

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Interventions for Malnutrition in Seniors: Clinical Effectiveness, Cost- Effectiveness, and Guidelines

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Research Questions

1. What is the clinical effectiveness of nutrition programs and services for community-dwelling seniors who are malnourished or at nutritional risk?
2. What is the cost-effectiveness of nutrition programs and services for community-dwelling seniors who are malnourished or at nutritional risk?
3. What are the evidence-based guidelines regarding the use of nutrition programs and services for community-dwelling seniors who are malnourished or at nutritional risk?

Key Findings

One systematic review and one non-randomized study were identified regarding the clinical effectiveness of nutrition programs and services for community-dwelling seniors who are malnourished or at nutritional risk. No relevant literature was identified regarding cost-effectiveness or evidence-based guidelines.

Methods

A limited literature search was conducted on key resources including PubMed, the Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No methodological filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2008 and September 26, 2018. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Adults aged ≥ 65 years who are living in community (i.e., living in their own homes and not in any kind of hospital, long-term care or supportive housing environment) and have been assessed as 'at nutritional risk' or diagnosed as malnourished
Intervention	Nutrition intervention programs and services (e.g., congregate dining facilities/ programs, meal delivery programs, provision of oral nutrition supplements, adult day programs with nutrition/meal components, cooking class)
Comparator	Q1-2: Usual care; Control Q3: No comparator
Outcomes	Q1: Decreased health care utilization (e.g., hospital admissions, readmissions, hospital length of stay), quality of life Q2: Incremental cost per health benefit Q3: Guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines.

One systematic review and one non-randomized study were identified regarding the clinical effectiveness of nutrition programs and services for community-dwelling seniors who are malnourished or at nutritional risk. No relevant health technology assessments, randomized controlled trials, economic evaluations, or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

One systematic review, consisting of nine studies, investigated various nutrition related interventions delivered by informal carers on community-dwelling adults 65 years of age or older.¹ Nutritional status improved or stabilised in four studies, two studies reported successful prevention of further decline in their participants without increasing informal carer burden, and no study reported an improvement in functional status.¹ One non-randomized prospective cohort study described the clinical outcomes following standard nutrition care in 42 recently discharged adults 65 years of age or older.² The authors measured health-related quality of life on discharge and six week thereafter; however, no description of the results could be presented as no results were reported in the abstract.²

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Marshall S, Bauer J, Capra S, Isenring E. Are informal carers and community care workers effective in managing malnutrition in the older adult community? A systematic review of current evidence. *J Nutr Health Aging*. 2013;17. <https://www.ncbi.nlm.nih.gov/pubmed/24097017>

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

2. Young AM, Mudge AM, Banks MD, et al. From hospital to home: limited nutritional and functional recovery for older adults. *J Frailty Aging*. 2015;4(2):69-73. [PubMed: PM27032047](https://pubmed.ncbi.nlm.nih.gov/27032047/)

Economic Evaluations

No literature identified.

Guidelines and Recommendations

No literature identified.

Appendix — Further Information

Systematic Reviews and Meta-Analyses

Mixed Settings

- Rasmussen NML, Belqaid K, Lugnet K, Nielsen AL, Rasmussen HH, Beck AM. Effectiveness of multidisciplinary nutritional support in older hospitalised patients: a systematic review and meta-analyses. *Clinical nutrition ESPEN*. 2018 Oct;27:44-52. [PubMed: PM30144892](#)

Unspecified Age or Mixed Ages

- Hamirudin AH, Charlton K, Walton K. Outcomes related to nutrition screening in community living older adults: a systematic literature review. *Arch Gerontol Geriatr*. 2016 Jan-Feb;62:9-25. [PubMed: PM26444749](#)
- Campbell AD, Godfryd A, Buys DR, Locher JL. Does participation in home-delivered meals programs improve outcomes for older adults?: Results of a systematic review. *J Nutr Gerontol Geriatr*. 2015;34(2):124-67. [PubMed: PM26106985](#)
- Bandayrel K, Wong S. Systematic literature review of randomized control trials assessing the effectiveness of nutrition interventions in community-dwelling older adults. *J Nutr Educ Behav*. 2011;43(4):251-262. [PubMed: PM21371944](#)

Non-Randomized Studies - Mixed Ages

- Endevelt R, Lemberger J, Bregman J, et al. Intensive dietary intervention by a dietitian as a case manager among community dwelling older adults: the EDIT study. *J Nutr Health Aging*. 2011 Aug;15(8):624-630. [PubMed: PM21968856](#)

Qualitative Studies

- Hazzard E, Barone L, Mason M, Lambert K, McMahon A. Patient-centred dietetic care from the perspectives of older malnourished patients. *J Hum Nutr Diet*. 2017 Oct;30(5):574-587. [PubMed: PM28543671](#)
- Wright L, Vance L, Sudduth C, Epps JB. The Impact of a home-delivered meal program on nutritional risk, dietary intake, food security, loneliness, and social well-being. *J Nutr Gerontol Geriatr*. 2015;34(2):218-227. [PubMed: PM26106989](#)

Review Articles

- Schultz TJ, Roupas P, Wiechula R, et al. Nutritional interventions for optimizing healthy body composition in older adults in the community: an umbrella review of systematic reviews. *JBI Database System Rev Implement Rep*. 2016 Aug;14(8):257-308. [PubMed: PM 27635754](#)

11. Buys DR, Locher JL. What does the evidence reveal regarding home- and community-based nutrition services for older adults? *J Nutr Gerontol Geriatr.* 2015;34(2):81-84.
[PubMed: PM26106981](#)
12. Kowlessar N, Robinson K, Schur C. Older Americans benefit from Older Americans Act nutrition programs. Administration for Community Living (Research Brief no. 8). 2015 Sep: <https://www.acl.gov/sites/default/files/programs/2016-11/AoA-Research-Brief-8-2015.pdf>
Accessed 2018 Oct 1.
13. Lloyd JL, Wellman NS. Older Americans Act nutrition programs: a community-based nutrition program helping older adults remain at home. *J Nutr Gerontol Geriatr.* 2015;34(2):90-109.
[PubMed: PM26106983](#)
14. Zhu H, An R. Impact of home-delivered meal programs on diet and nutrition among older adults: a review. *Nutr Health.* 2013 Apr;22(2):89-103.
[PubMed: PM24916974](#)

Unspecified Age or Mixed Ages

15. More C, Keller H. Community nutrition policy for older adults in Canada. *Can J Diet Pract Res.* 2008 Winter;69(4):198-200.
[PubMed: PM19063810](#)

Guidelines and Recommendations - Unspecified Age or Mixed Ages

16. Integrated care for older people (ICOPE). Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva, Switzerland: World Health Organization; 2017:
<http://www.who.int/ageing/publications/guidelines-icope/en/>
Accessed 2018 Oct 1.
See: Section 3.1.2 Malnutrition

Position Statements

17. Bernstein M, Munoz N. Position of the Academy of Nutrition and Dietetics: food and nutrition for older adults: promoting health and wellness. *J Acad Nutr Diet.* 2012 Aug;112(8):1255-1277.
[PubMed: PM22818734](#)