

Internship Research Abstracts - DC Conference – Edmonton June 16-17, 2011

Identifying nutrition concerns in a sample of toddlers in Greater Sudbury, Ontario.

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Potential nutrition concerns in Greater Sudbury toddlers are unknown. There is currently no validated parent administered nutrition screening tool for toddlers. The existing NutriSTEP[®] questionnaire for preschoolers is being adapted for use in toddlers (18-35 months). **Objectives:** To identify potential nutritional issues within a sample of Greater Sudbury toddlers during the cognitive testing stage of development for the toddler NutriSTEP[®] questionnaire. **Methods:** Data was collected through interviews with 32 parents (13 French and 19 English) of toddlers (18-35 months). Parents were recruited from eight *BestStart* Hubs where the interviews were also held. Nutrition concerns were identified from parent responses on the draft questionnaire and collected in a standardized interview guide. A one page participant background form was used to collect the parents' demographic data. Statistical analysis was completed using frequencies in SPSS Version 18. **Results:** A large proportion (40.6%) of parents had an annual household income of over \$90,000; graduated college/university (68.8%) and 90.6% of children resided in two parent households. Child nutrition concerns included: high intake of fast food (18.7% at least once a week); high intake of fruit juice or flavoured beverages (40.7% two or more times/day); limited self regulation of food amounts (21.8% sometimes/ rarely/never allowed child to decide); regular supplement use (34.4% most of the time/ always); and excessive screen time (50.1% two-four hours/day). Most common nutrition issues raised by parents included quantity and types of milk (18.8%), excessive juice consumption (15.6%), and appropriate portion sizes (12.5%). **Discussion:** It is important to screen toddlers early to support timely and effective interventions. Identifying key child nutrition concerns can inform a variety of child care and health providers and their service delivery strategies.

School nutrition programs: An environmental scan to support Manitoulin Island First Nation schools

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School nutrition programs are chronic disease prevention strategies yet their suitability to local First Nations schools is unknown. **Objectives:** An environmental scan of First Nation and mainstream school nutrition programs and policies in Ontario and Canada to identify potential implementation barriers and opportunities for elementary and secondary First Nations schools on Manitoulin Island.

Methods: A literature review using key words (school nutrition policy/program, healthy eating guidelines, First Nation) was conducted from October 2010 to February 2011 with additional evidence gathered from academic and grey literature. Content advisor and informed colleague interviews were also conducted in March 2011. Data was entered using the TEIP Program Evidence Tool. Key findings were organized into implementation themes using the TEIP Evidence Synthesis Worksheet. **Results:**

Implementation barriers and facilitators were identified as prominent themes based on three interviews and 12 academic and grey literature sources. Barriers for both mainstream and First Nations schools include a lack of parent support and facilities, limited human resources and food insecurity. First Nation specific barriers are insufficient funding, high teacher turnover, and lack of culturally appropriate resources. Key facilitators common to both mainstream and First Nations schools include comprehensive programs, involving a “champion”, consistent messaging in the school environment and classroom, and communication and support from parents and students. Facilitators for First Nation schools include community involvement and incorporating culture. **Implications and**

Conclusions: The environmental scan identified the need for a self-assessment tool for First Nation schools on Manitoulin Island, to be developed and implemented next year. Awareness of the barriers and facilitators common to First Nation schools can improve implementation success and long term chronic disease prevention goals.

Assessing the nutrition education needs of French and English speaking seniors in the township of Black River-Matheson, Ontario

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Assessing population health needs is a pivotal first step in the planning and implementation of public health services within any community. Nutritional status is a fundamental aspect of well-being and a key determinant of health among seniors. **Objectives:** 1) To determine the best method of assessing the nutrition education needs and wants of French and English speaking, community-living seniors (aged 65 and older), in Black River-Matheson, Ontario; 2) to recommend the most appropriate tool(s) and methods to conduct the needs assessment. **Methods:** A comprehensive thematic literature review was completed with PubMed using the key words: seniors and older adults, community needs assessment, screening, nutrition, awareness, and health services awareness. Searches were conducted between October 2010 and February 2011 and included articles published between 1995 and 2010. **Results:** SCREEN™ was found to be the most vigorously tested screening tool to assess nutritional risk of community dwelling seniors. SCREEN™ results can be used to indicate the need for education based on the areas of nutritional risk. Focus groups allow for a comprehensive characterization of the nutrition education wants of seniors, and therefore are recommended as the best method with this population. **Implications and Conclusions:** Systematic assessment of public health needs is essential to program and service planning. Determining the nutritional risk of the senior population of Black River- Matheson will allow for local public health staff to set priorities and plan nutrition education strategies for the community. Our recommendations would be to use SCREEN™ to assess nutrition education needs and focus groups to determine educational wants of seniors. These methods will need to be assessed further for feasibility before implementation.

Cognitive testing of a draft NutriSTEP[®] tool for toddlers in Thunder Bay, Ontario.

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Objectives: 1) To cognitively test a draft NutriSTEP[®] tool for toddlers aged 18 to 35 months. 2) To identify potential nutrition concerns of a sample of Thunder Bay toddlers. **Methods:** A random sample of culturally diverse parents of toddlers (n=38) were recruited through posters, online newsletters and word of mouth. Cognitive testing was done with parents using a standardized interview guide. Nutrition concerns were identified based on parent responses to the 19 item draft NutriSTEP[®] questionnaire. Quantitative data was analyzed using Mac Excel 2008 to capture counts and percentages. Thematic content analysis was used to analyze parental understanding of the draft questionnaire and their nutrition concerns. **Results:** Of the 19 questions on the draft questionnaire, 37% of parents wanted clarification on the meaning of “fruit drinks” while a few parents were unclear about the meaning of “fast food and take out” (18%), “bottle” (16%) and “pureed foods” (13%). Some parents felt fruit and vegetable consumption should be two separate questions (13%); wanted more supplement examples (16%) and clarification with the eating frequency question (21%). Potential nutrition concerns included: frequent television viewing while eating, limited child control of the amount of food consumed, frequent supplement usage, high fruit juice and fast food intake, low fruit and vegetable consumption, child weight concerns and high food cost worries. **Implications and Conclusions:** Cognitive testing results indicate areas for questionnaire refinement and will inform further refinement and validation. Key child nutrition concerns were identified suggesting that parent nutrition education is needed on screen time, the parent-child feeding relationship and juice consumption. Increasing parent nutrition knowledge can promote improved overall child health and long-term health status.

A description of eating behaviours of pregnant women in Simcoe Muskoka District.

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Nutrition and energy intake are well known to affect gestational weight gain yet there is no population level data that describes the eating behaviours of pregnant women. The Maternity Experiences Survey (2009) reported 35% of women entered pregnancy as either overweight or obese; and over 40% of all pregnant Ontario women gained in excess of their ideal gestational weight gain range (Health Canada, 2010). **Objective(s):** To describe the food choices of pregnant women in Simcoe Muskoka; to determine their perceived barriers and facilitators to healthy food choices; and, to determine the resources pregnant women consult for nutrition information. **Methods:** The nutrition portion (12 items) of a 31-item Food and Exercise in Pregnancy Survey was pretested with 11 prenatal women in two Canada Prenatal Nutrition Programs and one prenatal class. All local health care practices providing primary care for pregnant women (ie. obstetricians, midwives, family physicians) were asked to recruit eligible participants, which included pregnant women (minimum 14 weeks gestation, minimum age 18) who could read English and independently complete the survey during a scheduled appointment. Consenting office staff received implementation training from Public Health Nurses and received a \$10 grocery voucher incentive. Consenting participants received a canvas bag incentive. Data collection occurred in March and April 2011 with a goal of 361 completed surveys for a representative sample of all pregnant women in Simcoe Muskoka. **Results:** Pending data collection. **Implications & Conclusions:** The findings of this survey will provide insight into the eating behaviours of pregnant women. The information will be used to focus a comprehensive public health promotion strategy on healthy weight gain during pregnancy.

Effectiveness of homemade versus commercially prepared supplements at promoting weight gain in long term care residents – Pilot Study

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Objective: To determine if commercially made supplements (CMS) versus homemade supplements (HMS) are more effective at promoting favourable weight changes in residents of IOOF Seniors Home Inc. in Barrie, Ontario. **Methods:** A single-centred, retrospective chart review was conducted with 19 residents who met the inclusion criteria, which included: supplement consumption for a minimum of six months and had not been receiving both types of supplements. Diet and weight data were collected at baseline and every three months for up to nine months of supplementation. **Results:** Nine CMS and 10 HMS subjects (n=19) met the criteria for participation in the study. Staff documentation of food and nourishment intake was incomplete and could not be included as data to analyze. Data analysis is ongoing. **Implications & Conclusions:** It would be beneficial for future research to include multi-centre participation, standardization of data collection parameters, staff training and development of new policies and procedures related to documenting residents' intake. Variables such as nutritional risk, feeding assistance, food and supplement intake should be considered in future studies to inform decisions regarding supplementation.

Nursing feedback on food service delivery at Thunder Bay Regional Health Sciences Centre (TBRHSC)

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A new food service delivery system will be implemented at TBRHSC in 2011. **Objective:** To examine nursing's attitudes and beliefs on the current food service delivery system at TBRHSC to establish baseline data prior to implementation. **Methods:** A 14 item survey was developed based on literature review. Pretesting was performed amongst Food Service Professionals. Inclusion criteria for the study were as follows: Registered Nurses (RNs) or Registered Practical Nurses (RPNs) working on all medical units (1A-3C) at TBRHSC. The survey was administered online using SurveyMonkey™ and sent electronically to the email accounts of all TBRHSC nurses (N=961). The response rate was 20.7% (N=199 nurses). Of all respondents, N=63 nurses met inclusion criteria and their data were analyzed. **Results:** From the sample (N=63), 98.3% of RN and RPNs stated they feel food plays an important role in patient care; 96.4% feel it is important for patients to have choice during meals and 72.5% strongly agree or agree that nursing plays an important role in success of food service delivery. Stressors related to food service include: ordering late trays (79.6%), investigating tray errors (72.9%) and entering preferences in Meditech (55.9%). **Conclusions & Implications:** Results indicate that nurses view themselves as stakeholders in food service delivery and acknowledge the importance of food and food choice as part of quality patient care. Nurses' related stressors suggest the need to involve them in planning and implementation of the new food service delivery system, in addition to further evaluating its impact on their attitudes and beliefs. The findings from this study will help facilitate improvements in food service delivery, inter-departmental processes and patient care.

Advice provided to women with breast cancer by oncology dietitians concerning the consumption of foods containing soy

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Breast cancer is one of the most commonly diagnosed types of cancer among Canadian women. The consumption of soy foods in the prevention and treatment of breast cancer is controversial.

Objectives: 1) To identify the advice dietitians are giving female breast cancer patients regarding the consumption of soy foods; 2) to determine key resources dietitians use to obtain information concerning soy foods and breast cancer; and 3) to examine dietitian perceptions of the adequacy of information and/or materials available regarding soy foods and breast cancer prevention and/or treatment. **Methods:** A 13-item exploratory online survey was developed based on a review of the literature, existing tools and dietitian expertise. Pretesting was conducted with oncology dietitians (n=3) for clarity and understanding. An invitation to participate email with a link to the survey through SurveyMonkey™ was distributed to a convenience sample of 155 eligible dietitian members of the Dietitians of Canada Oncology Network. Data were collected using quantitative and qualitative questions. **Results:** Data analysis is in progress. **Implications and Conclusions:** The findings of this study will help determine resources needed by dietitians to inform practice related to soy food consumption and women with breast cancer. Results will enhance awareness of what advice dietitians are currently giving and may aid the Algoma Cancer Care Program in providing female breast cancer patients with soy food consumption guidelines.

Descriptive profile of individuals with end-stage renal disease receiving dialysis: factors related to vitamin D sufficiency

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Objectives: 1) To determine circulating 25-hydroxy vitamin D (25(OH)D) status of patients with End Stage Renal Disease (ESRD) undergoing peritoneal dialysis (PD) in the Northern Health catchment area or hemodialysis (HD) in the Prince George Renal Clinic. 2) To investigate any relationship between patient characteristics and 25(OH)D status. **Methods:** 104 participants were screened for the study, 3 of which were excluded due to present use of over-the-counter vitamin D supplementation, for a study population 101 participants. Data collection included 25(OH)D test results, date and associated characteristics (ex. iPTH, ethnicity and active vitamin D therapy). 25(OH)D results were used to classify patients according to the National Kidney Foundation, KDOQI (2004): sufficient (75 to 200 nmol/L), insufficient (39 to 74 nmol/L), deficient (13 to 38 nmol/L), and severely deficient (less than 13 nmol/L). **Results:** 101 patient charts were reviewed: 65 were males (64%), 35 were on PD (35%), 66 were on HD (65%). The mean 25(OH)D status of the population was 53.4 nmol/L (in the 'insufficient' category). No patients fell in the 'severely deficient' category. There was a greater extent of inadequacy in the 25(OH)D status of patients on PD compared to HD. There were no significant correlations between 25(OH)D status, length of time on dialysis, age, and BMI. There was no significant correlation between 25(OH)D status and active vitamin D prescription or markers of mineral metabolism. **Conclusions:** The results demonstrate that 78.2% of the HD and PD patient population have inadequate 25(OH)D levels. Inadequacy of 25(OH)D levels is greater in individuals on PD compared to HD. The study results have shown less severe 25(OH)D deficiencies than other populations with ESRD on dialysis in other locations.

Flexible Breakfast Service, Caloric Intake and Resident/Staff Satisfaction in Long Term Care

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Objectives: Flexible breakfast in long term care involves providing breakfast foods over a longer time frame in the morning to accommodate residents who prefer to sleep longer or who require additional assistance from nursing staff in the morning. This study was conducted to determine the feasibility and acceptability of implementing flexible breakfast in one long term care residence in Calgary.

Methods: Residents who typically slept later in the morning, required additional nursing assistance or consumed little at breakfast were identified by nursing staff as participants in a trial period implementation of flexible breakfast. The flexible breakfast service was offered for one week where breakfast service was extended to 10:30 AM. Daily calorie intake was recorded and calculated via food records over a one week time frame prior to implementation and again during implementation of flexible breakfast. A focus group was conducted after the trial with care staff to explore care issues and barriers to implementation and to solicit feedback. A satisfaction survey was conducted with all residents to determine acceptability of flexible breakfast meal items. **Results:** Calorie counts indicated a moderate increase in total calories for residents who participated in the flexible breakfast trial. In addition, since flexible breakfast was offered to all residents in the facility, those who did not directly participate in the study enjoyed having alternative breakfast choices available. Focus group data suggested this dining option is preferred by care staff since it provided opportunities for them to assist more residents. **Implications and Conclusions:** Findings from this study suggest that offering a flexible breakfast service may increase caloric intake among long term care residents and can provide care staff with more time to assist residents. Overall, residents preferred to have alternative breakfast choices which has implications for enhanced resident nutrition and satisfaction in long term care.

Examining the influence of diet texture, entrée choice and production method on food items remaining on trays in acute and residential health care settings

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Objective: To examine the amount of food items remaining on trays in health care facilities based on diet texture (regular, minced, pureed), method of meal preparation (production, non-production) and entrée category (hot, cold, meat, vegetarian, casserole, non-casserole). **Methods:** This study reanalyzed quantities of food remaining on trays (0%, 25%, 50%, 75%, 100%) for 18,897 food items previously collected from two acute and two residential health care facilities. Data was reorganized into Excel spreadsheets according to subtopic and further categorized as accepted (0%, 25%, 50%) or not accepted (75%, 100%). Data was analyzed using Chi-squared and Bonferroni correction was applied. **Results:** Pureed textured food items were accepted less often than expected ($p = 0.000$). Food items prepared at production sites were accepted more often than expected, whereas food items prepared at non-production sites were accepted less often than expected ($p = 0.000$). Meat entrées were accepted more often than expected, while vegetarian entrées were accepted less often than expected ($p = 0.002$). No differences were observed for minced and regular textures, or for hot, cold, casserole and non-casserole entrée categories. **Implications & Conclusions:** Statistical data lends insight into what areas require improvement to reduce food waste, however is limited by its inability to identify causation. When considering budgetary constraints, it may not be cost saving to adopt a non-production system given findings. In lieu of diet alterations, clinical dietitians may need to devise alternative methods to increase food consumption in the minority of patients receiving vegetarian and pureed diets. Focusing further research on method of meal preparation is crucial as it affects all patients across all health care settings.

Evaluation of an interprofessional education program to health care practitioners at a community teaching hospital

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Objectives: Interprofessional Education (IPE) aims to further enhance IPC by educating professionals on role awareness and responsibilities as well as encouraging reflective practice, collaboration, teamwork, and conflict resolution. The objective of this study is to see if the participants were able to make changes as a result the iPed sessions as well as to compare participant's perception of their knowledge and skills of IPE in a post "then and now" format in order to see if the sessions had any impact. **Methods:** Four IPE sessions will be facilitated by IPE committee members at North York General Hospital (NYGH). The evaluation process will include a questionnaire to evaluate participant satisfaction with each IPE session's content, facilitators, and delivery methods. A post "then and now" questionnaire will be used to evaluate the participant's perception of the knowledge and skills acquired from the IPE sessions. Participants will also be asked to fill out a commitment to change form after each session along with identifying potential barriers and methods to overcome them. Interviews will be conducted with consenting participants after a 3-6 month period to investigate changes in practice as a result of attending the IPE sessions. **Implications & Conclusions:** The data collected from these sessions will have the potential to help identify the importance of IPE initiatives held at the post licensure level. In addition, it will allow the IPE committee at NYGH to determine the effectiveness of the sessions and implement changes to ensure that participants are gaining the knowledge and skills needed to become facilitators of IPE/C. These study findings can also lead to further research in the hospital to determine if in fact participants have implemented changes within their teams.

Investigating “Healthy” Cafeterias Initiatives: What are They? How are They Implemented? What makes Them Successful?”

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Objectives: Many foodservice operations include the implementation of “healthy” cafeterias in their mandate. However, the term “healthy” is poorly defined. The objectives of this study were (1) to determine what initiative(s) have been undertaken or explored to implement “healthier” cafeterias and (2) to identify and describe barriers and enablers to implementation.

Methods: An online survey was developed and distributed nationally to the DC Food Service Managers Network, Canadian Society of Nutrition Managers and other key informants. Respondents were invited to participate in a telephone interview at the end of the survey. Additional key informants were identified through snowball sampling.

Results: 129 surveys were completed and analyzed using descriptive statistics. 12 telephone interviews were conducted and analyzed for themes. 71% of respondent foodservice operations had made changes to their cafeteria foodservice to implement healthier food choices. Healthy initiatives generally undertaken included:

- ❖ offering a selection of fresh salads daily and lower fat dairy choices (21%),
- ❖ increased availability of fruits (16%)
- ❖ preparing sandwiches using whole grain breads (15%).
- ❖ offering more vegetarian options(11%),
- ❖ increased use of homemade soups(10%),
- ❖ smaller portions of food on the menu (9%)
- ❖ decreased use of deep fryers (9%).

Institutions reported that the impetus for change was to promote healthy eating in the workplace. Implementation time frames were long term in the range of 5 - 7 years. Nearly half of respondents described their initiatives as successful from their institutions’ perspective, and determined this through use of satisfaction surveys. Data generated from interviews provided practical suggestions for implementation. One significant finding was that long term care facilities indicated that they had deferred healthy cafeteria initiatives in favour of trying to stay within Ministry of Health guidelines.

Implications and Conclusions: This research study puts forth recommendations to consider and identifies key messages from healthcare foodservice providers that have explored and established healthy initiatives in their cafeterias.

Vitamin D status in the setting of acute stroke

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Objectives: Stroke is the third most common cause of death and the main cause of disability in adults in Canada. A low serum level of 25-hydroxyvitamin D (25-OHD), the main storage form of vitamin D, has been associated with stroke risk factors such as hypertension, atherosclerosis, metabolic syndrome, and inflammation. Low vitamin D levels following stroke may be attributed to decreased sunlight exposure and low dietary intake prior to stroke occurrence. The objective of this study is to identify the serum 25-OHD levels in an acute stroke population. **Methods:** Data was collected retrospectively from acute stroke patients at the Hamilton General Hospital between December 1, 2010 and February 28, 2011. Serum 25-OHD tests performed within 30 days of hospital admission were considered suitable for data collection. Confidence intervals will be used to compare our results with the Canadian national population's mean plasma 25-OHD level documented in the Canadian Health Measures Survey (CHMS). Two-sided t-tests will also be used for comparison to mean serum 25-OHD levels found in stroke patient populations from other studies in the scientific literature. **Results:** Forty-five patients were included in the study for retrospective chart review. The mean serum 25-OHD level was 56.0 ± 30.0 nmol/L. To date, the research is not yet complete and requires further analysis. **Implications & Conclusions:** The clinical practice application of the results may help determine if routine serum 25-OHD biochemical analyses of all acute stroke patients is necessary. In addition, the results of this study may encourage future investigation into the possible need for routine vitamin D supplementation in acute stroke patients, as well as the possible need for preventative and Public health interventions.

Adherence of health professionals to a dietitian-initiated peritoneal dialysis mineral management protocol (PDMMP)

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Objectives: To assess the adherence rate to the PDMMP and to determine when, where, how often and why deviations occur. Study results will allow adjustments to be made to ensure the PDMMP reflects current practice. **Methods:** The 143 study participants included randomly selected patients from the Fraser Health Peritoneal Dialysis Program who met the inclusion criteria. Serum calcium (Ca^{2+}), phosphorus (PO_4) and parathyroid (iPTH) levels for each patient were gathered using the Provincial Renal Outcomes and Management Information System (PROMIS), and a retrospective chart review was conducted. A data collection tool was created based on the PDMMP and used to document PO_4 , Ca^{2+} , iPTH levels, whether or not the protocol was followed and the reason for any deviation that may have occurred. **Results:** The 143 charts reviewed produced 732 quantitative data points. Analysis of this data revealed a non-adherence rate of 9%. **Implications & Conclusions:** Qualitative data points and quantitative trends were used to identify steps in the PDMMP that may require clarification and/or revision to ensure it is reflective of current practice. Secondary analysis of the data was conducted to identify limitations to the study and areas for further research. Based on research findings, alterations can be made to the PDMMP to prepare it for use in other health regions and other modalities of dialysis.

An investigation of cultural expectations of hospital foodservice during illness within an ethnically diverse population.

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Objectives: It is often suggested that the provision of ethnically diverse food options during hospitalization promotes equity and client-centredness. The objective of this study was to gain a thorough understanding of expectations for hospital foodservice during illness within the Tamil and Chinese communities in the Rouge Valley Health System catchment area and to enhance customer satisfaction in foodservice. **Methods;** A patient satisfaction survey focusing specifically on the provision of ethnic foods was developed in English, translated into Tamil, Cantonese and Mandarin and administered to inpatients within the Rouge Valley Health System using a cross sectional survey methodology. Survey respondents were invited to participate in individual telephone interviews post-discharge to further explore their cultural food experience while hospitalized. Additional key informant interviews were conducted with community leaders and the Patient Advisory Committee. Translation services were utilized where appropriate. **Results;** 100 patients completed the survey and 18 patients participated in individual interviews. The data revealed that 70% of English-Canadian patients were satisfied that the current menu met their cultural needs. However, only 50% of the Tamil-Canadian patients and 60% of the Chinese-Canadian patients were satisfied that the current menu met their cultural expectations. 100% of the Tamil –Canadian patients said they would prefer more items from their culture on the menu. The most requested items were curry, rice and traditional spices in cooking. 75% of the Chinese-Canadian patients requested the addition of congee. An interesting finding of this study was that all cultural groups indicated that toast was an important food item during illness. Individual and key informant interviews provided additional data related to food usage and importance in illness. **Implications & Conclusions:** Asking members of cultural communities about specific expectations related to hospital foodservice is useful for developing targeted improvement activities, decreasing waste and improving intake of hospitalized patients.

Comparing methods of diabetes management in primary health care

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Objectives: The objectives of this study were to investigate: differences in clients' perception about the quality of care in traditional physician-managed (PM) and team-managed (TM) diabetes care at SWCHC; clients' satisfaction with diabetes services at SWCHC; and ideas for improvements in diabetes services at SWCHC. **Methods:** A purposeful selection of clients aged 51-70 with diabetes was made from PM (n=4) and TM (n=4) at SWCHC. The clients completed a written survey and were interviewed during a focus group using semi-structured questions. Survey data were compiled and focus group data were transcribed verbatim; this data was grouped into common themes indicative of quality diabetes management. **Results:** Both groups identified the same types of self-management practices; however only PM group acknowledged the need to take responsibility for ones' self. PM group was able to identify numerous clinical management practices whereas, only two TM participants were. All participants identified an interdisciplinary team as being part of their diabetes care. Overall, all participants were satisfied with the diabetes services at SWCHC and provided limited suggestions for improvement. Other common sub-themes arose such as peer support, source of health information and approach to health care. **Implications and Conclusions:** Limitations of the study include short time line and length of TM program. There is no difference in the perceived quality of care between TM and PM at SWCHC. In addition, both groups identified an interdisciplinary team as part of their diabetes care and numerous self-management practices. Results emphasize the need to examine both clinical outcomes and client's perception of care, when measuring the effectiveness of diabetes services.

A study of the current diabetes management practices used at Senior's Health Centre- North York General Hospital and how they compare to recommendations in the literature.

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Seniors' Health Centre (SHC) at North York General Hospital (NYGH) does not have a standard protocol of care for the management of diabetes. **Objectives:** To identify the current practices of diabetes management at SHC and compare them to recommendations in the literature, as well as, provide future recommendations to SHC. **Methods:** A chart review was conducted on residents who were on a diabetic diet and the following information was examined: method of treatment, frequency of glycosylated hemoglobin (A1c) testing, point-of-care (POC) blood glucose testing, blood pressure testing in the past year and frequency of lipid profile testing in the past year and within the last three years. **Results:** 31 charts were reviewed and 80.5% of these residents were female. The average age of residents was 86 ± 6.9 years old. Four residents were being treated by diet only, twenty-one with diet and oral antihyperglycemic agents (OAA), five with diet and insulin and one with diet, OAA and insulin. A1c testing was performed an average of 2.2 ± 1.6 times per resident in the past year. POC blood glucose testing was performed an average minimum of 7.2 times and an average maximum of 11.7 times per resident per month. 93.5% of residents had their blood pressure tested at least once in the past year and 35.5% and 64.5% of residents had lipid profile testing performed in the last year and within the last three years, respectively. **Implications & Conclusion:** A diabetic management protocol at SHC may be favourable in providing residents with optimal care in a consistent format.

The frequency of nutritional inadequacies in children with autistic spectrum disorder with and without gastrointestinal complaints

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Objectives: It has been longstanding that there are feeding difficulties in children with Autism Spectrum Disorder (ASD), rooting from sensitivity to sensory attributes. Recent clinical studies have also indicated a high prevalence of chronic gastrointestinal (GI) symptoms (e.g. constipation, diarrhea) in this population. It is well known that GI symptoms are able to alter dietary intake; however, little information regarding these effects on children with ASD has been reported to date. Thus, the study objective is to evaluate the frequency of nutritional inadequacies in children with ASD, with and without GI complaints. **Methods:** From January to March 2011, ninety-eight families from the pediatric autism clinic at North York General Hospital were screened for study eligibility. Families were asked to complete a background and bowel habit questionnaire, as well as a three-day food record. Enrolled participants (n = 20) were divided into GI symptomatic or asymptomatic groups according to their responses in the screening questionnaires. Data from each three-day food record was entered into ESHA nutrient analysis software, and a three-day nutrient average was produced. Nutrient intake levels below the Estimated Average Requirement (EAR) were recorded for each group. **Results:** Statistical analysis of data is currently in progress. Statistically significant nutrient inadequacies between groups will be examined. Estimated study completion date is July 2011. **Implications & Conclusions:** Findings from this study may help to identify whether children with ASD and GI complaints are at higher risk of nutritional inadequacies compared to their asymptomatic peers. It may also validate a need for increased involvement of dietitians in the management and care of ASD patients.

Participant perspectives of a health authority funded weight management program: a focus group study

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Objectives: To assess past participant perspectives of a weight management program. Topics assessed included: knowledge retention, lifestyle behaviour modification, identification of program successes and areas of possible program development. **Methods:** Sixty-one past participants were invited to attend one of two focus group sessions. A total of nine subjects attended the focus groups, during which they were asked to discuss four questions (and several sub-questions). Data was analyzed using Krueger's Classic Approach, which included theme identification and categorization.

Results: Analysis revealed that all program content was relevant, however four main areas for program improvement were identified: readiness to change assessment, long-term support and motivation, and emotional eating. It was found that knowledge retention did not necessarily equate to behaviour change. Researchers were unable to determine whether subjects' low self-rating of behaviour change was related to content covered or the mode of delivery based on limited documentation outlining the content of the program required for comparison. **Implications &**

Conclusions: The majority of subjects felt that the IHN WMP did not meet their weight management needs. Subjects perceived the IHN WMP to consist of the appropriate foundational components, however, further program development in areas such as ongoing support, effective participant selection process, and expansion of topics promoting behaviour change may improve program effectiveness. The IHN WMP may benefit from the development of a logic model to assist in future program planning and evaluation.

Evaluating glycaemic index education and acceptability of low glycaemic index foods in men and women living with type 2 diabetes mellitus.

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The low glycaemic index (LGI) diet has received considerable attention over past three decades. Despite the reported benefits of a LGI diet on blood glucose control in type 2 diabetes (T2DM), clinicians often do not incorporate LGI in their patient education. Barriers to GI-utility reported by Canadian Dietitians include: difficulty for patients to understand and apply LGI and lack of GI-education tools. Studies assessing GI-education are sparse. **Objectives:** This study has been divided into two phases. Phase 1: to develop and validate a questionnaire to measure reactions to a GI-education session, GI knowledge gain, and application and acceptability of a LGI diet. Phase 2: to evaluate a GI-education session, using the validated combined-form GI-questionnaire (GI-Q) in a sample of people living with T2DM. **Methods:** Questions comprising the GI-Q have been informed by previous studies on GI-education and program evaluation, the Willett Food Frequency Questionnaire, and the Kirkpatrick Theory of Effective Education Evaluation. Phase 1: a sample of professionals working in diabetes care (n=10) and individuals being treated for T2DM (n=10) at St Michael's Hospital, Toronto will be asked to provide comments on the readability and appropriateness of GI-Q. Phase 2: the GI-Q will be administered to participants of the GI group education session (n=29) at baseline, immediately after the class and 4-weeks after the class. LGI diet knowledge and behavior scores will be compared pre- and post-education session. **Results:** Recruitment is ongoing. **Implications & Conclusions:** This study will provide valuable tools and resources to support effective delivery of GI-education and novel Canadian data to add to GI-literature.

The adaptation of the Basic Shelf cookbook using a pictorial recipe format for instructors who teach individuals with low literacy levels.

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Background: Amongst the barriers that exist to food skill development is low literacy. *The Basic Shelf Experience* cooking program at Kingston Frontenac Lennox & Addington Public Health, facilitated by Community Food Advisors (CFA) aims to address this and other barriers. **Objectives:** To determine if recipes in pictorial recipe format would assist CFAs in delivery of the *Basic Shelf Experience* cooking program for clients with low literacy levels. **Methods:** Literature on best practices for low literacy resource development was collected as well as key informant interviews. With permission from the publisher, a recipe from the *Basic Shelf Cookbook* was adapted by increasing font size, limiting use of words and using pictures to illustrate ingredients and cooking steps. CFAs evaluated the adapted recipe for format and perceived usefulness. Two CFAs who had the opportunity to use the resource with a *Basic Shelf Experience* class were also interviewed. Qualitative data was analyzed for themes. **Results:** All CFAs agreed that the resource was valuable and would help participants with low literacy. Two CFAs who used the recipe with a *Basic Shelf Experience* group reported that they would use it again. Two common themes on the adaptations emerged; 1) the pictorial format was easier to follow and to teach with, 2) photographs were preferred over drawings. **Implications & Conclusions:** Findings from this adaptation suggest that recipes using a pictorial format can be useful to CFAs who work with individuals with low literacy levels. The results of this evaluation will provide feedback to shape future updates and adaptations of the *Basic Shelf Cookbook*.

The need for comprehensive protocols for the preparation and quality control of thickened fluids for patients with dysphagia.

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Manufacturer instructions for beverage thickeners have been shown to sometimes produce fluids that do not meet National Dysphagia Diet (NDD) recommendations for the nectar- and honey-like viscosities. **Objectives:** To establish comprehensive beverage thickener guidelines to achieve viscosities within recommendations and reduce foodservice costs. **Methods:** Nectar- and honey-like beverages were prepared using manufacturer directions from three brands with five beverage types. Viscosities were measured at multiple time and temperature intervals and compared to the recommended ranges, 51-350 centipoises (cP) for nectar-like and 351-1570 cP for honey-like. Recipes were modified for each fluid/time/temperature combination with a viscosity that fell farthest out of range. Costs using modified recipes were compared to original costs. Available manufacturer, institutional, and governmental beverage thickening preparation resources were reviewed to draft recommendations. **Results:** Means for manufacturer-instructed nectar- (n=48) and honey-like (n=48) samples were 317±299 cP and 848±555 cP (Brand 1), 136±83 cP and 3418±2145 cP (Brand 2), and 239±114 cP and 728±262 cP (Brand 3), respectively. Nectar- (n=21) and honey-like (n=21) sample means using modified recipes were 85±81 cP and 694±472 cP (Brand 1), 103±88 cP and 1431±367 cP (Brand 2), and 16±80 cP and 583±96 cP (Brand 3), respectively. Potential cost-savings of modified recipes range from \$0.02 to \$0.39 per beverage. Preparation guidelines that address beverage type, time to service and temperature are recommended to produce fluids that are safe for consumption. **Implications & Conclusions:** Comprehensive thickener protocols are needed to consistently produce safe fluid viscosities and reduce institutional foodservice costs. (Funded by a Brescia University College Research Grant)

A quality improvement project to determine if patients and residents with dysphagia are receiving and consuming adequate hydration

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Objective: Patients/residents with dysphagia have difficulty meeting hydration needs. This project was developed to determine if patients/residents with dysphagia in both acute and long term care settings are receiving and consuming adequate hydration. **Methods:** An online survey was designed and administered nationally to explore various institutional approaches to the provision of thickened fluids. In addition, provision and intake of thickened fluids were recorded for 3 non-consecutive, 24-hour periods at 4 different care sites and compared to individual fluid requirements. Finally, focus group sessions were conducted with nursing staff to determine common practices and barriers to providing hydration to patients/residents with dysphagia and to solicit suggestions for change. **Results:** Survey results: (115 respondents), indicated that the provision of commercially thickened beverages was prevalent (84.3% of respondents) and (92.8% of respondents) provided commercially thickened beverages between meals. However, institutional results indicated that patients/residents were only receiving 49 – 58% of their calculated fluid requirements through administration of these products. In addition, patients/residents were consuming only 30 – 54% of their calculated fluid requirements. Focus groups with staff identified understaffing and workload as the most common human factors impacting the provision and consumption of insufficient fluids. **Implications & Conclusions:** This quality improvement project provided specific information about the provision of thickened fluids for four care sites. Survey data provided general information about the provision of thickened fluids on a national level. This information can help develop recommendations to improve practices in preventing dehydration in patients/residents with dysphagia.

A step forward: assessing and increasing community health centre staff knowledge of the Baby Friendly Initiative and readiness to adopt a breastfeeding policy.

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Purpose: The Merrickville District Community Health and Services Centre (MDCHSC) is considering the implementation of an internal breastfeeding policy based on the Baby Friendly Initiative (BFI) principles. Policy approval is contingent on staff support. The purpose of this project was to raise MDCHSC staff awareness of the BFI, increase knowledge and support of infant feeding best practices, and foster openness to the adoption of a breastfeeding policy through a staff in-service.

Methods: An electronic survey was used to determine MDCHSC staff awareness of the BFI, knowledge and support of infant feeding best practices, and openness to adopting a breastfeeding policy. The survey results along with key informant interviews and a literature review were used to develop a staff in-service. A survey will be used following the staff in-service to evaluate the project.

Results: Prior to the staff in-service, 75% of staff supported the best practice to exclusively breastfeed until six months of age, and 50% of staff agreed with the best practice to introduce appropriate solid foods at six months with continued breastfeeding for two years and beyond. Sixty-seven percent of staff supported a breastfeeding policy. Project results will be available after the in-service is implemented and evaluated in May, 2011. **Conclusions:** Conclusions and recommendations will be available after May, 2011.

Use of the Malnutrition Screening Tool to explore dietitian prioritization of patients at risk of malnutrition at Nanaimo Regional General Hospital on Vancouver Island

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The Vancouver Island Health Authority Workload Prioritization Tool (WPT) is a newly implemented tool in adult acute care used to help dietitians prioritize their workload. By effectively prioritizing workload, dietitians are able to provide timely nutrition intervention. **Objectives:** This study aims to examine whether the WPT is being used to accurately prioritize patients at risk of malnutrition. If patients are prioritized incorrectly, the study aims to identify how the WPT can be improved. **Methods:** To assess risk of malnutrition, the Malnutrition Screening Tool (MST) was administered to newly admitted patients at Nanaimo Regional General Hospital (NRGH) over 2 weeks. The results were compared to how the patients were prioritized by dietitians using the WPT. The patients' charts were reviewed and descriptive information was collected to help advise improvements to the WPT. **Results:** Of the 209 admitted patients during the study period, 45 met inclusion criteria and consented to participate. Results show that 75.6% of participants were prioritized suitably according to their MST score. 8.9% of participants were identified as at risk of malnutrition but inappropriately prioritized by the WPT. **Implications & Conclusions:** While it appears a majority of patients were correctly prioritized, some patients identified as at risk of malnutrition were misclassified. However, due to low numbers of study participants no definitive conclusions can be drawn. Preliminary analysis of descriptive information collected indicates potential trends in data, but a larger scale study is required to better inform areas for improvement on the WPT.

Acceptable nutrient intakes for hip fracture patients: how do we measure up?

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Objectives: To determine the average energy, protein, calcium and vitamin D requirements of low nutritional risk Orthopedic Fractured Hip (OFH) program patients, and the percentage of the average Vancouver General Hospital (VGH) diet needed to meet these requirements, in order to verify whether the current monitoring parameter of a 75% intake is acceptable. **Methods:** We conducted a single-centre retrospective chart review of patients in the OFH Program between November 22nd, 2010 to January 31st, 2011 and who meet the inclusion criteria. A sample size of 28 patients was obtained. We collected data on the patients' diet, age, gender, height and weight. For each patient, we determined energy requirements using the Harris Benedict equation with a stress factor of 1.2 and protein requirements using 1.2 g/kg. Calcium and vitamin D requirements are calculated for each patient based on current recommended dietary allowances (RDA). Using a dietary analysis program called Computrition, we analyzed the average VGH diet for energy, protein, calcium and vitamin D. We determined the percentage of the average VGH diet that must be consumed to meet the average nutrient requirements of male and female patients. **Results:** A 75% intake of the VGH diet provides optimal energy and protein in female OFH patients; however, diet alone is not adequate in calcium, or vitamin D. For male OFH patients, a 75% intake is acceptable in energy and protein, but not in calcium or vitamin D. **Implications & Conclusions:** Results of this study suggest that the monitoring parameter of a 75% intake level is acceptable and that routine use of calcium and vitamin D supplementation should be continued for all OFH patients.

Is dietetic practice at Vancouver General Hospital consistent with the clinical practice document, transition from continuous to intermittent tube feeding?

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Objectives: Clinical Practice Documents (CPDs) are developed to promote safe, evidence-based practice at Vancouver General Hospital (VGH). The objective of this study is to determine if the clinical practice of dietitians at VGH is consistent with the CPD D-250, Transition from Continuous to Intermittent Tube Feeding. **Methods:** A retrospective chart review was conducted on 16 patients who were transitioned from continuous to intermittent enteral feeding by dietitians at VGH between September 1 and November 30, 2010. A data collection tool was developed based on CPD D-250. **Results:** Overall, dietetic practice is consistent with CPD D-250. Most patients met the criteria for transitioning to intermittent feeds: 94% were hemodynamically stable and 75% were tolerating continuous feeds at the goal rate for ≥ 48 hours. Upon transitioning, tube feeds were held at midnight in 63% of patients to avoid overfeeding. All intermittent tube feeds were divided into 3-6 feedings and had goal rates of 250ml/hr or less. Tube feeds were spaced over 14-24 hours with >2 hours between feeds in 63% of patients. Dietitians monitored tolerance regularly in 88% of the patients. Tube feed progression guidelines were not followed consistently. Only 25% of patients tube feeds were advanced as per the CPD. **Implications & Conclusions:** Inconsistencies in practice appear to be due to dietitians' efforts to individualize patient care, such as quicker rate increases for discharge home, slower progression of feeds due to intolerance to rate increases and patient preference for daytime feeds. Dietitians appear to be using the guidelines, which supports the need for CPDs and their development.

Local weaning practices in Hong Kong.

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Objectives: A study was conducted to obtain information on local weaning practices in Hong Kong.

Methods: Questionnaires were filled out by 74 parents with a child between 9 months to 5 years of age. From the 74 participants, 20 additional interviews were conducted to obtain further information regarding the progression of the infants diet, from the point of introduction of semi-solids until 18 months of age. **Results:** 68% of mothers had initiated breastfeeding for their infant at birth; however 50% had stopped breastfeeding by the 5th month. Only 8% continued breastfeeding after 10-12 months. Fifty-one percent of infants started semi-solid foods at 6 months of age. Sixty-five percent started with rice based infant cereals as their first foods and 19% had congee (rice based porridge). Half of the participants gave rice in a consistency similar to that of adults, to their infants, starting at 10-12 months of age. **Conclusion:** Most parents had initially breastfed their infant, as opposed to bottle-feeding. Previous studies showed that congee was traditionally the main first food introduced during weaning. Now, although a number of parents still started introducing solids with congee, most parents used fortified infant cereals. Approximately half of participants started introducing solids at the 6th month after birth, which complied with guidelines from the World Health Organization. Over 80% of participants were parents who could afford to participate in playgroups with their children. This indicates that they may come from more wealthy families and might not reflect the general population in Hong Kong.

Nutritional Supplements during Dialysis

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The department of dietetics at a Montreal teaching hospital provides nutritional supplements during dialysis to patients deemed, by specific criteria, to be malnourished or at risk of malnutrition. Twenty-four % of the dialyzed patients receive this service. Although the number of patients receiving nutritional supplements may vary during the year, the estimated cost at this institution for providing nutritional supplements to these patients is around 5,600\$/year. This represents a substantial portion of the budget. **Objective:** To assess whether the patients consume these beverages, whether the delivery service is efficient, and to determine the patients opinions and perceived benefits related to the supplements. **Method:** A series of 8 questions were asked to the patients receiving supplements. A total of 32 out of 34 eligible patients participated, while being dialyzed. **Results:** Eighty-seven percent said they liked the supplement, with 93 % reporting that they consumed the entire supplement. Twenty percent noted that the nursing assistant might occasionally forget to give the supplement, but these patients knew to request it if it was not delivered. Eighty-three % of patients reported receiving the beverage flavor that they requested. Ninety- three % felt that they needed the supplement and that it is important to them, for reasons including: gain weight, gives more energy/calorie/protein etc. However, only 57 % saw an improvement of the malnutrition criteria markers. **Implications and Conclusion:** The general delivery and consumption is satisfactory with an average of 88.0%. Research shows that the administration of peridialytic oral supplements contributes to the maintenance of serum albumin levels and quality of life (1).

- 1- Scott, MK, Shah, NA, Vilay, M, et al. Effects of Peridialytic Oral Supplements on Nutritional Status and Quality of Life in Chronic Hemodialysis Patients. J Renal Nutrition.19: 145-152.(2009)

Impact of nutrition education and counseling on infant feeding practices among low income mothers in Montreal.

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Background: The World Health Organization (WHO) and Health Canada recommend that infants be exclusively breastfed for the first six months of life, followed by the introduction of solids and continued breastfeeding until the second year. In Canada, a gap remains between recommendations and current infant feeding practices. The Montreal Diet Dispensary (MDD) provides nutritional and breastfeeding counseling for low income mothers. **Objective:** To describe the infant feeding practices among a sample of urban, low income mothers receiving services from the MDD. **Methods:** This observational study examined breastfeeding initiation, duration and the timing of introduction of complementary foods among 54 mother-infant pairs. Telephone interviews were conducted using an infant feeding and family nutrition questionnaire. **Results:** Mothers were from various ethnic backgrounds, representing 86% of MDD's clientele. The median age of infants was 12 months (min: 5 months and max age: 19 months). All the mothers interviewed initiated breastfeeding and for those mothers who had stopped breastfeeding (n=25), the average duration was 9.3 (\pm 3.9) months. Formula was used by 61% of mothers and was introduced at a mean age of 4 (\pm 3.7) months. Vegetables and fruits were introduced at a mean 6.3 (\pm 1.7) and 6.5 (\pm 1.4) months, respectively. Meat was given at 7.6 (\pm 1.9) months. **Implications & Conclusions:** Overall, participants followed recommended infant feeding guidelines after receiving breastfeeding support and nutrition education, as shown by the high rate of breastfeeding as well as the adequate timing of introduction of complementary foods. Although these results apply to a predominantly immigrant population, which may be more likely to initiate breastfeeding, this study suggests that breastfeeding and nutrition support services have a positive impact on infant feeding practices.

What Conditions Support the Collection of Accurate Height and Weight Data in Acute Care?

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Objectives: It is well known that accurate weight data is an important factor in the delivery of safe and effective patient care. This study was developed to determine what factors influence the accurate collection of weight and height data in acute patient care at Trillium Health Centre (THC). **Methods:** Four patient care areas were selected for study: Inpatient cardiology, inpatient oncology, outpatient cardiology (Heart Function Clinic) and outpatient oncology (Oncology Clinic). Patient records were reviewed on each unit to determine what percentage of height and weight data was recorded for patients. A visual survey of each patient care area was completed looking for barriers to access and functionality of scales and stadiometres. Focus groups were held with nursing staff on each of the patient care areas, with the goal of collecting human factor data. **Results:** Chart audits revealed outpatient clinics had 100% compliance in recording weights. Heights were not documented in outpatient cardiology. Weighing outpatients is part of routine patient assessment at each appointment; therefore it is done at every visit. Inpatient results showed only 15-20% of patient weights and heights were recorded. Human factors cited by nurses included time restrictions, competing priorities, busy patient case load and barriers to equipment access. **Implications & Conclusion:** Although accurate weight and height information is an essential part of assessment, patient safety and efficiency of treatments, it is often not recorded in acute care on a routine basis. Strategies to develop effective means of addressing this patient care gap need to be developed and staff may provide valuable information about opportunities to enhance patient care.

Preliminary data on infant feeding intention, information and practices of postpartum women

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Objective: To assess information about infant feeding received by women during pregnancy and to compare the women's intention to breastfeed to their breastfeeding status at two-months postpartum.

Methods: Nine (Caucasian, BMI: 25.7±6.4kg/m²) women from London Ontario were asked to complete infant feeding questionnaires at two-months postpartum. These women were 31.9±4.3 (mean±SD) years old and delivered their infants at 40.0±2.2 weeks gestation. Seven of the nine women completed post-secondary education. Five women had a previous child and breastfed exclusively for 6.7±4.5 months. **Results:** During their recent, pregnancy 4 out of 9 women sought out information on feeding their infants. These women received information from their midwife (3/4), friends (1/4), doctor (1/4), nurse (1/4) and books (1/4). Five women did not seek out information and reported that they did not need any, as some (4/5) had a previous child. Prior to giving birth all women planned to breastfeed their infants exclusively and the main reasons reported were: better for baby (8/9), cheaper (3/9) and convenient (3/9). Most women wanted to breastfeed for more than 6 months (3/9) or as long as they could (3/9). At two months postpartum, most women (6/9) were exclusively breastfeeding and some women (2/9) indicated they would have liked to breastfeed longer as they had stopped breastfeeding. **Implications & Conclusions:** Our preliminary results suggest that women, especially the primigravidas, looked for and received information on infant feeding from various sources. Although, all women were planning to breastfeed exclusively, a third of them were not at two-months postpartum. *Funded by CIHR and Rx&D Health Research Foundation.*

Resources used by Providence Health Care dietitians to guide clinical practice

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Objectives: Dietitians require ready access to up-to-date evidence-based practice resources in order to make informed decisions about nutrition interventions and to provide the best care for their patients. The purpose of this study is to find out which resources are used most often by Providence Health Care (PHC) dietitians to guide clinical practice and to assess whether they feel they have sufficient access to these resources. **Methods:** An online survey was administered to all PHC dietitians. The survey was hosted by Survey Monkey in order to maintain anonymity of respondents. The link to the online survey was sent out via email to the distribution lists "PHC Dietitians" and "PHC Dietitians-Non-SPH" on March 9, 2011. This email acted as our cover letter and addressed issues such as voluntary participation, privacy, rights as a research subject and consent. The survey was available for a two-week period, during which time three reminder emails were sent, and closed on March 23, 2011. **Results:** Of the 60 dietitians at PHC who were on the distribution lists, 27 completed the survey. These surveys are pending a statistical analysis, which will be done using Microsoft Excel and SPSS for Windows. **Implications & Conclusions:** Completion of the statistical analysis of the survey responses will reveal which tools dietitians at PHC are using to guide their clinical practice. In addition, analysis of the results will demonstrate whether or not they feel that they have sufficient access to these resources. As a result, it will enable an effective allocation of resources to ensure that all dietitians have access to the tools they need and use most in order to provide patients with optimum care.

School meal programs in the File Hills Qu'Appelle Tribal Council

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Objectives: In southeastern Saskatchewan, there are seven schools within eleven First Nations communities comprising the File Hills Qu'Appelle Tribal Council (FHQTC). The purpose of this project was to determine if the foods served at the seven schools in FHQTC were currently meeting provincial nutrition recommendations. If the foods served were not currently meeting provincial nutrition recommendations, means for improvement were suggested. **Methods:** The data was collected through interviews with school staff using a questionnaire that gathered quantitative and qualitative data regarding the nutrition programs. The information about foods provided in FHQTC schools allowed researchers to examine the foods served relative to the provincial nutrition recommendations for students. **Results:** At breakfast, the schools had approximately 2 out of the 3 recommended food groups. At AM and PM snack, the schools had approximately 1 out of 2 recommended food groups. And at lunch, the schools had approximately 2.6 out of 4 recommended food groups. Milk and Alternatives was 0.6 serving at breakfast and 0.3 serving at lunch. The nutritious quality of foods served was evaluated and it was found that the schools are following the Healthy Eating Guidelines 80% of the time. **Implications:** The results suggest that school programs are meeting the majority of Healthy Eating Guidelines. **Conclusions:** This study can serve as a baseline for understanding the current nutrition programs operating in FHQTC schools. As such, the research may provide the FHQTC Community Dietitian information on how and where they can best provide support and/or education for the schools.

Regina consumers and foods with added omega-3 fatty acids

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Objective: The objective of this study was to explore if consumers in Regina are purchasing foods with added omega-3 fatty acids and, if they are, their reported reasons for doing so. **Methods:** A 21 item questionnaire was developed, consisting of open and closed ended questions pertaining to purchasing patterns, perceptions and beliefs, knowledge and demographics. The questionnaire was administered at three major chain grocery stores in Regina over two consecutive days. **Results:** Two hundred fifty consumers were approached, and 76 agreed to participate in the study (response rate of 30%). The average age was 49, average number of children per household was 0.38, and average number of seniors per household (over 65) was 0.43. Ninety-five percent of consumers had heard of omega-3 fatty acids. Thirty-three percent reported purchasing foods with omega-3 fatty acids for reasons such as health reasons (including heart health), as a source of omega-3 fatty acids, and because the products were on sale. Most of the consumers had learnt about omega-3 fatty acids through media advertising and typically looked for particular information such as packaging, nutrition facts labels and claims. When asked to define omega-3 fatty acids, consumers stated it was a healthy ingredient, and specifically related to heart health. **Implications and Conclusions:** This was an original study that assessed the purchasing behaviours of a population sample not studied before. Most consumers surveyed had heard of omega-3 fatty acids though they could not completely and correctly define it. Consumer education is needed with regards to the role that omega-3 fatty acids play in health; media would be an effective tool to do so. The dietitian needs to be proactive in promotion nutrition knowledge.

Regina Community Clinic clients' perceptions of the TANITA scale

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The Regina Community Clinic (RCC) is a primary health care centre that recently purchased the TANITA SC-331S body composition scale. The RCC felt the TANITA had potential to help clients effectively monitor their weight and create awareness of complex body composition changes.

Objectives: To determine whether the RCC clients who have used the TANITA perceive the scale as a valuable tool in working towards their personal health goals. To find out whether there are other tools the RCC clients have found helpful in the past. **Methods:** This was a qualitative study using in-person and telephone interviews. Demographic data was also collected from the clients' charts in order to objectively view the TANITA scale measurements at the initial and first follow-up visits. Height, weight, fat mass, visceral fat rating, muscle mass, metabolic age, BMI, and time frame between first and second weigh-ins were recorded. **Results:** The participants felt they would benefit from ongoing use of the TANITA. They believed the scale increased accountability for their actions and motivated them to continue to work towards their goals. Participants also indicated that the tools they found most motivating in the past were those that increased accountability and allowed them to see or feel their results. The objective data showed that the changes in body composition experienced by the participants were clinically significant. **Implications and Conclusions:** Continual self-monitoring and increased accountability are key elements associated with an effective motivational tool. The TANITA scale has the potential to motivate people to continue working towards their health goals, as it is associated with both of these elements.

The relationship between medication pass supplement consumption and weight changes in residents at Overlander Residential Care

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OBJECTIVES: Weight loss in the institutionalized elderly is associated with increased mortality risk, and one strategy used to address this issue is the administration of small volumes of calorically dense nutritional supplements with medication passes. The objective of this study was to examine weight changes in residents who are placed on the medication pass supplement program (MPSP) for 6 months continuously and to determine if there is a correlation between weight change and total volume of medication pass (med pass) supplement consumed over 6 months. **METHODS:** The charts of residents who have been on medication pass supplementation at any point of their stay at Overlander were reviewed to determine those who had been on med pass for 6 month continuously and could be included in the study. Subjects' medical administration records were reviewed to obtain the actual med pass order with respect to volume and frequency of daily administration, and the number of successful administrations over the 6-month period. Weight records were checked for weights at time of initiation and 6 months post initiation. Data was analyzed for central tendency of weight changes and strength of correlation between volume of supplement consumed and weight change. **RESULTS:** 15 residents were eligible for inclusion. Data showed mean weight change of 1.03 kg and correlation value (r) of -0.08 , which was below the critical threshold required for significance. **IMPLICATIONS & CONCLUSIONS:** It is not feasible to draw conclusions regarding the efficacy of med pass in a residential care setting based on the limited results of this study. Future research would benefit from a multi-facility approach to increase sample size.

Description and validation of a prioritization matrix for Registered Dietitians use in the Gastroenterology and General Surgery hospital inpatient wards

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Registered Dietitians (RDs) at St. Michael's Gastroenterology and General Surgery (GEGS) ward use a non-validated prioritization matrix (PM), as the initial nutrition screening tool. It is unknown if patients assigned to Nutrition Care Level (NCL) III – the low malnutrition risk group – truly do not require RD assessment given the high prevalence of malnutrition reported in other studies and the fact that NCL I-II patients are assessed as per usual practice. **OBJECTIVES:** To investigate the prevalence of malnutrition in GEGS patients assigned to NCL III based on the PM and to compare the proportion of malnourished patients in NCL III versus NCLs I-II. **METHODS:** This is a cross-sectional, observational study of GEGS patients admitted for gastrointestinal or general surgery issues between January to June 2011. The Subjective Global Assessment will be conducted on NCL III patients to confirm their nutrition status and height and weight will be measured. Descriptive data (age, gender, diagnosis, co-morbidities) will also be collected from the patients' charts. A retrospective chart review of the RD assessment will be conducted to obtain the same data from NCL I-II patients. **RESULTS:** Currently, 23 NCL III patients have been assessed and chart review of NCL I-II patients is ongoing. **IMPLICATIONS & CONCLUSIONS:** This study will determine and compare the nutrition status of NCL III and NCL I-II patients. This information will guide future modifications to the PM in order to improve identification of patients with malnutrition risk at initial screening and the prioritization of RD workload.

Types, quantity and accuracy of carbohydrate, glycemic index, sugar and fibre messages in Canadian magazines.

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Objectives: Print media is a major source of nutrition information for Canadians. Carbohydrates, glycemic index, sugar and fibre are topics of active nutrition research yet no known study has examined messages in Canadian magazines regarding these topics. The objectives of this research were to examine the types, quantity and accuracy of carbohydrate-related messages in magazines.

Methods: The sample was a constructed year of 12 Chatelaine (CH) and 12 Canadian Living (CL) magazines from 2009-2010. A previously developed codebook and codesheet were adapted for this study. A deductive content analysis was done using pre-established criteria (ie: message purpose, message format, etc). Message accuracy and policy congruency were assessed against scientific evidence and Canadian nutrition policies. **Results:** 358 total messages were coded in CL and CH with 43, 5, 130 and 197 pertaining to carbohydrates, glycemic index, sugar and fibre, respectively. Most message formats were articles (n = 191) followed by advertisements (n = 163). The majority of messages informed readers on general health (39%), source of a nutrient (26%) and a nutrient content claim (22%). 91% of all messages were accurate. Messages relating to nutrition policies were all accurate except for one in CL. **Implications & Conclusions:** Messages were found mainly in articles and advertisements. Although much research attention is being placed on glycemic index, this was a topic minimally covered in these magazines. Fibre messages were most prevalent which was expected since dietary fibre has been a nutrition science and policy issue of importance for decades. Messages found within these magazines were highly accurate and reflected science and policy.

Vegetable and fruit intake of overweight and obese pregnant women

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Objective: To assess vegetable and fruit intake of overweight/obese pregnant women and determine the contribution of fruit juice to overall nutrient intake. **Methods:** Forty-eight overweight and obese, including nine First Nations, women completed a 24-hour food intake recall between 16-20 weeks gestation. Pre-pregnancy BMI of participants was 32.4 ± 6.5 kg/m², with average age 32.5 ± 4.2 and parity 2.3 ± 1.3 . **Results:** The average total daily intake of vegetables and fruit was 5.5 ± 3.2 servings. The daily average intake of vegetables was 2.7 ± 2.3 servings, where 38% of the women consumed ≤ 1 serving of vegetables, 85% consumed < 1 orange vegetable and 69% consumed < 1 green vegetable serving daily. The average daily intake of fruit was 2.8 ± 3.1 servings, including fruit juice (1.3 ± 2.7 servings/d). Of women who drank fruit juice (n=19), 89% consumed > 1 daily serving and their total average vegetable and fruit intake was 7.3 ± 3.5 servings/d, however fruit juice provided 3.6 ± 3.5 of those servings. Women who drank fruit juice had an average daily sugar intake of 96 ± 48 g, contributing to 288 ± 86 g/d carbohydrate, which represented 56 ± 9 percent of their energy intake. Women who did not drink fruit juice had a lower average daily sugar (65 ± 39 g/d, $p=0.03$) and carbohydrate (237 ± 72 g/d, $p=0.04$) intake, which represented about 50 ± 9 percent of their energy intake. **Implications and Conclusions:** Our preliminary results suggest that overweight and obese pregnant women may benefit from further education on the recommendations of Eating Well with Canada's Food Guide during pregnancy to choose more vegetables and whole fruit, a variety of colorful vegetables, and a limited amount of fruit juice (Funded by the Canadian Institutes of Health Research).

Evaluation of a sustainable emergency food cupboard at North Kingston Community Health Centre.

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Purpose: Food insecurity creates stress within communities. As such, many health and outreach organizations provide emergency food supplies to clients. This study evaluated the sustainability of an emergency food cupboard (EFC) service at North Kingston Community Health Centre (NKCHC).

Methods: A needs assessment using Survey Monkey was emailed to 43 NKCHC employees to assess current supply and demand for the EFC. A Political, Economic, Social, Technological (PEST) analysis was conducted to identify environmental forces limiting the EFC's capability. Qualitative telephone interviews were also conducted with various staff to determine other barriers to a sustainable EFC, such as workplace culture and personal beliefs and values. **Results:** The needs assessment survey had a 35% response rate. It indicated that 60% of respondents (33.3% primary care providers, 33.3% allied health professionals) used the EFC to provide food to clients. Of those who responded, 88.9% used the EFC for clients who also access emergency food from other sources. 73.3% donated food to the EFC, and 53.3% were in favour of voluntary staff pay cheque deductions to be implemented to financially support the EFC. 33.3% of respondents felt a community development worker should be responsible for EFC operations. The PEST analysis indicated environmental barriers (political, economic, and social) limiting the EFC's functioning. Qualitative interviews revealed both support for and against the EFC, and the belief that NKCHC employees should be involved in food security advocacy roles. **Conclusion:** The sustainability of an EFC within a CHC is challenged by many environmental factors and personal beliefs about emergency food acquisition. Organizations should evaluate decisions about emergency food provision within the context of their vision and within the CHC model of care.

Is the frequency of eating a balanced breakfast associated with indicators of metabolic syndrome?

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Objective: Eating a balanced breakfast is part of the recommendations for patients with metabolic syndrome (MetS) who attend the St. Paul's Metabolic Syndrome Program (SPH MetSP). We investigated if the frequency of eating a balanced breakfast is associated with the indicators of MetS.

Methods: A retrospective review of charts of patients of the SPH MetSP was conducted. Inclusion criteria included patients enrolled in the program from January 1st, 2008 to December 31st, 2009 and who had MetS as defined by the International Diabetes Federation. The data was collected for two time periods (upon enrolment and at six months), and included gender, age, waist circumference, blood pressure, fasting blood glucose level, serum triglyceride level and serum HDL level; prescription medications to treat any of these conditions were noted. The self-reported answers from the SPH MetSP "Nutritional Lifestyle Questionnaire" on the frequency of eating a balanced breakfast (i.e. eating at least three of the four food groups) were also collected. **Results:** Preliminary results indicate that of the 116 subjects who had complete data, from time of enrolment to six months there was a 22.4% increase in patients who ate a balanced breakfast four or more times a week. Further statistical analysis using Excel and SPSS will be done. Descriptive statistics will be used for summarizing the demographic data of subjects. Correlational statistics will be used to evaluate the relationship between changes in frequency of eating a balanced breakfast and changes in the indicators of MetS. **Conclusion:** These results may help guide recommendations about eating balanced breakfasts as part of the interventions for MetS in the SPH MetSP.

Providing opportunities for food skill development into the Canada prenatal nutrition program, food for you: food for two.

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Objective: To encourage food skill development within the Canada Prenatal Nutrition Program (CPNP), Food for You: Food for Two (FFY:FFT). **Methods:** A literature review, environmental scan and two focus group discussions with participants of the FFY:FFT program were conducted. Participants consisted of both prenatal and postnatal women, between the ages of 17 and 35, with their first pregnancy or having one to three children. The following major themes emerged which became the focus for four, one-hour food skills sessions: knowledge of healthy eating, menu planning, food preparation, and quick, healthy and affordable meals. A pre-and post-evaluation form was completed by the FFY:FFT participants for each session to determine changes in food skill knowledge, confidence and practices. **Results:** Participants came into the food skill session on healthy eating having a good understanding of the special considerations for a healthy pregnancy. After participating in the food skill session on menu planning 63% of participants indicated that they are more confident in menu planning. The food skill session on food preparation helped to increase participants' knowledge in safe food preparation including: thawing frozen meats safely, safe cooking temperature and proper storage of hazardous foods. By series' end 47% of participants indicated they will consider making more meals at home. **Implications & Conclusions:** By participating in the food skills sessions participants were able to increase their confidence in food skills, and started to consider making positive changes to their food skill practices. Including food skills into the Canada Prenatal Nutrition Program can enable this priority population to make positive changes in healthy eating habits. This in turn will contribute to a healthy pregnancy.

The efficacy of various treatment methods for females with anorexia nervosa

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Objectives: To develop a PEN pathway which will provide up-to-date, evidence-based recommendations for existing treatment methods that are available and are appropriate to use with female adolescents and female adults diagnosed with anorexia nervosa. The pathway will compare the effectiveness of primary treatment options such as psychosocial therapy and nutrition rehabilitation in relation to outcome measures, such as recovery from anorexia nervosa and effective relapse prevention. Specific examples of recovery from anorexia nervosa include weight restoration and normalizing eating behaviours. **Methods:** The search strategy was completed with specific search terms developed using PubMed Clinical Queries and MeSH dictionary. Cochrane Database of Systematic Reviews was searched and Medline was used to find relevant literature regarding diagnosis, harm, prognosis and treatment of anorexia nervosa. Inclusion and exclusion criteria included limiting publication dates of articles from January 2004 to March 2011 and limiting the study population to adolescents (13-17yrs) and adult (18+ yrs or older) females. **Results:** Seven appropriate articles were found, critiqued and summarized into evidence statements. According to PEN guidelines, most studies provided limited evidence or grade level C. Main study findings indicated that family therapy was significant in helping to restore weight in adolescents with anorexia nervosa. There is very little evidence to suggest that any specific psychotherapy is more effective or superior in achieving desired outcomes in the psychosocial treatment of female adults with anorexia nervosa. In terms of nutrition rehabilitation, total parenteral nutrition (TPN or PN) has been favoured more than enteral nutrition (EN) to correct severe nutrition and metabolic instability. **Implications & Conclusions:** Additional research is required as definitive practice recommendations cannot be made due to small sample sizes, short-term treatments and/or varying risks of bias within studies.

Healthcare providers' perceptions of communicating gestational weight gain recommendations to overweight/obese pregnant women.

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Objectives; Rising obesity rates, specifically women of child-bearing age, increases the potential for gestational diabetes mellitus (GDM) and other obstetrical risks. Gestational weight gain (GWG) is a major modifiable risk factor for the prevention of GDM. Obese pregnant women frequently report bias and discrimination when dealing with healthcare providers (HCP). How they communicate GWG recommendations may impact obstetrical risks. Study objectives were to identify barriers and needs to effectively communicate GWG in order to develop appropriate materials or programs that address identified deficiencies. **Methods;** A survey tool was created using the Theory of Planned Behaviour to capture HCP's attitudes, behaviours and intentions. Forty questions, linked to a clinical scenario, used a four-point Likert-scale. Four open-ended questions allowed for specific comments. Online survey links and paper versions were distributed to obstetricians/gynaecologists, family physicians, obstetric residents/fellows, midwives, registered/public health nurses and registered dietitians. **Results;** Results from 96 surveys show HCP's have confidence in their skills to provide nutrition advice (68.1%) and believe they have sufficient training (52%); yet, the majority feel they could improve the manner of communicating GWG (72.6%). Open-ended comments indicated a need for patient literature (n=57), training (n=65) and access to experts (n=20). Providers agreed discussing GWG was important (100%), beneficial for patient-provider rapport (82.2%), and best practice (98.5%); however, most found it unpleasant (67.8%) and were split regarding comfort and convenience. **Implications & Conclusions;** Communicating GWG on a consistent basis is crucial in reducing the risks of GDM and potential of developing type 2 diabetes mellitus. HCP need improved training and tools in order to facilitate this important dialogue.

Assessment of dysphagia knowledge and confidence in skills amongst undergraduate nutrition students in London, Ontario

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Dysphagia is a growing problem among the rapidly increasing elderly Canadian population. The need and desire for more extensive education about the assessment and management of clients with dysphagia exists, as some dietitians lack confidence, knowledge and skills in this area. **Objectives:** This study assessed whether a practical dysphagia education workshop would increase the knowledge and confidence in skills of undergraduate nutrition students, compared to baseline and after theoretical lecture materials. **Methods:** Forty-eight students enrolled in the undergraduate foods and nutrition program at Brescia University College were recruited in 2009-2010. They completed three questionnaires (Q): (Q1) at baseline, before course material on the topic of dysphagia was presented, (Q2) after current theoretical lecture material was taught, and (Q3) after participation in a practical dysphagia workshop. **Results:** Results indicated an increase in both dysphagia knowledge and confidence in skills in the majority of participants from baseline to post-workshop. Participants found all components of the workshop useful, and 98% (n=47/48) were interested in receiving further education on a variety of dysphagia-related topics. A practical workshop was the preferred format to receive additional education, with 91.5% of participants (n=43/47) selecting this method. **Implications & Conclusions:** Based on preliminary results, undergraduate nutrition students benefitted from practical dysphagia education. The majority were interested in receiving further education in a practical workshop format. Further research is required to assess the dysphagia education needs of undergraduate nutrition students. (Funded in part by a Brescia University College Research Grant)

Nutrition implications of community gardening

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Objectives: 1) To evaluate how involvement in a community garden can influence gardeners' eating habits, specifically vegetable intake. 2) To identify what gardeners perceive to be the main benefits of community gardening. **Methods:** Twenty-two community gardeners from three Saskatoon community gardens participated in one of three focus groups. A standardized semi-structured interview guide was used to guide the focus groups. The focus groups were audio taped and transcribed to ensure accurate data collection. Participants also filled a short questionnaire answering demographic questions and questions regarding their community gardening experience. **Results:** The majority of the participants were female (80%, n=16) and had no previous community gardening experience (70%, n=14). Increased availability of vegetables, increased exposure to vegetables and enhanced taste of garden fresh vegetables were the main reasons why at least fifteen of the gardeners stated that being involved in a community garden increased their vegetable intake. An unproductive growing season and healthy eating habits prior to community gardening were the reasons participants perceived that their eating habits did not improve. Other benefits of community gardening expressed by participants included stretching food dollars, developing and strengthening social networks, and sharing both knowledge and food with family, friends and the community. **Implications & Conclusions:** Participation in community gardening can serve as a viable option for improving vegetable intake. Health professionals, local governments and other organizations should support community gardening initiatives and encourage public participation in community gardening because of the potential educational, psychological, social, economic, and health benefits.

Carbohydrate counting and diabetes: evaluating nutrition education tools

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Objectives: Two carbohydrate tools were evaluated for their effectiveness in facilitating carbohydrate counting knowledge and ability, in clients living with Type 2 diabetes, not previously exposed to carbohydrate counting. One tool was based on the principles of *Beyond the Basics* (BTB) while the other tool was based on the principles of *Canada's Food Guide* (CFG). **Methods:** Clients with Type 2 diabetes were provided with individual nutrition education by a dietitian using one of the two carbohydrate counting tools. Following the education session, participants were asked to fill out a survey that assessed their acceptance of and ability to use the carbohydrate counting tool. Dietitians delivering the nutrition education sessions were interviewed to identify which of the two carbohydrate counting tools they prefer to administer to clients and why. **Results:** The total response rate was 35% (n=8). The majority of clients were 65 years or older with an average time since diagnosis >6 months. Clients using the tool based on BTB answered 87% of questions correctly whereas clients using the tool based on CFG answered 68% of questions correctly. The majority of clients (84%) using BTB tool and 70% of clients using CFG tool found it very easy to read and the categories easy to identify. Dietitians using the tools found the BTB tool easier to read and the categories easier to identify. **Implications & Conclusions:** Based on our results, the BTB tool was the more effective carbohydrate counting tool. Participants using the tool based on BTB found it easier to use than those using the tool based on CFG.

Utilization and interest in using personal digital assistants (PDAs) for dietetic practice in Saskatchewan.

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Objectives: This study aimed to determine the use and interest in PDAs by dietetic professionals and interns in Saskatchewan. In particular, this study looked at the demographics of PDA users, benefits and barriers to PDA use, and interest in PDA training programs. **Methods:** A web-based survey was emailed to approximately 285 registered dietitians and dietetic interns using SurveyMonkey™. The survey consisted of 19 multiple choice and 3 open ended questions. The responses were analyzed using themes, frequency and percentages. Dietitian and intern responses were analyzed both separately and collectively based on PDA users and non-users. **Results:** 117 dietitians and 13 dietetic interns completed the survey with a response rate of 46%. The most common age of respondents was 30-39, with an age range of 20-60 years of age. Of the respondents, 29% of dietitians and 53% of interns used a PDA at work or during internship, with organizational functions being the most commonly used tools (90%). Clinical and community dietitians reported the highest PDA usage. The main barriers to PDA use were lack of knowledge (46%), cost (45%) and lack of training (36%). More than half (65%) of all dietitians and interns stated they would attend a training session if offered, and 52.5% of the respondents believed PDA training should begin in the university nutrition & dietetics program. **Implications & Conclusions:** Dietitians and interns are interested in learning more about PDAs, and results suggest a PDA training session would be well-received. Further research is needed to determine the need, benefits and outcomes of implementing PDA training that meets the needs of the dietitians in Saskatchewan.

The prevalence of undernutrition: comparing the WHO growth standards to the CDC growth references in the pediatric outpatient setting.

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Objectives: To determine if the proportion of infants ≤ 12 months of age diagnosed as failure to thrive (FTT) or undernutrition differs according to two different growth charts: the Center for Disease Control (CDC) Growth References or the World Health Organization (WHO) Growth Standards. **Methods:** A series of length/weight data was collected retrospectively for 28 infants diagnosed with FTT by a pediatrician. Weights for age/length for age percentiles were calculated using an electronic program and then plotted on the CDC and WHO growth charts. **Results:** Of the 28 infants, 79% were diagnosed as FTT on both the CDC and WHO charts. Twenty-one percent ($n=6$) were diagnosed as FTT on the CDC charts, but not considered FTT when plotted on the WHO charts. There were more diagnoses of FTT in subjects between six and twelve months of age ($n=16$), as opposed to subjects less than six months of age ($n=12$). Of the subjects diagnosed after six months of age, 69% ($n=16$) were exclusively breastfed up to six months of age. Of those exclusively breastfed, 85% were diagnosed as FTT on both the CDC and WHO growth charts, leaving 15% of exclusively breastfed subjects not diagnosed as FTT on the WHO Growth Standards. **Implications & Conclusions:** It was found that 21% of included subjects were not diagnosed as FTT when plotted on the WHO Growth Standards, but were diagnosed on the CDC Growth References. These preliminary results suggest that by using the new WHO Growth Standards in practice, pediatric growth monitoring of the exclusively breastfed infant after six months may result in fewer diagnoses of FTT.

Adequacy of energy and protein intakes from hospital meals in hospitalized patients and the reliability of patient self-reported intakes

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Reduced food intake in hospitalized patients is associated with increased risk of morbidities and mortality. One method of determining food intake is patient self-report, but its accuracy is unknown.

Objectives; (1) Describe hospitalized patients' actual daily intakes of energy and protein from hospital meals, and to compare actual intakes to individual patients' requirements; (2) Determine whether self-reported intakes of energy and protein from lunch collected using the NutritionDay Survey tool (2006) by hospitalized patients correlate with actual intakes; (3) Describe the relationship between patient characteristics and the variance between self-reported and actual intakes of energy and protein from hospital lunches. **Methods;** This study extracted data from data collection forms of a larger prospective cohort study conducted by the Canadian Malnutrition Task Force. Energy and protein requirements were determined according to Dietary Reference Intakes (DRIs). Nutrient analysis of actual and self-reported food intakes were carried out using CBORD. **Statistics:** (1) One-sample t-tests for differences between actual energy and protein intakes and patients' requirements; (2) Paired t-tests for differences between actual and self-reported energy and protein intakes at the same lunch meal; (3) Spearman-Rho tests for correlation between patient characteristics and the variance between actual and self-reported energy and protein intakes; (4) Bland-Altman plots for agreement between actual and self-reported lunch intakes. **Results;** Results are forthcoming. **Implications & Conclusions;** A valid self-report tool may provide a simple way to identify patients at risk of poor food intake. Comparing actual nutrient intakes to patients' nutrient requirements will allow evaluation of the adequacy of nutrient provision through hospital meals, and could ultimately improve nutrition care.

Does family structure affect the success and retention in a pediatric weight control program?

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Objective: To explore whether family structure affects the success and retention in a pediatric weight control program. Family structure was defined as the type of living arrangement that the child inhabits, whether their parents were married or separated/ divorced. **Method:** A retrospective chart review of 76 children involved in the weight control program at the Children's Exercise and Nutrition Centre at McMaster Children's Hospital. Data was collected at baseline, three, six and 12 months to assess retention in the program. Changes in the mathematical index, a valid assessment tool used to assess changes in body fat percentages over time for obese children, were used to evaluate success in the program. Additionally, 24-hour dietary recalls were examined from a sub-sample in each group. **Results:** Retention in a pediatric weight control program is affected by family structure. Children from separated or divorced families are more likely to drop out in a pediatric weight control program, compared to children living within an intact family environment. Conversely, success in a pediatric weight control program is not affected by family structure. No significant difference was demonstrated between the two groups of children who had positive changes in their mathematical index throughout the program. When comparing fat, saturated fat, carbohydrate and protein intake, there were no significant differences between the two groups of children. **Conclusion:** Findings from this study will allow health professionals in a pediatric weight control program to develop strategies to further engage children from separated or divorced families. More research is necessary to determine the barriers that prevent these children from remaining in the weight control program.

Cost of actual vs. recommended diets for pregnant women with Type 1, Type 2 or gestational diabetes mellitus: A pilot study

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Objectives: To compare the actual daily food expenditure costs and energy intake of pregnant women with Gestational Diabetes Mellitus (GDM), Type 1 Diabetes Mellitus (DM) or Type 2 DM to an ideal diet meeting energy and nutrient recommendations for diabetes management during pregnancy.

Methods: All participants (n=75) were pregnant with a confirmed diagnosis of GDM (n=27), Type 1 DM (n=29) or Type 2 DM (n=19). Each participant provided a 24-hour diet recall while waiting to see the dietitian at the Endocrine and Pregnancy Clinic at St. Joseph's Health Care London. A seven-day ideal diet meeting the dietary recommendations for the management of diabetes during pregnancy was constructed. All dietary data obtained from the 24-hour recalls and the ideal diet was cost at three local grocery stores. **Preliminary Results:** There was a significant cost difference ($p=0.03$) between the average daily food expenditure costs for participants with Type 1 DM ($\$8.47\pm 2.99$), compared to the average daily cost of the ideal diet ($\$10.53\pm 1.76$), but not for participants with GDM ($\$10.64\pm 3.67$) or Type 2 DM ($\9.61 ± 4.93). The daily average energy intake of women from each group was similar to the ideal diet ($p>0.05$). **Implications & Conclusions:** These preliminary results suggest that the average daily energy intake of pregnant women with diabetes (GDM, Type 1 DM or Type 2 DM) was similar to the average energy intake of the ideal diet. More research is needed to determine the average daily food costs of managing Type 1 DM, Type 2 DM and GDM during pregnancy.

SELF-REPORTED causes of weight gain among pre-bariatric surgery patients.

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Objectives: Currently, the most effective treatment for obesity is bariatric surgery. Despite its successes, weight regain has been reported among approximately 50% of the patients within 24 months of surgery. To better aid in long-term weight loss and maintenance, an understanding of common triggers of weight gain prior to bariatric surgery may be useful for dietitians when providing post-surgical care. The purpose of this study is to identify the most common causes and/or triggers for weight gain among pre-bariatric surgery patients. **Methods:** A retrospective chart review of patients enrolled in the University of Toronto Collaborative Bariatric Surgery Program at Toronto Western Hospital was conducted. A total of 20 variables: puberty, pregnancy, menopause, change in living environment, change in job/career, financial problems, quitting smoking, drug or alcohol use, medical condition, surgery, injury affecting mobility, chronic pain, dieting, other's influence over diet, abuse, mental health condition, stress, death of a loved one, divorce/end of relationship and other were collected. Demographic and anthropometric variables including sex, age, height, weight and BMI were included. Frequency distribution and Chi square analysis will be performed using SPSS. **Results:** Information has been collected for 133 patients. The anticipated total number of participants is 150. Data analysis is pending. **Implications & Conclusions:** The results of this study will elucidate the most common causes and/or triggers for weight gain among pre-bariatric surgery patients. This information may allow dietitians to better identify potential triggers for weight gain pre-surgery and subsequently, to address these triggers appropriately post-operatively. Future research is warranted.

ASSESSING the change in carbohydrate counting skills in patients with type 1 diabetes in an insulin pump program

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Objectives: To measure changes in knowledge and application of advanced carbohydrate counting skills pre and post participation in an advanced carbohydrate counting education module. **Methods:** Adults living with type 1 diabetes participating in an insulin pump program at the University Health Network were eligible for this study. This study is a pre/post intervention design. Subjects were recruited by study investigators during an insulin pump information session or while in clinic. A pre-questionnaire assessing baseline carbohydrate counting skills was administered via telephone once consent was provided. The questionnaire, made up of 22 open-ended and multiple choice questions based on current dietetic practice, was reviewed for content validity by registered dietitians with expertise in the field. Upon completion of the pre-questionnaire, subjects attended an advanced carbohydrate counting module which includes an interactive group session and an individual follow-up with a registered dietitian. Four weeks after starting on their new pump, the post-questionnaire which repeats the same questions as the pre-questionnaire will be administered via telephone. Descriptive analysis will be completed as well as independent t-tests using SPSS. **Results:** Four patients have completed the pre-questionnaire, one male and three females ranging in age from 30 to 44 years. Results indicate three of the four participants do not currently demonstrate adequate carbohydrate counting skills. We await further analysis after completion of the post questionnaire. **Implications and Conclusions:** An improvement in knowledge and application of carbohydrate counting skills will help validate current practice and possibly provide direction for future program development.

DO Recovered Anorexia Nervosa Patients Continue to Follow the Prescribed Dietary Guidelines Post-Treatment?

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Objectives: Anorexia Nervosa (AN) is a serious psychiatric illness with high rates of relapse. Research has shown that maintenance of a healthy diet is one of the key factors predicting recovery; however, little is known about the specific eating behaviours that are associated with such recovery. The aim of this study was to examine the self-reported dietary behaviours of recovered AN patients. Specifically, this descriptive study investigates whether recovered AN patients, who completed the Eating Disorders Program at University Health Network, are following the prescribed dietary guidelines, two to ten years post-treatment. **Methods:** Fifty eligible patients, previously identified as 'maintaining recovery', were contacted to participate in a questionnaire. Twenty-three patients have consented to participate and have been mailed an information package. The remaining twenty-seven patients have not yet responded to recruitment efforts. The questionnaire includes a validated food frequency questionnaire and seven additional open-ended questions, and participants have the option of completing either an online or hard copy questionnaire. **Results:** To date, eight completed surveys have been returned. Data collection is ongoing, and we anticipate a 75% response rate. Descriptive statistics will be presented. **Implications and Conclusions:** We hypothesize that recovered AN patients continue to follow the dietary guidelines recommended during their previous intensive treatment programs.

In patients who have had gastrointestinal (GI) surgery, can the use of a questionnaire with pre-identified constructs of reasons why certain foods are chosen, or avoided, be used to develop a process for post operative meals at the Health Sciences Centre?

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Objectives: To identify food preferences and food choice determinants in post GI surgical patients.

Methodology: 13 adult patients (age 29 – 81 years) who underwent GI surgery at the Health Sciences Centre in Winnipeg, MB consented to participate. Patients were interviewed 24 – 72 hours post GI surgery and asked to (1) identify 5 – 10 foods they would prefer / not prefer to consume, and (2) to identify the reason “why” these foods are preferred / not preferred. Reasoning responses were matched to pre-identified constructs which included: education, advice, present or chronic symptoms, culture, traditions, media, allergy/intolerances, altered taste, fear, and personal preference. Medical charts of all patients were reviewed to determine demographic data and medical history. **Results:** Patients desired a variety of foods as early as 24 hours post surgery. Soup was the most preferred (92%) while meat (beef and pork) was the least preferred (100%). 56% of patients chose foods based on their present day symptoms. Other factors affecting food choices included personal preference (33%) and traditions (8%). Among all patient responses, the primary reasons for food avoidance were present day symptoms (48%), personal preference (21%), and chronic symptoms (11%). **Implications and Conclusion:** These findings can assist dietitians to facilitate the initiation and advancement of oral intake for post GI surgical patients. A patient self selective menu as early as 24 hours post surgery that includes the preferred foods identified in this study is warranted.

Does the use of a standardized oral health assessment tool impact the dietitian's recommendations regarding oral health in a long term care (LTC) facility?

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Objective: To determine if the use of an oral health assessment tool (OHT) influences the oral health symptoms observed and the recommendations made by dietitians for the improvement of oral health among residents living in LTC facilities. **Methods:** A retrospective chart audit was conducted at each of the following sites: Misericordia Health Centre, Deer Lodge Centre, and St. Joseph's Residence in Winnipeg, MB. A total of 90 charts were audited (30 charts from each site). At each site, 15 charts were randomly selected prior to the implementation of a standardized OHT (PRE Group) and 15 charts after the implementation of the OHT (POST Group). **Results:** The following symptoms were documented *more often* in the POST Group versus the PRE Group, respectively: Dry Mouth (13% vs. 4%), Gum/Tongue Health (24% vs. 4%), Denture Fit (24% vs. 9%), Oral Cleanliness (22% vs. 7%), Dental Pain (7% vs. 0%) and Difficulty Chewing (40% vs. 27%). The following recommendations were suggested *more often* by dietitians in the POST Group vs. the PRE Group, respectively: Increase Fluids (16% vs. 2%), Consult a Dentist (24% vs. 2%), Oral Hygiene (16% vs. 2%) and Consult a Speech Language Pathologist (11% vs. 7%). **Implications and Conclusion:** The use of an OHT assists in identifying more oral health symptoms that may otherwise not be documented. The research findings will encourage dietitians at LTC facilities to adapt and/or implement a formal OHT in order to better screen for oral health symptoms and to make recommendations that will ultimately improve the care and quality of life of residents living in LTC.

Elementary teachers' perceptions of the changes to the school food environment that resulted from the implementation of the school nutrition policy in Prince Edward Island

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Objectives: The purpose of this study was to explore elementary school teachers' perceptions of the changes to the school food environment that resulted from the implementation of school nutrition policies in Prince Edward Island elementary schools. **Methods:** This study is a qualitative study informed by phenomenology. In-depth, semi-structured interviews were used to gather data. Nine elementary school teachers from the Eastern and Western School Districts in PEI were interviewed. The interviews were transcribed verbatim and the transcripts analyzed using a form of thematic analysis informed by phenomenology. **Results:** Results from the interviews indicate that in general, teachers view the implementation of school nutrition policies as positive. Teachers reported that they view their roles in the implementation of school nutrition policies to include role modelling healthy eating, and offering encouragement and praise to students for making healthy food choices. Barriers such as a lack of resources and a need for clear guidelines and boundaries, as well as enablers such as additional support from the community, were other themes identified by teachers. **Implications & Conclusions:** Future research initiatives should include determining how to reach out to parents and the community for cooperation and support. Additional resources and support need to be addressed to help the continued administration be successful.