



# Registered Dietitians in Aboriginal Communities

*Feeding Mind, Body and Spirit*

**Role Paper of the Dietitians of Canada  
Aboriginal Nutrition Network**

October 2012



## *Feeding Mind, Body and Spirit*

This report is published by the Dietitians of Canada (DC) Aboriginal Nutrition Network. Dietitians of Canada is the professional association representing almost 6000 Dietitians in Canada. Dietitians of Canada speaks out on food and nutrition matters important to the health and well-being of Canadians. Members of DC Aboriginal Nutrition Network (ANN) have collaborated to bring information forward to inform decision makers about the dietitian's role in Aboriginal communities for the purpose of enhancing nutrition services currently offered and increased health and wellbeing in Aboriginal people.

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### **Suggested citation:**

Dietitians of Canada, Aboriginal Nutrition Network. Registered Dietitians in Aboriginal Communities: Feeding Mind, Body and Spirit. Role Paper of the Dietitians of Canada Aboriginal Nutrition Network. 2012. Toronto: Dietitians of Canada. Available at: <http://www.dietitians.ca/aboriginalnutrition>

The Dietitians of Canada, Aboriginal Nutrition Network (ANN) would like to thank and acknowledge the contributions of:

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We would also like to acknowledge the work of Allison and Michelle Gates as principal co-authors for this paper as well as the contributions of Laurie Carr, Corinne Eisenbraun, Nikki George, Pat Vanderkooy, Jennifer Wakegijig and Marlene Wyatt for generously providing their expertise to the revision of this paper.



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## *Feeding Mind, Body and Spirit*



*This paper is dedicated to the memory of Dr. Lillian McGregor, distinguished and cherished Elder, who has supported the work of the Aboriginal Nutrition Network since its inaugural meeting in 2002. Her wisdom, guidance and unerring support of the role of nutrition and dietetics in health and wellness was an inspiration to us all.*





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## *Feeding Mind, Body and Spirit*

### **Executive Summary**

Good nutrition is crucial in determining the health and well-being of Aboriginal people in Canada. The economic, social and psychological burden of nutrition-related chronic disease is high. As experts advising on diet, food and nutrition, Registered Dietitians play an important role in helping communities to improve their knowledge of nutrition and to better understand how to make healthy food choices that promote health. This role paper addresses the unique needs of Aboriginal communities in Canada, including food security and the high cost of store-bought food in some communities, social inequalities and the environmental threats to traditional food intake.

**Who are Registered Dietitians?** They are health professionals who have special training and are licensed to practice in many areas of human nutrition. Practice areas may include: health promotion, disease prevention and treatment for a wide variety of health issues. They work in a variety of settings such as: health access centres, community health centres, day care centres, schools, hospitals, public health units, government and industry. Registered Dietitians collaborate with Aboriginal communities, programs and services to help plan and integrate approaches to improve health while addressing the diversity in traditions and culture. Registered Dietitians can help to provide the counseling, teaching, policy development, health promotion and research work needed to help communities build their nutrition knowledge to fight disease and maintain health. Studies show, however, that current nutrition services fall far short of what is needed in communities.<sup>1</sup>

**How can this role paper be used?** This role paper may be used by your community to advocate for funding to employ a dietitian and build community capacity for nutrition services. Recommendations for dedicated nutrition funding, ongoing evaluation of services related to promoting the health of Aboriginal people and in reducing future healthcare costs are provided. Each section provides information about how a Registered Dietitian can be a valued member of the healthcare team in your community. Key messages and current data are highlighted in each section and may be helpful in applying for funding grants.



## Feeding Mind, Body and Spirit

### 1.0 Who are Registered Dietitians?

**KEY MESSAGE** *Registered Dietitians are experts in diet, food and nutrition and are trained to work with communities to support healthy eating in a variety of ways. They are accountable to the public and to their provincial regulatory body for their conduct, the quality of their care and the nutrition services they provide. They also adhere to nationally established standards of practice. Aboriginal communities can trust that Registered Dietitians are highly qualified and dedicated to providing nutrition care tailored to each and every client in a respectful way.*

#### **What a Registered Dietitian can do for you:**

- provide expert advice on diet, food and nutrition
- support a healthy community by helping to identify strengths and opportunities to grow in nutrition knowledge, skills and resources
- work with your community and other key partners nationally and internationally to address nutrition and health-related issues
- work with groups and individual clients to plan the best approach to overcoming barriers to health
- act as consultants and key members of the health team to provide nutrition advice based on best practices and established standards of practice

#### **Registered Dietitians are a trusted source of nutrition advice because they have:**

- completed a nationally recognized and accredited dietetic education program
- completed an accredited training program (or equivalent) which may include a post-degree internship, an integrated undergraduate program or a Combined Master's Practicum program
- successfully completed an exam to assess competence to practice in Canada
- registered with a provincial regulatory body (college or registration board)

#### **What is the difference between a Registered Dietitian and a nutritionist?²**

A Registered Dietitian is a qualified nutrition specialist who has earned a Bachelor's degree specializing in food and nutrition and completed supervised practical training. The term "Nutritionist" is not protected by law. The designation "R.D." or "P.Dt." (Dt.P. in French) after the person's name or the title "Registered Dietitian" ensures that you are working with a registered member of the profession and who is a qualified nutrition professional. Dietitians are legally accountable to provincial regulatory Colleges for their professional conduct and the care they provide, and are committed to public protection.



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## 2.0 Registered Dietitians in your community

**KEY MESSAGE** *Registered Dietitians recognize the value of and respect traditional knowledge, values and health practices. They can work with your community to help people of all ages to learn how a healthy diet can improve their health. Registered Dietitians are valuable assets in a variety of settings including: health access centres, community health centres, schools, day care centres, Aboriginal health centres, health agencies, friendship centres and medical clinics (see Appendix 2).*

Historically, residential schools have left indelible scars on Aboriginal people, communities and Nations. Children were taken from their homes and placed in institutions where there was no place for Aboriginal culture or values, including the food to which they were accustomed.<sup>3</sup> Registered Dietitians can help promote healthy diets while respecting the cultural values of Aboriginal people.

### **As a part of community-based nutrition services, a Registered Dietitian working in your community can:**

- develop wholistic prevention and health promotion strategies for improved individual, family and community health
- provide nutrition intervention and education for diseases including diabetes, cancer, cardiovascular and kidney disease, among others
- develop culturally appropriate nutrition education resources
- counsel individuals and groups on infant nutrition, Fetal Alcohol Spectrum Disorder, anemia, diabetes, heart disease and other health conditions
- complete individual and community needs assessments to determine health status, health program and service gaps and the need for nutrition interventions
- collaborate, as a key member of the health team, to provide advice, resources and nutrition expertise
- consult on food and nutrition health policy and community development projects
- encourage health promotion through programs including community kitchens, walking/physical activity programs and social marketing campaigns
- build community capacity through training of community health workers, provision of practicum experience for Aboriginal students and dietetic interns, program planning and the building of community partnerships
- collaborate on research projects to further nutrition knowledge and understanding in building healthy communities
- advocate for your community at the government level on food, nutrition and health issues
- offer guidance on the purchasing and preparation of traditional and store-bought food





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### 3.0 Registered Dietitians: leading the way in primary health care

**KEY MESSAGE** *In primary health care, Registered Dietitians support health through health promotion, disease prevention, treatment and rehabilitation. Primary health care dietitians work in a variety of settings including: public health centres, community health centres, doctor's offices and wellness centres. Registered Dietitians treat nutrition-related diseases such as diabetes, cardiovascular disease and obesity that are more common in Aboriginal people as compared to the general population.*

#### **The services of a Registered Dietitian can:**

- provide alternatives to more costly therapies by preventing worsening disease and the need for expensive medications
- offer preventive services to avoid the need for hospital stays
- delay and prevent surgery and hospitalization through nutrition counseling

Registered Dietitians can work with groups and individuals within your community to plan the best approach to overcoming barriers to health. In some Aboriginal communities, opportunities for education, employment, income and housing may be limited. Access to healthy store-bought food may be inadequate, particularly in remote communities.

Climate change and environmental contaminants have altered the availability and safety of traditional food obtained by hunting and harvesting. Combined with urbanization, a shift in the diet to more store-bought food and away from traditional food has given rise to chronic diseases such as diabetes, cardiovascular disease and obesity.

#### **THE FACTS**

Cancer, heart disease and diabetes are among the ten leading causes of death in Canada. Nutrition-related illnesses linked to **overweight and obesity** account for \$6.0 billion in health care expenditures in Canada annually, or 4.1% of total health care expenditures.<sup>5</sup> Rates of chronic diseases for First Nations living on-reserve are:<sup>6</sup>

- 19.7% vs. 5.2% in the general population for **diabetes**
- 7.0% vs. 5.0% in the general population for **cardiovascular disease**
- 2.4% vs. 1.9% in the general population for **cancer**

There are less data for the prevalence of chronic disease among the Métis and Inuit. However, rates of diabetes, cardiovascular disease and cancer are on the rise in these populations as well.<sup>7-8</sup>





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### 4.0 Health promotion

**KEY MESSAGE** *Registered Dietitians help to make the healthy choice the easy choice for Aboriginal communities through nutrition policy, education, social marketing and activities that create supportive environments to support health. Registered Dietitians work in communities, schools, day cares, health centres, workplaces and government, utilizing strategies to support healthy living choices.*

**A Registered Dietitian can promote health in your community by:**

- developing healthy public policies in schools, workplaces and levels of government to promote healthy lifestyles
- providing nutrition education workshops to improve the knowledge, skills and understanding among community members, key decision-makers and other health providers
- developing wholistic health promotion and disease prevention programs to meet the diverse needs of community members
- supporting community action in promoting healthy lifestyle choices for people on limited income such as cooking classes, community gardens, walking programs and community kitchens
- communicating healthy lifestyle messages through the development of culturally appropriate nutrition education resources and communication campaigns
- working with schools and childcare facilities to promote knowledge, skills and understanding of healthy eating practices for now and in the future
- promoting dietetics as a career choice, particularly among youth, in building local nutrition resource capacity



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### 5.0 Food security

**KEY MESSAGE** *Many Aboriginal communities face unique food security considerations related to the harvesting, sharing and consumption of traditional food.<sup>9</sup> Registered Dietitians can promote food security through education, community mobilization and by helping to create supportive environments that will provide communities with access to affordable and healthy food.*

According to the Food and Agriculture Organization, “food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The four pillars of food security are availability, stability of supply, access, and utilization.”<sup>10</sup> A precondition to food security is food sovereignty. Food sovereignty is defined as “the right of people, communities, and countries to define their own agricultural, labour, fishing, food and land policies, which are ecologically, socially, economically and culturally appropriate to their unique circumstances. It includes the true right to food and to produce food, which means that all people have the right to safe, nutritious and culturally appropriate food and to food producing resources and the ability to sustain themselves and their societies.”<sup>11</sup> Food sovereignty reconciles past social and environmental injustices through a restorative framework for health and community development in a way that all cultures can relate to.<sup>12</sup>

The ability to access nutritious food depends heavily on income. Due to limited economic opportunities, many Aboriginal households must rely on social assistance. In turn, one-third of Aboriginal households located off-reserve are food insecure.<sup>13</sup>

Additionally, in remote, isolated communities, factors affecting food security may include:

- the high cost of store-bought food
- limited availability and variety of healthy choices
- inconsistent quality of produce and fresh food

### THE FACTS

- 18% of urban Aboriginal households receive social assistance vs. 3.5% of non-Aboriginal households<sup>13</sup>
- 33% of urban Aboriginal households are food insecure vs. 9% of non-Aboriginal households<sup>13</sup>
- 14% of urban Aboriginal households are severely food insecure vs. 3% of non-Aboriginal ones<sup>13</sup>
- 70% of Inuit preschoolers reside in food insecure households, 25% of which are severely food insecure<sup>14</sup>
- up to 24% of on-reserve First Nations adults could not afford balanced meals at least some of the time<sup>6</sup>



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### 5.1 Traditional food security

In recent decades, access to traditional food has been impacted by:

- migration to large urban centres and changing work habits and lifestyles
- the availability of refrigeration and freezer storage for store-bought food
- increased access to store-bought food
- growing concern about environmental contamination
- changing migratory patterns due to global warming and the decline in some species
- the high cost of hunting and harvesting (e.g., fuel, ammunition, equipment)

This is concerning because traditional food is not only central to Aboriginal life and cultural identity, but it also provides a healthier, often more affordable alternative to store-bought food.<sup>15</sup> The threat of environmental contamination of traditional food is a great concern for all Aboriginal people as this may be linked to an increased risk for obesity, diabetes and cancer.<sup>16-19</sup> Store-bought food that is available in many remote and Northern communities may not provide the same nutritional quality as a diet based on traditional food.<sup>20</sup> Concern over environmental contaminants may lead to confusion by community members about the safety of the traditional foods that define their culture.<sup>4</sup> Despite these concerns, some traditional foods remain safe for consumption, and provide many nutritional and cultural benefits. Communities need access to information about safe, locally available foods.<sup>4</sup>

#### THE FACTS

- traditional food intake has been associated with higher intakes of protein, vitamins D and E, riboflavin, vitamin B<sub>6</sub>, iron, zinc, copper, magnesium, manganese, and potassium<sup>20-21</sup>
- among Aboriginal people, only 6 to 40% of total daily energy intake comes from traditional food<sup>22</sup>
- research shows moderate to strong correlations between traditional food intakes and blood contaminant levels<sup>17</sup>

#### **A Registered Dietitian working in your community can facilitate food security by:**

- translating complex information about environmental contaminants into clear messages
- building capacity in food and nutrition skills including food preparation, cooking and budgeting
- helping individuals and communities to identify the best mix of traditional and store-bought food sources for optimal health
- helping individuals to problem solve to improve their access to nutritious foods
- working with community partners to support the development of policies and programs that address community food insecurity
- advocating for funding for community-based initiatives affecting food insecurity





## 6.0 Nutrition in pregnancy and beyond

**KEY MESSAGE** *A Registered Dietitian can provide the counseling and support necessary during pregnancy and breastfeeding to ensure healthy outcomes for both mother and infant. Nutrition is important during pregnancy, not only in the development of a healthy baby, but also in the prevention and management of gestational diabetes mellitus, a complication of pregnancy for which Aboriginal women are at increased risk.*

### 6.1 Pregnancy

Eating a healthy diet during pregnancy is crucial to the healthy development of a baby. Registered Dietitians work in community health centres, public health departments, hospitals and medical clinics to promote the health and well-being of mother and child in the early years. The Canada Prenatal Nutrition Program (CPNP) is one example of a federal initiative with the goal of helping Aboriginal communities improve birth outcomes by bettering the nutrition and health of high-risk pregnant women. The role of the Registered Dietitian in the pre- and post-natal nutrition support includes:<sup>23</sup>

- assessment of the nutrition and health status of mother and infant
- planning, developing and evaluating nutrition policies, programs and strategies
- education to support healthy food choices before, during and after pregnancy
- advocating for access to healthy and affordable food
- connecting mothers with people, places and resources that promote healthy growth and development

Programs such as the CPNP have proven to be effective in reducing the risk of low birth weight infants, improving breastfeeding rates among new mothers, and avoiding medical care costs for both mothers and infants when dietitians have been involved.<sup>23</sup>

### 6.2 Gestational diabetes

Gestational Diabetes Mellitus (GDM) increases the risk of complications during pregnancy and type 2 diabetes for mother and child. The rate of GDM among First Nations women is four times that of women in the general Canadian population.<sup>24</sup> Healthy eating and active living during pre-conception can help to prevent GDM.<sup>25</sup> A Registered Dietitian can provide nutrition education during and after pregnancy to minimize the risk of neonatal complications and prevent or delay the onset of maternal diabetes.<sup>25</sup>



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### 6.3 Breastfeeding

Breastfeeding provides several benefits to breastfed infants/toddlers by promoting nutritional, immunological and emotional well-being.<sup>26</sup> It is the most cost-effective way of feeding infants, yet on average only 57.5% of First Nations children living on-reserve are breastfed from birth.<sup>6</sup> Breastfeeding may also reduce the risk of obesity in Aboriginal children.<sup>26</sup> This, in turn, may lead to a reduced risk for type 2 diabetes in youth.

Environmental contaminants are a concern to all pregnant and breastfeeding women, but the concern is especially great in the Arctic where contaminants can accumulate and make their way into the food chain and ultimately into breastmilk.<sup>27</sup> At this time the benefits of breastfeeding have been shown to outweigh the risks and should be encouraged.<sup>28</sup> Developing breastfeeding skills among mothers, ensuring the availability of culturally appropriate health information and services, and providing ongoing postnatal support in the community are key to encouraging breastfeeding.<sup>29</sup>

#### THE FACTS

Significantly fewer urban Aboriginal mothers vs. non-Aboriginal mothers:

- initiate breastfeeding (81.5% vs. 88.3%)<sup>30</sup>
- breastfed their last child exclusively for 6 months (17.5% vs. 23.5%)<sup>31</sup>

The benefits of breastfeeding include:<sup>26, 32</sup>

- significant savings in health care costs and costs to the breastfeeding mother
- protective effect against obesity<sup>33</sup> (and possibly type 2 diabetes) in later life
- reduced risk of obesity<sup>33</sup> and consequently youth type 2 diabetes
- reduced risk of infectious diseases in infancy and childhood
- reduced risk of breast and ovarian cancer in the breastfeeding mother

Health Canada and the World Health Organization recommend exclusive breastfeeding for the first six months of life; followed by the introduction of high quality, iron-rich complementary food (with continued breastfeeding) for up to two years and beyond.<sup>26, 32</sup>

#### **A Registered Dietitian working in your community can support women during pregnancy and while breastfeeding by:**

- promoting healthy eating and healthy weights before, during and after pregnancy
- advocating for better access to traditional food free from contaminants and nutritious store-bought food alternatives
- providing advice on breastfeeding and referral to appropriate community supports
- providing information and promoting food skills so that families can purchase and prepare nutritious food that is economical and easy-to-prepare



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## 7.0 Healthy growth through the early years

**KEY MESSAGE** *Healthy food choices are an important part of a child's growth and development. Poor development in childhood results in a range of health outcomes including reduced brain and language development and poorer physical and mental health throughout an individual's lifetime.<sup>22</sup> A Registered Dietitian can promote healthy nutrition policy, education, advocacy and partnerships to help support good nutrition at school and at home.*

### 7.1 Family Wellness

Children from families that eat together regularly are more likely to eat healthy diets.<sup>35-37</sup> The benefits of family meals include an increased intake of vegetables and fruit, milk and alternatives and other calcium-rich foods, and a decreased intake of sweetened carbonated beverages.<sup>35-37</sup> Family meals have been associated with a lower risk for overweight and a decreased risk of eating disorders among girls.<sup>35-37</sup> Despite this, almost 1/4 to 1/3 of families eat together seldom or never.<sup>35-37</sup> Registered Dietitians can counsel families on food purchasing, preparation, and meal timing to encourage eating as a family.

### 7.2 Malnutrition

The term malnutrition refers to both under- and over-nutrition, including inadequacies or excesses of various nutrients.<sup>38</sup> A higher proportion of young Aboriginal children come from low-income homes compared to non-Aboriginal children. Children of lower income families are more likely to suffer from chronic health conditions and are more often overweight or obese.<sup>39-40</sup> The association between poorer health and lower socioeconomic status strengthens as children age; overweight and obesity have also been shown to track into adulthood.<sup>40-41</sup>

The Aboriginal Head Start on Reserve and Aboriginal Head Start in Urban and Northern Communities programs, run by Health Canada and the Public Health Agency of Canada, respectively, are complimentary programs designed to fill gaps in early childhood development by preparing young Aboriginal children for their school years by meeting their physical, emotional, social, health, nutritional and psychological needs.<sup>42</sup> Registered Dietitians working with this program provide culturally appropriate expertise about healthy eating issues such as snacking, menu preparation, nutrition education activities and resources.

Although hunger is believed to be relatively uncommon in Canada, children of Aboriginal families have been found to be more likely to be living in households where there is not enough food.<sup>13-14</sup> Registered Dietitians can provide the education and access to nutrition resources that are so vital to the health of the Aboriginal child and their family.





## 7.3 Iron deficiency anemia

Iron deficiency anemia is associated with behavioural abnormalities and developmental, cognitive and psychomotor delay in children.<sup>43</sup> For this reason, prevention is essential. Aboriginal children are at increased risk for anemia.<sup>43</sup> A study of infants from the Cree region of Quebec identified a prevalence rate of 12.5% for anemia, an improvement over 1995-2000 rates, yet still higher than in non-Aboriginal infants.<sup>44</sup> Factors contributing to the high rate of anemia in Aboriginal children include:<sup>45</sup>

- a change from traditional eating patterns
- the delayed introduction of high quality, iron-rich complementary food
- consumption of cow's/evaporated milks instead of breast milk or iron-fortified formula

To prevent iron deficiency, the introduction of iron-rich food is recommended before or just after the sixth month.<sup>26, 46</sup> Culturally appropriate strategies to promote and support the increased consumption of iron-rich traditional food and improved access to iron supplements and iron-fortified infant products are necessary to prevent further anemia in Aboriginal children.<sup>45</sup>



## 7.4 Calcium and vitamin D

Calcium and vitamin D are needed to maintain healthy bones and teeth. Vitamin D deficiency is a major concern for Canada's Aboriginal people, especially in northern communities (above latitude 35°N), where sunlight exposure is insufficient for the endogenous production of vitamin D for seven months of the year (September to March).<sup>47</sup> Aboriginal children are a sub-population at heightened risk for rickets from vitamin D deficiency. Factors contributing to poor vitamin D status in Aboriginal children include:<sup>47-48</sup>

- substituting traditional vitamin D-rich food with store-bought food of poorer nutritional value
- residing at higher latitudes, where sunlight is inadequate most of the year for sufficient production of vitamin D
- poor availability, high cost and/or limited intake of vitamin D and calcium fortified food

Vitamin D deficiency has been shown to be both preventable and reversible by giving appropriate amounts of vitamin D supplements and by including more vitamin D-rich food.<sup>49</sup> Supplemental vitamin D (400 IU per day (10 ug)) is recommended for all breastfed infants to prevent deficiency.<sup>26</sup>

### THE FACTS

Among five northern and two southern First Nations communities in Ontario:<sup>50</sup>

- 79.9% and 84.7% of male and female children aged 9 – 13 respectively had intakes of milk and alternatives below the minimum recommendation of Canada's Food Guide for First Nations, Inuit, and Métis children
- 78.8% of youth aged 9 – 13 had inadequate intakes of calcium, while 92.3% had inadequate intakes of vitamin D according to current dietary standards

### **A Registered Dietitian working in your community can promote the growth and development of children by:**

- working with leaders in federal and provincial government, Chiefs and Council, schools and communities to develop healthy nutrition policy in schools that respects Aboriginal culture and values
- guiding caregivers and families in establishing healthy eating habits, food skills, and supportive environments for making healthy choices
- advocating for the expansion of existing programs that support access to nutritious food
- developing partnerships to deliver nutrition programs that will provide more information about the benefits of including traditional food in the family diet
- developing culturally appropriate nutrition education materials



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## 8.0 Nutrition in the management of chronic disease

**KEY MESSAGE** *Rates of nutrition-related chronic diseases such as diabetes, cardiovascular disease and obesity are two to three times higher among Aboriginal people compared to the general population.<sup>6, 51</sup> Rates of cancer are also becoming a concern. Due to rising obesity rates, obesity will likely outpace smoking in terms of contributions to morbidity and mortality in the coming years.<sup>52</sup> The expertise of a Registered Dietitian can realize tremendous cost savings by providing community-based nutrition services in the prevention and management of chronic disease.<sup>53</sup>*

### 8.1 Diabetes

The Canadian Diabetes Association Clinical Practice Guidelines (2008) recommend nutrition counseling delivered by a Registered Dietitian for diabetes management.<sup>54</sup> Evidence supports the clinical and cost effectiveness of medical nutrition therapy in the management and prevention of type 2 diabetes.<sup>53</sup> The Diabetes Prevention Project, which aimed to prevent type 2 diabetes in high-risk individuals, found that a lifestyle intervention (including *nutrition therapy*) reduced incidence of diabetes by 58%.<sup>55</sup> Major contributors to the high rate of type 2 diabetes in Aboriginal people include:<sup>56</sup>

- genetic susceptibility
- changes in lifestyle (lower physical activity)
- shift from traditional food to nutritionally inferior store-bought food

The 2008 Canadian Diabetes Association Clinical Practice Guidelines recommend culturally appropriate prevention and treatment strategies, including traditional food, provided they are safe, acceptable and accessible.<sup>54</sup> The Aboriginal Diabetes Initiative, established in 1999, aims to reduce type 2 diabetes among Aboriginal people through community-based, culturally appropriate prevention, screening and treatment programs.<sup>57</sup>

#### THE FACTS

- in 2006, the direct cost of diabetes was \$1.4 billion<sup>5</sup>
- the Canadian Diabetes Association estimates the economic burden of diabetes will be almost \$17 billion by 2020<sup>54,58</sup>
- the life expectancy for people with type 2 diabetes may be reduced by 5-10 years<sup>58</sup>
- by the year 2020, an estimated 3.7 million people will be diagnosed with diabetes<sup>54</sup>
- Overall diabetes rates among Aboriginal people in Canada are three to five times higher than those of non-Aboriginal Canadians.<sup>58</sup> Among on-reserve First Nations people, the rate of diabetes (predominantly type 2) is almost four times that of the general population.<sup>6</sup>





## 8.2 Childhood diabetes

Type 2 diabetes in children and youth is a growing concern among specific ethnic groups, including Aboriginal people.<sup>59</sup> With increasing rates of obesity and lower levels of physical activity in Aboriginal youth, the prevalence of type 2 diabetes is on the rise.<sup>60</sup> A prospective national surveillance survey estimated that in Canada, Aboriginal children have the highest incidence rate of type 2 diabetes, with the majority being from Manitoba, where the incidence rate is 20 times higher than in other provinces.<sup>61</sup> The prevention of type 2 diabetes in youth is centered on making healthy food choices and increasing physical activity. A Registered Dietitian working in your community can support youth in transitioning to a healthier lifestyle and can translate current nutrition recommendations into a practical daily routine.

The first line of defense against type 2 diabetes is prevention. The Canadian Diabetes Association recommends initiating community-based culturally appropriate prevention programs to raise awareness and promote healthy lifestyles.<sup>54</sup> Examples of well-known programs using a health promotion approach include:

- the Kahnawake School Diabetes Prevention Program<sup>62</sup>
- the Sandy Lake Health and Diabetes Project<sup>63-64</sup>
- the Sioux Lookout Diabetes Program<sup>65</sup>

Registered Dietitians play a key role in developing and delivering nutrition intervention activities in health promotion and nutrition programs, including the development of healthy nutrition policies in schools and in assisting teachers in the planning of extracurricular activities that promote healthy eating and physical activity.<sup>66</sup>

## 8.3 Cardiovascular disease

Aboriginal people face higher rates of cardiovascular disease compared to the general population.<sup>67</sup> This is due to the higher occurrence of risk factors for cardiovascular disease, including high blood pressure, diabetes, obesity, stress, smoking and low fruit and vegetable intakes.<sup>67</sup> Cardiovascular disease, its risk factors and complications can be prevented with improved diet and adequate physical activity.<sup>67</sup> The incorporation of plant sterols in the diet has been shown to have cholesterol lowering effects, decreasing low density lipoprotein (LDL) cholesterol, or “bad” cholesterol, by 5 – 15%.<sup>68</sup> A diet high in fibre-rich food, including whole grains, vegetables and fruit can also lower cholesterol. A Registered Dietitian working in your community can support and educate individuals to help them make the changes necessary to reduce and manage the risks associated with cardiovascular disease.



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### 8.4 Cancer

Cancer rates are rising rapidly in Aboriginal people, especially for lung and colorectal cancers.<sup>69</sup> Further, Aboriginal populations face later-stage cancer diagnosis and poorer survival rates than the general population.<sup>70</sup> Since 2000, Cancer Care Ontario's Aboriginal Cancer Strategy has been working to address these problems by: (a) supporting the Aboriginal Tobacco Strategy in educating on the difference between the harms of smoking and traditional tobacco use, (b) conducting a needs assessment and providing recommendations and advocacy for Aboriginal patients and their families, (c) supporting the education of caregivers in the Aboriginal context, and (d) surveillance, knowledge dissemination, and pilot programs.<sup>71</sup>

Research strongly supports the relationship between food, nutrition, physical activity, and cancer; some diet and health choices are known to prevent certain types of cancer.<sup>72</sup> For example, there is strong evidence that for many cancers, overweight and obesity and a lack of physical activity are major contributors to increased cancer risk.<sup>73</sup> While more research is needed, there is also evidence for a probable protective effect of some foods, among others:

- Non-starchy vegetables against mouth, pharynx, larynx, esophagus, and stomach cancers<sup>72</sup>
- Allium vegetables (e.g., garlic, onions) against stomach cancer<sup>72</sup>

People with cancer are at risk of nutritional deficiencies either from the cancer itself or from the side effects of cancer treatment. A Registered Dietitian working in your community can promote strategies that address healthy weights and healthy food choices in cancer prevention and address problems such as lack of appetite, nausea and increased nutrient needs than can be a result of cancer or its treatment. They can also counsel community members in a healthy diet for cancer prevention.

### THE FACTS

Direct costs to the Canadian health care system in 2006 included:<sup>5</sup>

- \$13.0 billion for **cardiovascular disease**
- \$2.4 billion for **cancer**

Up to 35% of all cancers can be prevented by a healthy lifestyle including healthy eating, maintenance of a healthy body weight, and adequate physical activity.<sup>74</sup>



## 8.5 Obesity

Aboriginal people face much higher rates of overweight and obesity than the general population.<sup>75-76</sup> This is concerning because excess body weight is associated with type 2 diabetes and cardiovascular disease.<sup>77</sup> Interventions that include the promotion of a healthy lifestyle and physical activity, diet counseling and individual tailoring are likely to be the most effective in managing obesity.<sup>78-79</sup> A Registered Dietitian working in your community can guide individuals to a healthy lifestyle including diet and physical activity to prevent obesity.

### THE FACTS

- in 2006, the total cost of overweight and obesity in Canada was estimated at \$11.0 billion (\$6.0 billion direct costs, \$5.0 billion indirect costs)<sup>5</sup>
- the First Nations Regional Health Survey (RHS) found that 34.3% of First Nations adults living on-reserve are overweight, 34.9% are obese and 5.5% are morbidly obese<sup>6</sup>
- rates of overweight and obesity are higher in Aboriginal children compared to the general population;<sup>67</sup> the RHS found that 62.3% of First Nations children living on-reserve are either overweight or obese<sup>6</sup>

### **A Registered Dietitian, as a key member of the health team, can work with your community to modify risk factors for chronic disease by:**

- counseling to promote cost-effective healthy food choices, healthy weights and positive body image that respects the culture and values of community members
- developing culturally appropriate programs and nutrition education material to increase awareness of the changes needed in lifestyle to prevent or delay chronic disease and its complications
- addressing gaps in community diabetes services to meet the needs of community members where and when they need it
- collaborating with partners to develop a network supporting continuity of care
- increasing awareness and initiating healthy lifestyle activities that support the Aboriginal person within their community





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### 9.0 Mental health

**KEY MESSAGE** *Mental health is a serious concern in many Aboriginal communities; the lasting impact of cultural oppression and the residential school system is a contributing factor. A healthy diet and lifestyle can be major contributors to overall well-being. A Registered Dietitian working in your community is equipped with the skills to provide support and guidance to help individuals overcome the nutritional complications that may accompany mental health conditions.*

Mental health conditions (e.g., depression, anxiety) among some Aboriginal people may be related to cultural oppression. Impacts of the residential school system left long-lasting scars not only on those who were forced to attend, but also on the generations that followed. Rates of mental health conditions experienced are much higher in some Aboriginal populations compared to the general population. For example, First Nations seek help for mental health problems at twice the rate seen in the general population (17% vs. 8%).<sup>80</sup> Rates of mental health conditions among the Inuit remain below the national average.<sup>80</sup> It is possible that mental health conditions are not adequately acknowledged in this population, making rates appear lower than reality.<sup>80</sup> Suicide remains a significant concern in many Aboriginal communities.

A healthy diet and lifestyle can be major contributors to overall well-being. Deficiencies in omega 3 fatty acids, B vitamins, minerals and amino acids have been associated with mental health conditions.<sup>81-87</sup> Furthermore, mental conditions are often accompanied by changes in appetite and body weight, micronutrient deficiencies and altered nutritional status.<sup>88</sup> This may be compounded by other co-morbidities that often accompany mental health conditions, including social isolation, substance abuse and poverty.<sup>88</sup> Depression in particular has also been associated with worsened symptoms of type 2 diabetes.<sup>89</sup>

**A Registered Dietitian, as a key member of the health team, can aid in community awareness and individual recovery from mental health conditions by:**

- counseling to promote a healthy overall diet, lifestyle and sense of well-being
- supporting individuals in the nutritional aspects of mental health conditions (e.g., nutrient deficiencies)
- providing guidance to overcome issues including food-medication interactions, side effects of medications and changes in weight and appetite
- developing culturally appropriate programs and nutrition education material to increase awareness of the role of nutrition in mental health conditions
- collaborating with partners to develop a network supporting continuity of care



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### 10.0 Substance abuse

**KEY MESSAGE** *Substance abuse is a serious concern affecting the health and well-being of Aboriginal people and their communities. Fetal Alcohol Spectrum Disorder, resulting from alcohol consumption during pregnancy, is a major cause of developmental delay in children. A Registered Dietitian can provide support and guidance to individuals and families facing substance abuse issues and counsel pregnant women to optimize pregnancy outcomes.*

Substance abuse is a significant concern affecting the physical, emotional, spiritual and mental well-being of Aboriginal people, their families and their communities. The rates of smoking, binge drinking and marijuana use are higher among Aboriginal youth compared to the general population.<sup>90</sup> Alcohol abuse has been linked to:<sup>91-92</sup>

- various cancers
- gastrointestinal diseases
- cardiovascular disease

Overall diet quality declines with increasing alcohol intake.<sup>93</sup> Reasons for this include:<sup>94</sup>

- replacing food with alcohol
- altered nutrient metabolism
- nutrient malabsorption

In recent years, narcotic and opioid addictions have become increasingly concerning in many communities. In these communities, rates of poverty, crime and overdose deaths are often increased. Addictions are often compounded by co-occurring mental health issues such as depression, and can have a substantial impact on the families and communities affected.<sup>95</sup>

Nutrition screening and counseling should be a routine part of substance abuse treatment.<sup>94</sup> A Registered Dietitian working in your community, as a key member of the rehabilitation team, can provide education on a recovery diet that will provide the necessary vitamins, minerals and fluids and aid in preventing relapse. They have the skills to guide an individual suffering from addiction toward a healthy lifestyle through support and education.



## 10.1 Fetal Alcohol Spectrum Disorder

Fetal Alcohol Spectrum Disorder results from the use of alcohol in pregnancy. It is a leading cause of preventable birth defects and developmental delay in children.<sup>96</sup> A Registered Dietitian working in your community can play a role in the prevention of Fetal Alcohol Spectrum Disorder and its complications through early identification, assessment and counseling of women at risk.

### THE FACTS

In 2007, the total annual cost of caring for people with Fetal Alcohol Spectrum Disorder in Canada was \$5.3 billion.<sup>97</sup> Although prevalence rates of Fetal Alcohol Spectrum Disorder are difficult to estimate, it has been suggested that certain select Aboriginal communities may be at increased risk, especially those where drinking is more prevalent.<sup>98-100</sup>

**A Registered Dietitian working in your community can provide services to address the nutritional implications of substance abuse by:**

- providing assessment, education and follow-up support for individuals recovering from substance abuse
- engaging in preconception assessment, counseling and support to prevent and reduce the risks of Fetal Alcohol Spectrum Disorder
- developing culturally appropriate nutrition education materials and providing individuals with the support and information needed to recover from their addiction
- supporting of best practice initiatives that address the dangers of substance abuse as developed by Health Canada's Drug Strategy Division<sup>101</sup>





## 11.0 Building nutrition capacity in your community

**KEY MESSAGE** *Registered Dietitians are an important resource for all communities. Unfortunately, many communities lack the resources necessary to employ a Registered Dietitian. In other cases, there are an insufficient number of dietitians to meet community demand. There is a need to build community capacity by training community health workers, encouraging Aboriginal youth to a career as a Registered Dietitian and the building of community partnerships to promote the role of nutrition in health.*

The number of Registered Dietitians needed to meet the nutrition service needs of Aboriginal people is unknown. What is known is that current community capacity is not sufficient to ensure that nutrition programs are well supported. In Manitoba, it has been suggested that to be able to address diabetes adequately there should be:<sup>102</sup>

- 1 Full-time Equivalent (FTE) dietitian for every 800 people with diabetes in urban centres
- 1 FTE dietitian for every 600 people living in rural areas
- 1 FTE dietitian for every 300 people living in the northern areas of Manitoba

In Southern Ontario, 1 full-time dietitian for every 1000 people has been suggested as a conservative benchmark for diabetes care in the general population.<sup>103</sup>

Unfortunately, current staffing levels fall short of these benchmarks, particularly in rural and remote areas. For example, the Sioux Lookout Zone of Northwestern Ontario covers one-third of the landmass of Ontario and has the third highest rate of diabetes in the world. However, its 28 primarily fly-in communities continue today without the funding to employ a single community dietitian.<sup>104</sup> While diabetes has become a significant health care issue for Aboriginal people, there are unfortunately dozens more nutrition-related health problems of equal importance facing this population that need immediate attention. Similarly, there are a growing number of community-based prevention and promotion strategies that would benefit from regular access to and the support of a Registered Dietitian.

### THE FACTS

- Opportunities exist for Aboriginal people to train to become registered health professionals, including Registered Dietitians.
- The Aboriginal Health Human Resource Initiative provides funding to increase the number of Aboriginal people working in health fields.<sup>105</sup>
- Indspire provides scholarships and bursaries encouraging Aboriginal youth to pursue a career as a Registered Dietitian.<sup>106</sup>
- Dietetic internships that integrate First Nations, Métis and Inuit content in their training include the Yukon First Nations Internship Program and the Northern Ontario Dietetic Internship Program.



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### **12.0 Funding for your community**

**KEY MESSAGE** *It can be difficult for communities to secure funding to employ a Registered Dietitian. Several funding programs exist to help communities to fund nutrition and health-related programs and activities. Examples of possible funding sources are listed below.*

Finding funding to hire a Registered Dietitian can be a challenge. Current funding mechanisms to support nutrition programs and services in primary health care differ by province.<sup>1</sup> Services can depend heavily on provincial government funding through global budgets or targeted health program funding. The Ontario Ministry of Health and Long-Term Care, for example, has funding that is allocated annually to support Aboriginal diabetes programs. Other services have been developed for a specific purpose and are dependent on special grants given year-to-year to provide the funding.

Initiatives such as the Canada Prenatal Nutrition Program, Aboriginal Head Start on Reserve, Aboriginal Diabetes Initiative and the First Nations and Inuit Home and Community Care Program are examples of programs that provide special funding for specific projects in the community. Check with your local provincial or federal government branch office to find out what funding may be available to you. Make them aware of the nutrition and health needs of your community and the support that is needed to build nutrition capacity in meeting these needs.



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The following are examples of funding sources that may be relevant for your community:<sup>a</sup>

| Funding Source                                 | Type                       | Eligibility               | Link  |
|--|----------------------------|---------------------------|---|
| Aboriginal Diabetes Initiative                 | Grant                      | All                       | <a href="http://www.hc-sc.gc.ca/fniah-spnia/diseases-maladies/diabete/index-eng.php">http://www.hc-sc.gc.ca/fniah-spnia/diseases-maladies/diabete/index-eng.php</a>   |
| Aboriginal Head Start                          | Grant                      | All                       | <a href="http://www.phac-aspc.gc.ca/hp-ps/dca-dea/prog-ini/ahsunc-papacun/index-eng.php">http://www.phac-aspc.gc.ca/hp-ps/dca-dea/prog-ini/ahsunc-papacun/index-eng.php</a>   |
| Aboriginal Health Human Resource Initiative    | Grant                      | All                       | <a href="http://www.hc-sc.gc.ca/fniah-spnia/services/career-carriere/hum-res/index-eng.php">http://www.hc-sc.gc.ca/fniah-spnia/services/career-carriere/hum-res/index-eng.php</a>   |
| Aboriginal Health Program                      | Grant                      | Northern British Columbia | <a href="http://www.northernhealth.ca/YourHealth/AboriginalHealth.aspx">http://www.northernhealth.ca/YourHealth/AboriginalHealth.aspx</a>   |
| Aboriginal Health Transition Fund              | Grant                      | All                       | <a href="http://www.hc-sc.gc.ca/fniah-spnia/services/acces/faq-eng.php">http://www.hc-sc.gc.ca/fniah-spnia/services/acces/faq-eng.php</a>   |
| Advocacy and Public Information Program        | Grant                      | All                       | <a href="http://www.aadnc-aandc.gc.ca/eng/1100100015579/1100100015580">http://www.aadnc-aandc.gc.ca/eng/1100100015579/1100100015580</a>   |
| Alberta On-reserve Day Care Program            | Grant                      | Alberta                   | <a href="http://www.aadnc-aandc.gc.ca/eng/1100100035246/1100100035248">http://www.aadnc-aandc.gc.ca/eng/1100100035246/1100100035248</a>   |
| Breakfast Clubs of Canada                      | Grant                      | All                       | <a href="http://www.breakfastclubscanada.org/home.aspx">http://www.breakfastclubscanada.org/home.aspx</a>   |
| Breakfast for Learning                         | Grant                      | All                       | <a href="http://www.breakfastforlearning.ca/">http://www.breakfastforlearning.ca/</a>   |
| Brighter Futures                               | Grant                      | First Nations & Inuit     | <a href="http://www.hc-sc.gc.ca/fniah-spnia/promotion/mental/brighter_grandir-eng.php#brighter-grandir">http://www.hc-sc.gc.ca/fniah-spnia/promotion/mental/brighter_grandir-eng.php#brighter-grandir</a>   |
| Canada Prenatal Nutrition Program              | Grant                      | All                       | <a href="http://www.phac-aspc.gc.ca/hp-ps/dca-dea/prog-ini/cpnpc-pcnp/index-eng.php">http://www.phac-aspc.gc.ca/hp-ps/dca-dea/prog-ini/cpnpc-pcnp/index-eng.php</a>   |
| Feed the Children                              | Grant                      | All                       | <a href="http://www.canadianfeedthechildren.ca/how-you-can-help/fund-a-project/national-aboriginal-nutrition-program-in-canada/">http://www.canadianfeedthechildren.ca/how-you-can-help/fund-a-project/national-aboriginal-nutrition-program-in-canada/</a> |
| First Nation Child and Family Services Program | Grant                      | First Nations             | <a href="http://www.aadnc-aandc.gc.ca/eng/1100100035204/1100100035205">http://www.aadnc-aandc.gc.ca/eng/1100100035204/1100100035205</a>   |
| First Nations and Inuit Health Careers Program | Grant                      | First Nations & Inuit     | <a href="http://www.hc-sc.gc.ca/fniah-spnia/services/career-carriere/program-eng.php">http://www.hc-sc.gc.ca/fniah-spnia/services/career-carriere/program-eng.php</a>   |
| Indspire                                       | Scholarships and bursaries | All                       | <a href="http://www.indspire.ca">http://www.indspire.ca</a>   |
| National Child Benefit Reinvestment Initiative | Grant                      | First Nations             | <a href="http://www.aadnc-aandc.gc.ca/eng/1100100035078/1100100035079">http://www.aadnc-aandc.gc.ca/eng/1100100035078/1100100035079</a>   |
| ONEXONE First Nations Breakfast Program        | Grant                      | First Nations             | <a href="http://www.onexone.org/what-we-do-hunger.php">http://www.onexone.org/what-we-do-hunger.php</a>   |
| Ontario Day Care Program                       | Grant                      | Ontario                   | <a href="http://www.aadnc-aandc.gc.ca/eng/1100100035242/1100100035244">http://www.aadnc-aandc.gc.ca/eng/1100100035242/1100100035244</a>   |
| Spark Advocacy Grants                          | Grant                      | Ontario                   | <a href="http://hsfspark.com/node/2318">http://hsfspark.com/node/2318</a>   |

<sup>a</sup>To search for further funding opportunities, visit the Aboriginal Funding Tool (Government of Canada):

<http://www.aboriginalcanada.gc.ca/acp/site.nsf/eng/funding.html>





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### **13.0 Conclusions and recommendations**

Registered Dietitians are today's leaders in nutritional health. They possess the flexibility and diversity that are critical skills when working with Aboriginal communities. They use culturally appropriate resources, appreciate the differences in learning styles and recognize the importance of family and a wholistic approach to health as key to building healthy communities. Registered Dietitians bring important skills, knowledge and experience to their position and often take a leadership role in establishing strategic direction, assessing community needs and developing, implementing and evaluating nutrition programs that promote health. As experts in food and nutrition, Registered Dietitians are key members of health care team and contributors to community health initiatives.

A Registered Dietitian working in your community will take a wholistic approach to nutrition and health and will be respectful of the role that physical, mental, spiritual and emotional factors play in the context of the individual, their family and their community. A Registered Dietitian will facilitate access to nutrition care in the community by providing culturally appropriate nutrition education resources, programs and linkages to other supports in the community needed to attain and sustain health.

#### **In order to build nutrition capacity, promote the health of community members and reduce healthcare costs, Aboriginal and non-Aboriginal leaders must:**

- establish and dedicate funding to support primary health care nutrition services
- evaluate primary health care nutrition services to ensure that they are meeting the needs of the community in a sustainable, cost-effective way
- establish long-range plans that ensure nutrition services match the primary health care needs of the community
- fund education initiatives that support community members in the pursuit of a career in dietetics

*To learn more about what the dietetic profession can offer and how to improve access to nutrition services in your area, contact the Aboriginal Nutrition Network co-chairs, c/o Dietitians of Canada at: 416-596-0857 or visit their website at: <http://www.dietitians.ca/>. Contact your local health agency, other healthcare workers or Registered Dietitians working in Aboriginal communities who can help you to plan the steps that you will need to take in meeting the nutrition needs in your community (see Appendix 3).*



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## 15.0 Appendices

### 15.1 Appendix 1: Glossary

#### **Aboriginal People**

Section 35(2) of the Constitution Act (1982) defines Aboriginal people of Canada as the First Nation, Inuit and Métis people of Canada. These separate groups have unique heritages, languages, cultural practices and spiritual beliefs. Their common link is their indigenous ancestry.<sup>107</sup>

#### **Colonization**

The immigration of European settlers to North America which irrevocably changed the traditional culture, traditions and values of Aboriginal people through trade introducing new food, technology and culture into Aboriginal communities.

#### **Community**

A group of Aboriginal people who share common culture, traditions and values.

#### **Determinants of Health**

The range of factors that will impact an individual, their family and community's health including: socioeconomic status, productivity and wealth, the health service system, environmental conditions and genetic endowment.

#### **Dietitian**

Also "Registered Dietitian", "Professional Dietitian" and "Dietitian". A Dietitian is licensed by their provincial regulatory body to advise on diet, food and nutrition. Dietitians are held accountable for their conduct and the care that they provide. A dietitian holds a Bachelor's degree and trains in a hospital or community setting as part of their requirement to practice.<sup>2</sup>

#### **Direct Costs**

Costs related to treatment, care and rehabilitation due to injury including costs related to: hospital or other institutional care, drugs, physician care and additional direct services such as other professionals, public health, etc.

#### **FASD (Fetal Alcohol Spectrum Disorder)**

Specific set of disorders associated with the use of alcohol during pregnancy and one of the major known preventable birth defects of children. Previously known separately as Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE).<sup>98</sup>

#### **Food Security**

Food security exists when all people, at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.<sup>9</sup>

#### **Full Time Equivalent (FTE)**

A measure equal to one dietitian working a full-time work schedule for one year.



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### **Indirect Costs**

Costs over and above direct costs associated with an employee's absence including: value of years of life lost due to premature death or lost work hours because of short-term or long-term disability.

### **Medicine Wheel**

The "Medicine Wheel" is used as a symbolic teaching tool by many First Nations people. It is a circle divided into four parts that can represent a wide variety of meanings and teachings on Creation, but which relate interconnectedness between the four quadrants to form a whole. The Medicine Wheel as applied wholistically to health represents physical, mental, spiritual and emotional health.

### **Nutritionist**

An individual who provides nutrition information and advice to people but who is not necessarily regulated by law in a province to ensure that their practice is safe and ethical. The title Registered Dietitian-Nutritionist is currently protected only in British Columbia, Alberta, Quebec and New Brunswick.

### **Primary Health Care**

Essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford.<sup>108</sup>

### **Residential School**

Schools created by churches and the federal government where Aboriginal children resided for the duration of their schooling. Children were prohibited to practice their traditions, culture or beliefs. Living conditions and the food provided were often inadequate in maintaining good health.

### **Traditional or Country Food**

Food consumed by a community that is indigenous to the region where the community lives, hunts and traps. Traditional food provides the context for traditional spirituality, beliefs, knowledge, customs and culture for the members of the community.

### **Wholistic Health**

Physical, mental, emotional and spiritual aspects of health.

### **ANN Artwork**

The artwork developed for the original ANN logo represents the values of family, sharing and traditional food. The two eyes within the eagle figure represent mother and baby or family. The wing encompasses the theme of protection and depicts the traditional foods represented by fish, strawberries and corn found across this land. The outer ring encircles the eagle figure with ANN's name and 13 figures representing the 13 moons and the 13 provinces and territories of Canada. The linking of the figures symbolizes the spirit of unity, sharing and helping. The colour blue is used in the logo to symbolize the healing nature of food and nutrition. Our logo was created by artist Cheryl Delaronde and produced by Digital Dreamcatchers. Permission for use of the logo must be obtained from the Co-Chairs of the ANN as it is copyright material and is for use only with ANN activities.



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## 15.2 Appendix 2: Partnerships

Registered Dietitians working in Aboriginal communities recognize the importance of Traditional knowledge, values and health practices in maintaining health. Partnership with communities helps to build capacity in human, material and financial resources that are needed to support health programs and services. Collaboration also fosters community ownership over programs in ensuring that services delivered are both culturally appropriate and relevant to the community's needs.

**Sectors that Registered Dietitians often partner with to address community nutrition concerns include:**

- health access centres, public health units, community nursing stations and hospitals
- Friendship Centres
- cultural leaders and community Elders
- Chiefs and Council(s)
- community development and social service agencies
- municipal, provincial and federal governments
- regional, national and international organizations and networks
- universities, colleges and other academic institutions
- child care facilities and school programs
- seniors centres
- grocery stores, restaurants and local businesses
- food manufacturers and industry
- recreation programs and services
- food security initiatives and social planning networks





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## 15.3 Appendix 3: First Nations and Inuit Health Branch Regional Nutritionists

### **ALBERTA REGION**

Regional Nutritionist/ Team Leader, Chronic Disease Prevention  
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[laura.coleman@hc-sc.gc.ca](mailto:laura.coleman@hc-sc.gc.ca)

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Email: [Lori.Rudolph-Crawford@hc-sc.gc.ca](mailto:Lori.Rudolph-Crawford@hc-sc.gc.ca)

### **QUEBEC REGION**

Nutritionniste Régionale / Regional Nutritionist  
Direction des programmes communautaires  
Santé Canada, DGRP, Région du Québec, SPNI  
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200, boul. René Lévesque ouest  
Montréal (Québec) H2Z 1X4  
TEL : (514) 283-1906  
FAX : (514) 283-8067  
Email: [Thanh-van.Nguyen@hc-sc.gc.ca](mailto:Thanh-van.Nguyen@hc-sc.gc.ca)

### **SASKATCHEWAN REGION**

Acting Regional Nutritionist  
Health Canada, Saskatchewan Region, FNIHB  
South Broad Plaza, 5th Floor  
2045 Broad Street  
Regina, SK S4P 3T7  
TEL: (306) 780-3859  
FAX: (306) 780-6864  
Email: [sheila.kelly@hc-sc.gc.ca](mailto:sheila.kelly@hc-sc.gc.ca)

### **NUNAVUT**

Territorial Public Health Nutritionist  
Department of Health and Social Services  
Government of Nunavut  
PO Box 1000, Station 1000  
Iqaluit, NU X0A 0H0  
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Health Promotion and Disease Prevention Division  
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TEL: (902) 426-2599  
FAX: (902) 426-2192  
Email: [James.McGrath@hc-sc.gc.ca](mailto:James.McGrath@hc-sc.gc.ca)

### **ONTARIO REGION**

Acting Regional Nutritionist  
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FAX: (613) 946-4703  
Email: [sharmaline.fernando@hc-sc.gc.ca](mailto:sharmaline.fernando@hc-sc.gc.ca)

### **PACIFIC REGION**

Chronic Disease Nutritionist  
Health Canada, Pacific Region, FNIHB  
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### **NORTHWEST TERRITORIES**

Territorial Nutritionist  
Prevention Services  
Department of Health and Social Services  
Government of Northwest Territories  
PO Box 1320  
5022-49th Street  
Yellowknife, NT X1A 2L9  
TEL: (867) 873-7925  
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### **YUKON**

Community Dietitian  
305 Jarvis Street  
HP305  
Whitehorse, Yukon Y1A 2H3  
TEL: (867) 456-6160  
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