



The Dietitian Workforce in Ontario Primary Health Care Survey Report

2018

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Executive Summary

Dietitians of Canada's (DC) Ontario Primary Health Care Action Group surveyed DC members working in primary health care settings in spring 2018 to:

- Describe the current dietetic workforce in primary health care (PHC) in Ontario
- Assess job satisfaction and compare satisfaction with previous PHC dietetic workforce surveys
- Investigate use of outcome measures by PHC RDs
- Assess scope of practice issues

224 responses were received to the electronic survey. Highlights of the results include:

- Dietitians with 1 - 5 years of experience continue to make up the greatest proportion of PHC dietitian workforce, emphasizing the need for continuing education and mentorship
- Fewer dietitians are reporting full-time work with one employer compared to previous surveys, however 70% of respondents would prefer to work full-time for one employer
- Chronic disease management makes up the majority of dietitians' work time, leaving little time for disease prevention and health promotion activities
- Despite evidence of benefit, many vulnerable populations in family practice (such as infants, malnourished seniors, patients with mental health conditions, renal conditions, dysphagia, dementia, irritable bowel syndrome and celiac disease) are not being referred to dietitians for nutrition counseling
- 36% of dietitians reported that their team members did not understand the role of the dietitian in primary care or the benefit of nutrition therapy for many common health conditions
- The majority of dietitians are collecting outcome measures but consistent and systematic collection continues to be a challenge
- Overall job satisfaction is good, however significant dissatisfaction exists with salary and lack of opportunities for advancement

FUTURE CONSIDERATIONS AND RECOMMENDATIONS

Government and PHC organizations

- Create system changes to facilitate access to dietetic services in PHC for vulnerable, under-served populations
- Promote widespread adoption of screening tools and processes, and incorporation into electronic medical records (EMRs), to help PHC settings utilize dietitian time and expertise effectively as well as standardize care and outcome tracking
- Allow dietitians to work to full scope of practice through regulatory amendments to finalize independent ordering of laboratory tests by dietitians
- Coordinate efforts to raise awareness of the benefits of nutrition counseling from dietitians on patient outcomes, and the costs savings associated with nutrition counseling in PHC settings

- Advocate for additional funding to ensure adequate dietitian staffing in PHC settings to accomplish both Medical Nutrition Therapy and disease prevention/health promotion activities
- Clarify key nutrition outcomes and support consistent data collection to collect inputs (such as referral rates) and patient outcomes
- Plan for ongoing collection of PHC dietetic workforce data every 3 years to inform education needs, scope of practice and other professional practice issues, growth of the dietetic role in PHC and project future workforce planning needs

Researchers

- Identify and validate a consistent set of outcome measures for the medical nutrition therapy and other dietetic services provided in PHC
- Explore health professional and patient attitudes toward dietitian services to facilitate access to care
- Conduct economic analyses of nutrition interventions in PHC settings
- Explore professional practice issues such as retention and recruitment, limited advancement opportunities and the impact of a profession composed mainly of new grads

Dietitians

- Support efforts to identify and collect a consistent set of outcome measures
- Continue to raise awareness of the role and contributions of dietitians in PHC and the evidence supporting benefit of nutrition counseling from dietitians on a variety of health conditions commonly seen in family practice settings
- Mentor and support new graduates within PHC and manage risk associated with fewer years of clinical experience

Acknowledgements

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Introduction

Registered Dietitians (RDs) practice in primary health care settings throughout Ontario, including Family Health Teams, Community Health Centres, Nurse Practitioner-led clinics, and Aboriginal Health Access Centres and other family practice settings. A large body of evidence supports the importance of nutrition to health, and it is estimated that 1 out of 4 visits to primary care physicians involve nutrition-related issues (Howatson, Wall, Turner-Benny 2015). Evidence from a 2015 systematic review, shows every \$1 spent on nutrition counseling in primary health care settings improves patient outcomes and saves \$5 to \$99 by reducing medication use, hospitalizations and freeing up physician time for other medical management issues (Howatson et al, 2015). Despite proven benefits, a recent literature review of dietetic staffing in Canada reported very few dietitians in primary care compared to other health professionals with ratios of 1 RD: 15,000-18,500 patients or 1 RD: 4-14 physicians (MacDonald-Werstuck and Buccino, 2018). An inadequate number of dietetic positions exist in primary health care to keep up with the growing rates of chronic disease in aging populations (Hooker, Williams, Papneja, Seri 2012). Staffing ratios based on specific population needs and best practices such as 1 RD:300-500 patients with diabetes are recommended (Segal, Leach, May, Turnbull 2013; Abram & Bergeron 2015). Currently only 30% of Ontarians can access a dietitian within their family health team (468 FTE PHC RDs servicing 4.5 million Ontarians) (AFHTO ref). Additional PHC dietetic positions will be needed to offer services to the other 70% of the 13.6 million Ontario population currently without access to family health teams.

Human resources challenges within the sector, including recruitment, retention, and job satisfaction, have been identified by Dietitians of Canada Ontario Primary Health Care Action Group (PHCAG). Every three years since 2012, PHC RDs have been surveyed to collect data to describe the PHC RD workforce, satisfaction with RD roles and scope of practice, and to identify factors that support integration of primary health care RD roles into the health system. The 2018 survey builds on previous results by showing trends over time, and introducing new data elements to describe the PHC dietitian workforce in Ontario.

The Dietitians of Canada PHCAG and the FHT RD Network bring together PHC RDs on an annual basis to provide ongoing continuing education and training events to share innovative programming and EMR assessment tools to standardize best practices and track outcomes.

Methods

An electronic survey (SurveyMonkey) was developed with input from members of the PHCAG and communicated to DC members through the Family Health Team (FHT) RD electronic listserve and the Community Health Centre (CHC) RD Ontario Action Group. In addition, all Nurse Practitioner-led clinics (NPLC) were contacted electronically to reach any RDs working at NPLC that do not belong to the FHT RD electronic listserve. DC social media was used to promote the survey to these groups as well.

Response

Of 224 responses received, 69% were from RDs working in Family Health Teams (n=154), Community Health Centres (n=43, 19%), NP-led clinics (n=12, 5%) and Aboriginal Health Access Centres (n=4, 2%) and 4 identified other settings. Accurate response rates cannot be calculated as the total number of potential respondents is not known. Currently 468

full time equivalent (FTE) PHC RD positions exist in Ontario (AFHTO Laure Belsito, email communication); the College of Dietitians of Ontario Annual Report 2016-17 shows that 371 registrants reported working in CHC or Health Service Organization, and 385 in FHT or Family Health Network; this gives a response rate of 28% ($n=213/756$ RDs) for CHC and FHT.

Responses were received from dietitians in every LHIN in the province except Brant, with a range of 4 – 32 responses from each LHIN. Champlain LHIN had the highest number of responses ($n=32$).

Results

Age of Respondents

The greatest proportion of respondents (41%) are in the 30 – 39 years age group. Twenty three percent of dietitians surveyed were under the age of 30 years and 20% were over the age of 50.

Experience

The responses showed that dietitians with 1 - 5 years of experience make up the greatest proportion of the PHC workforce. Compared to the 2012 and 2015 surveys, there has been some aging of the workforce as shown by the shift to greater numbers in the 6 – 10 years experience category; the decline in RDs with 20+ years experience between 2012 and 2015 has been reversed, with a higher proportion of respondents reporting more than 20 years experience (Figure 1).

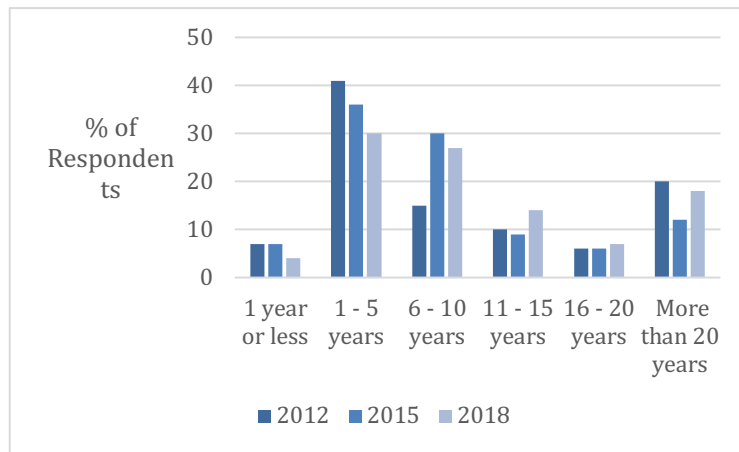
Dietitians with less than 5 years of experience continue to make up the greatest proportion of the PHC workforce.

When separated by setting, it appears that FHTs have the greatest concentrations of dietitians with more years of experience. NPLC's have the greatest number of dietitians in their first year of dietetics, and CHC's have similar numbers in the 3 – 5 and 6 – 10 years categories.

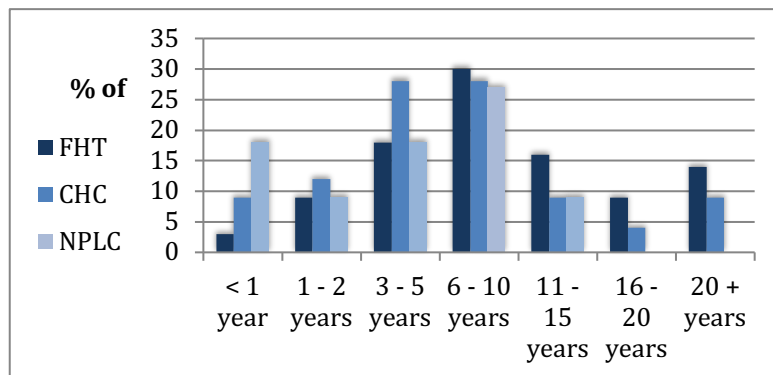
Twenty percent of respondents had been in their current position less than one year, and 13% reported 1 - 3 years.

These findings have implications for professional development and support for dietitians new to the PHC setting as well as those new to the profession. Dietitians in primary care settings are expected to be leaders in primary care nutrition, providing nutrition counseling services to patients and families and nutrition leadership and education to interprofessional teams. Given nutrition leadership expectations and the wide range of nutrition conditions commonly seen in family practice, dietitians working in primary care require a broad spectrum of skills and competence to provide optimal patient-centered team-based care in busy clinical practices.

Since many FHTs and CHCs employ only one dietitian (half of the respondents reported 1 – 2 dietitian full time equivalents in their place of work), linkages to colleagues for mentoring is particularly important. The profession's continuing education opportunities, the list serves for FHTs and CHCs and the professional networks (DC Ontario FHTRD Network, DC CHC Network, DC Primary Health Care Action Group) provide this mentoring. The job profile for PHC RDs developed by DC's Ontario PHCAG advises that 3 – 5 years of experience in clinical nutrition and counseling is needed to deliver high quality nutrition services (DC PHCAG, 2010).

Figure 1: Years of Practice as a Dietitian

Note: The 2018 survey provided additional detail on the years of practice by separating 1 – 5 years category into 1 – 2 years (8% of respondents) and 3 – 5 years (22% of respondents). It has been combined in the chart for ease of comparison with other years.

Figure 2: Years of Practice by PHC Setting

Full-time and Part-time Work

Fifty-five (55) percent of respondents worked full-time (>36 hours/week) for one employer in one position, which is lower than the 66% reported in 2015 and 63% reported in the 2012 survey. Nearly 70% of the respondents stated they would prefer full-time work. Limited full-time dietetic positions in primary care settings is a growing issue in primary care with few full time RD positions compared to other health professionals (Macdonald-Werstuck & Buccino, 2018).

Size of PHC Organization

Respondents were asked about the number of physicians practicing in their PHC setting, and the number of patients served by the organization.

One-third of the respondents work with 5 – 10 physicians; some respondents answered “other” to this question and separated Nurse Practitioners from physicians, so it is likely that the proportion of PHC settings of this size is higher.

The largest proportion of respondents (42%) indicated that their PHC organization served 10,000 – 30,000 patients. A further 20% reported 30,000-60,000 patients served. The responses to this question also showed that many dietitians do not have access to this information within their setting; this is a barrier to fully understanding the proportion of clients who are accessing and utilizing nutrition counselling, and determining the appropriate dietetic staffing complement to meet population needs. Strategies to correct this knowledge barrier should be explored.

Number of dietitian positions (FTE) in PHC organization

Half of the respondents reported 1 – 2 FTE dietitian positions, and a further 17% reported 3 – 5 FTE dietitian positions. There were also 19 respondents who noted that there is less than 1 FTE position, ranging from 0.2 FTE to 0.8 FTE. Recent staffing ratios for dietitians working in primary care report 1 RD: 15,000-18,500 patients which is similar to responses in this survey showing the majority (42%) of respondents reporting 1-2 FTE dietitian positions serving 10,000-30,000 patients (MacDonald-Werstuck and Buccino, 2018).

Current evidence shows that there are insufficient numbers of dietitians in primary care to meet the needs of aging populations with high rates of chronic disease.

Current evidence shows that there are insufficient numbers of dietitians in primary care to meet the needs of aging populations with high rates of chronic disease. Staffing ratios based on specific populations and best practices that improve health outcomes are recommended to estimate the appropriate number of dietitians needed in primary care. A workforce projection model by Siegal et al using best practices for diabetes care estimates 1 FTE RD is required to effectively manage 300 patients with diabetes and other co-morbidities.

Additional Certification and Training

More than 87% of PHC RDs reported advanced training and certifications, which is similar to 2015 results, with 40% holding a Master's degree and 46% specializing in diabetes education (Certified Diabetes Educator credentialing). Registered Dietitians also reported attaining certification as lactation consultants and personal trainers, and training in motivational interviewing techniques.

RDs in primary care are raising awareness of malnutrition and advocating for nutrition screening within family practice for vulnerable populations at increased nutritional risk such as children and seniors. One-third (33%) of RDs have completed training on screening tools including Nutri-step®, a validated tool to identify toddler/preschooler feeding issues, and Subjective Global Assessment (SGA) (30%), a validated tool to identify level of malnutrition within seniors. Training on SGA has increased significantly since the 2015 survey when only 12% of respondents reported having SGA training. The DC Ontario PHC action group has made malnutrition awareness a priority issue creating nutrition

EMR screening tools and interprofessional care pathways and sharing them broadly with RDs across PHC settings in Ontario.

Several respondents have completed training in Nutrition Cognitive Behaviour Therapy (Nutrition CBT) to become Craving Change facilitators, a program aimed at helping individuals have a better relationship with food by increasing their awareness of internal (thoughts, emotions, mood) and external (environment, family, friends, work) triggers to problematic eating and strategies to manage their food choices. These additional qualifications bring value to their clients and the health system, yet are not reflected in RD compensation levels.

Respondents below the age of 40 were more likely to have Master's degrees, while older respondents were more likely to have ASPEN certification. Dietitians 30 - 49 years of age were more likely to be Certified Diabetes Educators, compared to those ages 20 – 29.

Job Vacancies

There were 18 unfilled RD positions reported in the survey, 12 at FHTs, 5 at CHCs, and 1 reported at a hospital. This is less than half of the unfilled positions reported in the 2015 survey (n=41), however there are several limitations to this data. The self-reported data is limited due to the inability to know if the same positions were reported by more than one person, nor were reasons provided for the vacancies (e.g. unable to fill due to lack of appropriate compensation or rural location). Dietitians of Canada continues to advocate for national data collection on RD workforce supply and demand to provide a clearer picture of workforce requirements. At present, there is no system of tracking vacant positions for dietitians in PHC or other sectors.

Dietitian Activities — Medical Nutrition Therapy and Health Promotion/Disease Prevention

Medical Nutrition Therapy (MNT) is the application of food and nutrition expertise to provide care for a variety of conditions and illnesses to improve health and quality of life. Medical Nutrition Therapy is an evidence-based nutrition service provided by RDs to prevent, delay or manage diseases and conditions. Components of MNT include personalized, in-depth assessment, nutrition diagnosis and intervention treatment plan, and evaluation of response to the interventions. MNT is typically provided over multiple visits to positively impact nutrition behaviours and allow for continued monitoring of the patient. MNT is one application of the Nutrition Care Process, which is made up of nutrition assessment, nutrition diagnosis, intervention, and monitoring/evaluation (Dietitians of Canada, 2010).

The majority of RDs are spending the bulk of their time in Chronic Disease Management activities, primarily diabetes and CVD.

Respondents were asked to report the percentage of time that they spent performing:

1. Medical Nutrition Therapy for chronic disease management (e.g. diabetes, cardiovascular disease, chronic renal disease)
2. Medical Nutrition Therapy for episodic care (e.g. infant failure to thrive, anemias, malnutrition)
3. Health promotion and disease prevention activities (e.g. diabetes prevention, pre- and post-natal, senior wellness, obesity prevention, healthy lifestyle classes, cooking demonstrations, non-clinical infant feeding instructions)

Almost one-third (32%) of respondents spend more than half of their time on diabetes (primarily Type 2) and weight management. This was followed closely by cardiovascular diseases (including hypertension and dyslipidemia), and gastro-intestinal conditions such as irritable bowel disease and celiac disease.

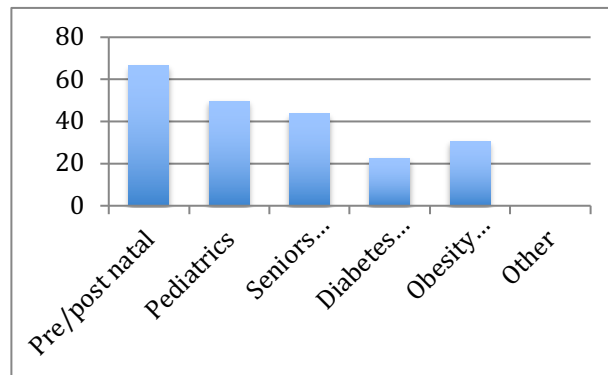
Almost 70% of respondents reported that a small proportion of their workload (<10%) is involved in episodic care (e.g. Anemia, failure to thrive, malnutrition), yet evidence is strong that nutrition therapy from a dietitian can improve health outcomes in these conditions. Only 1% of respondents spend more than half their time on these activities. Gestational diabetes was also a small proportion of workload for over 50% of the respondents.

75% of respondents reported that only 30% of their time was spent on disease prevention and health promotion such as nutrition counseling to prevent diabetes, metabolic syndrome, osteoporosis, malnutrition, and child obesity despite strong evidence supporting the benefits of nutrition counseling for these at-risk populations.

Dietitians report very few referrals for vulnerable populations such as under-nourished infants and toddlers and malnourished seniors in PHC family practice settings. Despite 1 out of 3 seniors in Canada at nutritional risk according to Statistics Canada and 1 of 2 adults identified as malnourished on hospital admission, dietitians in PHC family practice settings get very few referrals for malnutrition nutrition counseling. Dietitians on the DC PHC action group along with the FHTRD and CHCRD Networks have been raising awareness of malnutrition in older adults and providing EMR tools and training opportunities for RDs and other IHPs to standardize screening and outcome measurement in family practice. Continued efforts are needed to raise awareness of at-risk populations in family practice and advocate for earlier detection and Intervention.

Despite 1/3 of seniors being at nutritional risk, very few referrals are made to dietitians for malnutrition.

Chronic disease management is taking up the majority of dietitians' work time leaving little time for any other activities including the important work of disease prevention. Current dietetic positions cannot keep up with the growing rates of chronic disease. Increased access to dietitians in PHC would allow for time to plan effective nutrition interventions for at-risk populations. A systematic review reported that every \$1 spent on nutrition interventions in primary care, saves \$5 to \$99 by reducing medication use, hospitalization rates and freeing up physician time for other medical management issues (Howatson et al, 2015).

Figure 3: Health Promotion Activities, Proportion of Respondents Reporting <10% of RD Workload

Direct and Indirect Patient Care

Respondents were asked to estimate the proportion of time spent providing direct patient care, indirect care, team-based care, and teaching or mentoring other health professionals.

The greatest proportion of time is spent providing direct patient care, with 56% of respondents spending more than half their time, and 27% spending more than 75% of their time in these activities. Indirect patient care such as documentation and care coordination takes up 10-25% of the workday for over half the respondents (58%), while a further 22% spend up to half their time (25-50% of the workday). Care coordination including debriefing with team members, facilitating transitions across the health care system and advocating on patients' behalf can take up considerable RD time. Further detail on care coordination and team-based care is found on in the Interprofessional care section of this report.

Reducing time on documentation is another priority of the FHTRD network and DC Ontario PHCAG; through standardized nutrition EMR assessment forms and clinical care pathways. Education sessions and electronic medical records (EMR) tools and templates have been shared across the province to support practitioners using Telus PS, one of the most popular EMR systems in family health teams in Ontario.

When analyzed by practice area, FHT and NPLC dietitians were more likely to report higher proportions of time in direct patient care than in CHC settings or Aboriginal Health Centres. Team-based care was most prevalent in CHCs, with a greater number of respondents selecting 25-50% of their time in team-based care, compared to other settings.

The 2015 survey asked questions about integration of care in a different manner, making direct comparisons difficult. In 2015, the greatest proportion of respondents (45%) indicated that they spent between 1 and 3 hours each week in team meetings, case conferences, and other activities to support integration of care (which would be equivalent to the <10% choice in the 2018 survey). This appears similar to the results in the current survey.

Interprofessional Team-Based Care

Dietitians work with other providers in PHC settings to support patient care. In addition to care conferences and consulting on specific patients' needs, dietitians help educate providers on nutrition topics to improve their ability to incorporate evidence-based nutrition advice into patient care. Some of the ways that this is accomplished is through answering questions individually, sharing new research findings with team members or providing education sessions (e.g. lunch and learn).

Figure 4: Supports provided by dietitians in team-based care

ANSWER CHOICES	RESPONSES	
▼ Answering nutrition questions from team/staff	96.95%	191
▼ Consulting/debriefing	91.37%	180
▼ Sharing new nutrition knowledge	78.17%	154
▼ Keeping team aware of new community resources/supports	76.14%	150
▼ Promoting nutrition eg. during Nutrition month	75.63%	149
▼ Coordinating collaborative care opportunities eg. co-booked appointments	65.99%	130
▼ Lunch and learns	48.73%	96
▼ Advocating for quality improvement initiatives	40.10%	79
▼ Mentoring IHP learners	34.52%	68
▼ Other (please specify)	Responses 3.55%	7
Total Respondents: 197		

Close to 100% of respondents surveyed reported scheduling patient appointments with and around other clinicians' schedules to enhance interprofessional collaboration and patient convenience. Ninety-five % report scheduling dietitian appointments before or after physician or NP appointments, and 73% schedule co-booked appointments with other providers. Almost 40% of respondents indicated that group or shared medical visits were practiced, and 71 respondents (38%) reported conducting home visits.

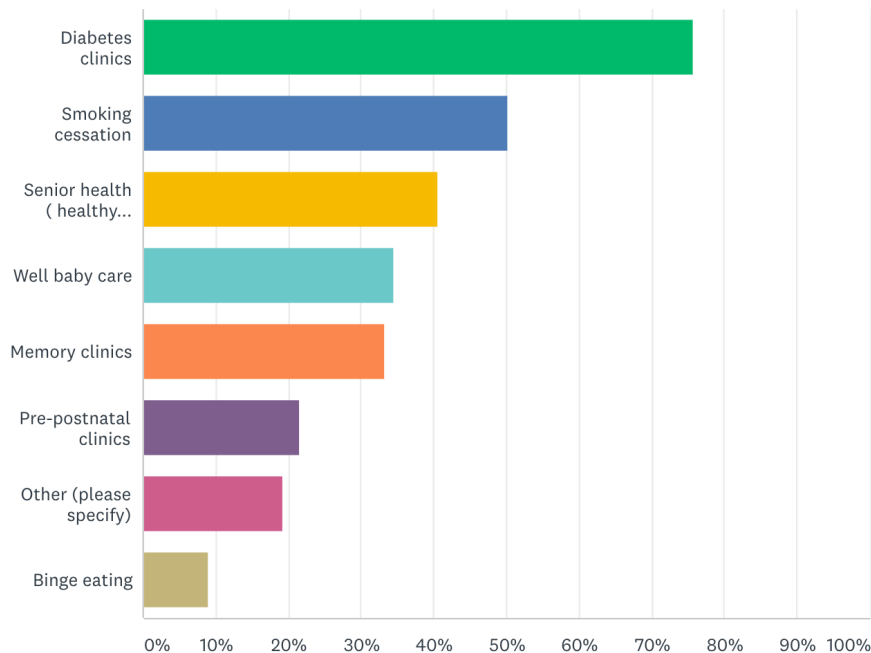
Comments provided in response to this question showed that not all PHC settings are supportive of these coordinated care arrangements: "all are not supported"; "...rare, I would have to initiate it"; "none due to time constraints".

Team-based care has been shown to improve outcomes and is a key feature of primary health care in Ontario (AFTHO, 2015). Successful teams need support to incorporate communication activities, and this has an impact on individual practitioner's time. In this survey, 60% of respondents reporting 10% of their day (eg. 48 minutes) is spent coordinating care plans with other team members. Another 35% report 10 – 25% (eg. 48-120 minutes) of their day is spent in team-based care including debriefing and consulting with team members. Overall 44% reported having case-based discussions with the team on a weekly basis, and 28% reported that this happens daily, while 27% reported only monthly team discussions on cases. FHT settings appear more likely to have weekly team discussions (49% of FHT respondents), compared to CHC (32%).

Interprofessional Programs Offered

The most common interprofessional program offered is diabetes classes, which is consistent with the results of the general question on programs offered. Some respondents indicated that these programs are offered but that the dietitian is not involved in all of them, so the results of this question may not be directly applicable to dietitians' services.

Figure 5: Interprofessional Programs Offered



Other Activities (Preceptoring, Mentoring, Quality Improvement, Research)

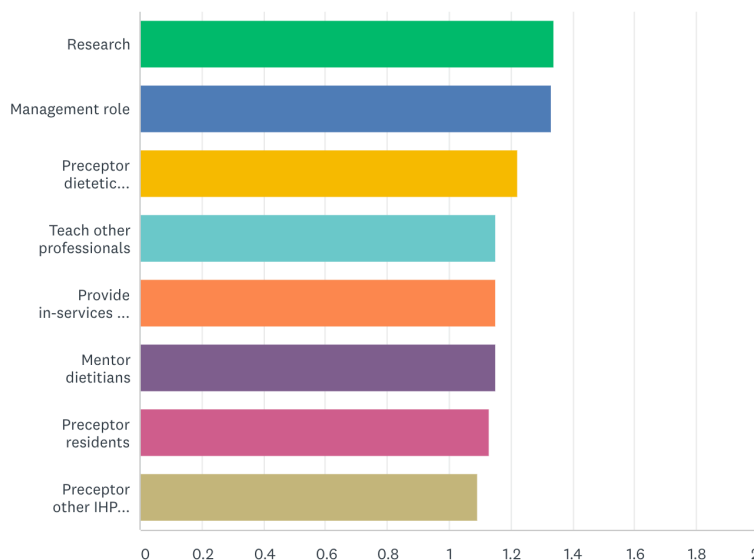
In addition to the primary roles providing Medical Nutrition Therapy and Health Promotion/Disease Prevention activities, dietitians act in many other capacities within the PHC setting, as shown in Figure 6. The preceptoring and mentoring roles are essential to the development of new professionals in dietetics and other health professions, for example medical residents, nursing, pharmacy, and mental health students.

Compared to the time spent providing direct patient care, teaching and mentoring is a smaller component of many respondents' workload, with 85% reporting it makes up less than 10%, and 12% of respondents reporting 10 – 25% of their time. Educating future dietitians and other health professional students (eg. nursing students, medical residents) is an important part of the PHC dietitian role but can be challenging. Many dietitians balance their workload and professional commitments by taking 1-2 dietetic Interns each year for 2-6 week rotations in PHC. Other health professional students such as medical residents and nursing students often spend 1/2 day electives with a dietitian to learn about conditions commonly seen in family practice that can be prevented or managed through nutrition therapy.

The responses to this question may reflect dietitians' perspectives of time spent specifically educating and assessing students, and not include time spent performing regular direct and indirect patient care in conjunction with the student.

With mentoring and preceptoring opportunities to enhance nutrition knowledge of team members and future health professionals comes the challenge to fit this important activity into daily work, and also underscores the need to support PHC dietitians who are new to practice with less than the 3-5 years experience in PHC recommended. One third (33%) of respondents surveyed reported less than 3 years experience in PHC highlighting the need for continuing education for new grads on effective mentoring and preceptoring. The impact of preceptoring on workload must also be considered, as studies have shown that time requirements are a major issue for both students and preceptors (Taylor and Hassberg, 2010; Wiseman, 2013), with one study showing an average impact of 1.2 additional hours per day required for clinical care when training a medical student (Ricer and Van Horn, 1997).

Figure 6: Non-patient Care Activities, weighted average of workload proportion



More than half (54%) of the PHC RDs surveyed are involved in some form of clinical research (44% of respondents marked this as n/a and the rest included a proportion of time) as lead or co- investigators looking at outcomes of nutrition services, feasibility studies and the impact of service on health outcomes, clinical practice, and education of health professional students. Many dietitians are spearheading quality improvement initiatives within their primary care organizations to promote best practices and enhance team-based care. Efforts are needed to ensure dietitians have protected time for clinical research commitments studying best practices and outcome measures in PHC nutrition services. Clinical and outcome research is within the dietitian's scope of practice; dietetic staffing should be planned to allow for this important part of clinical nutrition work.

Number of Patients Seen Per Day

Seventy percent (70%) of respondents reported seeing 5 – 8 patients per day on average, and 23% reported seeing 0 – 4 patients per day. The remaining 7% of respondents indicated they see more than 9 patients per day. Initial visits with the dietitian are usually 60-75 minutes in length to allow time to conduct a comprehensive nutrition assessment, provide some basic education and set goals for the next follow up visit. Follow up visits are 30 minutes in length. Previewing charts, connecting with team members to plan for coordinated care and documenting care also take up time during a dietitians' day, limiting the number of patients that can be seen in one day.

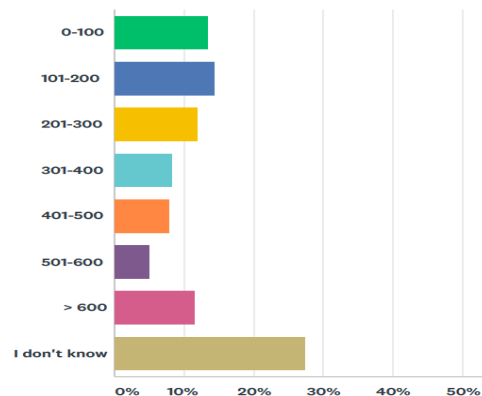
The number of patients seen per day does not include the patients seen in the nutrition groups offered by dietitians in PHC. For example, Healthy You, Craving Change™, Diabetes and Heart Health are popular nutrition group education programs offered across PHC settings in Ontario. Dietitians are active in diabetes care, spearheading interprofessional collaborative models of care and also see patients with diabetes in small groups during group medical visits or shared medical appointments.

Referrals to Dietetic Services

Dietitian services in PHC settings are accessed by clients through referral from another healthcare provider, most often the physician or nurse practitioner. In some settings, clients can request an appointment with the dietitian directly, often called self-referral. Respondents were asked to quantify the number of clients who were referred and the number who self-referred. Twenty-seven percent of respondents did not know the number of patients referred to dietitian services. This is a huge gap in knowledge that prevents accurate data collection to determine dietitian staffing required.

The ability to track nutrition referrals from generation to completion varies depending on the EMR. Many PHC organizations have created data dashboard systems to be able to see number of referrals generated, from which clinician, number of referrals completed with dietitian vs number of no shows or cancellations. Other systems only provide a daily calendar for the dietitian that lists patients to be seen that day, which may be the case for the 27% of dietitians who reported not knowing the number of patients referred for their services. Consistent data generation and reporting is essential to allow human resources planning for equitable access to dietitian services.

Over ¼ of respondents did not have data to track number of referrals made to them. Consistent data generation and reporting is essential for HR planning.

Figure 7: Number of patients referred to dietitian for nutrition counselling per year

There were some differences found between CHCs and FHTs: the proportion of CHC dietitian respondents with 0 – 100 referrals per year was much higher than the FHTs, and the proportion of respondents who did not know the number of referrals was much higher in FHTs. This may suggest differences in the data collection systems around referrals between the types of PHC settings, allowing CHC dietitians to track referrals to their services. Responses from dietitians working in NPLCs did not include any “I don’t know” answers; the small number of NPLC respondents (n=12) makes it difficult to know whether this is due to more accurate tracking mechanisms.

In the hospital setting, research has found that over 60% of patients who would have benefitted from a referral to the dietitian, were not identified through traditional methods that relied on physician and nurse judgment or diet type (Keller et al 2014). If similar rates are found within the primary care setting, there are likely many patients that are not directed to the dietitian. Systematic collection of referral data in PHC settings could determine the proportion of patients that would benefit from a referral. Anecdotal evidence of care providers forgetting to offer nutrition services to the patient and/or not offering nutrition services due to long wait times for nutrition counseling (“our dietitian is too busy”) has been reported. Looking at the types of nutrition referrals reported in this survey and others identifies many vulnerable populations in primary care not accessing nutrition counseling services. Malnutrition, failure to thrive, anemia, and diabetes prevention are just a few of the at-risk and under-serviced populations reported in this survey as well as the 2015 PHC RD Workforce survey. Further research is needed to identify the challenges of a referral-based system, and compare self-referral systems, to facilitate access to care.

Types of Referrals

Respondents were asked to estimate the number of referrals they received each year for several common conditions; this included some of the same conditions referred to in the workload questions, but excluded diabetes and cardiovascular diseases. Despite the large body of evidence showing the benefits of nutrition therapy for dysphagia, smoking cessation, bariatric surgery, chronic renal failure, eating disorders, celiac disease, malnutrition and the importance of optimal nutrition during pregnancy, infancy and early childhood, more than 60% of respondents reported less than 10 referrals per year in these areas. Some reported 11 – 20 referrals per year for each condition, and very few reported high levels of referrals. Lack of team member awareness of the benefits of nutrition counseling for these conditions, and majority of

RD time spent in traditional counseling for diabetes with little time for other vulnerable populations may be some of the reasons for such low referrals. Efforts to increase referrals for under-served populations such as malnourished seniors, adults with chronic renal failure, and post bariatric surgery include: awareness-raising campaign for health providers, and creation of toolkits with EMR tools.

The DC PHC action group has made malnutrition a priority issue and launched an awareness campaign with a malnutrition toolkit including validated screening tools and care pathways to embed nutrition screening into usual clinical practice.

A group of CHC RDs in the Toronto area have created a similar Food Security Toolkit with EMR tools and supports. The FHTRD Network has created a series of knowledge translation webinars for dietitians and other team members focusing on under-served populations in family practice and tools created by the DC PHC action group to support assessment and management in practice (eg. Bariatric Series, Malnutrition, Mediterranean Diet) for all primary care providers.

Based on the responses to this question, it would appear that nutrition referrals are *least likely* to be received for:

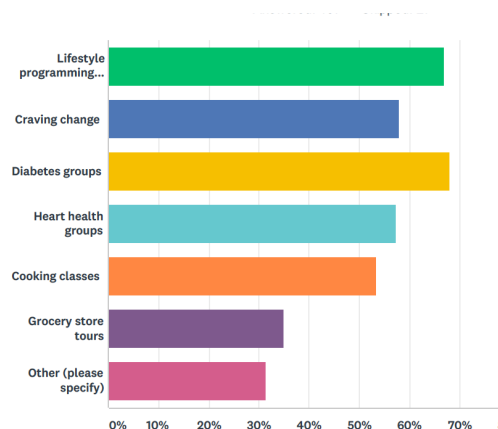
Figure 8: Patient conditions least likely to be referred to dietitian

Despite evidence of beneficial outcomes of nutrition counselling for these conditions, many patients are not referred to the dietitian.

	% of respondents reporting <10 referrals per year
Dysphagia	94
Smoking cessation	82
Pre- and post-bariatric surgery	79
Chronic renal failure	75
Eating disorders	74
Celiac disease	74
Malnutrition	68
Prenatal	64
Well baby care	61
Food insecurity	56

Dietitian-led Programs Offered

Many of the respondents offer programs such as Healthy You or Craving Change™; the chart below shows the proportion of respondents offering group programs. Groups and programs can be an effective strategy to reduce wait times for nutrition counselling, increase self-efficacy and client satisfaction. Sharing innovative programming is common across FHTs with Healthy You 12-week program as one shining example with >80 FHTs using across the province. A wide variety of other programs were also mentioned including congestive heart failure, chronic pain management, chronic disease self-management, cooking classes. Comments provided point to some issues with offering these programs, such as insufficient dietitian resources to run the classes, and low attendance forcing cancellation for some programs offered.

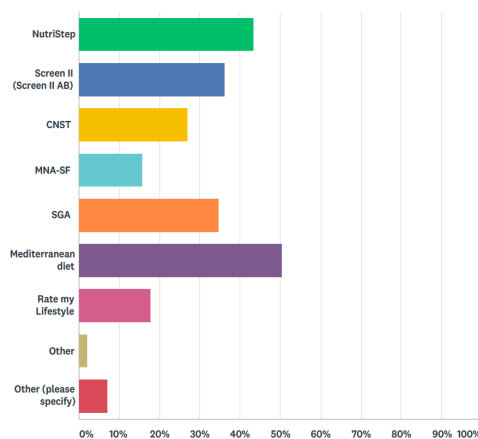
Figure 9: % of respondents offering specified dietitian-led programs

Screening

Widespread adoption of screening tools and processes is needed to help PHC settings utilize dietitian time and expertise effectively.

Screening tools used to identify nutritional risk were identified by 141 of the respondents. The most popular screening tools were the Mediterranean Diet, NutriStep (validated tool to assess eating habits of toddlers at 18 months and preschoolers at 3 years of age), SCREEN II AB (an abbreviated 8-item validated tool to assess eating habits of community dwelling seniors) and Subjective Global Assessment (SGA), a validated tool to identify the level of malnutrition.

More than 250 dietitians in PHC across Ontario have been trained to use these validated tools to identify patients at nutritional risk and facilitate access to nutrition services. Custom EMR forms have been created by the DC PHC action group to allow the tools (eg. Mediterranean Diet, SCREEN II AB and SGA) to be tracked and used as outcomes of nutrition services for Telus Practice Solutions electronic medical records (EMRs). A DC PHC action group Mediterranean Diet Toolkit has also been created to facilitate spread of the EMR tools, clinical care pathways and outcome measures. Widespread adoption of screening tools and processes, and incorporation into EMRs, is needed to help PHC settings utilize dietitian time and expertise effectively.

Figure 10: Nutrition risk tools used

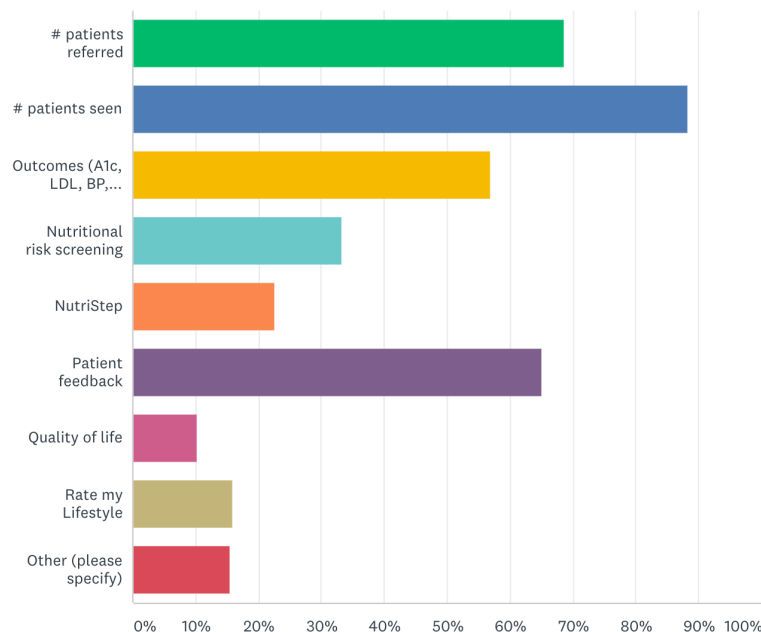
Scope of Practice

Sixty-three percent of respondents felt that team members understood the dietitian's scope of practice, 23% did not know if team members understood their scope and 13% felt that team members did not understand the dietitian's scope of practice. This is concerning as understanding of providers' scope of practice is a key factor in successful team-based care (Razar, Berk, Ford, and Morgan, 2010): "The effectiveness of teams is dependent on the team members' knowledge of one another's roles and scopes of practice; mutual trust and respect amongst the team members; commitment in building relationships; willingness to cooperate and collaborate; and the extent to which the team has organizational supports".

Forty-three percent of respondents felt they are able to work to their full scope, however even more (45%) felt that they could work to their full scope "to some degree", and 8% felt they are not able to work to full scope. All of the "No" responses were from respondents working in FHTs. The most commonly cited barrier was lack of ability to order laboratory tests, which has been a longstanding issue and is currently in progress through the College of Dietitians of Ontario. For a more fulsome discussion of this issue the 2015 report can be viewed on the DC website at this link. At the time of this report, it is unknown how the change in Ontario government following the June 2018 election will affect the work done in 2018 to resolve this barrier.

Outcome Data

Survey respondents were asked whether their PHC organization was collecting outcome data on nutrition services. Over 65% of dietitians surveyed reported collecting outcomes on number of patients seen, patient feedback and clinical outcomes such as A1c, lipids, blood pressure. Between 22-35% of respondents are screening young (18 months) and older adults for nutritional risk and tracking these screening tools as outcome measures.

Figure 11: Types of Outcome Measures Collected

Barriers cited that prevented or limited outcome data collection were:

- time (57%)
- knowledge of data collection (51%)
- support from management (35%)
- personal interest (12%)

The additional barrier mentioned most frequently in the open-ended response was electronic medical record limitations, which is identical to the 2015 survey results.

Fewer respondents cited “time” as the barrier compared to 2015 (57% vs 77%), but other barriers were similar in response rate at both 2015 and 2018.

To address knowledge and EMR barriers Dietitians of Canada’s Ontario Primary Health Care Action Group (PHCAG) is advocating for outcome measurement across PHC and provides workshops and resources for PHC RDs to implement in their practice. Building the evidence base for dietetic interventions in primary care will enable the health system to achieve the best value for dollars spent.

Only 24% of respondents report being involved in collecting data or writing reports to send to the MOHLTC regarding nutrition services. The proportion of “yes” responses was higher in FHT and Aboriginal Health Access Centres than in CHCs and NPLCs. Dietitians need to show leadership in collection and analysis of data and outcomes, showing the value of their services and ensuring that information is communicated to decision-makers (PHC setting management, LHINs, and Ministry of Health and Long Term Care (MOHLTC)).

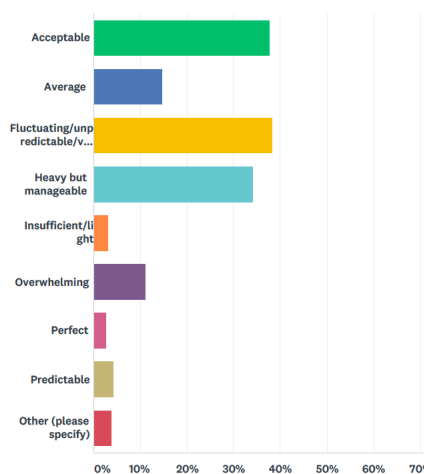
Work Satisfaction

Respondents were asked to rate their satisfaction with their current position on a scale of 1 – 10. The weighted average response was 7.64. The highest number of responses were found in the 6 and 7 ratings. When separated by setting, the weighted averages were very similar (FHT 7.72, CHC 7.49, NPLC 7.50, AHC 7.33). Job satisfaction varied somewhat by age group, with the highest rating in the 60 years and over age group, and the lowest in the 40 – 49 years age group. Work satisfaction was asked differently in previous surveys so direct comparison is not possible. Satisfaction questions were based on surveys from Ontario Association of Social Workers (OASW) and Nurse Practitioner Association of Ontario (NPAO) to be able to compare satisfaction with other health care providers in a future report. Eighty-six % of respondents in 2015 indicated that they were satisfied with their job, and 82% in 2012. If a rating of 7 and above is considered equivalent to “satisfied” on the previous surveys, it would indicate that overall satisfaction is approximately the same (83% of respondents to 2018 survey rated satisfaction at 7 or above).

Workload

Respondents were given several options to describe their workload, and asked to check all that apply. As shown in the figure below, the most popular responses were “acceptable”, “fluctuating/unpredictable/variable”, and “heavy but manageable”. It is concerning that a number of respondents (n=21) feel their workload is overwhelming. A larger proportion of the “overwhelming” responses were in CHC settings, compared to other settings, and in the 30 – 39 and 40 – 49 years age groups. These respondents were also more likely to note dissatisfaction with resources, autonomy, and salary, although overall job satisfaction ratings were similar to the overall ratings.

Figure 12: Terms used by respondents to describe their workload



Almost 40% of respondents report workload is fluctuating and unpredictable, and nearly the same amount report it is heavy but manageable. 10% report that their workload is overwhelming.

Negative Factors affecting Job Satisfaction

The most-frequently selected factor influencing job satisfaction was salary level, followed by lack of opportunities for advancement. These two factors were identified as important drivers of job satisfaction in the 2015 and 2012 surveys as well. The other two factors selected by more than 20% of respondents were documentation and insufficient resources. There were some differences in the predominant drivers of job dissatisfaction between practice areas. FHT respondents were most likely to choose salary level and lack of advancement opportunities, however CHC respondents selected documentation at the same rate as salary level, followed by lack of opportunities for advancement. NPLC respondents were less likely to have negative job satisfaction with salary level, although the small number of respondents from NPLCs and AHCs may not be applicable to all dietitians working in those settings. Salary level, lack of opportunity for advancement, and shifts in policy direction were much more likely to be selected by the 30 – 39 year old age group compared to the 20-29 year old group.

Figure 13: Top Factors Affecting Job Satisfaction by Age Group

20 – 29 years	30 – 39 years	40 – 49 years	50 – 59 years	60+ years
Documentation (37%) Salary (33%)	Salary (60%) Lack of opportunity for advancement (50%)	Salary (50%) Lack of opportunity for advancement (47%)	Salary (44%) Documentation (24%)	Salary (67%) Documentation (50%)

Figure 14: Top Factors Affecting Job Satisfaction by PHC Setting

FHT	CHC	NPLC	AHC	
Salary (53%) Lack of opportunity for advancement (40%)	Salary (44%) Lack of opportunity for advancement (42%)	Salary (27%) Lack of control over schedule (18%)	Salary (67%) Insufficient resources (66%)	Due to small number of respondents, NPLC and AHC results may not be representative

The factors *least likely* to negatively influence job satisfaction were unpaid sick days, fast pace of work, and new duties. CHC respondents were significantly more likely to choose fast pace of work as a negative influence on job satisfaction, compared to other settings. Shifts in policy direction was least likely to be selected by the 20 – 29 year old age group, as a negative factor in job satisfaction. The three factors least likely to negatively affect job satisfaction were otherwise the same across all age groups.

Changes to improve satisfaction

Respondents were asked “If you could change one thing about your current work situation, what would it be?”.

Comments were given by 154 respondents. Text analysis showed the biggest factor was salary/compensation, and staffing (FHT, CHC, NPLC), while AHC prioritized flexibility. When separated by age group, salary continued to be the predominant change, with younger age groups also prioritizing permanent positions (instead of contract), and flexibility.

Positive Factors Affecting Job Satisfaction

This question was asked as an open text box with no predetermined choices. Text analysis of all responses showed these primary factors: team, flexibility, support, autonomy. There were some differences between age groups, and settings. The figure below shows the top factors identified by groups.

Figure 15: Positive Factors Affecting Job Satisfaction by Age Group

20 – 29 years	30 – 39 years	40 – 49 years	50 – 59 years	60+ years
Management Autonomy Flexible Clients	Team Flexible Patients/Clients Autonomy	Clients Team Flexibility	Support Team Work environment	Autonomy Team

Figure 16: Top Positive Factors Affecting Job Satisfaction by Practice Setting

FHT	CHC	NPLC	AHC	
Team Flexibility Support Autonomy	Management Team Clients Flexible	Team Clients	Team Autonomy	

Satisfaction with Compensation

Respondents were asked to rate their satisfaction with the salary received for their current position, using a 10-point scale (1 = very dissatisfied, 10 = very satisfied). The overall weighted average of 6.2 shows a moderate level of dissatisfaction. Previous surveys asked this question in a yes/no/neutral fashion, and in both 2015 and 2012, 87% of respondents were dissatisfied. If a rating of 4 or below is considered dissatisfied, the proportion of respondents dissatisfied in this survey is only 21%. A total of 55 respondents (29%) rated their satisfaction at 8 or higher.

Figure 17: Satisfaction with Compensation by Practice Setting and Age Group

	Dissatisfied (≤ 4)	Satisfied (≥ 8)
FHT	19%	32%
CHC	26%	20%
NPLC	33%	33%
AHC	33%	33%
20 – 29	14%	33%
30 – 39	21%	27%
40 – 49	17%	34%
50 – 59	30%	26%
60+	50%	25%

Compensation

Respondents were asked to provide their current annual salary as 1 FTE, i.e. if currently working 0.4 FTE, to convert to 1.0 FTE. 178 respondents provided data; responses that appeared to be outliers were checked and converted to the FTE stated in Q7 of the survey. Five were removed that were unable to be converted to FTE. The overall average annual salary was \$68,599.

Figure 18: Average annual salary by age group

Age group	Average annual salary
20 – 29	\$66161
30 - 39	\$66839
40 - 49	\$69787
50 - 59	\$66970

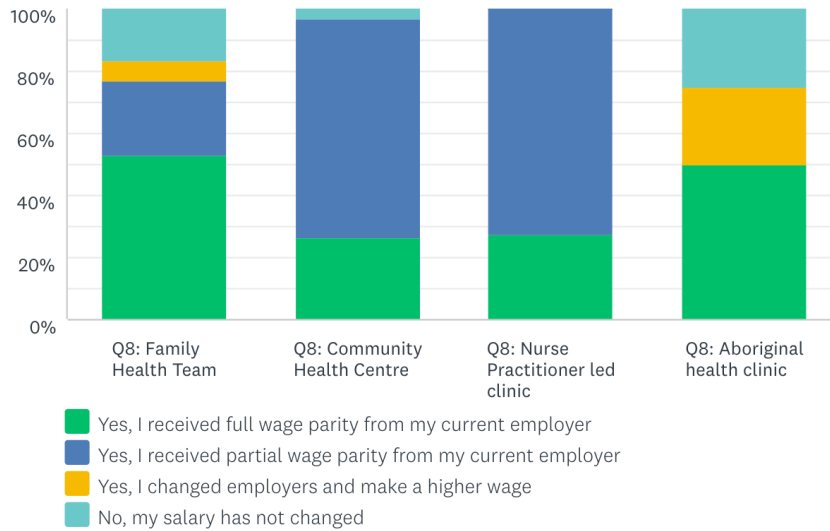
Changes in Compensation

The government of Ontario provided funding in 2016-17 to primary care settings to support recruitment and retention of health professionals. The intention of the funding was to correct wage inequities, including the discrepancy between dietitian wages and those of similarly-trained regulated health professionals. However, some organizations did not allocate the funding specifically to these groups, choosing instead to spread the funds between all staff, or to use for other purposes. To determine the scope of this issue, respondents were asked if they had achieved the full or partial wage parity (from current employer), or if they changed employers and received wage parity, or if their salary did not change.

At the time of this survey and analysis, FHT dietitians were significantly more likely to have received full wage parity from their current employer, compared to CHC dietitians (53% compared to 26%). CHC dietitians were much more

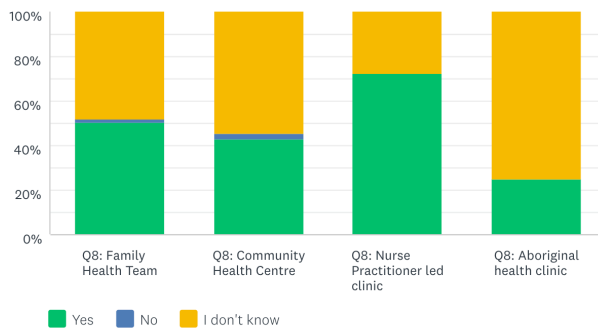
likely to have received partial wage parity (71% vs 24% in FHT). As well, 16% of FHT dietitians responding stated that their salary had not changed.

Figure 19: Salary Changes within the last two years, by practice setting



Many dietitians reported that other health professionals also received an increase in salary. This may indicate that the wage disparity between dietitians and other health professionals was not addressed when MOHLTC funding was provided to improve recruitment and retention.

Figure 20: Other health providers' compensation increase



Other Compensation

Pension Plan – 73% of FHT respondents and 91% of CHC respondents are enrolled in a pension plan or group RRSP with their employer. There are differences in the benefits provided between and within each PHC setting.

Figure 21: Pay-based compensation

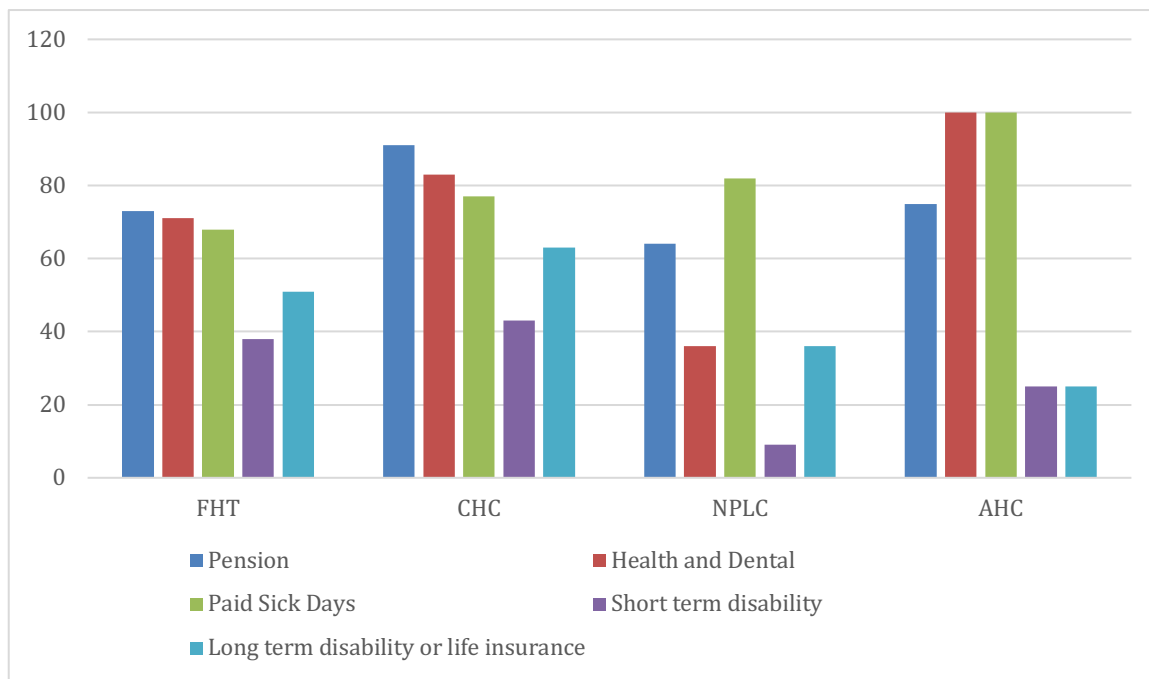
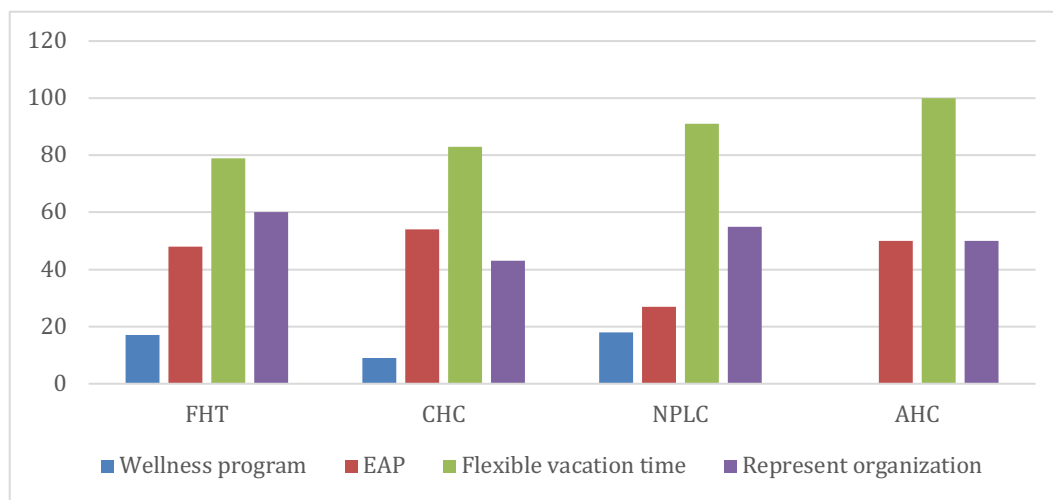


Figure 22: Non-pay-based compensation



Nearly 1 out of 2 (55%) of PHC dietitians are not sure or planning to leave PHC in the next 2 year. Although lower than 2015, this demonstrates significant potential turnover.

Intention to Leave Current Position

Respondents were asked about their plans to leave their current position within the next 2 years, and their reasons for doing so. Eighteen percent of respondents to this question stated they plan to leave their current position within the next two years. This is a lower proportion than the twenty-eight percent of respondents in 2015. Thirty-six percent are unsure, which is also lower than the 2015 results when almost half (49%) were undecided about leaving

their current position. Nearly 1 out of 2 (55%) of PHC dietitians are not sure or planning to leave PHC in the next 2 years, down from 77%

reported in the 2015 PHC RD Workforce survey.

Forty-three percent stated that they would not be leaving their current position within 2 years, compared to 22% in the 2015 survey.

Future Considerations

Primary health care settings are foundational in the Ontario healthcare system, and Registered Dietitians in these settings are instrumental in enabling patients to achieve their health goals through Medical Nutrition Therapy. Ongoing monitoring of workforce demographics and job satisfaction can be used to strengthen positive outcomes of nutrition programming in primary health care.

Specific areas which require further investigation and action include:

FUTURE CONSIDERATIONS AND RECOMMENDATIONS

Government and PHC organizations

- Create system changes to facilitate access to dietetic services in PHC for vulnerable, under-served populations
- Promote widespread adoption of screening tools and processes, and incorporation into electronic medical records (EMRs), to help PHC settings utilize dietitian time and expertise effectively as well as standardize care and outcome tracking
- Allow dietitians to work to full scope of practice through regulatory amendments to finalize independent ordering of laboratory tests by dietitians
- Coordinate efforts to raise awareness of the benefits of nutrition counseling from dietitians on patient outcomes, and the costs savings associated with nutrition counseling in PHC settings
- Advocate for additional funding to ensure adequate dietitian staffing in PHC settings to accomplish both Medical Nutrition Therapy and disease prevention/health promotion activities
- Clarify key nutrition outcomes and support consistent data collection to collect inputs (such as referral rates) and patient outcomes
- Plan for ongoing collection of PHC dietetic workforce data every 3 years to inform education needs, scope of practice and other professional practice issues, growth of the dietetic role in PHC and project future workforce planning needs

Researchers

- Identify and validate a consistent set of outcome measures for the medical nutrition therapy and other dietetic services provided in PHC
- Explore health professional and patient attitudes toward dietitian services to facilitate access to care
- Conduct economic analyses of nutrition interventions in PHC settings
- Explore professional practice issues such as retention and recruitment, limited advancement opportunities and the impact of a profession composed mainly of new grads

Dietitians

- Support efforts to identify and collect a consistent set of outcome measures

- Continue to raise awareness of the role and contributions of dietitians in PHC and the evidence supporting benefit of nutrition counseling from dietitians on a variety of health conditions commonly seen in family practice settings
- Mentor and support new graduates within PHC and manage risk associated with fewer years of clinical experience

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