Adding A Registered Dietitian To Your Team?

Key Information for Family Health Team Leads and Administrators

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Open Letter to Family Health Team Leaders Preparing Business Plans

This short guide brings together key information to assist you in incorporating Registered Dietitian (RD) services in your business plan for your Family Health Team. The content of the guide is based on many enquiries received over the past several months and has been drawn from two sources:

- Preliminary results from an Ontario Primary Health Care Transition Fund demonstration project, now in the final stages of completion, titled: Interdisciplinary Nutrition Services in Family Health Networks/Primary Care Model Sites: A Demonstration Project – G03-02658.
- A role paper and short guides prepared by the Primary Health Care Action Group of Dietitians of Canada, a regional Action Group of Registered Dietitians dedicated to advocating for inclusion of RD services in all models of primary health care.

The investigators of the demonstration project are committed to evidence based decision making and undertook the project to develop an interdisciplinary model of nutrition services.

The key deliverables of the project are:
- A systematic literature review
- Baseline key informant telephone survey of advice from providers in current PHC settings
- Before and after reported client satisfaction with PHC services using the Primary Care Assessment Survey
- Evaluation of dietitian counselling services measured by change in relevant outcome indicators and quality of life (SF 36)
- Costing analysis for nutrition services
- A Nutrition Practice Management Package developed from a Delphi consensus process
- Dissemination of the reviews and evaluation results

Some preliminary results from the project are available and could inform service planning of Family Health Teams. A number of activities and reports are planned to disseminate the results of the project in the coming months.

This short guide is organized according to the sections outlined in the ‘Family Health Team Guide to Business and Operational Plan Development’. The information does not replace the Ministry of Health and Long-Term Care (MOHLTC) Family Health Team Guides, but is intended to be supplementary to the guides to assist Family Health Teams in developing their plans. The Family Health Team guides are available on the Ministry website (1).

Sincerely

[Signatures]

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1. A proposed staffing plan for hiring a Registered Dietitian (RD) and a description of the RDs roles and qualifications

Role – Services
Registered Dietitians (RDs) are regulated health professionals who are uniquely trained to advise on diet, food and nutrition. RDs support the nutritional health of a population through health promotion, disease prevention, treatment, support and rehabilitation.

Credentials of Registered Dietitians include:
- Undergraduate degree from an accredited university in Canada, or equivalent educational preparation from other countries, and an approved internship program, or two-year practicum, or graduate degree program or program of practical experience.
- Registration by the College of Dietitians of Ontario.
- Membership in Dietitians of Canada.

Staffing Estimate
A reasonable first estimate is 1 full time equivalent (FTE), {which is 1950 hours per year or 37.5 hours per week}, RD per 15,800 to 29,000 patients for an interdisciplinary model of nutrition services, for the first year of practice. This is based on physician-lead practice where the RD is the manager of the nutrition service, providing direct counselling and health promotion services, as well as supporting the work of other providers in the practice.

Rationale for Staffing Estimate
Human resources planning guidelines and costing estimates for interdisciplinary services in primary health care settings generally, and for Registered Dietitians in particular, are currently based on very limited information. Therefore, as part of the demonstration project, two methods were used to estimate the need for RD services. Mean results, based on the work of three Registered Dietitians working in three Family Health Networks from September 2004 to March 2006 are reported.

Information on new referrals was collected from January to December 2005. The patient roster numbers as of December 2005 was the denominator. Referral rate was 1.26% of rostered patients.

To complete the calculation, an estimate of the caseload that can be managed by the RD is needed. The actual number of patients seen by 1 FTE RD over the same period was 379. The practice model implemented by the RDs was broadly based on previous primary health care reform and role documents (2,3), with a main focus on nutrition counselling, and a secondary mandate to develop health promotion programming. In addition, based on the literature review and practice guidelines (4,5), key elements of “enhanced” practice were implemented, such as computerized diet record analysis, blood pressure monitoring, documentation of the counselling process using the PRECEDE-PROCEED model (6), assessment of health related quality of life (SF-36) (7-10), and a minimum of two visits - a baseline assessment and three month follow-up. In addition, a portion of each appointment was devoted to explaining the pre-post RD evaluation study, reported elsewhere, and to solicit possible participation. Overall, management of 380 new referrals a year per 1 FTE RD, as defined in this study, is a realistic estimate for a new service in the first year. Higher referral rates would be achieved with time, and without the formal evaluation component.

Secondly, all physicians were asked to complete a paper based checklist, that listed all patients seen in the past week by initials, age, sex, referral problem, whether they had a contributing nutrition issue, and how the issue was managed. Twenty-seven of 41 physicians (66%) completed the physician management form. Of 1884 patients reviewed, 17.5% of patients were reported to have a contributing nutrition problem. Physicians
reported they discussed the nutrition issues with 12% of all patients, and referred 25 patients to the FHN RD or 1.3% of the patients reviewed. Another 20 (1.1%) patients were referred to other services, such as Diabetes Education Centres in the community.

Referral rate estimates are based on reported and actual referrals, and were very similar, about 1.3% of FHN patients. It should be noted that the additional 1.1% were referred to other nutrition programs, which may not exist in all communities. Thus, 1.3% to 2.4% of patients may require individual counselling in one year. Therefore, a reasonable estimate is that a FHT would need 1 FTE RD per 15,800 to 29,000 patients [(380/0.024) to (380/0.013)] for an interdisciplinary model of nutrition services.

Numerous other considerations such as the health and psychosocial characteristics of clients, the organization and number of practice sites in the FHT, and the geographic nature of the practice, would all affect the actual requirements. Current average physician referral patterns were the basis for the calculation, as individual physician referral rates varied significantly. If enhanced chronic disease management were implemented or physicians increased their referral rates, then additional RD services may be required.

As a check on the estimates developed in this analysis, the Hamilton HSO Mental Health and Nutrition Program published results were used to estimate the roster that one FTE RD could manage. From the demonstration project data, it was found that the average physician had (59926/41) =1462 or ~1500 patients. The Hamilton program reported 6 FTE RDs providing services to 80 MDs, a ratio of 1 RD: 13.3 MDs (11). It is worth noting that the Hamilton program differs from the model of services in this project, as the Hamilton program provides central administration and evaluation services for the RDs, freeing up their time for direct patient care. Using their numbers and the estimate of 1500 patients per MD, one FTE RD could provide services to a rostered population ~20,000 (13.3 x 1500). Planners will need to evaluate their own organizations to develop a realistic estimate.

**Results of the Project Consensus Process**

A well-defined interdisciplinary model of nutrition services with differing and complementary roles for various providers emerged from the Delphi process. Under the proposed model, the RD is the team member responsible for managing all aspects of nutrition services, from needs assessment to program delivery, using the best evidence available. The RD would be responsible for the support of all providers’ nutrition related work. Clear roles for various other providers with respect to nutrition services emerged from the process. There was consensus that physicians and nurse practitioners would provide basic nutrition advice to patients during patient appointments. All providers would identify willing patients for nutrition counselling and reinforce nutrition goals.

Completion of this project is timely, and has potential to influence the development of nutrition services in primary health care services across the country, as there is strong interest among family physicians in collaborating with Registered Dietitians (12). One strength of the model is that it addresses roles for all providers, in a way not previously documented. The model developed is also congruent with the vision of interdisciplinary practice from national projects (13,14) and builds on previous role documents (2,3). The use of Delphi process in designing nutrition services is new in dietetics, but is a methodology being increasingly used to develop other health care programs (15-18). It provides one way to a priori define areas of practice and responsibility, a key strategy for improving collaborative practice (19,20). Background on the process is attached in the Appendix.
2. The rationale of how the proposed providers will support Family Health Team service delivery and address community needs;

Community Needs for Nutrition Services
Indirect evidence of the need for the specialized nutrition expertise of a Registered Dietitian comes from an analysis by the Health System Intelligence Project. This project published the first Population Health Profile of each of the Local Health Integration Networks (LHINs) in 2005, based on the Canadian Community Health Survey results (21). While the patient profiles of each practice differ, the LHIN data provides a good basis for planning, in the absence of more specific information on the FHT profile. In justifying the need for a Registered Dietitians the statistics for the major conditions for which diet is an established treatment, according to current clinical practice guidelines, is a reasonable starting point. According to the LHIN profiles, the province has high rates of overweight and obesity (48.5%), diabetes (4.6%), heart disease (7.2%), and hypertension (14.7%). While your patient profile may differ somewhat, the dietitians in the project have been seeing many patients consistent with the provincial profile.

In addition, the results of a survey of a random sample of rostered patients, prior to the introduction of Registered Dietitian to the three FHNs, demonstrated that patients were not being counselled as frequently as expected on diet and exercise, compared to a US survey. The survey results were presented at the Sixth International Conference on the Scientific Basis of Health Services. Montreal, PQ: Sept 2005. The abstract is attached.

Possible Benefits of a Dietitian
Evaluation of the RD services is ongoing, but there is preliminary evidence of benefits of adding a Registered Dietitian to the team. As part of the costing analysis, all FHN staff completed a “Change in Routine” questionnaire twice over the course of the project to assess the possible effects of the RD on the work of other staff in the FHN. Using anonymous methods encouraged honest feedback. The results from the fall 2005 survey administration were particularly positive. The response rate was 55% (62/112) from all three FHNs. On a four point Likert scale, from dissatisfied to satisfied, 81% were satisfied with the addition of the dietitian to the FHN (highest rating). On a five point Likert scale, 61% agreed or strongly agreed that their job satisfaction had improved with the addition of the dietitian to the FHN. Additional handwritten comments included the following direct quotes:

- “Having a dietitian with our network has been very satisfying indeed and our patients have benefited enormously. We frequently get comments about how well this service is working for them.”

- “The RD has been a tremendous asset to the FHN and has helped lighten the load somewhat in the office with patients receiving greater information and one on one help we weren’t able to give.”

- “The RD has been a very valuable addition to our services. Treatment for obesity & cholesterol issues is vitally important, ......the patients loved having this accessibility! Given the high proportion of our population with obesity, this kind of early attention (BEFORE diabetes, etc.) is critical to reducing future burden to the health care system.”

- “Initially unclear how the RD would be utilized, took time to overcome inertia of old routines, but once established gained momentum, new procedures established, etc.”
3. Key milestones and timelines for implementing the staffing and recruitment plans (for those providers already committed to working with the Family Health Team, attach a letter of commitment)

**Recruitment Information - How do I find a dietitian?**
Dietitians of Canada provides a “Hire A Dietitian” classified service, which allows job ads to be posted on the member’s web site. Visit: www.dietitians.ca to post your employment opportunity. You may also search for Registered Dietitians in private practice under “Find a Nutrition Professional”.

4. Identification of the Family Health Team’s method of provider remuneration;

Some of the main conclusions from the demonstration project consensus process to develop an interdisciplinary model for nutrition services are also relevant to governance and remuneration of all providers. Below are the main conclusions from the consensus process related to governance and remuneration. All options achieved consensus, unless otherwise stated, with more than 75% of participants agreeing that these were appropriate features of interdisciplinary nutrition services. This advice may be useful in developing your FHT. Details of the methodology and results will be available in the complete report.

- No consensus emerged on a preferred employment relationship for nutrition services. There was moderate support for the Registered Dietitian to be an employee of or responsible to the FHN, and limited support that the RD would be an independent contractor or an employee of an external organization that assigns the RD to the FHN.

- There was consensus for the following general principles under any governance model. Participants felt that the FHN must have a method for mutual accountability among team members. It was also felt that FHN team members must all have input in developing FHN policy, and that policies that are developed are consistent with the standards and regulations of each College.

- Resources need to be allocated for collaborative communication and teams must have regular meetings to create a collaborative team approach to patient care. As part of this effort, all health care providers need to be educated about interdisciplinary processes, and know the roles of the other team members. Providers who are located separately must develop specific additional strategies to enhance team functioning. Preliminary estimates of the costs of interaction from the demonstration project are available.

- There was strong support for the concept that any health care team member is able to refer to any other health care team member.

- There was strong consensus for province wide equity in FHNs on health provider compensation and benefits, including paid holidays, personal days, vacation, time to attend conferences and continuing education, and health benefits.

- It was noted that FHNs must have processes that are consistent with the payment method to hire and terminate all team members.

5. A description of financial and in-kind support from sponsors and community partners, and any conditions attached to each contribution

Have no additional information to offer.
6. The total estimated funding requested

In the project the RDs were contracted to provide services and did not receive any remuneration in lieu of benefits. Fixed costs include mostly set-up costs, such as the cost of a desk, office chairs and a computer for the RD. Since these were not incurred in the project, fixed costs were estimated using a relatively wide range to reflect the wide variability in price of these items, and to allow for the possibility that the FHN may already have some of the items and not need to purchase them. The fixed costs were incorporated in the direct costs to one FHN with one full-time RD only. The range of fixed costs that was used was $2,000 – $4,000 for furniture and a computer. The range is indicated as lower and upper bounds of the direct costs, the middle value of $3,000 was used in the cost calculation.

**In addition to remuneration costs, additional expenses for one FTE RD are as outlined below:**

<table>
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<tr>
<th>Expenses (including initial fixed costs, over 1 year)</th>
<th>$7,389.75</th>
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<tr>
<td>(Range: $6,389.75 to $8,389.75)</td>
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<tr>
<td>Expenses (excluding initial fixed costs, over 1 year)</td>
<td>4,389.75</td>
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This estimate, in conjunction with the compensation guide available from the MOHLTC (1), provide guidance on the cost of adding a FTE Registered Dietitian to the FHT.
References


Appendix

Background on the Consensus Process
Twenty-three representatives from relevant organizations and groups in Ontario completed a formal Delphi consensus process to determine preferred options for organizing interdisciplinary nutrition services in Ontario Family Health Networks, and similar organizations. Eleven were Registered Dietitians and twelve were from other disciplines.

Delphi process involves having participants in a consensus process first develop options around a particular topic, in person or separately. Participants then separately complete two or more rounds of questionnaires about the topic, rating their opinions and views, usually on a nine point Likert scale. The responses to the questionnaires are collated by the organizers of the process, and sent back to participants in summary form, indicating both the judgment of the group as a whole and the individual participant’s responses. Each participant then has the opportunity to complete the questionnaire again, and may revise their judgment based on the group responses and any discussion between rounds of questionnaire completion. The Delphi technique allows for both qualitative and quantitative assessment of the degree of consensus in a group.

- **Consensus** after two rounds was achieved when ≥ 75% of Delphi 2 participants ranked the option in the highest or lowest tertile (with no disagreement) for appropriateness as a feature of interdisciplinary nutrition services.

- **Moderate support** was defined as median ≥ 6.5 with greater variation in opinion, where less than 75% had agreed that the option was highly appropriate, or with disagreement by the other indexes calculated.

- **Limited support** was indicated when an option had less support, but was not rejected as inappropriate.
Brauer P, Sergeant LA, Dietrich L, Davidson B. Benchmarking primary health care practices by client questionnaire.

Research Objectives: To assess the representativeness of three Family Health Network (FHN) demonstration sites, we surveyed patients using a modification of a previously validated questionnaire, the Primary Care Assessment Survey (Medical Outcomes Trust, MA), prior to instituting enhanced services by dietitians.

Study Design: FHNs are an Ontario specific professional coordination service model, where groups of family doctors and others provide care to enrolled patients. The survey questionnaire was modified to remove questions on trust, based on physician review. Financial access questions were modified to reflect the Canadian health care system and five additional questions on diet and exercise interventions were added. Questionnaires were mailed to a proportional random sample of all clients rostered with the three FHNs. Postcard reminders and second questionnaires were mailed to non-respondents.

Principal Findings: Of the 1084 questionnaires mailed, 14% were undeliverable, 17% were returned uncompleted, and 38% were completed. Eighty-five percent of 414 respondents had seen their family physician within the past year. Of the nine scales that could be compared to United Sates (US) studies, organizational access and longitudinal continuity scores were higher and preventive counselling scores significantly lower in the FHNs. The FHNs were similar to US practices on the other scales. FHN patients reported substantially less counselling about seat belts (4% vs. 16%), diet (38% vs. 71%) and exercise (25% vs. 74%) compared to a US study (Safran DG, et al. J Fam Pract 1998; 47:213-20). Of the 151 patients ever advised about diet (multiple responses possible), 62% were given verbal advice only, 36% given pamphlets or other written material, 18% were referred to another health professional outside the office, 15% were referred another health agency or program (e.g. diabetes), and 13% to a dietitian.

Conclusion: Additional development and validation of patient-based questionnaires is needed to address concerns of providers, and assess more aspects of practice, under different funding and service models. Patients’ ratings of the FHNs were similar to other family practice settings in the US, with the notable exception of less preventive counselling.

Implication for Policy, Delivery or Practice: Benchmarking of practices using validated patient questionnaires has potential as an evaluation tool in demonstration projects. While Ontario FHNs compared favourably with their US counterparts on most dimensions of practice quality assessed by this questionnaire, there appears to be considerable scope for increased preventive counselling, including that related to diet and exercise.

Primary Funding: Supported by the Ontario Ministry of Health and Long-Term Care’s Primary Health Care Transition Fund, funding from the federal government, which helps provinces and territories to strengthen primary care services.