



Ontario Long Term Care Dietitian Survey Report

2016

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Executive Summary

Dietitians of Canada's (DC) Ontario Long Term Care Action Group surveyed DC members working in LTC in 2015 to:

- Capture the activities and responsibilities of Registered Dietitians working in Ontario LTC homes
- Determine the average time spent by Registered Dietitians on these activities
- Obtain Registered Dietitians' perspectives on the impact of current staffing on resident care

150 responses were received to the electronic survey.

Highlights of the results include:

- Almost all respondents (89%) were unable to complete all required responsibilities within the mandated Registered Dietitian staffing time of 30 minutes/resident/month
- Increases in the number of new admissions and frailer, more complex residents contribute to work overload
- Non-clinical responsibilities such as dining room observations and committee roles are also increasing
- 70% of respondents regularly work additional unpaid time to complete more of the required activities
- Timely follow-ups on clinical issues, communication with residents and families, and interprofessional communication are suffering due to insufficient time
- Staff education, quality improvement activities, and other proactive roles are often not completed, in order to meet clinical workload demands
- Over half of the survey respondents state that 45 minutes/resident/month is needed to provide nutrition care in today's LTC environment, and 30% feel that 1 hour/resident/month is required.

Recommendation:

That the current mandated Registered Dietitian staffing be increased to 45 minutes/resident/month.

Acknowledgements

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The Dietitians of Canada Ontario Long Term Care Action Group (DC ON LTCAG) provided expertise and review of the survey and the final report.

Dale Mayerson and Jady Nugent, co-chairs of the DC ON LTCAG contributed greatly to the development of the survey, and Dale Mayerson and Karen Thompson prepared the initial draft of the report. All members of the LTCAG provided feedback and contributed to development of the final report.

Introduction

The Registered Dietitian (RD) plays a crucial role in the health and well-being of residents in long term care (LTC) homes. Residents are entering LTC in a more frail state and with more complex medical and cognitive conditions, requiring more RD time and expertise to meet their needs and mitigate further health risks. As well as ongoing clinical assessments and care planning, RDs are providing other resident-centered care needs. There are also expectations by LTC homes that RDs take on administrative and training responsibilities within the homes consistent with their expertise.

This paper reviews the expectations of legislation and organizational tasks expected from RDs and summarizes the need for RD funding to be increased from the current 30 minutes per resident per month to 45 minutes per resident per month. At the current 30 minutes/resident/month, a 100-bed home will have 50 hours of RD time per month, or approximately 12 hours per week, approximately 0.3 FTE. At 45 minutes/resident/month, this would increase to 75 hours per month, approximately 18 hours per week, or 0.45 FTE. This increase will improve the health and quality of life for LTC residents, with potential to save healthcare dollars.

Residents moving into long term care are, in many cases, more frail and at greater nutrition risk than ever before. Over 80% of LTC residents are at least 75 years old, and 52% are 85+ years old, according to the Canadian Institute for Health Information (CIHI). Many residents are malnourished or undernourished at the time of LTC admission and are more likely to have more chronic illnesses and cognitive deficits. These frail elderly have the greatest need for nutrition interventions and strategies to prevent or delay further health and functional decline. Most residents are admitted with multiple medical conditions and are taking many medications. All residents require a thorough and detailed initial nutrition assessment to ensure individualized nutrition care.

Nutrition care starts with a nutrition assessment for every new resident upon admission and results in a care plan individualized to address the resident's needs. The RD completes a quarterly nutritional review for all residents and updates and revises care plans according to how the resident has responded to the strategies that were implemented. RDs spend significant amounts of time assessing, documenting and planning appropriate nutrition interventions to maximize health and functional abilities for each resident. Residents who have a significant change in health status or have high-risk issues (for example, significant weight loss, dysphagia, or wounds) will be reassessed between quarterly assessments as the situation requires. RDs work as part of the interdisciplinary team to coordinate a comprehensive care plan for each resident.

RDs also have a responsibility to consult with family members, other health care professionals, and dietary staff. Staff education and training, quality improvement activities, participation in LTC home committees, and ensuring that menus meet preferences, health needs, and budget, are among other duties performed by RDs in LTC.

Methods

An electronic survey was developed and tested by members of the LTCAG then communicated to DC members through the DC Gerontology Network distribution list, to approximately 350 Ontario members.

Response

150 Registered Dietitians (RD) working in Long Term Care responded to the survey, representing LTC homes of all sizes from across Ontario, ranging from 20 beds to 250 beds.

Survey Findings

Current RD Staffing -- Clinical Time

Paid Hours

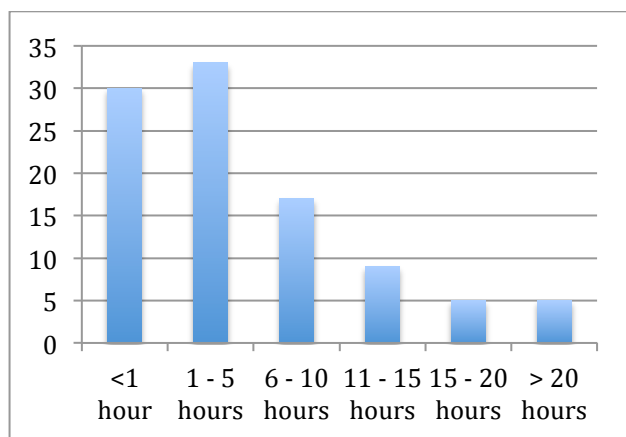
Many LTC Homes recognize the need for additional dietitian services --1 in 5 survey respondents report paid hours greater than the mandated minimum RD time

Current LTC regulations require a minimum of 30 minutes per resident per month for clinical nutrition care (Ontario Reg. 079/10). Seventy-five percent of survey respondents reported that their paid time was equal to 30 minutes/resident/month, while 20% reported paid time *greater* than the mandated minimum. These results are encouraging in that they show several homes recognize the value of increased RD time. The 5% of respondents who reported that their paid time is below the mandated minimum is of great concern; while one respondent reported that an additional part-time RD covers the extra required hours, the others stated that the mandated minimum was not met.

Unpaid Hours

Seventy percent of survey respondents reported additional unpaid time spent providing services to LTC homes. One-third of respondents spent 1 – 5 hours each month, and 17% averaged 6 – 10 hours each month, with an additional 9% reporting 11 – 15 hours per month. Several members (5%) spend up to 20 hours and another 5% of respondents report that they provide over 20 hours of service unpaid every month. Registered Dietitians provide these additional hours to ensure they are meeting resident needs, to support LTC home staff, and to meet professional practice standards. The large proportion of dietitians working beyond their paid time indicates the mandated 30 minutes/resident/month is not sufficient.

Unpaid Hours Worked by LTC Dietitians



70% of survey respondents provide additional services to LTC homes without payment, in order to meet residents' needs and professional practice standards

RD Responsibilities in LTC – Clinical Time

The results of the survey highlight Registered Dietitians' work in LTC and the amount of time spent in these tasks.

Admission Assessments

All residents are assessed by the RD on admission to the home and whenever there is a significant change in health status (O. Reg. 079/10). According to the survey results, 33% of RDs report 45 to 60 minutes of RD time is required to provide a complete admission nutrition assessment and to develop an individual care plan, while 28% reported spending more than one hour for this purpose. This is consistent with data reported in a 2008 time study of Registered Dietitians and published guidelines for dietitian staffing (Montoya, 2008; Byham-Gray, 2010).

A comprehensive nutrition assessment provides an indication of the nutritional status of the new resident and is used to develop an individualized nutrition care plan. Initial assessments include the new resident's history of food intake, weight changes, and the effects of chronic illness on nutrient requirements, body composition changes and the extent of those changes (see below). A comprehensive assessment requires review of documentation from other facilities and contact with other health providers, family/substitute decision makers, and caregivers. The results of the assessment are used to develop an individualized nutrition care plan. Appropriate nutrition care planning will help to manage symptoms and improve quality of life for these residents.

Components of a Comprehensive Nutrition Assessment

A comprehensive nutrition assessment includes:

- Meeting with the resident
- Observation of the resident eating one or more meals and snacks
- Review of medical records including records from previous care providers
- Review of medications for nutrition-related side effects and drug-nutrient interactions
- Analysis of available laboratory information
- Review of weight records
- Review of Resident Assessment Instrument Minimum Data Set (RAI-MDS) assessments by other care team members
- Review of food and fluid intake records since admission
- Review of bowel records
- Consideration of cultural and personal food-related expectations
- Physical-focused assessment
- Meeting with the resident and/or resident's family or substitute decision maker to obtain feedback and consent for care plan

The number of new admissions to Ontario LTC homes rose 22% from 2011/12-2013/14. Each admission nutrition assessment takes 45-60 minutes.

Unfortunately the number of resident deaths per month in LTC has increased, due to the increased frailty of residents at admission. This is leading to higher turnover among residents, and greater number of admissions—from 2011/12 to 2013/14 the number of admissions to Ontario's LTC homes increased by 22% (CIHI CCRS). With each initial assessment taking an average of 45 – 60 minutes, it is not unusual for much of an RD's time to be devoted to initial assessments, leaving less time available for ongoing follow-ups and fulfilling other important roles.

Quarterly Assessments

RDs provide ongoing quarterly assessments for all residents, including those at low and moderate nutrition risk, in 40% of homes surveyed. They also act as a support and advisor to Nutrition Managers (NM) who may be responsible for quarterly reviews of low and moderate nutrition risk residents. RDs spend up to 30 minutes to complete each quarterly resident assessment, along with documenting a progress note and RAP (Resident Assessment Protocol) summary as required by the RAI-MDS used in all Ontario LTC homes. The effectiveness and acceptability of the current care plan is evaluated, and changes made as needed.

Re-assessments generally include:

- Review of the resident's chart since the last assessment, including changes in medical conditions, cognitive abilities, functional abilities, weight, food and fluid intake, medications
- Observation of resident intake during meal or snack, and discussion with resident on the acceptability and effectiveness of current care plan (where possible)
- Review of the resident's care plan and assessment of resident's response to the strategies
- Discussion with care team
- Determination of the effectiveness of the care plan
- Obtaining consent from resident or substitute decision maker on changes to the care plan
- Notifying the Nutrition Manager and nursing staff of changes to the care plan

With more specialized nursing care being provided in LTC homes, the need for RDs' expertise continues to expand. Care for tube feedings, and more recently residents receiving oxygen, intravenous, hypodermoclysis, renal dialysis, specialized wound care from enterostomal therapy nurses, and more complicated behavioural and psychological issues all indicate that there are residents at higher nutrition risk who require increased monitoring and follow up. Residents who receive enteral feedings require up to 45 minutes for each re-assessment, and frequent changes in condition may necessitate more frequent re-assessments.

Documentation

Clinical charting has increased for all health disciplines in LTC, as electronic record expectations continue to grow. There is an expectation for an increasing amount of data to be entered in resident care software. Progress notes take time to document and care plans must be specific, detailed and appropriate for the individual residents. Since residents are assessed on a minimum quarterly basis, the time needed is significant. As well, documentation must meet professional and legal requirements set out by the College of Dietitians of Ontario. RDs are responsible for RAI-MDS

coding, progress notes, RAP summaries and care plans, as well as notes for specialized assessments based on referrals. Sixty-four percent of RDs reported they require more than 30 minutes to provide detailed documentation that meets all requirements, and 37% reported needing more than 45 minutes per assessment.

Dining Room Observations

Survey respondents reported 6 to 10 hours per month observing dining room activity, both for individual resident behaviour and intake, as well as for general observation of dining room procedures and service provided to all residents. RDs are responsible for supporting dining practices that meet best practices and provide a pleasurable dining experience for all residents, as well as meet individual expectations and care needs. The RD also monitors dining to ensure compliance with MOHLTC regulations and to work with the care team and home administration to change policies and processes as needed.

Observation of residents drinking, and checking fluid intake records are important components of assessing resident nutritional health and planning individualized care interventions. Dehydration can lead to confusion, falls, urinary tract infections, poor skin integrity leading to open wounds, increased blood glucose and more. Approximately 10% of residents trigger the Clinical Assessment Protocol (CAP) for dehydration (CIHI CCRS). Other sources list the prevalence of dehydration as far greater, up to 50 – 60% of LTC residents (Bunn, Jimoh, Wilsher, Hooper, 2015; Robles-Suarez, Sinvani, Rosen, Nouryan, Wolf-Klein, 2016). Because seniors gradually lose their thirst sensation, clinical staff must ensure that fluids are available, offered and taken in adequate amounts to minimize risk of dehydration. RDs assess fluid requirements and plan individualized care meet fluid needs. Dining room and snack delivery observations are an important component of planning and evaluating individualized care.

Dining room observations are essential to the RD's clinical and administrative responsibilities. An average time of 6 – 10 hours per month is spent on this role.

In accordance with their scope of practice, RDs provide initial swallowing assessments, determine and order the optimal diet, then inform the Dietary Department to provide the correct food and fluid texture. RDs also make recommendations for appropriate body positioning during meals and for assistive devices that aid in safe and adequate food and intake. This requires a significant amount of time for an RD to closely observe a resident during meal times and make appropriate recommendations. Team discussions or referrals to Speech-Language Pathologists (SLP) and Occupational Therapists are also involved in dysphagia care and promoting independence during meals. For referrals related to dysphagia, RDs report spending 30 to 45 minutes for each resident in order to determine that residents will receive food and fluids with the appropriate texture and consistency. Additional time for interprofessional team meetings, and monitoring and evaluation of interventions, is required. Residents with dysphagia often require frequent re-assessments to update the care plan.

There are more residents living in LTC with behaviours that impact nutrition status (OLTCA, 2015). These include responsive behaviours related to dementia, wandering and the inability to communicate their needs, as well as aggressive behaviours that affect staff and resident safety. The nutrition-related behaviours may include inability to stay at the dining table during meals, lack of appetite, lack of interest in food, not recognizing food, need for extensive

assistance at meals and snacks, significant weight loss from constant pacing, and others behaviours which may also have negative repercussions on other residents in the dining room. These lead to malnutrition, chronic illness and dehydration, causing these residents to be assessed at high nutrition risk.

Increasing Referrals from the Health Care Team

As the importance of nutrition care is increasingly recognized, RDs receive more referrals from Nursing and other staff.

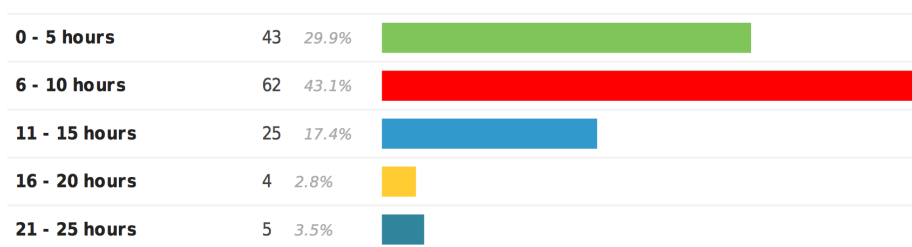
“Increased acuity of residents...[leads to] extensive referrals (I have walked in to 21 on a Monday)” – survey respondent

For example, protocols for unintended weight loss leads to more time spent assessing residents’ nutritional needs. RDs spend up to 30 minutes per resident to conduct these assessments and develop care plans. RDs receive referrals for any skin wound as per the Ontario LTC Homes Act and this also necessitates an assessment of up to 30 minutes for each resident referred. These residents require individualized care plans to ensure adequate calories, protein, specific vitamins and minerals as well as fluid to support wound healing.

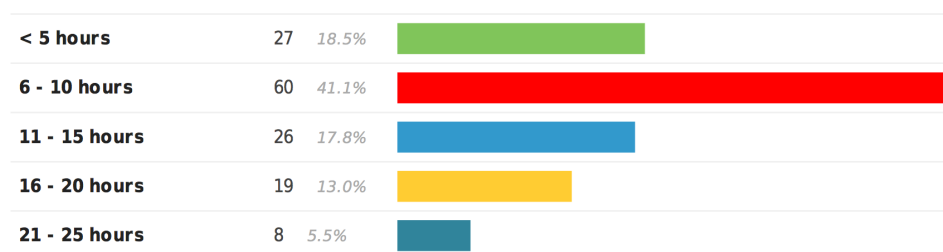
Communications with Nutrition Manager and Healthcare Team

In fulfilling their responsibilities, RDs must communicate with other health care professionals, including Nutrition Managers, in order to provide the best quality of care for residents. Survey results show that 12 to 20 hours per month is used for this communication, outside of meetings. The Nutrition Manager (NM) must be informed of changes to diets, textures, updated nutrition care plans, and more, so that service to the residents can be provided seamlessly with no gaps in service. Since the dietary staff that report to the NM operationalize the nutrition care interventions, this communication is extremely important in delivery of appropriate care. Feedback from the NM, dietary and nursing staff is essential to evaluating residents’ responses to nutrition interventions as well as feasibility of planned interventions. Communication with nursing staff is also extremely important to ensure that individualized nutrition care is provided at meals and snacks, and that all team members are fully aware of each residents’ condition. RDs also work closely with physicians, speech-language pathologists, physiotherapists, occupational therapists, and pharmacists to ensure all components of the care plan are aligned.

Time Spent Communicating with Nutrition Manager (per month)



Time Spent Communicating with Nursing Staff and other Health Professionals (per month)



RD Responsibilities – Non-Clinical Time

Communications with Families

Families of residents with high nutrition risk issues require interaction with the RD to explain the care being provided, to gain consent for changes to the nutrition care plan and to answer families’ questions and concerns. As residents require more complex care, RDs are called upon more often to provide information and explanations to family members.

Dining room observations for non-clinical roles

Supervision of dining rooms includes observing staff or conducting dining room audits. This is where clinical and non-clinical work meet, and RDs are well-suited to ensure that meal service provides a setting for residents to maximize their opportunity for optimal food intake in the most pleasant and resident-focused environment possible. The components of pleasurable dining include opportunity for choice, individualized attention, table by table and course by course service, assistance as needed, appropriate presentation of food, a social environment, and other expectations and legislation related to dining. Almost 50% of survey respondents spend up to 60 minutes per week supervising dining room service not related to observations for individual resident assessments. LTC home design guidelines with a maximum of 32 residents per Resident Home Area means multiple dining areas in most homes, with meal service simultaneously or at staggered times. Additional time for observations is needed for clinical and non-clinical roles as RDs cannot be present in each dining room at the same time.

Safe dining is part of the RD’s scope of practice and this includes appropriate use of assistive devices and proper positioning during meal times. Over 40% of RDs responded that they provide this service at least weekly and each assessment and intervention requires at least 30 minutes. Demonstrating assistance techniques to Personal Support Workers, and monitoring that feeding assistance is provided safely and according to best practices, requires application of the RD’s knowledge and sufficient time to perform these tasks.

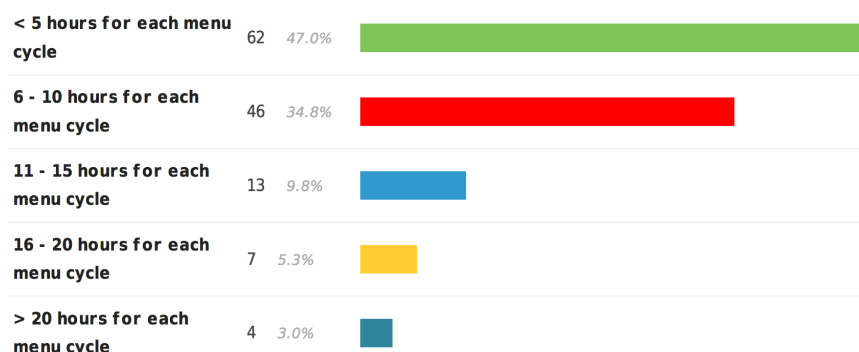
Menu review and approval

Menu approval is another important and mandatory function. Survey results show that menus used by most LTC homes are being revised twice per year; each revision requires RD time to check on nutritional adequacy and determine that menus meet the expectations of the Ontario Long Term Care Homes Act while being acceptable to the residents of the home. Menu review includes interpreting detailed nutritional analysis, especially for calories, protein, fibre, fluids,

and other important nutrients, determining suitability for the cultural preferences and therapeutic requirements of the home’s residents, feasibility for food production and service systems in the home, and budget constraints. With increasing diversity of cultural backgrounds and increasing complexity of resident conditions, determining an appropriate menu to provide required amounts of nutrients within a reasonable volume of residents’ personally-acceptable food is a very resource-intensive task (Ducak & Keller, 2011; Lam, Keller, Duizer & Stark, 2015). Since the menu forms the basis for nutrition care, food costs, and staff deployment, it is essential that adequate time be provided to complete a thorough review. Many survey respondents commented that they complete the menu review on *unpaid* time.

While some homes obtain nutrient analysis of the menu through corporate services or contract foodservice management companies, in other homes the RD personally conducts the nutrient analysis. Even with menus planned and analyzed at the corporate level, individual home variations require analysis and review, as well as discussion with Food Committee or Residents’ Council, and review with NM and dietary staff. Almost half of survey respondents reported up to 5 hours per menu review and 35% reported 6 – 10 hours per menu review, with 84% of RDs completing this work twice per year.

Time Required for Menu Review for Each Menu Cycle



Staff Education

RDs may be expected to provide ongoing education and training to nursing and dietary staff on various important issues such as dysphagia, dehydration, and dining service skills. Forty-eight percent of RDs responded spending 1 to 5 hours per month on preparing and providing dietary or nutrition related education to staff and volunteers.

Resident Care Conferences and Professional Committee Meetings

RDs may be asked to participate in resident care conferences, including initial 6-week conferences and annual conferences. In some homes, participation in the care conferences is delegated to the Nutrition Manager (NM), with the RD providing input prior to the meeting. Initial care conferences can last up to one hour and annual resident care conferences may be 30 minutes in length for each resident. In addition, there is preparation before each meeting, usually including meeting with or observing the resident.

Survey results show that 33% of RDs attend regular health care meetings weekly and another 33% attend monthly. These meetings take at least one hour of the RDs work time. Responding to requests at Family or Residents Council take an additional 30 minutes per meeting. These meetings are crucial in providing care but are not included in the mandated 30 minutes/resident/month.

As health care professionals, RDs may be expected to provide their expertise at committee and health care team meetings, such as medical advisory and wound care committees. Ontario’s Long Term Care Homes Act regulations, requires that the dietitian be included in the medication management team to provide expertise in food- and nutrition-related processes. In some homes, the RD is part of the home management team and participates in associated meetings for general management of the home.

Policy Development and Quality Improvement

RDs develop and monitor policies and programs for the Dietary Department or for interdisciplinary programs. Sixty-two percent of RDs responded spending 1 to 5 hours on these per month. RDs also review policies and procedures on clinical and non-clinical issues such as menu planning, hydration programs, diabetes protocols, food handling, recipe development, and more. Almost all survey respondents (90%) of RDs reported these activities monthly or quarterly, with a time commitment of at least 60 minutes. RDs also provide expertise on quality improvement activities, including developing goals and quality improvement strategies for the department or the LTC home, collecting statistics, designing and conducting audits. Sixty-four percent of RDs spend 1 to 5 hours per month on quality improvement activities that are not related to their clinical responsibilities.

Mentoring New Professionals

More than 60% of RDs spend time mentoring students as part of their job. This includes dietetic interns, university students in undergraduate Foods and Nutrition courses, Nutrition Manager students from community colleges, internationally-educated dietitians, and other health professional students. Time varies for this depending on the length of the placement and the expectations of the educational facility, however RDs can spend up to 20 hours per month providing mentoring and guidance. Supporting learners is an expectation of dietetic practice embedded in the Code of Ethics and Principles of Practice of the dietetic profession (Dietitians of Canada, 1996, 2010).

Dietitian Workload in LTC

72% of RDs reported being busier or significantly busier than they were the previous year.

How Has Your Workload Changed in the Last Year?



The top 5 reasons given for this increase in work are:

- increased frailty and acuity of residents,
- higher resident turnover,
- more referrals for nutrition-related concerns,
- more non-clinical expectations by management such as attendance at meetings and committees, and
- more special nutrition-related issues such as gluten free diets, diets for dialysis and transplant.

When asked what is **not** being done due to time constraints, the top 5 responses were:

- follow-ups for residents at high nutrition risk,
- contact with families,
- auditing,
- completing clinical work on time or within paid time, and
- providing in-service education to staff and volunteers.

“Rushing always. More risk for errors. Less time to plan and organize for efficiency. Also huge turnover of Dietitians in the field due to stress and poor job satisfaction. Time spent training and retraining ...”

– survey respondent

89% of RDs report that 30 minutes/resident/month is not enough time to meet all expectations in LTC.

When asked how extra time might be used, the following responses were given most often:

- more time to spend with residents and with families,
- more staff training to improve nutrition-related care,
- more time for assessments and follow-ups,
- more dining room observation time and
- more time for auditing.

“more time[needed] to communicate with residents, families, multidisciplinary team... follow up to determine the effectiveness of recommendations...to research for better care...”

“There is not enough time to do comprehensive assessments as per best practice”

– survey respondents

“Implementing a food-first approach takes more time [to reduce supplement use]”

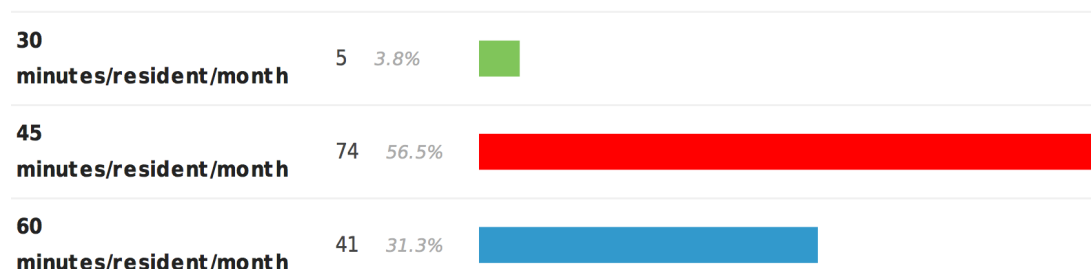
“Additional time needed for: education for staff & health care professionals, communication with staff and families, follow up on implemented care plans to ensure what is recommended is happening, improved team approach to resident care.”

– survey respondents

Time required to provide optimal nutrition care

When asked about how much time would be needed to complete RD work in LTC, 58% stated that 45 minutes/resident/month would be sufficient, while 31% reported 60 minutes/resident/month.

Time required to provide optimal nutrition care



It is clear from this evidence that RDs require more time to complete their expected professional work obligations. Clinical work has been affected by increased acuity and frailty of residents at admission, and a greater variety and complexity of resident care needs. Related expectations include the RD's greater involvement in: care conferences, committee and team meetings, staff education, greater frequency of contact with families and greater involvement in LTC quality improvement practices. Given the importance of nutrition care in the LTC setting, it is important that the dietitian participates in these activities, as it can lead to improved outcomes and improve processes within the home. However, the time required for these activities should be accounted for to ensure clinical care is not compromised.

“To the health care team RDs are very valued but not as available as they need to be due to time constraints and the extent of their obligations. There is so much more that could be done to improve the nutrition care process if the RD was full time in our facility.”

– survey respondent

The survey response provides data from a cross-section of RDs and provides a current picture of LTC RD work, indicating that more RD time per resident per month is warranted. There is significant data to show that optimal nutrition care helps residents to avoid some of the important main concerns in LTC, such as malnutrition and poor quality of life. Common concerns in LTC such as falls, wounds, and significant weight loss can be better managed or prevented with the optimal nutrition care provided by Registered Dietitians, leading to fewer hospital admissions and maintenance of functional abilities.

Conclusion

A minimum time of 45 minutes per resident per month is required to allow RDs to support residents and LTC home staff by providing evidence-based nutrition care for LTC residents in Ontario. RDs can mitigate risks for residents related to acute and chronic illnesses, reducing expensive and disruptive emergency room visits, and improving residents' comfort. Research has shown that good nutrition affects health outcomes, and for the frail elderly, this is a key to better health and improved quality of life. RDs are committed to making a difference in people's lives and deserve the opportunity to continue to provide enhanced and individualized nutrition care for residents in LTC in Ontario.

For further information:

Dietitians of Canada website <http://www.dietitians.ca/Dietitians-Views/Health-Care-System/Long-Term-Care.aspx>

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References

- Bunn D, Jimoh F, Wilsher SH, Hooper L. Increasing fluid intake and reducing dehydration risk in older people living in long-term care: a systematic review. *J Am Med Dir Assoc.* 2015 Feb;16(2):101-13. Abstract available from <https://www.ncbi.nlm.nih.gov/pubmed/25499399>
- Byham-Gray, L. (2010). *Managing Human Resources.* Nutrition Dimension. <http://www.nutrition411.com/pdf/Managing%20Human%20Resources.pdf>
- Canadian Institute of Health Information Continuing Care Reporting System Available from <https://www.cihi.ca/en/quick-stats>
- Dietitians of Canada (1996). *Code of Ethics of the Dietetic Profession in Canada.* Available from https://www.dietitians.ca/Downloads/Public/code_of_ethics.aspx
- Dietitians of Canada (2010). *Principles of Professional Practice.* Available from <http://www.dietitians.ca/Downloads/Public/Principles-of-Prof-Practice---English.aspx>
- Ducak K, Keller H. (2011). Menu planning in LTC: Towards resident-centred menus. *Can J Diet Pract Res.* 2011 Summer;72(2):83
- Lam I, Keller H, Duizer L, Stark K. (2015). Micronutrients on the menu: Enhancing the quality of food in long term care for regular, non-therapeutic menus. *C J Diet Pract Res.* 76(2): 86-92
- Montoya C. Review of current Registered Dietitians' practice in LTC Homes. 2008. (unpublished)
- Ontario Long Term Care Association (OLTCA) (2015). *This is Long Term Care 2015.* Available from www.oltca.com
- Robles-Suarez J, Sinvani LD, Rosen L, Nouryan CN, Wolf-Klein G. 2015. Hydration Status of Long Term Care Residents Rehospitalized Within 30 Days of Hospital Discharge. *The Journal of Nursing Home Research Sciences.* 1:11-
<http://www.jnursinghomeresearch.com/406-hydration-status-of-long-term-care-residents-rehospitalized-within-30-days-of-hospital-discharge.html>