was somebody worse off who required this care.(20) Other reviews examined the effects of home visits that provided:

- geriatric assessments and follow-up care;(21; 22)
- multi-component preventive home visits including primary prevention (e.g., provision of health information, risk reduction and safety promotion), secondary prevention (e.g., detection of untreated or inadequately treated problems) or tertiary compliance (e.g., medication compliance);(23); and
- home visits that included health education, supportive physical and psycho-social care, functional assessment and integrated and interdisciplinary case management.(7)

Overall, the five reviews found:

- mixed evidence on the effect of home visits in reducing mortality, with three reviews finding significant reductions in mortality while one found no evidence of a clinically significant difference;(20-23)
- no effect on hospital admissions, health outcomes or activities of daily living;(20; 21; 23)
- mixed evidence on the ability of home visits to reduce admissions to long-term care and their impact on the number of older adults who fell during the intervention period;(22; 23)
- key elements that make home visits effective include multidimensional geriatric assessments, and having a nurse play a central role in developing a care plan for the patient.(7; 21; 22)

One older single study found mixed evidence on the impact of co-creating art between socially isolated older adults and volunteers in older adults' homes.(24) The study found the effect of this intervention was largely based on the strength of the relationship forged between the older adults and volunteers.(24)

Six reviews - three recent high quality, two older medium quality and one recent medium quality - as well as two single studies assessed the impact of falls-prevention interventions.(25-32) The single study found that factors such as unsteady gait, climbing stairs alone, vision problems, poor self-reported health, constipation and fatigue were all associated with risk of falling.(31) The study found that assistance with activities such as housework, shopping, climbing stairs and dressing, as well as engaging in physical activity and cognitively-stimulating activities such as completing crossword puzzles and computer use, significantly reduced rates of falls.(31) Similarly, four of the systematic reviews found multi-component interventions (including the combination of fluid and nutritional supplements, environmental and assistive technologies, education and information, providing a falls assessment to the individual's general practitioner, and vision improvement supports) to be effective at reducing the number of people who fell and the rate of falling.(27; 29) One of the reviews found that when combined with education, assessment and environment modifications, positive results were seen for the rate of falling among older adults with cognitive impairments, while an additional review confirmed that home and group exercise and home-safety interventions reduced the rate and risk of falling, and a review of home-safety interventions found that anti-slip devices reduce the rate of falls in icy conditions.(27; 30) Mixed evidence was found about the ability of falls-prevention interventions to reduce fall-related injuries.(25-29) One single study found additional safety improvements to include using a cane, buying a good pair of shoes, crossing the street with cross-walks, and going out accompanied.(32) The study found that health education through role-playing successfully increased older adults' adoption of safety changes.(32) Finally, one review found that training health professionals and peer-training programs in falls-prevention awareness demonstrated some improvements in rates of falls, but had mixed results in their ability to change clinical practice.(27)

Two systematic reviews, one older medium quality and one recent medium quality, assessed the use of assistive technologies in supporting the independence of older adults, and found that environmental control systems and smart-home technology increased independence, instrumental activities of daily living and quality of life.(33) The reviews further suggest that the implementation of assistive technology, including telesurveillance, could lower the total mean cost of care and average healthcare expenditure for older adults, though it should be noted that studies in the review reported increases in clinical visits following the implementation of assistive technology, but reductions in hospital and nursing-home stays.(34)

Finally, one single study examined the effects of a shopping assistance program for lower-income older adults.(35) Older adults reported that being picked up and taken grocery shopping helped them to overcome barriers to grocery shopping such as mobility limitations and transportation issues.(35) Other adults reported the use of this service as a social outing and an opportunity to reduce social isolation.(35) Despite the positive feedback, some concerns were expressed over the positioning of pick-up and drop-off locations as well as the waiting period between shuttle buses to the grocery store.(35)

Table 1. Summary of findings from systematic reviews and primary studies addressing question two

Indicators	Evidence
Quality of life	• One older medium-quality review found that environmental-control systems and smart-home technology interventions for people with impairments increased their quality of life.(33)
Ability to remain at home longer	• Two older higher-quality reviews found that home-visit programs had no effects on activities of daily living or functional status.(20; 21) However, one of the reviews found beneficial effects from home-visit programs when multidimensional geriatric assessment and follow-up were included.(21) • One recent high-quality review found that multiple-component interventions had a beneficial effect on the number of falls and fall rate among older people in a care home setting.(29) • Another recent high-quality review found that multifactorial interventions that include education, assessment and environment modifications, reduced the rate and risk of falls.(27) • The same review found that home-safety interventions and pacemakers were effective at reducing the risk of falls and severe visual impairment and carotid sinus hypersensitivity and cataract surgery, respectively.(27) • One older medium-quality review found that environmental-control systems and smart-home technology interventions for persons with impairments increased their independence and ability to complete instrumental activities of daily living.(33) • One recent single study found movement-related physical factors such as unsteady gait, climbing stairs and doing housework were significantly related to risk of falling, however, engaging in physical activity and cognitive stimulation activities were seen as being protective factors against falls.(31) • One older single study found that supporting seniors with transportation through shopping assistance programs was found to enhance participants' independence and helped to overcome barriers to grocery shopping.(32)
Reducing or delaying the use of acute services	• Two older and one recent high-quality reviews found that home-visit programs had no effects on admissions to hospitals, however, the effectiveness was found to improve when a multidimensional geriatric assessment was included.(20; 22; 23) • One recent medium-quality review found limited evidence of the effectiveness of translating falls-prevention knowledge to community-dwelling older adults on reducing hospitalization rates.(25) • One recent medium-quality review found the implementation of assistive technologies in the homes of older adults resulted in fewer hospitalizations, but an increase in clinical visits.(34) • One recent study found that the Method for Assigning Priority Levels algorithm is a valid predictor of nursing-home placements.(18)
Long-term residential care	• Two older high-quality reviews found mixed evidence as to whether home-visit programs are associated with reductions in admissions to long-term care.(20; 21) • One recent medium-quality review found limited evidence of the effectiveness of translating falls-prevention knowledge to community-dwelling older adults on reducing their admission to nursing homes.(25)
Health system costs	• One recent medium-quality review suggested that the implementation of assistive technology could reduce the total mean cost of care among older adults, but suggested that further reviews of the evidence are required.(34)

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APPENDICES

The following tables provide detailed information about the systematic reviews in the rapid synthesis. From each included systematic review, we extracted the focus of the review, key findings, last year the literature was searched and the proportion of studies conducted in Canada.

For the appendix table providing details about the systematic reviews, the fourth column presents a rating of the overall quality of each review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial or governance arrangements within health systems. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered "high scores." A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8).

All of the information provided in the appendix tables was taken into account by the authors in describing the findings in the rapid synthesis.

Appendix 1: Summary of findings from systematic reviews about using non-medical home services to support older adults

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
What are the effects of providing a 'basket' of non-medical home services for older adults and frail older adults on their quality of life, ability to remain at home longer, reducing or delaying the use of acute services (e.g., use of the emergency departments and hospitalization) and long-term residential care, and on health system costs?	Preventing 30-day hospital readmissions: A systematic review and meta-analysis of randomized trials (5)	The review pooled the results from 42 randomized controlled trials to identify the impact of interventions used to reduce early hospital readmissions. Across all trials, test interventions (case management, patient education and home visits) prevented early readmission. Interventions that involved more professionals in the care delivery and in supporting the patient's capacity for self-care were more effective than other interventions. The authors noted that many of the studies in the review were conducted in single, academic centres, which raises questions regarding applicability. There was also evidence of publication bias, however the overall effect of this on the review is not known.	2013	11/11 (AMSTAR rating from McMaster Health Forum)	2/45
	Evaluate the effectiveness and cost-effectiveness of interventions to reduce unplanned hospital admissions (6)	The review found evidence that education/exercise/rehabilitation and telemedicine in selected patient populations, and specialist heart-failure interventions can help reduce unplanned admissions. However, the remaining interventions included in these reviews (i.e., case management, community interventions, medication review, vaccine programs, and hospitals at home) do not appear to help reduce unplanned admissions in a wide range of patients. There was also insufficient evidence to determine whether home visits, pay-for-performance schemes, accident and emergency services and continuity of care reduce unplanned admissions.	2010	7/11 (AMSTAR rating from McMaster Health Forum)	5/107
	Assessing the effectiveness and efficiency of home-based nursing health promotion for older people (7)	The review considered the results from 12 randomized controlled trials on preventive home-visiting programs for older people. Study interventions between trials were similar and included: health education on nutrition, exercise, stress management, substance abuse, emotional and social functions, instrumental activities of daily living, and accessing healthcare. Interventions in which the nurse assumed a more central role in identifying problems and with the care plan seemed to be more effective. Of the studies included that assessed effectiveness, four studies showed a significantly lower mortality rate, four studies found retained functional gains, and one study found that caregivers reported significantly higher levels of satisfaction. There was a lack of consensus between studies on the effectiveness of in-home preventive programs for older persons at high risk versus those at low risk for functional decline. Of the studies that assessed efficiency, five studies found significantly lower numbers of admissions to hospital, or fewer days spent in hospital, five studies found significantly lower use of nursing homes, and six studies found higher use of other health and social services.	2003	7/10 (AMSTAR rating from McMaster Health Forum)	3/12

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	Evidence of what works to support and sustain care at home for people with dementia: A literature review with a systematic approach (8)	The review found that after diagnosis of dementia, locally-based, multi-component interventions including education, cognitive stimulation, cognitive training and cognitive rehabilitation may be useful to support family carers to support people with dementia to live at home. The evidence on community-based services is limited and the authors express caution towards its recommendations. This is also true for hospital-related areas of interest, such as what is most beneficial in preventing and/or delaying onset of dementia, developing tools to measure subjective quality of life, and developing more effective approaches to end-of-life care.	2012	6/9 (AMSTAR rating from Program in Policy Decision-making)	
	Effectiveness of health-promotion interventions to prevent social isolation and loneliness among older people (9)	The review included 30 quantitative outcome evaluation studies which examined the effects of a variety of interventions in alleviating and preventing social isolation and loneliness. Out of the 10 effective interventions identified in this review, five were group interventions with a focus on education, and four were group interventions that provided targeted support activities. Two studies demonstrated that a structured approach to physical activity can be effective in reducing loneliness, although this effect was reversed after 12 months in one study. Of the studies found to be ineffective, six of the eight interventions provided one-on-one social support, advice and information, or health-needs assessment. There were many inconclusive studies, which could be partially attributed to their weak methodological quality, that investigated the effectiveness of peer social-support in the home, focus-group discussions on the telephone, the provision of a hearing aid, and the provision and use of the internet to alleviate loneliness.	2002	5/10 (AMSTAR rating from McMaster Health Forum)	3/30
	Assessing interventions that reduce dependency in personal activities of daily living in community dwelling adults who use home-care services (10)	The review included 13 studies to identify interventions that reduce dependency in activities of daily living (ADL) in home-care service users, and to determine the effectiveness of improving the ability to perform ADL. Key components across the studies included: goal-setting at the beginning of the home-care episode; repetitive practice and/or grading of activities; coordination or case management of the home-care episode by an individual or team; provision of equipment; and re-organization of services to maximize efficiency based on approach, tasks, time or specialist knowledge. Of the 13 included studies, 10 were judged to have risk of bias. Overall there was limited evidence that interventions targeted at personal ADL can reduce home-care service users' dependency on activities.	2014	8/10 (AMSTAR rating from McMaster Health Forum)	3/13

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	Examining outcomes from home-based primary-care programs for homebound older adults (36)	The purpose of the review was to describe the effect of home-based primary care for homebound older adults on individual, caregiver and system outcomes. The review included the results from nine studies: one randomized controlled trial, four observational studies and four program descriptions Out of the nine interventions, eight showed positive effects on at least one inclusion outcome, with seven affecting two outcomes. Six of the interventions shared the following characteristics: interprofessional care teams, regular interprofessional care meetings, and after-hours support. The authors noted the low study quality and age heterogeneity as limitations to this review. However, they concluded that home-based primary care could effectively support homebound older adults, while reducing emergency department visits, hospitalizations and long-term care admissions.	2014	8/11 (AMSTAR rating from McMaster Health Forum)	1/9
	Assessing community-based interventions to improve physical function and maintain independent living in elderly people (12)	The review pooled the results of 89 randomized controlled trials, including 97,984 individuals. Community-based multifactorial interventions in elderly people were assessed to determine the effect on living at home, death, nursing home and hospital admissions, falls, and physical function. Funnel plot data gave no indication of selection bias within the included studies. The community-based interventions reduced the risk of not living at home, nursing-home admissions, hospital admissions and falls. However, risk of premature mortality was not reduced. In both comparison groups, the intervention group also had better physical function.	2005	8/11 (AMSTAR rating from McMaster Health Forum)	Not available
	Examine the effectiveness of home-based, nurse-led health promotion interventions for older people in the U.K. with long-term medical or social needs (13)	The review found that home-based, nurse-led health promotion could offer clinical benefits for important dimensions of health. However, the authors were unable to determine which components of these interventions contributed to these benefits, and there is potential bias that suggests the conclusions may not be reliable. More specifically, these interventions reduced the risk of death from falls but had no changes in the number of falls, and had mixed results for improvements in independence amongst older people. The evidence base for cost consists of one non-randomized cost minimization analysis and two economic evaluations undertaken alongside RCTs. Each of the studies indicated some likelihood that there may be cost savings to the NHS and associated sectors such as social services. However, there are limited high-quality economic studies to confirm this and so the positive results should be interpreted with caution.	2011	9/10 (AMSTAR rating from McMaster Health Forum)	0/11

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	Examining interventions for adult patients discharged from hospital to home (14)	The review included results from 15 high-quality systematic reviews in order to summarize the literature on the effectiveness of interventions aimed at reducing post-discharge problems in adults discharged home from an acute general care hospital. Though results with statistical significance were occasionally found, most review authors did not reach the conclusion that the discharge intervention they studied was effective. Three reviews found that discharge planning and discharge support should be combined to be effective. Two reviews found that educational interventions might have an effect on emotional status after discharge, and on knowledge and medication adherence. The included reviews had considerable heterogeneity in interventions, populations and outcomes, making synthesizing and pooling difficult for the authors. The authors suggest that discharge intervention may have an effect, but this is not measureable at the time of outcome assessment.	2004	7/10 (AMSTAR rating from McMaster Health Forum)	7/21
	Services for reducing the duration of hospital care for acute stroke patients (15)	The review pooled the results from 14 randomized controlled trials to establish the effects and costs of early supported discharge (ESD) compared to conventional services that substantially involve in-hospital rehabilitation. The primary resource outcome was the length of index hospital stay, whereas the primary patient outcome was the composite end-point of death or long-term dependence recorded at the end of scheduled follow-up. The scope of multidisciplinary ESD teams varied between the 14 included trials. In nine articles, the ESD team coordinated discharge from hospital and delivered patient care at home. In three trials, the ESD team planned and supervised post-discharge care delivered by community-based agencies. In the remaining two trials, no ESD planned or provided post-discharge services. Estimated costs ranged from 23% less to 15% greater for the ESD group compared to conventional care groups. The economic analyses suggested that the opportunity savings from hospital bed days released tended to be greater than, or similar to, the cost of the ESD service. The ESD group reduced the length of hospital stay by approximately seven days compared to the conventional group. Sub-group analyses by stroke severity revealed that the reduction in length of hospital stay was greater in the severe stroke group. Authors note missing and imputed data, limited included studies, and broad inclusion criteria as potential causes of bias, but report that the quality of included evidence was generally good.	2012	10/11 (AMSTAR rating from McMaster Health Forum)	1/12

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	The current landscape of transitions of care practice models: A scoping review (16)	The scoping review includes 188 articles to examine the breadth of literature on transition of care (TOC) services, summarize and disseminate research findings, and identify research gaps. TOC services are meant to ensure patient coordination and continuity of care as patients transfer between different levels or locations. Results indicated that best model TOC services should be multimodal and multidisciplinary throughout the TOC continuum. Successful TOC services cater to pre-transition, transition, and post-transition stages at home and in outpatient healthcare settings.	2015	4/10 (AMSTAR rating from McMaster Health Forum)	Not reported
	Interventions to improve access to health and social care after discharge from hospital: A systematic review (17)	The review included 23 papers reporting on 15 randomized controlled trials. There was considerable heterogeneity in the interventions provided and patient groups targeted. Four trials evaluated inpatient geriatric evaluation and management schemes. Two of these studies showed differences in mortality favouring the intervention group, three showed some impact on use of services post-discharge, and two showed some positive impact on functional ability. Two of the studies also conducted cost analyses. One of these two studies found no difference in direct healthcare costs per capita between intervention and control patients. The other study found that the mean direct costs per patient at one year were higher for intervention patients than control patients. Three trials evaluated outpatient geriatric evaluation and management schemes None of the three studies found an impact on mortality. However, one of the studies found that outpatients had significantly shorter lengths of stay than either controls or patients receiving more limited services from the geriatric consultation team. Two of the studies conducted associated cost analyses. One of these studies found the mean cost of treating patients in the intervention group to be lower compared to control group patients. Furthermore, another study found that the total direct costs for managing 100 patients per year were lower for patients who had received a geriatric evaluation than patients receiving usual care. Additionally, there was some evidence that services combining needs assessment and discharge planning, as well as a method for facilitating the implementation of these plans, were more effective than services that do not include all these components.			
What are the effects of specific services (housekeeping, meal preparation/delivery, transportation and home visiting) that are often included in the 'basket' of non-medical home services for older adults and frail older adults on	Evaluate effectiveness of home-visiting programs that offer health promotion and preventive care to older people (20)	The review pooled the results of 15 moderate-quality studies to determine that multifacted home-visit programs were associated with reductions in mortality, admissions to long-term care, and had no effects on admissions to hospitals, health outcomes, and activities of daily living.	1997	8/10 (AMSTAR rating from McMaster Health Forum)	1/15
	Examining the effectiveness of home visits to prevent nursing-home	The review pooled the results of 18 randomized controlled trials to determine the effect of preventive home visits on functional status, nursing-home admission, and mortality. The trial included a total of 13,477 individuals aged 65 years and older.	2003	8/11 (AMSTAR rating from McMaster	1/18

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
their quality of life, ability to remain at home longer, reducing or delaying the use of acute services (e.g., use of emergency departments and hospitalization) and long-term residential care, and on health system costs?	admission and function decline in elderly people (21)	The reduction in the risk of admission was modest and non-significant. Preventive home visits had little effect on functional status, however, in meta-regression analysis, beneficial effects were associated with multidimensional geriatric assessment follow-up. Preventive home visits may reduce mortality, but the results were heterogeneous. Overall, preventive home visits were found to be effective only if interventions are based on multidimensional geriatric assessment, include multiple follow-up home visits, and target persons at lower risk for death and those who are relatively young. After meta-regression analyses, there was little evidence that any aspect of methodological quality influenced results in the trials. Furthermore, there was little evidence of funnel plot asymmetry and the results did not differ significantly according to geographical region or group of investigators.		Health Forum)	
	Assess the effectiveness of home visits for prevention of impairment and death in older adults (23)	The review pooled the results from 64 randomized controlled trials to assess the effectiveness of preventive home visits for community-dwelling older adults without dementia, and investigate factors that may moderate effects. Of the 64 studies, 55 reported on mortality and there was high-quality evidence of no clinically significant difference at the longest follow-up point. Fifteen studies reported the number of hospital admissions, and there was moderate-quality evidence of no clinically or statistically significant difference at the longest follow-up point. Twenty-threestudies reported the number of people who fell, and there was moderate-quality evidence of a small clinically significant effect at the longest follow-up point. Based on sub-group analysis the authors were not able to distinguish any subset of interventions that reliably produced positive outcomes. However, the authors note that they cannot conclude that all of the programs are ineffective. As it was impossible to blind participants to the treatment conditions, all studies were judged to be at high risk for provider and participant bias.	2012	11/11 (AMSTAR rating from McMaster Health Forum)	11/63
	Examine the effectiveness of multidimensional preventive home-visit programs for community-dwelling older adults (22)	The review pooled the results from 21 randomized controlled trials to examine the effect of preventive home visits on mortality, nursing-home admissions, and functional status decline. Results of mortality, nursing-home admissions, and functional status decline were heterogeneous and non-significant. Lack of uniform terminology and blinding in included studies may have increased risk of bias in results.	2007	10/11 (AMSTAR rating from McMaster Health Forum)	1/21
	Assessing the effectiveness of translating falls prevention knowledge to community-dwelling older PLWD (25)	The review considered the results from six quantitative and five qualitative studies. Four of the 11 studies were randomized controlled trials. Overall, the study aimed to evaluate and integrate knowledge-translation strategies for fall prevention for older people living with dementia (PLWD) with their views and experiences. The quantitative studies found limited evidence of the effectiveness on reduction in fall risk,	2012	7/10 (AMSTAR rating from McMaster Health Forum)	0/11

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
		falls and hospitalization rates, nursing-home admission, decline in activities of daily living, and adherence to strategies. Themes from the qualitative studies surrounded the inclusion of caregivers and health professionals for program success. The author noted that the findings might be somewhat unreliable as the included study quality was mixed.			
	Implementing the evidence for preventing falls among community-dwelling older people (26)	The review summarized the results from 15 articles evaluating the effectiveness of falls-prevention strategies. Non-randomized controlled trials, cross-sectional studies, cohort studies, surveys, process evaluations, and case series designs were included. Of the 15 included studies, six trained healthcare professionals, three made changes to primary care/general practice management, three involved peer or lay volunteer-delivered programs, and three involved community-awareness programs. Some aspect of training healthcare professionals, and using peer or lay programs, demonstrated some improvement, but evidence on changing clinical practice or using community-awareness programs was mixed. All included studies were found to have a high risk of bias.	2010	7/10 (AMSTAR rating from Program in Policy Decision-making)	1/15
	Intervention for preventing falls in older people living in the community (27)	The review considered 111 randomized controlled trials to assess the effects of interventions to reduce the incidence of falls in older people living in the community. It was found that assessment and multifactorial interventions reduced the rate of falls, but not the risk of falling. Home safety interventions did reduce falls and were effective in people with severe visual impairment as well as others with a high fall risk. Wearing an anti-slip shoe device reduced the rate of falls in icy conditions. Furthermore, pacemakers in people with carotid sinus hypersensitivity and cataract surgery reduced falls.	2012	11/11 (AMSTAR rating from McMaster Health Forum)	Not available
	Assessing interventions for preventing falls and fall-related injuries among older people (29)	The review pooled the results from 18 studies, including 5,034 participants, to determine the effect of multiple-component interventions on fall rates, number of fallers and fall-related injuries among older people. Trial designs of these studies included parallel group, cluster and factorial design randomized controlled trials. There was a lack of data relating to risk of bias making it difficult to make a clear assessment about the potential risk. There was a beneficial effect of multiple-component interventions for the number of people that fall and the fall rate. It was unclear whether multiple-component interventions prevented fall-related injuries. Two of the studies took place in a care home setting, which may have represented a different population than those that took place in a community or clinic setting. Though, after performing sensitivity analysis, there was little difference in results.	2013	8/11 (AMSTAR rating from McMaster Health Forum)	0/17
	Assessing activity and participation, quality of life and user satisfaction	The review included five effect studies, two of which had a controlled design, and six descriptive studies to examine activity and participation, quality of life, and user satisfaction outcomes of environmental control systems (ECSs) and smart-home technology (SHT)	2009	6/9 (AMSTAR rating from	5/12

Question	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
	outcomes of environmental control systems and smart home technology (33)	interventions for persons with impairments. ECS/SHT interventions increased the participants' independence, instrumental activities of daily living, socializing, and quality of life. The authors noted that the quality of the included studies was low, which was due to low sample size, lack of confounder control and a majority of descriptive studies.		McMaster Health Forum)	
	Review cost, cost-minimization and cost-effectiveness studies for assisted living technologies that enable older individuals to 'age in place' and highlight what further research is required to inform decisions regarding aging in place (34)	Of the eight studies included in the review, five were randomized controlled trials, two were conducted as a part of quasi-experimental studies, and one was a retrospective match comparative study. Five studies reported that the intervention had lower short-term costs than the comparator group. One study, which measured costs before and after the introduction of telesurveillance, found that the intervention lowered healthcare expenditure in the intervention group. However, there was no control group in this study for ethical reasons. Another study reported a lower total mean cost of care in the intervention group once the costs of home-healthcare were excluded. One study found that there was no difference in costs between the intervention group and comparator. After the intervention, however, there were increases in clinical visits but decreases in hospital and nursing home stays for the intervention group. Although a majority of the studies reported the assisted living technology intervention group as having lower costs than the control group, the author noted that the heterogeneity of the individual costs and outcomes, and the low methodological quality of all studies, must be considered.	2012	5/9 (AMSTAR rating from McMaster Health Forum)	1/8
	Explore and compare effective interventions to prevent falls among institutionalized or non-institutionalized older adults with and without cognitive impairment (30)	This review included 111 studies examining fall-prevention interventions among older adults with and without cognitive impairment. It was found that programs involving a single exercise intervention can reduce the risk of falls among older adults with and without cognitive impairment, regardless of setting. Home visits by professionals and modification of environmental hazards were found to only reduce the risk of falls among adults without cognitive impairment in non-institutional settings. Exercise in combination with other interventions, including education, assessment, and environment modification, was associated with positive effects in institutionalized older adults with cognitive impairment. The author noted that only 12 of the 111 studies involved cognitively impaired older adults. Thus, the findings in this review concerning healthy older adults with normal cognitive ability should be considered more definitive than those for older adults with cognitive impairment.	2012	4/11 (AMSTAR rating from McMaster Health Forum)	Not reported in detail

Appendix 2: Summary of findings from primary studies about non-medical home services to support older adults

Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Assessing a methodology for prioritizing access to community and facility-based services for home care clients (18)	*Publication date:* 2008 *Jurisdiction studied:* Ontario, Canada *Methods used:* Canadian and international data based on the Resident Assessment Instrument – Home Care (RAI-HC) were analyzed to identify predictors for nursing-home placement, caregiver distress and for being rated as requiring alternative placement to improve outlook.	The data was based on Ontario Community Care Access Centres (CCACs) that implemented the RAI-HC.	The Method for Assigning Priority Levels (MAPLe) was created to assist case managers in determining the relative priority that should be attached to a client regardless of whether he or she needs community or institutional services. The data for the derivation of the MAPLe system were based on elements in the RAI-HC assessment. The RAI-HC comprises an assessment form with approximately 300 clinical elements covering medical, functional, psychological, social, and environmental strengths, preferences and needs of home-care clients, a variety of embedded scales that can be used for outcome measurement, and 30 care-planning protocols identifying areas of current or imminent need.	The study found that the MAPLe algorithm provides an empirically based decision-support tool that may be used to inform choices related to the allocation of home-care resources and prioritization of clients needing community or facility-based services. It is also a valid predictor of nursing-home placements, caregiver distress and ratings indicating whether a client would be better off elsewhere. It is also shown to perform well in a variety of international jurisdictions.
Examine the performance of the Resource Utilization Groups version III for Home Care (RUG-III/HC) classification (19)	*Publication date:* 2008 *Jurisdiction studied:* Ontario, Canada *Methods used:* The cost data was aggregated over a 13-week period from individual level client billing records and matched to assessment information collected using the Resident Assessment Instrument for Home Care (RAI-HC). The service cost was constructed using formal services plus informal care valued at approximately one-half that of a replacement worker.	The age of the individuals in the sample ranged from 18 to over 85 years, with about two-thirds over the age of 75. Approximately 40% of the individuals lived alone and over 55% resided with their primary informal caregiver.	The RUG-III/HC is a case-mix system. Its criteria include: special rehabilitation, extensive services, special care, clinically complex, impaired cognition, behaviour problems and reduced physical functions. RUG-III/HC collapses several groups from the RUG-III and uses instrumental activities of daily living (IADL) and activities of daily living (ADL) measures to form 23 groups. In the RUG-III/HC, informal care time is assigned a cost (approximately half that of a replacement worker) and included in the dependent variable operationalizing resource cost. Two sets of case-mix indices, one for formal case alone and a second for the total of formal and informal case, were produced from the RUG-III/HC derivation.	An analysis of the data set found that just over 50% of cases fell into the lowest hierarchical level of reduced physical functions which was found to be consistent with the previous Michigan derivation and other methods of stratifying the population. The RUG-III/HC case-mix system was found to be most closely aligned with resource use for personal support services and informal care.
Identify known mutable fall risk factors and investigate whether resolution of such problems correlates with changes in fall rates, as well as explore everyday lifestyle choices and investigate whether such choices lessen	*Publication date:* 2016 *Jurisdiction studied:* United States *Methods used:* A cohort study analysis, where older adults were assessed at baseline and a subset was assessed again one year later	Data was drawn from 13,623 community-residing elders in independent housing sites in 24 U.S. states.	The single study examines various physical and clinical factors that may be related to falls and whether resolution of these risk factors results in lower rates of falls. Furthermore, the study examines the changes in fall rates following the introduction of various protective lifestyle choices including physical exercise and cognitive-stimulating activities.	Most participants were functionally and cognitively independent at the time of the baseline assessment. It was found that all movement-related physical factors (i.e., unsteady gait, walks with help, climb stairs with help, requires help in doing housework, requires help in cooking, and requires help in shopping) were significantly related to falls at both assessment periods With problem resolution, all these factors

Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
the older adult's risk of falling (31)	using the interRAI Community Health Assessment and interRAI Wellness Assessment tools.			except "walks with help" resulted in a sharp drop in fall rates by time 2. Similarly, all four weakness/debility physical risk measures (i.e., dressing lower body with help, transfers with help, bathes with help, experienced worsening ADL in 90 days) were significantly related to falls at times 1 and 2 and demonstrated a sharp drop in fall rates with problem resolution by time 2. In cognitive/mental clinical complexity measures (i.e., cognitive decline in past 90 days, memory problem, anxiety diagnosis, depression diagnosis), all four measures were significantly related to falls, and "depression" and "memory problem" met the criterion of a sharp drop in fall rates by time 2. In regards to physical and more general measures of clinical complexity (i.e., vision problem, dizziness, poor self-reported health, not continent, acute health flare-up, constipation, difficulty sleeping, fatigue, pain intensity, breakthrough pain), all but "difficulty sleeping" and "constipation" were significantly related to falls at times 1 and 2. Only four measures (vision, dizziness, poor self-reported health, and fatigue) demonstrated a sharp drop in fall rates with problem resolution by time 2. In terms of protective lifestyle domains, all physical exercise activities (i.e., three or more hours exercise a day, bikes, hikes/walks, swims, Pilates/yoga/Tai Chi, treadmill/steppers/weights/resistance) and cognitive stimulation activities (i.e., uses computer, does crosswords, takes education course(s)) were associated with lower fall rates.
Explore the effects of connecting socially isolated older adults with volunteers through expressive arts in a rural home setting (24)	*Publication date:* 2016 *Jurisdiction studied:* Ontario, Canada *Methods used:* A qualitative interpretative research design and participatory approach was utilized to analyze the experiences of the participants and volunteers using their artistic	Sixteen volunteers and participants were recruited by the program leader. The eight volunteers were older females aged 55 to 75, and the eight participants were cognitively well, isolated older adults aged 65 to 95. The	The Visible Voices program involved eight older adult volunteers who were matched one-to-one with eight socially isolated older adults. The pairs conducted in-home, individual, intermodal art-making activities over 10 sessions. Additionally, there was a public installation where the participants and volunteers had an opportunity to communicate their work and experiences to the broader community.	Five major themes were identified from the collected qualitative data, which included the relationships between the volunteer and participant, the participant's own personal development, the corresponding created meetings that occurred, aesthetic appreciation of their artistic pieces, and the theme of extension. Through the data collected, it was found that the participants gained appreciation and gratitude for their volunteer, and that the program facilitated the

Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
	creations and weekly logs, program leader field notes, and debriefing meeting minutes.	volunteers included expressive art facilitators, an artist, a social worker, retired teachers, an infant mental health specialist, and a nurse.		formation of a trusting relationship between the participants and volunteers. Seven of the eight volunteers expressed a desire to reshape their relationship with the participants into a friendship or follow up with other relationships to continue producing art. The volunteers and participants also reported that the program facilitated personal development. For volunteers, the development primarily focused on interpersonal skills, whereas participants expressed their development through their artistic creation. Furthermore, most volunteers and participants mentioned that they gained a deeper understanding of self as a result of this program. Both groups gained a self-appreciation for their own abilities, and the established relationship between the participants and volunteers enabled the participants to create pieces reflecting their inner expressions. Additionally, the narrative logs from some of the participants and all of the volunteers demonstrated that they did extra work beyond the structured program visitations. Overall, the impact created from co-expressive art was largely dependent on the relationship forged between the participant and the volunteer, and the findings of this study demonstrate the potential opportunities created by a volunteer-based expressive art program that reaches out to socially isolated adults
Explore the experience of lower-income older adults who use the VON Shopping By Bus Program (SBBP) (35)	*Publication date:* 2007 *Jurisdiction studied:* Hamilton, Ontario *Methods used:* Research team members conducted semi-structured, audio-taped interviews with participants in their homes where they were asked to describe their experiences with SBBP. Additional interviews were also conducted at the SBBP pick-up	Seventeen lower-income older adults that lived in five rent-geared-to-income seniors' apartment buildings who used the SBBP were recruited. Ten participants used a form of mobility aid. Thirteen participants used SBBP on a biweekly basis, while four used it monthly.	The SBBP is a free grocery shopping service offered to tenants in selected rent-geared-to-income seniors' apartment buildings in Hamilton, Ontario. This program was established in response to the difficulty some apartment-dwelling seniors were experiencing travelling to grocery stores due to limited transportation services and long distances. The tenants are picked up by bus at the front door of their apartment building and driven to the grocery store, and are picked up in approximately one hour and returned to their building. The buses are low-floor buses to accommodate individuals with mobility aids,	In the interviews, participants generally spoke very highly of the SBBP. Participants mentioned that the program was very convenient and helped them overcome barriers to grocery shopping, particularly barriers related to their health conditions and mobility limitations. The physical help provided by the SBBP volunteers to assist the participants on and off the bus made grocery shopping more accessible and enhanced the participants" independence as older adults. Furthermore, although the primary function of the program is to aid older adults in obtaining groceries, some participants also used the program as a social outing and an opportunity to reduce social isolation.

Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
	sites. The interviews were transcribed verbatim and content analysis was performed, which involved searching for words, terms or semantic units to analyze the data.		and VON provides trained volunteers to assist tenants on and off the bus. The service is provided on a bi-weekly basis during the morning.	Despite the generally positive feedback, there were two areas of concern mentioned by the study participants. Although many participants appreciated the cost savings available at the grocery stores, some expressed concern regarding the low quality of food available to them. Additionally, some participants expressed concern regarding the waiting and timing issues in the delivery of the program. Since many of the participants had mobility limitations, the long wait posed a great burden.
Effectiveness of Public Health Nurse interventions in promoting influenza immunization and safety strategies in community-dwelling elderly persons (32)	*Publication date:* 1994 *Jurisdiction studied:* Ontario, Canada *Methods used:* Participants were randomly allocated to receive an intervention aimed at either promoting safety behaviours or influenza immunization by a Public Health Nurse (PHN) during a home visit. Outcome data were obtained by telephone interviews or home visits by two research assistants. Interviews were conducted two to three months after the promotional intervention. Clients were asked if they had made any safety changes, and the responses were classified according to safety action (addition or deletion) and safety location (personal, home or community).	Public health clients aged 65 and over were recruited. There were 359 clients in the sample with a mean age of 77.2 years. Source of referrals included clients themselves, their families, family doctors, community agencies, and hospital-based liaison nurses.	All PHNs in the study participated in training sessions to review risk factors for injury among seniors and practice health education related to injury prevention through role-playing scenarios. A safety checklist was developed based on literature related to injury prevention. The PHNs used the checklist with clients in the safety group to discuss personal, home and community safety as well as highlight strategies to improve safety.	Both study groups made safety changes, with 21.9% of individuals making changes in the safety group and 18.3% in the influenza immunization group. A higher percentage of males (25.0%) than females (17.3%) reported making at least one safety change after the intervention. Most of the safety actions taken by the clients occurred at home and were additions (e.g., installing a smoke detector) rather than deletions (e.g., refraining from night-time driving). Personal additions included "using a cane." "bought good pairs of shoes," and "do more walking." There were only a few changes that occurred in the community, including "crossing with the lights" and "go out accompanied." Deletion of safety actions primarily occurred in the home and personal categories, and included "stopped smoking," "walk more slowly," and "removing mats."

McMaster University

McMaster HEALTH FORUM

>> Contact us

McMaster Health Forum
1280 Main St. West, MML-417
Hamilton, ON Canada L8S 4L6
Tel: +1.905.525.9140 x 22121
Email: mhf@mcmaster.ca

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