# Dietitians Working in Nova Scotian Continuing Care Facilities: An Exploration of Roles and Responsibilities

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Registered Dietitians (RDs) working in CC facilities have the expertise to assess and provide care plans for nutritionrelated risks and outcomes that pose significant demands on health care costs and undermine quality of life.



### Continuing Care in Nova Scotia



Continuing Care (CC) refers to the range of post-acute and long-term-care (LTC) services provided to those who need care outside of the hospital in their home or community.<sup>1</sup>



Includes nursing, home support, respite and palliative care at home or in nursing homes or residential care facilities<sup>2</sup> for those who have difficulty performing everyday tasks and for those who are medically stable yet have nursing needs beyond home care in a safe and supportive environment.<sup>2</sup>



In Nova Scotia in 2019 there were 135 licensed nursing homes and residential care facilities in Nova Scotia with a bed capacity of 7849.<sup>3</sup> This does not include the unlicensed private facilities.



# Continuing Care in Nova Scotia – Growing Demand and Expectations



In 2016, 2.2% of the Canadian population (771k) and 2.3% of the NS population (21.6k) were ≥85, and approximately 32% resided in CC facilities.<sup>4</sup> With the aging baby boomers and improved life expectancy, it is anticipated that this number will continue to increase rapidly. However, CC is not just for geriatric care.



There is growing consumer expectations for quality of care, individualized services, meeting culturally diverse needs as well as an increasing number of young adults with a range of serious chronic conditions and disabilities with unique challenges for their health care and psychological and social needs.<sup>1,9</sup>



Resident-centered care (RCC) (sometimes referred to as Eden Alternative) is being widely adopted in CC facilities to address expectations for quality of care, individualized services and overall quality of life; intended to transform from the traditional medical model to a more humanistic approach.<sup>10,11</sup>



# **Continuing Care Nutrition Related Health Risks and Outcomes**

Ensuring quality food and nutrition care can mitigate the rising health care costs of nutrition related risks and outcomes.

Food insecurity, lack of transportation and inability to purchase and/or prepare food, lack of independence, social isolation and depression. <sup>8</sup> Cancer, diabetes, dementia, dental caries, denture problems, dysphagia and medications can negatively affect appetite, chewing, swallowing, metabolism, nutritional status and weight.<sup>8,14</sup>

Anorexia of aging, a prevalent syndrome in the aging population, is a recognized predictor of morbidity and mortality.<sup>12,13</sup>

47% to 62% of CC residents were at risk for malnutrition<sup>15</sup> Malnutrition can lead to weight-loss, muscle wastage, lethargy, compromised immunity, poor wound healing, cognitive decline, nutrient deficiencies, increased hospitalization rates, increased costs of care and higher risk of mortality.<sup>16-20</sup>

Malnutrition is also a contributing factor to pressure ulcers and is an important factor in prevention and healing.<sup>21,22</sup>







# **Dietitians Working in Continuing Care**

RDs have the expertise to assess and provide care plans for nutrition-related risks and outcomes that pose significant demands on health care costs and undermine quality of life.<sup>1,25-27</sup>

Important team members skilled in evidence-based care, leadership and collaboration.<sup>1,32</sup> - nutrition expert - team facilitator - relationship builder<sup>27</sup>

The Nutrition Care Process Model (NCPM) provides a standardized framework for nutrition care in all health care settings.<sup>3</sup> Design of menus suitable to the needs and expectations of the residents that can be prepared and served by trained staff within the CC facility resources.<sup>30,34,36,37</sup>



Insufficient time to complete tasks requiring a variety of workplace mitigating strategies.<sup>27,33</sup> Lack of time, resources for assessment and support from their interdisciplinary teams were barriers while enhanced communication and quality of care were benefits.<sup>31</sup> Inadequate government funding and standards have been found to undermine the provision of culturally appropriate menus and acceptable portions for CC residents.<sup>38</sup>





### A Call to Action - Objectives

**Dietitians of Canada** (2018) recommended that all CC residents should be assessed on admission for nutrition-related risks, that a nutrition care plan be prepared and monitored by a RD, that cycle menus and special dietary adaptations be approved by a RD and that staff be trained in safe food handling and service.<sup>39</sup>

NS Department of Health and Wellness Minister's **Expert Advisory Panel on Long Term Care** Recommendations (2018), recommended that the government invest in staffing complement and training as a means to improve quality of care.<sup>40</sup>

With the growth in the need for CC and increasing expectations for RDs working in CC, the objectives of this exploratory study were to:

- identify the roles and responsibilities of RDs in NS CC facilities,
- determine if there are **unique applications** of the **nutrition care, food service and other responsibilities** for these RDs,
- Identify recommendations for future advocacy and action.



# Methods



- Invitation to participate was sent to NS CC Action Group and MSVU IEP Sponsors in Fall 2019;
- Questionnaire comprised of closed and open ended relevant questions<sup>1,8,27,31,39</sup> was available on LimeSurvey tool;
- Respondents were invited to engage in a knowledge sharing discussion group to identify recommendations for next steps;
- Descriptive statistical analyses and qualitative descriptive research methodology<sup>41</sup> that supported thematic analysis of data through the lens of dietetic practice while allowing for the identification of new emerging themes;
- Report, presentations and publication (CanJDietPracRes).



It is anticipated that the results of this study will contribute to the growing national and international dialogue about the important and unique roles of RDs working in CC. It is also hoped that communication of the results will promote the profile of these RDs in their profession and beyond.





#### Results

Twenty RDs working in CC completed the questionnaire. It is estimated that this is a response rate of 27% (n=75). This response rate is lower than the response rate of 43% from the Ontario LTC Dietitian Survey Report.

- The responses were organized in three categories:
  - 1) General Information
  - 2) Nutrition Care Responsibilities
  - 3) Foodservice and Other Responsibilities
- Seven RDs participated in the knowledge sharing discussion session in February 2020. The results were discussed and recommendations identified.



### **Results – General Information**

- > The RDs had been practicing on average 7.5 years and most of that time in a CC setting.
- > 35% of the RDs worked in more than one CC facility.
- > The CC facilities ranged in size from 20 to 485 beds but on average were 60 beds.

In summary, most RDs who responded to the survey had extensive experience working in CC settings. Additionally, over a third of the RDs reported working at multiple CC facilities, which suggests a lack of full-time employment in these settings, as noted by other reports.<sup>33</sup>



# **Results – General Information**

Question	Median	Range	Comments
How many years has it been since you completed your dietetic training?	7.5 years	<1 year – 31 years	Majority of respondents have been practicing as dietitians for several years.
How many years have you been working in Continuing Care (CC)?	5 years	<1 year – 30 years	Most respondents have an extensive experience working in CC settings.
How many CC facilities do you currently work at?	1 facility	1 – 3 facilities	More than a third of respondents worked in more than one CC facility, suggesting position may not provide sufficient hours. <sup>33</sup> Highlights the shortage of full-time employment in CC settings. <sup>33</sup>
What is the bed capacity at your current facility(ies)?	60 beds	20 – 485 beds	
How many years have you been working at your current facility(ies)?	3 years	<1 year – 30 years	



# **Results – Nutrition Care Responsibilities**

- Some RDs stated residents coming into CC are frailer, with more nutrition-related issues compared to previous years, leading to a more demanding role for RDs than before.
- Additionally, they noted responsibilities extended to communication with residents and their families, collaboration with the care team and dietetic intern education.
- To stay current with nutrition-related knowledge, respondents reported regular continuing education activities.

In summary, the RDs performed a wide variety of roles, including being a referral source for any nutrition concerns, performing meal observations, participating in committees (wound care, pharmacy and therapeutics, palliative care, etc.), attending care conferences, and conducting nutrition assessments (during admission and annually, swallowing assessments).



# **Results – Nutrition Care Responsibilities**

Responsibility	Details
Nutrition Screening	Completed upon resident admission in CC facility by either a nurse or a dietitian. Mini
	Nutritional Assessment (MNA) is the tool that is most often used to complete a
	nutritional screening.
Nutrition Assessment and Diagnosis	Done upon admission, annually or if any significant changes occur.
Nutrition Care Plan (intervention, monitoring, and	Nutrition Care Plans are created by dietitian's post-new admission of a new resident,
evaluation)	annually and are usually ongoing after residents are given interventions after referral,
	usually daily, for nutrition related problems.
Care Conferences	Dietitians attend care conferences annually and semi-annually for each resident with
	the interdisciplinary team. Most respondents attend multiple care conferences
	throughout the week.
Dysphagia Management	Most respondents take part in dysphagia management on a daily basis. This includes
	meal observations, swallow assessments (i.e. bedside swallow), resident and staff
	education. This is typically done upon resident admission and on referral basis.
Wound Care	Respondents are part of a wound care committee, participate in wound care meetings
	and are consulted by health care staff to provide nutritional intervention if there is a
	wound concern. Braden Scoring system is utilized to identify risk of wound at CC
	facilities.
Resident Assessment Instrument – Minimum Data Set	Most respondents stated that RAI-MDS does not apply to their work. Only a few stated
	it applies to their work and used upon admission.
Charting – Paper or Electronic	All respondents stated charting for their residents, with half using paper charting and
	other half electronic.
Clinical Dietetic Intern Preceptor	Most respondents stated they supervise a clinical dietetic intern, with some supervising
	more than one a year.



### **Results – Foodservice and Other Responsibilities**

- Respondents who stated that their roles have changed over time elaborated on how they have become more collaborative and now include components of foodservices.
- Foodservice roles included developing and implementing the menu, food forecasting and ordering, scheduling, staff training and evaluations.
- Most are satisfied with their roles but elaborated on wanting more time to dedicate to each role and its responsibilities.

In summary, respondents also felt there are insufficient resources available to complete their work. Staffing and food budget have also been identified by others as essential resources to complete work and provide quality care.<sup>38</sup>



# **Results – Foodservice and Other Responsibilities**

Responsibility	Details
Foodservice Management	Most respondents do not work in foodservice management but provide support to the
	foodservice supervisor as needed.
Menu Planning	All respondents are involved with menu planning. Some are involved on a consultation
	basis only. Some only create the menu for special diets. The majority develop the
	menu, up to 3 times a year, based on the season as well as feedback from residents.
Staff Management (hiring, supervision, scheduling)	Only a couple of respondents are involved in staff management.
Staff Training	Respondents provide staff education as needed on various nutrition related topics such
	as nutrition care for dysphagia, wound care, palliative care, malnutrition, management
	of chronic diseases with nutrition, etc.
Policy and Procedure Development	Most respondents consult for or are responsible for procedure and policy development
	in clinical nutrition and/or foodservice departments.
Budgeting	Only a few respondents are responsible with budgeting and work specifically with
	menu budgets.
Teams and Committees	Almost all respondents are involved in one or multiple committees which include:
	wound care, palliative, medical and therapeutics services, falls prevention etc.
Foodservice Dietetic Intern Preceptor	Most respondents do not take on foodservice dietetic interns.
Housekeeping	Only one respondent manages housekeeping staff. The majority stated not being
	responsible for housekeeping.
Quality and/or Risk Management	Few of the respondents who are involved in quality and/or risk management do so
	through attending risk meetings.
Other	Respondents mentioned managing dining room seating, educating staff, reviewing
	menus, being part of various committees, taking part in professional advisory meetings
	and completing medication reviews as other responsibilities in CC facilities.



# Addendum Study - Objectives

The covid-19 pandemic limited the planned follow-up for this study in 2020. However, an opportunity was created to explore the impact of the first wave of the pandemic on the roles and responsibilities of RDs working in NS CC facilities.

The impact of the covid-19 pandemic on RDs working in CC facilities has not been reported but there is some indication that they have been left out of CC interdisciplinary planning efforts. <sup>47</sup>

With the devastating effects of the covid-19 pandemic on CC facilities in NS, the objective of this addendum study was to explore the impacts on the roles and responsibilities of RDs working in NS CC facilities and to identify recommendations for future advocacy and action in addition to those identified from the prepandemic study.

The methodology was similar with a modified questionnaire distributed in Fall 2020.

47.D'Adamo et al, 2020





# Results – Post Covid-19 Addendum Study

Fifteen RDs responded to the questionnaire, an estimated response rate of 20%. General information was comparable to the results of the 2019 study.

Respondents noted that the pandemic affected:

- their work demands with more remote work, not being able to access multiple sites, needing to cover for staff shortages and more emphasis on foodservice and other responsibilities over nutrition care ones. They reported working unpaid overtime and on days off.
- resident care as staff shortages limited feeding assistance, weight monitoring and provision of supplements and snacks.
- provision of resident food needs, preferences and nutrition care due to rising food costs and availability of some foods and supplements.
- residents with restricted contact with friends and families, socialization, recreation and feeding support. Loneliness, helplessness and loss of appetite were reported.



# Results – Post Covid-19 Addendum Study

Most felt valued and respected by CC administration but noted that some staff and resident families don't understand the scope of RD practice.

They also noted that they felt that RDs in other settings view the work of RDs working in CC as less challenging, also noted in an earlier study. <sup>48</sup>

About a third of respondents felt that the covid-19 pandemic highlighted the leadership abilities of dietitians overall and in the provision of food and emotional support to residents.

The pandemic has emphasized the need to advocate for minimum standards for RD and foodservice funding in NS as well in other jurisdictions.

48. Lordly & Taper, 2008



#### Recommendations



Dietitian roles go beyond just nutrition care. They play a critical role in developing policies and procedures, educating residents and staff, training dietetic interns, overseeing food operations – from menu planning to dining practices.<sup>8</sup> These roles are also constantly changing. *There is a need to establish minimum standards for dietitian services in CC facilities based on care needs of residents, considering the multifaceted roles of dietitians in CC.* 



Advocate for additional funding to cover a minimum number of minutes per resident per month for dietitians so there is consistent coverage in CC for nutrition care. This ensures time is protected for nutrition care. With recent CC admissions being at higher acuity levels with complex care requirements and increased individualized needs, dietitians need more time to provide sufficient care.<sup>39</sup>



*Establish standardization for food funding in CC that allows for a menu that meets therapeutic and cultural needs of residents.* Limited food budgets can impact the dietitians' ability to deliver effective nutrition interventions.<sup>39</sup> However, improving menus through adequate food funding and providing a variety of foods based on personal preferences can improve food intake and quality of life, contributing to residents' health and well-being.<sup>46</sup>



#### Recommendations



*Improve recruitment and retention of frontline staff in CC.* Staffing shortages directly impact nutrition care. Frontline workers such as nursing and dietary aides have a high degree of knowledge about nutrition care, especially with respect to individual resident needs and preferences, feeding strategies and methods that promote food intake.<sup>37</sup>

Provide more full-time jobs in CC facilities as covid-19 transmission was related to staff working in multiple sites.



*Educate staff, family members and other dietitians on the scope of practice of dietitians working in CC.* There can be difficulties with staff recognizing that dietitians need to be involved in decisions when there is limited exposure to their role.<sup>39</sup> Apart from being nutrition experts; dietitians take on a variety of roles, including management roles, within CC.

Respect and support our elders and those who care for them.



#### References

20. Kostka J, Borowiak E, & Kostka T. (2014). Nutritional status and quality of life in different populations of older people in Poland. Eur J Clin Nutr 2014;68(11), 1210-1215. 21. Haesler E, ed. Prevention and Treatment of Pressure Ulcers: Reference Guide. Osborne Park, Western Australia: Cambridge Media; 2014. 22. Posthauer, ME, Banks M, Dorner B, Schols JM. The role of nutrition for pressure ulcer management: National Pressure Ulcer Advisory Panel European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance White Paper. Adv Skin Wound Care. 2015;28(4): 175-188. 1. Robinson GE, Cyrgs S. Academy of Nutrition and Dietetics: Revised 2018 standards of practice and standards of professional performance for 23. Tamura BK, Bell CL, Masaki KH, Amelia EJ. Factors associated with weight loss, low BMI, and malnutrition among nursing home patients: A registered dietitian nutritionists (competent, proficient and expert) in post-acute and long-term care nutrition. J Acad Nutr Diet. 2018;118(9):1747systematic review of the literature. J Am Med Dir Assoc. 2013;14(9): 649-655. 1760. 24. Starr KNP, McDonald SR, Bales CW. Nutritional vulnerability in older adults: A continuum of concerns. Curr. Nutr. Rep. 2015;4(2):176-184. 2. Nova Scotia Department of Health and Wellness (NS DHW). Continuing Care. 2018. https://novascotia.ca/dhw/ccs/ 25. Gardner J. Long term care facilities: the benefits of having a dietitian. J Can Diet Assoc. 1983:44:68-70. 3. Nova Scotia Health and Wellness. (2018). Nursing Homes and Residential Care Facilities Directory. Halifax: Health and Wellness. Retrieved from: 26. Lilley SA, Gaudet-LeBlanc C, Quality of life in long-term geriatric care: the dietitian's role. J Can Diet Assoc. 1992;53:194-8. https://novascotia.ca/dhw/ccs/documents/Nursing-Homes-and-Residential-Care-Directories.pdf 27. Wassink HL, Chapman GE. Vancouver dietitians' perspectives on their roles in long-term care. Can J Diet Pract Res. 2010;71:12-17. 4. Statistics Canada. A portrait of the population aged 85 and older in 2016 in Canada: Census of the population. 2017. Catalogue no. 98-200- 28. Brody RA, Touger, Decker R, VonHagen S, Maillet JO. Role of registered dictitians in dysphagia screening. J Am Diet Assoc. 2000;100:1029-1037. X2016004 ISBN 978-0-660-08238-7. Retrieved from: https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016004/98-200- 29. Gradwell E, Raman PR. The Academy of Nutrition and Dietetics national coverage determination formal request. J Acad Nutr. Diet. 2012;112:149x2016004-eng.cfm 76. 30. Partnership for Dietetic Education and Practice in Canada (PDEP). Integrated Competencies for Dietetic Education and Practice. 2013. Retrieved 5. Canadian Association for Long Term Care (CALTC). Caring for Canada's seniors: Recommendations for meeting the needs of an aging population. from: https://www.pdep.ca/tools/standards.aspx 2017. Retrieved from: https://www.oltca.com/OLTCA/Documents/Reports/CaringForCanadasSeniors\_CALTC.PDF 31. Zelig R, Byham-Gray L, Touger-Decker R, Parrott JS, Rigassio-Radler D. Impact for continuing care: Applying the nutrition care process and model 6. Statistics Canada. Canada Year Book 2011. Ottawa: Statistics Canada. and the international dietetics and nutrition terminology for dietitians in long-term care. Top Clin Nutr, 2011;26:268-280. 7. Statistics Canada. Population by broad age groups and sex, 2016 counts for both sexes, Canada, provinces and territories, 2016 Census-100% Data. 32. Cammer, A, Morgan D, & Whiting S. The role of registered dietitians in dementia care in rural and urban long term care contexts. Gerontologist 2017. Retrieved from: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/as/Table.cfm?Lang=E&T=11 Relative Hold Index (1997) (We relative Hold Inde 2016;56(Suppl 3):177-177. care, post-acute care, and other settings. J Acad Nutr Diet. 2018:118:724-735. Res.2013:74:131-137. 9. The Society for Post-Acute and Long-Term Care Medicine. AMDA receives \$1.6 million to improve care of younger adults. Caring Ages. 34. Dietitians of Canada. Best Practices for Nutrition, Food Service and Dining in Long Term Care Homes: A Working Paper. 2013. Retrieved from 2014;15(12):22. https://www.dietitians.ca/Dietitians-Views/Health-Care-System/Long-Term-Care.aspx 10. Li J, Porock D. Resident outcomes of person-centered care in long-term care: A narrative review of interventional research. Int J Nurs Stud. 35. Wright O, Connelly L, Capra S, Hendrikz J. Determinants of foodservice satisfaction for patients in geniatrics/rehabilitation and residents in 2014;51(10):1395-415. residential aged care. Health Expectations. 2013;16(3): 251-265. 11. Crandall LG, White DL, Schuldheis S, Talerico, K.A. Initiating person-centered care practices in long-term care facilities. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance: A staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance and the staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance and the staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. Improving food intake in nursing home residents with feeding assistance and the staffing analysis. J Gerontological 36. Simmons S, Osterweil D, Schuelle J. J S Nurs. 2007:33:47-56. Sci Med Sci. 2001;56(12):M790-4. 37. Blumberg R, Feldman C, Murray D, Burnes N, Murawski D. Food and nutrition care in long-term-care facilities: examining the perspectives of Morley JE. Anorexia of aging: A true geriatric syndrome. J Nutr Health Aging. 2012;16(5):422-425. frontline workers. J Nutr Gerontol Geriatr, 2018;1-14. 13. Landi F, Calyani R, Tosato M, Martone AM, Ortolani E, Sayera G, Sisto A, Marzetti E. Anorexia of aging: Risk factors, consequences, and potential 38. Ducak K, Keller H. Menu planning in long-term care: Toward resident-centred menus. Can J Diet Prac. Res. 2011;72(2):83. treatments. Nutrients. 2016;8(2):69. 39. Dietitians of Canada. Dietitians in long term care: A pan-Canadian environmental scan, 2018. Retrieved from: https://www.dietitians.ca/Dietitians Heuberger RA, Caudell K. Polypharmacy and nutritional status in older adults: A cross-sectional study. Drugs Aging. 2011;28(4):315-323. Views/Health-Care-System/Long-Term-Care.aspx 15. Bell C, Tamura B, Masaki K, & Amella E. Prevalence and measures of nutritional compromise among nursing home patients: Weight loss, low body 40. Keefe J, Smith CA, Archibald G. Minister's Expert Advisory Panel on Long Term Care Recommendations, 2018. NS DHW. mass index, malnutrition, and feeding dependency, a systematic review of the literature. J Am Med Dir Assoc. 2013;14(2): 94-100. https://novascotia.ca/dhw/publications/Minister-Expert-Advisory-Panel-on-Long-Term-Care.pdf 16. Jensen GL, Mirtallo J, Compher C, Dhaliwal R, Forbes A, Grijalba RF, Hardy G, Kondrup J, Labdarios D, Nyulasi I, Pineda JCC, Waitzberg D. 41. Bravo G, Dubois MF, Demers L, Dubuc N, Blanchette D, Painter K, Lestage C, Corbin C. Does res regulating private long-term care facilities lead Adult starvation and disease-related malnutrition: A proposal for etiology-based diagnosis in the clinical practice setting from the International to better care? A study from Quebec, Canada. Int J Qual Health Care. 2014;26(3): 330-336. Consensus Guideline Committee. JPEN J Parenter Enteral Nutr. 2010;34(2):156-159. Yucae V, Keller H, Ducak K. Interventions for improving mealtime experiences in long-term care. J Nutr Gerontol Geriatr 2014;33:249-324. 17. Sognen S, & Chapman I. Body weight, anorexia, and undernutrition in older people. J Am Med Dir Assoc. 2013;14(9): 642-648. 43. Simmons SF, Keeler E, Zhuo X, et al. Prevention of unintentional weight loss in nursing home residents: A controlled trial of feeding assistance. 18. Cereda E, Pedrolli C, Zagami A, Vanotti A, Piffer S, Opizzi A, Rondanelli M, Caccialanza R. Body mass index and mortality in institutionalized Am Geriatr Soc 2008:56:1466-1473. elderly. J Am Med Dir Assoc. 2011;12(3):174-8. 44. Dietitians of Canada. Ontario Long Term Care Dietitian Survey Report. 2016. Retrieved from: 19. Beck A. Weight loss, mortality and associated potentially modifiable nutritional risk factors among nursing home residents: A Danish follow-up https://www.dictitians.ca/DictitiansOfCanada/media/Documents/Resources/12-2016-Long-Term-Care-LTC-RD-Time-Survey-Report.pdf study. J Nutr Health Aging. 2015;19(1):96-101. 45. Wilby F, Stryker CD, Hyde D, Ransom S. Plotting the course of well-being: The edge alternative well-being assessment tool. SAGE 2016:1-9. 46. Keller HH, Carrier N, Slaughter S, Lengyel C, Steele CM, Duizer L, Brown KS, Chaudhury H, Yoon MN, Duncan AM, Bosert VM, Heckman G,

Xillalon L. Making the Most of Mealtimes (M3): protocol of a multi-centre cross-sectional study of food intake and its determinants in older adults living in long term care homes. BMC Gettatt, 2017 Jan 13;17(1):15. doi: 10.1186/s12877-016-0401-4.



Thank you for listening.

Comments? Questions?

