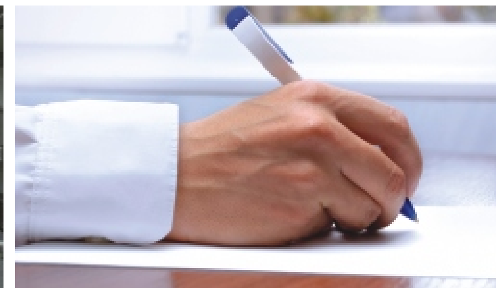
Audits & More



A Nutrition and Food Service Audit Manual

for

Adult Residential Care Facilities with **25 or more** Persons in Care

BRITISH COLUMBIA

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Audits & More: A Nutrition and Food Service Audit Manual
for Adult Residential Care Facilities with 25 or more Persons in Care

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Chapter One

Overview

What is the Purpose of this Manual?

In British Columbia, residential community care facilities must be licensed under the Community Care and Assisted Living Act ("the Act"). The Act requires that community care facilities be operated in a manner that will maintain the spirit, dignity and individuality of the persons being cared for and that will promote the health and safety of persons in care. The Act, which replaced the Community Care Facility Act on May 14, 2004, empowers the government to make regulations. It is recommended that all licensed adult residential community care facilities have a program which monitors their nutrition and food services. This monitoring or audit program assists facilities in maintaining basic health and safety standards. Refer to **Appendix 1** (Resources) for information on how to obtain a copy of the Community Care and Assisted Living Act and associated regulations.

Residential community care facilities include those designated for care of seniors, care of persons with mental health concerns, and drug and alcohol rehabilitation. This manual is a resource to develop a nutrition and food services monitoring/audit program in residential facilities having 25 or more persons in care. The British Columbia Ministry of Health Services publication *Meals and More*, available on the BC Government publications website (**http://www.publications.gov.bc.ca**), contains the nutrition and food service monitoring program for facilities with 24 or fewer people in care. Facilities may choose the program outlined in these publications. Alternatively, they may choose to develop their own monitoring tools or audits provided that they are acceptable to the medical health officer in their region.

This manual is intended for use by interdisciplinary teams working in adult residential community care facilities including, but not limited to, the Registered Dietitian (RD), supervisor of food services/nutrition manager, Registered Nurse and other facility staff. It provides background information on how to interpret and meet the provincial standards, and tools to assist facility staff in implementing an audit program that is consistent with the regulations. To facilitate understanding of the Legislation and as the basis for the audit tools, resources in nutrition and food services that reflect best practice are included.

The Auditing Cycle

Regional licensing/community nutritionists and licensing officers inspect and monitor licensed residential care facilities to promote and protect the health, safety and well-being of persons cared for in these facilities. As part of their review, they will examine tools for self-monitoring such as those provided in this manual.

This manual is an update of the Audits and More manual published in 2001. Since the last edition, there have been changes in the Legislation as well as the reference standards for diet planning including the *Eating Well with Canada's Food Guide* and the *Dietary Reference Intakes*. This manual reflects those changes. All of the audits have been reviewed and revised. In addition, four new audits or checklists have been introduced: the Nutrition and Food Services Policy and Procedures Checklist, the Hydration Program Audit, the Dining Environment Audit, and the Audit of Excess Nutrient Intakes. Finally, this edition also includes content related to emergency and sustainability planning. Throughout the manual the term audit will be used to refer to tools for monitoring nutrition and food services.

What is in this Manual?

This manual contains eight chapters and 11 appendices. **Chapter 1** provides an introduction and overview of the manual including the audit requirements. It also provides an easy-to-follow sample summary of the nutrition and food service audit program for licensed community care facilities.

Chapters 2, **3** and **4** focus on the food and nutrition-related components of the Legislation. **Chapter 2** discusses nutrition care planning and implementation and **Chapter 3** discusses special considerations in nutrition care. **Chapter 4** focuses on menu planning. **Chapter 5** discusses the preparation and service of food. **Chapter 6** discusses satisfaction with nutrition and food services and accountability. **Chapter 7** addresses emergency and sustainability planning. These chapters:

- Outline the audit tools that facilities can use to measure their practices against the standards.
- Provide background information about various topics related to the Legislation and audit tools.
- Include instructions for completing the audits as well as examples of completed audit forms.

Chapter 8 is the "hands-on" component of the manual. It contains all of the audit forms, which can be copied and used in an audit program. Blank electronic copies of the audit tools and forms ("Forms To Accompany the *Audits and More* Manual" and "Audit Tools To Accompany the *Audits and More* Manual") can be obtained on the BC government publications website at:
http://www.publications.gov.bc.ca

The appendices contain a variety of resource materials as well as sample forms and tools to assist facility staff in nutrition and food services planning.

This manual does not include information on food safety. Information on food safety standards, including Hazard Analysis Critical Control Points (HACCP), for residential facilities should be obtained by contacting the regional environmental health office. The regional environmental health officer/public health inspector inspects and monitors all food safety processes in facilities requiring food permits.

How Do I Use this Manual?

This manual describes a nutrition and food service monitoring or audit program that meets the requirements of the Legislation and provides additional tools that compare nutrition and food services functions with best practices. It includes required and optional audits. Required audits are those that are intended to meet the criteria of the Legislation. Optional audits reflect best practice in nutrition and food services and are provided as additional resources for assessing operations and systems.

The Registered Dietitian, supervisor of food services/nutrition manager and other members of the interdisciplinary team should:

- Read the manual to become familiar with the information and audits.
- Discuss the manual as an interdisciplinary team.
- Develop a facility audit plan that determines who will be responsible for each audit, outlines timelines and rotation (e.g. locations such as main or satellite dining areas) for each audit, and specifies how audit results will be communicated to the rest of the team.

If an audit identifies areas of concern, the interdisciplinary team should:

- Identify possible reasons for shortcomings.
- Discuss strategies to address them.
- Develop and implement a plan to correct them.
- Determine who on the team will be responsible for follow-up.
- Repeat the audit until the minimum acceptable score is met.

What Does an Audit Score Mean?

The audits in this manual measure the basic systems that are in place for nutrition and food services. By conducting audits such as these, you demonstrate that the care and well-being of those who live in the facility is a priority.

The specific systems measured in the various audits include those for nutrition care planning, menu planning, food preparation and service, satisfaction and accountability. The items examined in each of the audits are based upon the Legislation and best practice standards relevant to the nutrition and food services system measured. Examination of the items in each audit helps ensure the quality of the services provided. If the audit score is 100%, this means that the performance of the particular system measured meets the standards as determined by the Legislation and is in line best practice standards.

What if an Audit is Unacceptable?

It is important to realize that an audit score that is less than the standard does not mean your nutrition and food service operation does not meet the requirements of the Regulations. Rather it is in indication that something within the system is not working as well as it could be, and that action is needed to have the nutrition and food services program operate at the optimum standard. If an audit result is unacceptable, the underlying reasons must be determined by reviewing the overall system including policies and procedures, tools for care, staff training and education and consultation with staff members. When assessing problems, be sure to identify their cause, rather than recording signs observed. Based on the information gathered, corrective action should be documented and implemented for each specific problem identified. After a defined period, the audit should be repeated to evaluate the effectiveness of the corrective actions. Follow-up may indicate that another approach to resolving the problem may be necessary.

A nutrition and food service audit program assists facilities in maintaining basic health and safety standards as set out in the Regulations. An effective and valid audit program will document acceptable and unacceptable audit results as well as the actions taken to correct any concerns identified.

What if an Audit is Consistently Acceptable?

By keeping an ongoing file of the audits you may notice trends. If scores consistently meet the acceptable level, you may be confident that your level of care is meeting the Legislation. If this is the case, you may want to raise the standard for that audit since you have demonstrated that you can consistently achieve a higher score. The audit tools are available in electronic format so you can adapt them and broaden your assessment criteria (refer to "Audit Tools To Accompany the *Audits and More* Manual" on the BC government publications website at:
http://www.publications.gov.bc.ca

You may also want to consider doing the optional audits available in this manual.

What Tools are there to Facilitate Compliance with the Regulations?

All licensed adult residential community care facilities are expected to comply with all requirements of the Community Care and Assisted Living Act and its associated regulations. These standards are intended to promote consistency of services throughout the province. Contact your local licensing office if you would like to discuss these requirements with your regional licensing staff. Unofficial copies of the Community Care and Assisted Living Act and associated regulations
(**http://www.qp.gov.bc.ca/statreg/stat/C/02075_01.htm**) are available online. Official copies may be ordered from Crown Publications (**http://www.crownpub.bc.ca**).

In addition to these, other relevant policies, legislation and regulations include:

- Accreditation standards (where applicable)
- Workers Compensation Act and the Occupational Health and Safety Regulations (i.e. for healthcare)
- Professional regulatory acts
- Environmental protection (e.g. food safety)
- Medical and mental health acts
- International Organization for Standardization (ISO Standards)
- Hazard Analysis Critical Control Points program
- Food Premises Regulations
- Food Products Standards Act
- Canada Health Act
- Disability legislation
- The Sanitation Code for Canada's Foodservice Industry
- Personal Information Protection and Electronic Documents Act
- Union agreements and labour acts

You may want to check with your regional licensing staff to determine if there are other nutrition and food service standards in your region. **Appendix 1** provides a listing of various resources to help in developing your own nutrition and food services operations and systems.

Can an Alternative Nutrition and Food Service Audit Program be Used?

A nutrition and food service audit program other than the one described in this manual may be used by a facility provided that it is acceptable to the regional medical health officer or delegate. Your facility may have an existing audit program. Many contract companies that provide food services have their own audits, as do facilities that are part of a larger organization. These programs may meet the requirements of the Legislation, or require only minor modifications. Alternatively, your facility may have computerized programs or other resources that can generate the same information as that in the audits of this manual. For these and similar instances, contact your regional licensing staff for more information.

Roles of Selected Facility Staff and the Interdisciplinary Team

Role of the Registered Dietitian (RD)

The Registered Dietitian is a regulated health care professional with the nutrition and dietetics expertise to ensure nutritional care of those in the facility. A Registered Dietitian is required under the Legislation in facilities with 25 or more people in care.

The Registered Dietitian must:

- Develop the nutrition care plan for each person in care.
- Document the nutrition care plan as part of the overall care plan.
- Monitor the nutrition care plan to ensure implementation.
- Conduct regular reviews, and revise the nutrition care plan in response to the changing needs of the person in care.

The Registered Dietitian should:

- Participate in care conferences, interdisciplinary planning and the facility's audit program.
- Liaise with administration, medical, nursing, allied health and care staff as well as participate in committees such as the Medication Safety and Advisory Committee, Ethics Committee, Facility Policy Committee, Infection
- Control, Emergency Planning, etc.
- Complete all required nutritional assessments, reassessments, and follow-ups.

- Provide nutrition counseling for the person in care and their family as needed.
- Approve menus, including modified diets.
- Participate in the development of policies and procedures as well as in staff education regarding food service, nutrition and assisted eating techniques.
- Liaise with and support the supervisor of food services/nutrition manager where applicable.
- Evaluate the food and nutrition services provided.

Role of the Supervisor of Food Services

A supervisor of food services is recommended in licensed adult residential facilities with 50 or more persons in care to ensure adequate management of food services.

The supervisor of food services/nutrition manager should:

- Manage and/or supervise food services including participation in development of policies and procedures as well as menus and recipes.
- Liaise with other caregivers.
- Coordinate and supervise food procurement, production and distribution.
- Maintain safety, sanitation and security in food distribution and preparation.
- Participate in care planning, the facility's audit program, and staff education regarding food services.

Role of Food Handlers

Food handlers provide service that includes preparation and/or cooking, assembly, portioning and delivery of food and cleaning related to equipment and utensils.

Role of Nursing

Nursing staff have a broad responsibility for all aspects of care. Depending on the size of the facility and staffing levels, this care may include monitoring of meal service, nourishments and fluid consumption, identifying changes in status, communicating sudden changes in physical condition, new diet orders and changes in eating/drinking patterns to the Registered Dietitian or food service supervisor/nutrition manager, taking admission height and weighing each person in care monthly.

Role of Interdisciplinary Team

Members of the interdisciplinary team should collaborate in various ways to:

- Provide assistance and supervision to those in care at meals and snacks.
- Provide care planning, the nutrition and food service audit program, policies and procedures, as well as staff education.
- Participate in team meetings regarding palliative care, accreditation, wound care, pharmacy and therapeutics, quality improvement, risk management, infection control, occupational health and safety, etc.
- Facilitate compliance with the Community Care Act.

The Audit Program

This manual provides the background and resources to help nutrition and food services departments of residential care facilities establish their own audit program based on the Legislation. **Table 1** summarizes the audits that are intended to meet the requirements.

Table 1: Required Audits

Required Audits	Purpose
Nutrition Care Plan Audit	To audit: 1) whether nutrition care plans are developed, implemented, monitored, reviewed and revised in a timely manner, and 2) whether weights are documented for each person in care on a monthly basis.
Nutrition Care Plan - Meal Implementation and Consumption Audit	To audit: 1) whether meals offered to those in care correspond with the nutrition care plan, and 2) whether the plan is accepted by those in care.
Nutrition Care Plan - Snack Implementation and Consumption Audit	To audit: 1) whether snacks offered to those in care correspond with the nutrition care plan, and 2) whether the plan is accepted by those in care.
Hydration Program Audit	To audit: 1) whether the facility has appropriate procedures in place to ensure hydration of persons in care, and 2) whether those in care are receiving adequate fluids daily.
Enteral Feeding Implementation Audit	To audit the provision of enteral feeding to those in care, where applicable.
Menu Audit or Computerized Nutrient Analysis of Menu Audit	The Menu Audit compares the cycle menu with the minimum recommendations of the *Eating Well With Canada's Food Guide*. Alternatively, the Computerized Nutrient Analysis of Menu Audit compares the cycle menu to the *Dietary Reference Intakes*. Both tools also audit whether the menu meets certain directives of *Eating Well With Canada's Food Guide* and the needs and preferences of those in care.
Menu Substitutions Tracking Form and Audit	To audit if the menu substitutions made are nutritionally comparable to the original menu item(s).
Meal Service Audit	To audit the meals served to those in care, including the appropriateness of items, correspondence with the standard, and quality.
Dining Environment Audit	To audit the dining environment in the facility.
Satisfaction with Nutrition and Food Services Questionnaire	To audit the satisfaction of those in care with nutrition and food services.

In addition to the required nutrition and food service audits, this manual includes several optional audits. These reflect best practices in nutrition and food services and may be included in the facility's audit program. **Table 2** summarizes the optional audits.

Table 2: Optional Audits and Checklists

Optional Audit / Checklist	Purpose
Nutrition and Food Services Policies and Procedures Checklist	To review the nutrition and food services department's current policies and procedures.
Audit of Excess Nutrient Intakes	To audit if the amount of food and non-food sources of vitamins and minerals provided to those in care exceed the Tolerable Upper Intake Levels (UL) of the *Dietary Reference Intakes.*
Plate Waste Audit	To audit the acceptance of food or beverage items by a group of people in care.
Emergency Preparedness Checklist	To review the nutrition and food services department's preparedness for a variety of potential disasters.
Sustainability in Food Services Checklist	To review the nutrition and food services department's current sustainability practices.

Frequency of Nutrition and Food Service Audits

Nutrition and food service audits must be conducted on a regular basis. Minimum frequencies for each audit are indicated in this manual. A higher frequency of audits should be determined by outcomes. If the outcomes are not acceptable, corrective actions must be implemented and the audits then repeated, more frequently if necessary, until acceptable outcomes are achieved.

Facilities with more than one food service area, dining room or specialized care unit need to ensure that audits are conducted in all areas of the facility. For example, Meal Service audits can be rotated between the main dining area and the dining area for those in special care.

Summary of Nutrition and Food Service Audits

The following sample Summary of Nutrition and Food Services Audits form illustrates:

- Assignment of staff members to complete each audit.
- Scheduling of audits for the year.
- Documentation that shows completion of the audits for the year.

The blank form that can be used or adapted to your facility is located in **Chapter 8**. Many facilities find it useful to organize a binder with monthly tabs and set out the audits according to the months in which they should be completed.

In the following six chapters you will find details for each audit including background information, procedures for completion and examples.

Sample Summary of Nutrition and Food Service Audits

FACILITY NAME: *British Columbia Care Home* | YEAR: *2008*

A= Part A of Audit, B = Part B of Audit

Name of Audit	Staff Responsible	Staff Assigned to Complete Audit	Frequency per Year	Date Scheduled	Date Completed	Audit Score	Date of Re-Audit	Date Re-Audit Completed	Re-Audit Score
REQUIRED AUDITS									
Nutrition Care Plan Audit	interdisciplinary	*L. Smith*	1	*February 1*	*February 1*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit	interdisciplinary	*L. Smith*	1	*May 22*	*May 22*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
Nutrition Care Plan (NCP) - Snack Implementation and Consumption Audit	interdisciplinary	*D. Roome*	2	*June 11*	*June 11*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
				November 2	*November 2*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
Hydration Program Audit (Part B Optional)	interdisciplinary	*D. Roome*	1	*November 10*	*November 10*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
Enteral Feeding Implementation Audit	interdisciplinary	*N. Station*	1	*October 22*	*October 22*	*100%*	- -	- -	- -
Menu Audit (or Computerized Nutrient Analysis of Menu)	RD or supervisor of food services / nutrition manager	*D. Roome*	When menu is changed (select general diet plus at least one week of a texture modified and one week of a therapeutic diet). Audits done at least 2/year.	*May 31*	*May 31*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
				Sept 10	*Sept 10*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
Menu Substitution Tracking Form and Audit	interdisciplinary	*G. Miles*	1	*July 5*	*July 5*	*90%*	*August 10*	*August 12*	*100%*
Meal Service Audit	interdisciplinary	*L. Smith*	12 (select therapeutic diet and/or texture modified foods every second audit).	*January 15 - general*	*January 15*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
		D. Roome		*February 15 - texture modified*	*February 15*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
		N. Station		*March 15 - general*	*March 15*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
		R. Trim		*April 17 - therapeutic*	*April 17*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
		L. Smith		*May 15 - general*	*May 15*	A. *100%* B. *100%*	- -	- -	A. - - B. - -
		D. Roome		*June 15 - texture modified SCU*	*June 15*	A. *100%* B. *100%*	- -	- -	A. - - B. - -

Form revised 2008

cont'd /2

Sample Summary of Nutrition and Food Service Audits

FACILITY NAME: *British Columbia Care Home* | YEAR: *2008*

A= Part A of Audit, B = Part B of Audit

Name of Audit	Staff Responsible	Staff Assigned to Complete Audit	Frequency per Year	Date Scheduled	Date Completed	Audit Score	Date of Re-Audit	Date Re-Audit Completed	Re-Audit Score
REQUIRED AUDITS cont'd									
Meal Service Audit cont'd	interdisciplinary	*N. Station*	12 (select therapeutic diet and/or texture modified foods every second audit).	*July 16 - general*	*July 16*	A. 100% B. 100%	- -	- -	A. - - B. - -
		R. Trim		*August 15 - therapeutic*	*August 15*	A. 100% B. 100%	- -	- -	A. - - B. - -
		L. Smith		*September 17 - general SCU*	*September 17*	A. 100% B. 100%	- -	- -	A. - - B. - -
		D. Roome		*October 15 - texture modified*	*October 15*	A. 100% B. 100%	- -	- -	A. - - B. - -
		N. Station		*November 15 - general*	*November 15*	A. 100% B. 100%	- -	- -	A. - - B. - -
		R. Trim		*December 3 - therapeutic SCU*	*December 3*	A. 100% B. 100%	- -	- -	A. - - B. - -
Dining Environment Audit	interdisciplinary	*F. Moore*	1	*August 10 - main dining room*	*August 10*	*100%*	- -	- -	- -
Satisfaction with Nutrition and Food Services Questionnaire	interdisciplinary	*N. Station*	1	*April 23*	*April 23*	*>70% for all questions - 1 - 16*	- -	- -	- -
OPTIONAL AUDITS / CHECKLISTS									
Nutrition and Food Services Policies and Procedures Checklist	interdisciplinary	- -	- -	- -	- -	- -	- -	- -	- -
Audit of Excess Nutrient Intakes	RD	*M. Lorenzo*	*5/year*	*January 15*	*January 15*	*100%*	- -	- -	- -
				February 15	*February 15*	*90%*	*March 1*	*March 1*	*100%*
				March 15	*March 15*	*100%*	- -	- -	- -
				April 15	*April 15*	*92%*	*May 1*	*May 1*	*100%*
				May 15	*May 15*	*100%*	- -	- -	- -
Plate Waste Audit	interdisciplinary	*R. Wilson*	*1/year*	*September 12*	*September 12*	*18%*	- -	- -	- -
Emergency Preparedness Checklist	RD or supervisor of food services/ nutrition manager	*T. Yeh*	*1/year*	*June 28*	*June 28*	*N/A*	- -	- -	- -
Sustainability in Food Services Checklist	RD or supervisor of food services/ nutrition manager	*C. Emmy*	*1/year*	*July 15*	*July 15*	*N/A*	- -	- -	- -

Form revised 2008

cont'd /3

Sample Summary of Nutrition and Food Service Audits

FACILITY NAME: *British Columbia Care Home*	YEAR: *2008*

Name of Audit	Staff Responsible	Staff Assigned to Complete Audit	Frequency per Year	Date(s) Scheduled	Date Completed	Audit Score	Date of Re-Audit	Date Re-Audit Completed	Re-Audit Score
OTHER AUDITS (write in any other audits you may use in your facility)									
Safety and Sanitation Checklists	*Supervisor of Food Services*	*G. Pieng*	*Quarterly*	*January 15*	*January 15*	*100%*	- -	- -	- -
				April 15	*April 15*	*100%*	- -	- -	- -
				July 15	*July 15*	*100%*	- -	- -	- -
				October 15	*October 15*	*100%*	- -	- -	- -

Form revised 2008

Glossary of Terms

The following are some of the common terms used in this manual and their definitions.

Acceptable Audit Score
A score that indicates the service provided meets the specified standard (i.e. the Legislation).

Audit
A review of care and service (concurrent). Also a review of records (retrospective). An audit tool examines performance and compares it to a measurable standard. A food services audit provides regular review of the critical aspects of nutrition and food services for a particular group. Required audits are those which are intended to meet the criteria of the Regulations, while optional audits reflect best practice in nutrition and food services and provide additional tools for assessing operations and systems.

Best Practices
A technique, method, process, activity, incentive or reward that is more effective at delivering a particular outcome than any other technique, method, process, etc. With proper processes, checks, and testing, a desired outcome can be delivered with fewer problems and unforeseen complications. Best practices can also be defined as the most efficient (least amount of effort) and effective (best results) way of accomplishing a task, based on repeatable procedures that have proven themselves over time for large numbers of people.

Environmental Health Officer
Holder of the Certificate in Public Health Inspection (Canada), or the equivalent certificate issued by a competent authority and acceptable to the Board of persons Certification of the Canadian Institute of Public Health Inspectors (generally known as public health inspector).

Facility
An adult residential community care facility as defined in the Community Care and Assisted Living Act.

Food Services
The operations of a community care facility related to the provision of meals to the persons in care; include, but are not limited to, menu planning, food purchasing, food storage and preparation, the serving of meals, space and equipment requirements and sanitation.

Hazard Analysis Critical Control Points (HACCP)
An internationally recognized systematic preventative approach to food safety that addresses physical, chemical, and biological hazards as a means of prevention rather than finished product inspection. HACCP is used in the food industry to identify potential food safety hazards, so that key actions, known as Critical Control Points (CCP's), can be taken to reduce or eliminate the risk of the hazards being realized. The system is used at all stages of food production and preparation.

Health Care Provider
A practitioner who is authorized to provide health care by **a)** a regulatory body, listed under section 6 of the Health Professions Act, Health Professions Regulation, B.C. Reg. 237/92, or **b)** the board of registration for social workers established under the Social Workers Act. The physician of a person in care is in most cases the primary health care provider.

Interdisciplinary Team
The group of staff and consultants providing care to persons in care; may include, but is not limited to: physician, nursing staff, Registered Dietitian, supervisor of food services/nutrition manager, pharmacist, support services staff, rehabilitation staff, recreation therapy staff, volunteer, chaplain, and social worker. The interdisciplinary team provides care including assessing nutritional needs, taking weights, assisting with feeding or providing supervision at mealtime for those in care.

Licence
A licence issued by the medical health officer to operate a community care facility.

Licensee
A person or organization who holds a current licence or interim permit issued by the medical health officer.

Medical Health Officer
A person in British Columbia appointed under the Health Act, or a person to whom a medical health officer has delegated his powers and duties under Section 33 of the Health Act.

Nutrition Care Plan
That part of a plan for each person in care that assesses their nutrition status and specifies the nutrition-related interventions to be provided.

Person in Care
A person who resides in or attends a community care facility for the purpose of receiving care. Note that the term resident refers to those who live in assisted living residences.

Public Health Inspector
Environmental health officer (see definition above).

Quality Assurance (QA)
Procedures that define and ensure maintenance of standards within prescribed tolerances for a product or service.

Registered Dietitian
A person who is a member of the College of Dietitians of British Columbia (CDBC).

Resident
A person who lives in an assisted living residence. In previous Regulations, the term resident referred to those who live in and receive care in an adult community care facility.

Standard
Defines the dimensions of what is expected to happen. The criterion against which performance is measured.

Substitute Decision Maker
A person who is authorized to make decisions on behalf of a person in care.

Supervisor of Food Services
A person who is a member of, or who is eligible for, membership in the Canadian Society of Nutrition Management (CSNM) or who is a member of the College of Dietitians of British Columbia (CDBC). “Eligible” means the person has completed the training program and is scheduled to write the exam to become a member of CSNM.

System
A collection of interrelated parts unified by design to obtain one or more objectives.

Texture Modification
Modification to the texture of food (e.g. pureed, minced or cut-up) and/or fluid (e.g. thickened to varying consistencies such as nectar, pudding) for those who have difficulty chewing and swallowing. Texture modifications can be ordered by the primary health care provider (medical practitioner) or by the Registered Dietitian or Occupational Therapist of the person in care.

Therapeutic Diet
Any modification to the regular diet made on the recommendation of the primary health care provider (medical practitioner) of a person in care.

Chapter Two

Nutrition Care Plans

Nutrition Care Plans

This chapter provides background information on the process of nutrition care planning. The following audit tools relevant to nutrition care are discussed:

- The Nutrition Care Plan Audit (Required)
- The Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit (Required)
- The Nutrition Care Plan (NCP) - Snack Implementation and Consumption Audit (Required)

Each audit is reviewed in terms of its purpose, recommended frequency, who should complete it and procedures. A completed example of each audit is given. Blank audit forms are provided in **Chapter 8**. Further resources are located in **Appendix 1**.

Nutrition Care Planning - Background Information

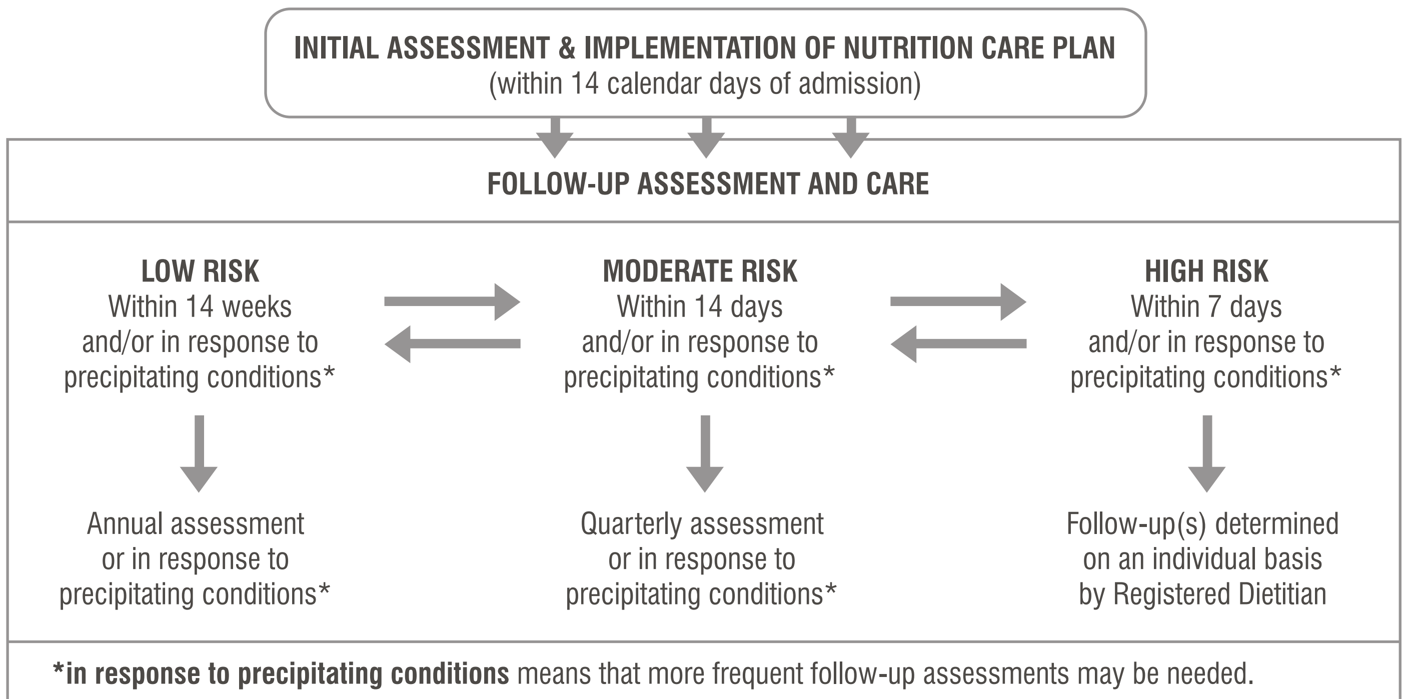
For persons in care that stay at the facility for longer than two weeks, a nutrition care plan must be developed by the Registered Dietitian with the input of the person in care and their family/substitute decision maker and other staff members. It takes into account the strengths, abilities, physical, social and emotional needs, safety and security and the preferences of those in care. It ensures that the most appropriate nutrition care and interventions are provided in the least restrictive and most effective manner. Nutritional interventions should be consistent with the Degree of Intervention (Advance Directive) and the wishes of the person in care or their substitute decision maker. **It is recommended that a nutrition care plan be:**

- Completed soon after admission of the person in care
- Monitored to ensure implementation and ideally reviewed at least once within 14 weeks of admission
- Reviewed as set out in the overall care plan (at least once per year)
- Revised in response to the needs of the person in care (e.g. changes in nutritional needs or health)

The nutrition care plan guides the activities of care staff and is the foundation for quality nutrition care; as such it must be accessible to all staff who provide direct service to the person in care. Pertinent information, including changes in the condition of the person in care, should be communicated by the Registered Dietitian to the supervisor of food services/nutrition manager (where applicable) and to facility staff. The nutrition care plan must be documented in the overall care plan.

Figure 1 illustrates a suggested nutritional assessment and care plan timetable.

Figure 1: Suggested Nutritional Assessment and Nutrition Care Plan Timetable



Adapted from: Community Care Facilities Licensing Program, Capitol Regional District, 1997 and Nutrition Care Plans Ad Hoc Committee, Vancouver/Richmond Health Board, 1999.

Appendix 2 contains sample nutrition care plan forms that may be adapted for your facility. These include the Nutrition Assessment, Nutrition Care Plan and Nutrition Assessment Monitoring Form.

Developing a Nutrition Care Plan

The following steps are required to develop the nutrition care plan:

1. Assessing Nutrition Concerns

The Registered Dietitian conducts assessments in accordance with the current clinical dietetics manual approved by Dietitians of Canada and uses professional judgment to develop the nutritional care plan (1). The Registered Dietitian gathers information regarding the health, eating habits and food preferences of the person in care from sources including the health record, the person in care and their family/substitute decision maker, medical staff, nursing and other care staff, and meal observations. This process helps determine the level of nutrition risk of the person in care as well as the level of support, supervision, and assistance required with food and fluid intake at meals and snack times to ensure safety, comfort, independence and dignity in eating and drinking, and includes:

- Identifying those who would benefit from assistive devices, assistance with appropriate seating and positioning, and the types and amount of assistance required to support and maintain self-feeding skills.

- Adapting the mealtime environment as appropriate. If a person in care receives meals and snacks by room service or eats in alternate dining areas, they must receive adequate supervision and assistance.

Some common nutrition concerns include hydration, skin integrity, polypharmacy and nutrition-related side effects of medications, dysphagia, uncontrolled metabolic conditions, bowel and bladder function, the need for enteral feedings, and behaviours that affect nutrition status (e.g. food/fluid avoidance due to hallucinations or delusions, excessive or inadequate intake related to mania or depression, self-restriction) (2;3). **Table 3** summarizes best practices for some of these common concerns (2;4)

Table 3: Best Practices for Common Nutrition Care Problems

CONCERNS	BEST PRACTICES
Behaviours with Nutritional Implications	• For food-related delusions (e.g. food is poisoned) or hallucinations (e.g. thinks they have no stomach) allow for beliefs as is practical until medication becomes effective. Encourage well-balanced diet and supplementation as necessary.
Skin and Wound Care	• Develop, implement, monitor and evaluate protocols for interdisciplinary care, including hydration and nutrition interventions for all levels of pressure ulcers and skin wounds.
Polypharmacy	To minimize need for medications: • Optimize nutrition for all through the use of regular and therapeutic diets, texture-modified foods, modified fluid consistencies and supplements. • Establish hydration protocols to ensure appropriate fluid intake. • Establish protocols for monitoring meal plans for those with diabetes. • Alter content and timing of meals to minimize medication dosage and/or maximize effect of medication, when possible.
Bowel and bladder protocols	• Provide menus that include adequate fluid and fibre. This may also include specific products to enhance fibre content such as commercial or in-house high fibre products. • Monitor and document food and fluid intake and bowel function to help maintain and improve bowel function (Interdisciplinary Care Team).
Metabolic conditions that affect nutrition	• Plan a menu that balances the amount of simple sugars, sodium, fibre and fats so that fewer interventions are required to help control disease process. Plan interventions in consultation with the person in care and based on their individual needs (e.g. uncontrolled obesity).
Dysphagia	Registered Dietitian participates as a member of the Interdisciplinary Care Team to conduct swallowing assessments, review all recommendations for texture modification, thickened fluids or enteral feeding, and take responsibility for approval of such recommendations. Processes include: • Conducting trials of texture modification, documenting results in the chart and monitoring tolerance. • Consulting with Physiotherapist/Occupational Therapist on provisions for appropriate seating and positioning for safe dining. • Training staff to recognize signs of dysphagia and to prepare, serve and feed texture-modified diets, including thickened fluids. • Documenting episodes of choking or swallowing difficulties and communicating the need for assessment to the Registered Dietitian.

2. Setting Individual Goals

The second step in developing the nutrition care plan is to set goals in response to the nutrition concerns identified. The person in care should participate, if possible, in the development of these goals. Use evidence-based behaviour change models to provide the basis for goal setting. For each concern, develop a goal that is realistic, person-centered, measurable, and directed to maintaining, restoring and optimizing the nutrition health of the person in care. Set a reasonable date for achieving each goal.

3. Assigning Actions

List all of the actions that are going to be implemented for each goal. For each action, state what is to be done and by whom, the date by which the action should be started and the date by which it should be completed, the desired outcomes and reassessment date. Provide simple, clear instructions for caregivers to follow. When developing actions, the Registered Dietitian must be aware of and follow the person in care's advance directives or wishes, including withdrawing nutrition or hydration and the right to refuse diet and texture modification. The person in care must be aware of the plan for treatment (e.g. the diet order). Document the response to the plan of the person in care.

4. Ongoing Evaluation and Review of the Nutrition Care Plan

Review the nutrition care plan regularly (e.g. at least quarterly, and at least once within 14 weeks of admission) with the person in care. Revise the nutrition care plan in response to needs that may include the presence of new or changed conditions that have a strong influence on nutrition status, such as:

- Permanent loss of ability to ambulate freely or to use the hands to grasp small objects.
- Deterioration in behaviour, mood or relationships
- Change in appetite, weight, bowel patterns, food intake, and ability to chew or swallow food or fluids.
- Change in health status (e.g. abnormal lab values, new medical condition, medication changes).
- Marked or sudden improvement in health status.

Information sources or tools for monitoring and evaluation may include recording food and fluid intake (e.g. it is not enough to write “meal taken”) as specified by the Registered Dietitian, reviewing health records, discussions with the person in care and staff as well as meal rounds and observations. These methods can be used to note:

- Ability to eat independently or degree of assistance needed.
- Food and fluid acceptance and consumption.
- Adequacy of portion sizes.
- Changes in ability to chew and swallow and mechanical difficulties (e.g. cutting, placement of items).
- Compatibility with tablemates.

Meal rounds and observations can be a shared responsibility of the Registered Dietitian, nutrition/food service manager and nursing staff.

Changes in the status of the person in care must be communicated to the Registered Dietitian so that the nutrition care plan can be updated. The interdisciplinary team should develop a procedure to:

- Document the referral in the chart of the person in care.
- Communicate the referral to the Registered Dietitian.
- Track follow-up of the referral.

The procedure might include providing a completed referral form to the Registered Dietitian or documenting referrals in a specified referral book. A sample referral form is given in **Appendix 3**.

Documentation is an on-going process that supports all of the steps in the nutrition care plan. All documentation should

be current, complete, accurate, legible, written by the person who made the observation or who provided or supervised the care or treatment, written as close to the time of event as possible, written in chronological order, permanently recorded and identified by date, time, signature and status of the person documenting the entry (5).

Dietary Profiles for Those in Care who are Respite or Short Stay

For those who stay at a facility for less than two weeks, basic dietary information in the form of a dietary profile should be available (6). The dietary profile may be completed by the Registered Dietitian, nutrition manager/food services supervisor or nursing staff and is part of the interdisciplinary team assessment. The profile should include information about:

- Diet, texture of food and thickness of fluids
- Food allergies or intolerances
- Sensory and functional information, including alterations in vision, smell, hearing or taste and ability to chew or swallow
- Appetite and usual intake of food and fluids prior to admission, including the use of nutritional supplements
- Bowel habits and treatments
- Preferred food, beverages and portion sizes at meals and snacks
- Any use of assistive devices related to eating and drinking
- Religious, cultural and/or language requirements

Interdisciplinary Care Conferences

Interdisciplinary care conferences facilitate the development of comprehensive care plans. The interdisciplinary team may include, but is not limited to: physician, nursing staff, Registered Dietitian, supervisor of food services/nutrition manager, pharmacist, support services staff, rehabilitation staff, recreation therapy staff, volunteer, chaplain and social worker. The person in care (or their substitute decision maker) participates in the care conference where possible. At these conferences, the nutrition care plan is incorporated into the overall care plan for the person in care. The Registered Dietitian or supervisor of food services/nutrition manager should communicate the nutrition care plan of the person in care based on their strengths and abilities (e.g. able to express food preferences, can transfer to dining room chair with one assist), preferences (e.g. sandwich and tea at 10:00 pm), needs (e.g. for a blind person orientation to plate provided using clock as reference), goals (e.g. increase weight by 0.5 kg/six months), safety (e.g. allergic to peanuts) and security (e.g. eats plant leaves if out in the garden unsupervised) (1).

Nutrition Transfer Form

A Nutrition Transfer Form may be used to provide information on the nutrition needs of a person in care when they are discharged to a hospital or another care facility. This helps to ensure continuity of care for them. A sample Nutrition Transfer Form is provided in **Appendix 4**.

Documenting Height, Weight and Waist Circumference

Height is measured at admission and preferably every year. Weight must be documented on admission and thereafter monthly. Changes in weight over time suggest nutritional repletion or depletion and are usually more valuable indicators than a comparison to standards such as BMI. Weight may need to be measured and documented more frequently than monthly; however, permission from the regional medical health officer must be obtained in order to measure weights less frequently than once per month (consult with licensing staff for more information). Measuring and documenting waist circumference may be another useful tool in assessing health status, particularly if the person in care has a healthy BMI but appears to be carrying excess weight around the abdomen. In addition, the clinical practice guidelines for metabolic monitoring of those taking antipsychotic medications include assessing waist circumference (7).

The Legislation requires that there is the appropriate intervention (e.g. professional intervention by Registered Dietitian, physician) when a person in care has a significant weight change (i.e. unintentional change in weight greater than 5% over one month, greater than 7.5% over three months, or greater than 10% over six months; see **Appendix 5 - Significant Weight Loss Table**). Best practices also suggests that interventions should be initiated if weight drops below 40 kilograms or if the BMI is greater than 35 (2).

Ideally, a means of monitoring individual weight trends (e.g. weight graphs; see **Appendix 6 - Monthly Weight Graph Sample Form**) should be in place. In addition, facilities should have an interdisciplinary policy and procedure to guide staff who are responsible for weighing persons in care. This policy should outline the weight change parameters under which the Registered Dietitian needs to be consulted. If significant weight changes are found, first check the scale and reweigh the person in care to rule out an error in measurement. Responses to significant weight change should be documented in the person's care plan.

Measuring Height, Weight and Waist Circumference

1. Measuring Height

The general procedure for measuring height is (4;8):

1. Measure on a hard, flat surface preferably without a baseboard (e.g. back of a door).
2. Place a POST-IT note vertically on the wall at the approximate height to be measured.
3. Have the person remove hats, barrettes, shoes or slippers
4. The person stands as straight as possible, arms at sides, feet together, and shoulders, heels, back, and the back of the head against the wall with the head centred at the POST-IT note. The head is positioned in the Frankfurt (horizontal) plane (e.g. look straight ahead and take a deep breath). Mark the POST-IT.
5. Using the measurement tape, measure from the floor to the mark to the nearest 0.1 cm.

For those unable to stand or stand straight, arm span, knee height or recumbent methods (e.g. mark bed sheets at top of head and base of heels) may be used to estimate height (4).

2. Measuring Weight

Weight is measured using standing, chair, or bed scales. The general procedure for measuring weight is (8;9):

1. Make sure the scale has been recently calibrated. Where applicable, zero the scale prior to measurement.
2. Have the person remove excess clothing and shoes.
3. Position the person at the centre of the scale, standing without assistance with hands at sides or crossed.
4. Read the measurement and record weight to the nearest 0.5 kg.

Be sure to account for the weight of the wheelchair where applicable. If a person in care has an amputation, the absent body section must be accounted for. Table 4 gives the adjustments to make in these circumstances.

Table 4: Goal Weight Adjustments for Amputation

Type of Loss	Percent Loss	Type of Loss	Percent Loss	Type of Loss	Percent Loss
Hand	0.7%	Entire arm	5.0%	Lower leg + foot	5.9%
Lower arm + hand	2.3%	Foot	1.5%	Entire leg	16.0%

Source: Osterkamp LK. Current perspectives on assessment of human body proportions of relevance to amputees. Journal of the American Dietetic Association 95:215-218, 1995 (10).

By taking into account the type of loss, you can determine body weight and adjust nutrient requirements:

Body weight = Measured Weight + (Measured Weight x % loss of amputation)

The height measure to use in these instances is the person's height before amputation (if known).

Calibration of Scale:

Scales should be calibrated regularly to ensure accuracy. Use a known weight and place it on the scale. Read the weight shown on the scale and adjust the scale where possible (e.g. adjust spring mechanism) so that the scale reads the correct known weight. If the scale cannot be adjusted, use the correction procedure below to calculate the person in care's weight from the scale reading.

Example

Given:	**To adjust:**
- Calibration weight of 22 kg is weighed as 23.5 kg on the scale. - Person weighs 65 kg on scale.	Correction factor = (calibration weight - weight on scale)/weight on scale Correction factor = (22-23.5)/23.5 = -1.5/23.5 = -0.064 kg Correction amount = person's measured weight x correction factor Correction amount = 65 x (-0.064) = -4.16 Person's true weight = person's measured weight + correction amount Person's true weight = 65 + (-4.16) = 60.84 kg

This example shows how small changes in scale calibration can affect the overall weight of a person.

3. Measuring Waist Circumference (WC)

The general procedure for measuring waist circumference is (4;8):

1. If the person is wearing a belt or heavy clothing, ask them to remove it or lift up their shirt. If they are wearing heavy pants, ask them to roll down the waistband. Use your best judgement. The person should stand erect in a relaxed manner, arms crossed in front of their chest.
2. Position the tape horizontally at the point of noticeable waist narrowing. In people where the waist cannot easily be located, waist circumference can be approximated by asking the person to put their hands on their hip bone and measuring the waist just above this point. Kneel down to be at eye level with the measuring tape to improve accuracy.
3. Apply sufficient tension to the tape to maintain its position. If you are measuring over clothing, apply slightly more tension to allow for the thickness of the clothing.
4. Ask the person to take a normal breath. Record waist circumference to the nearest 0.1 cm when they breathe out.

Interpreting Weight Status

The Body Mass Index (BMI) is a reliable and accurate method of assessing body weight in most circumstances and may be correlated with mortality and other health-related factors. The formula for calculating BMI is: BMI = weight (kg) divided by height squared (m^2). The BMI is interpreted differently for different age and ethnic groups. These are shown in **Table 5**.

Table 5: Classification and Interpretation of BMI for Different Age and Ethnic Groups

BMI Category (kg/m^2)	Classification/Interpretation
1. For males and non-pregnant females from 20 to 65 years[1] except as in (2) below:	
< 18.5	Underweight. Increased risk of developing health problems
18.5 to 24.9	Normal weight. Lowest risk of developing health problems
25.0 to 29.9	Overweight. Increased risk of developing health problems
30.0 to 34.9	Obese Class I. High risk of developing health problems
35.0 to 39.9	Obese Class II. Very high risk of developing health problems
≥ 40.0	Obese Class III. Extremely high risk of developing health problems
2. For Asian males and non-pregnant females between 20 to 65 years (China, Indonesia, Japan, Singapore, Thailand)[2]	
< 18.5	Underweight
18.5 to 23	Increasing but acceptable risk
23 to 27.5	Increased risk
> 27.5	High risk
3. For males and females over 65 years[3]	
< 24.0	May be associated with health problems for some elderly
24.0 to 29.0	Healthy weight for most elderly
> 29.0	May be associated with health problems for some elderly

1 Source: Health Canada. Canadian Guidelines for Body Weight Classification for Adults, Ottawa: Health Canada, 2003 (11).
2 Source: WHO Expert Consultation Appropriate body-mass index for Asian populations and its implications for policy and intervention studies. The Lancet, 363:157-63, 2004 (12).
3 Source: Beck AM, Ovesen L. At which body mass index and degree of weight loss should hospitalized elderly patients be considered at nutritional risk? Clinical Nutrition. 17:195-198, 1998 (13).

Research on ethnicity, body weight and health risks is ongoing (11). Some groups may be more susceptible to health problems associated with obesity than others. Health risks for Black populations at the same BMI may be less than among Caucasians. Chinese and South Asians (India, Pakistan, Bangladesh, and Sri Lanka) have health risks that appear to be greater. South Asian Canadians have shown a susceptibility to obesity, especially abdominal obesity, and its related health problems (11). Ethnic-specific upper cut-off values for waist circumference are outlined in **Table 6**. Values above these cut-offs suggest increased health risk.

Table 6: Ethnic-Specific Upper Cut-Off Values for Waist Circumference

	Waist circumference in cm	
Ethnic group	**Men**	**Women**
European, Sub-Saharan African, Eastern Mediterranean and Middle East (Arab)	≥ 94	≥ 80
South Asian, Chinese*, South and Central American	≥ 90	≥ 80
Japanese	≥ 85	≥ 90

*Based on Chinese, Malay and Asian Indian population
Source: Lau, DCW et al. 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children. Canadian Medical Association Journal, 176: S1-S13, 2007 (14).

Waist circumference is only useful in identifying health risks for adults of with BMIs of 18.5 to 34.9 and does not provide additional information for those with BMIs greater than 34.9 (11).

Determining Weight Goals

An individual's healthy body weight is determined by a variety of factors including height, body type, genetics, bone structure, muscle mass, age and health. For women, other factors that need to be considered include whether or not they are able to menstruate and ovulate normally at their current weight. In setting weight goals, some factors to consider are:

- Are they able to consume a diet that provides adequate nutrition?
- What is the weight history of the person (e.g. lifetime or usual weight)?
- Does the person in care want to change their weight? What is their readiness for change?
- Set realistic goals. Make specific and manageable goals that are achievable in less than a year's time. For example, what type of exercise will be done and how often? What food plan will be followed and how will it be monitored?

Many people are at their healthiest adult weight between the ages of 25 and 30 years, after which weight gain may occur. Conversely, they may have been overweight (or underweight) as a young adult, and may be unable

to define a healthy weight. When asking the person in care what weight they think is healthy, discuss at what weight they felt the best. Most people know what is a good weight for them. However, a person's weight goal may be different from their perceived healthy weight. For example, if the person has been underweight for several years, then a realistic goal may be to gain just five pounds or two to three kilograms over the next six months, or simply to prevent further weight loss. If the person has been very overweight all their life, then a realistic goal may be to lose a few pounds or kilograms over the next month or year, or simply to prevent further weight gain.

Weight discussions sometimes present ethical considerations for caregivers regarding intervention and choice. A person who is terminally ill may choose to limit their consumption of food and beverages. It is not the responsibility of staff to force food or fluid. Provide options, education, encouragement, support and caring. In the end, it is the person in care who should be free to make choices.

The following audit examines the nutrition care plans of a select group of persons in care. In addition, it also examines the weight monitoring practices of the facility.

Nutrition Care Plan Audit

This is a required audit. A blank audit form is located in **Chapter 8**.

Purpose of Audit:	To audit: **1)** whether nutrition care plans are developed soon after the person in care's admission, monitored to ensure implementation, reviewed in a timely manner, reviewed as set out in the care plan, and revised in response to need (Part A), and **2)** whether weights are documented for each person in care on a monthly basis (Part B).
Acceptable Audit Score:	100%
Audit Frequency:	• If the minimum acceptable audit score is met, complete the Nutrition Care Plan Audit once per year. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team. In many facilities, Registered Dietitians do not audit their own charting. Instead, they work with other members of the team and share auditing tasks. This requires development of an interdisciplinary policy and educational support.

Procedure:

1. Complete the audit.

- Choose 10% (maximum of 20, minimum of 4) of the facility's medical charts. Charts can be chosen by any random sample method such as taking every xth chart or alphabetically. However, your selection must include those who have been admitted in the previous year in order to capture compliance to the standards for new admissions in a timely manner. Charts can be selected for nutrition risk, but then results will only be valid for the specific parameter chosen and not applicable to the overall population. If charts are located in different areas of the facility (e.g. different units), be sure to incorporate ones from each area in your audit. You may choose to use the same or different groups of people in care for Part A and B of the audit.

Part A: Nutrition Care Plan

Record the initials of the person whose chart you are auditing at the top of the audit form. Audit the selected nutrition care plan. For each item, put a tick (✓) mark in the appropriate column of the audit form.

- **Yes (Y)** indicates that the nutrition care plan corresponded with this item of the audit.
- **No (N)** indicates the nutrition care plan did not correspond with this item of the audit.
- **Exception (E)** indicates that this item was not applicable or there was some valid reason for the particular item not to be indicated as a Yes.

Review the following items:

1. Nutrition care plan developed within two weeks of admission. Check that the dates of admission and nutrition care plan development are within two calendar weeks of the admission date.
2. Nutrition care plan documented in the person in care's overall care plan. Check that the nutrition care plan is documented or cross-referenced in the overall care plan.
3. Nutrition care plan reviewed within 14 calendar weeks of admission. Check that dates of admission and review of the initial nutrition care plan are within 14 calendar weeks.
4. Nutrition care plan reviewed as set out in the person's overall care plan. For example, if the overall care plan indicates that it will be reviewed every 6 months then the nutrition care plan should be reviewed within this time frame.
5. Nutrition care plan revised in response to person's needs. Check to see that any assessments, re-assessments, physician orders or dietary orders are reflected in the nutrition care plan.
6. Nutrition care plan monitored to ensure implementation. Evaluate whether the nutrition care plan is being followed (e.g. by meal observation, documentation, checking with staff, audits, etc).
7. Nutrition care plan completed by the Registered Dietitian. The nutrition care plan is signed by a Registered Dietitian. If the person in care receives enteral feeds, the Registered Dietitian must also have Reserved Act A from the College of Dietitians of British Columbia.

Part B: Weight Monitoring

Record the initials of the person whose chart you are auditing in the first column (Part B) of the audit form. Review the weight records for the previous 12 months for the selected persons.

Review the following items:

1. **Column 1** = the number of months the person in care has been in the facility in the previous 12 months.
2. **Column 2** = the total number of months that the person in care's weight is recorded (e.g. in chart or weight record).
3. **Column 3** = the total number of months that the person was not weighed with adequate documentation of the exception. Reasons for not being weighed (e.g. person in care hospitalized, on holidays, refused, etc.) must be documented.

Examples:

- The person in care has been at the facility for 12 months. Of these there were seven months where the weight was recorded and five months where weight was not recorded. No reason is documented as to why the weight was not taken. Record 12 in **Column 1**, 7 in **Column 2**, and 0 in **Column 3**.
- The person in care has been at the facility for 12 months. Of these there were seven months where the weight was recorded and five months where the weight was not recorded. The weight record notes that the person in care was in hospital during the five months for which weight was not recorded. On the audit sheet record 12 in **Column 1**, 7 in **Column 2** and 5 in **Column 3**.

4. **Column 4** = Appropriate intervention (e.g. suitable professional advice provided by a Registered Dietitian or physician) when a person in care experiences a significant weight change. Review the weight record of the person in care for any significant weight changes. If there was a significant change, determine whether there was appropriate intervention. For each item, put a tick (✓) mark in the appropriate column.

- **Yes (Y)** indicates that there was an appropriate intervention.
- **No (N)** indicates that there was no intervention or that the intervention was not appropriate.
- **Exception (E)** indicates that this item was not applicable (e.g. there were no significant weight changes noted in your review) or there was some valid reason for the particular item not to be indicated as a Yes.

2. Score each part of the audit.

Part A: Nutrition Care Plan

Total the number of Yes (Y) and Exceptions (E) on the audit chart.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL (Y + E of COLUMNS 1-10)}}{\text{NUMBER AUDITED x 7}} \times 100$$

Part B: Weight Monitoring

$$\text{TOTAL AUDIT SCORE} = \frac{\text{(TOTAL OF COLUMNS 2 + 3) + TOTAL COLUMN 4 (Y + E)}}{\text{TOTAL COLUMN 1 + NUMBER AUDITED}} \times 100$$

3. Determine whether the minimum audit score is met or not met for Part A and Part B.

An acceptable score for Part A is 100%. An acceptable score for Part B is 100%. If only one part of the audit is not acceptable, then you only need to re-audit that section.

4. Document any problems identified and possible reasons, corrective actions that will be taken, and date for re-audit.

SAMPLE

Nutrition Care Plan Audit

NAME OF AUDITOR *S. Evers*	DATE OF AUDIT *November 10, 2008*

Part A - Nutrition Care Plan

PIC = PERSON IN CARE, Y = Yes, N = No, E = Exception

Initials of PIC	1. AB			2. CB			3. EF			4. GH			5. IJ			6. KL			7. MN			8. OP			9. QR			10. ST		
Item	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N
Nutrition care plan is:																														
1. Developed within 2 weeks of admission	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	–	–	✓	✓	–	–
2. Documented in the overall care plan	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–
3. Reviewed within 14 weeks of admission	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	–	✓	–	✓	–	–
4. Reviewed as set out in the care plan	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–
5. Revised in response to the person's needs	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–
6. Monitored to ensure implementation	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–
7. Completed by the Registered Dietitian	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–
TOTAL (Y, E)	7	0		7	0		7	0		7	0		7	0		7	0		7	0		7	0		5	1		7	0	

Part B - Weight Monitoring

INITIALS OF PERSON IN CARE	1. NUMBER OF MONTHS PERSON IN FACILITY IN PAST 12 MONTHS	2. TOTAL NUMBER OF MONTHS WEIGHT WAS RECORDED	3. DOCUMENTED EXCEPTIONS (INDICATE NUMBER OF MONTHS)	4. APPROPRIATE INTERVENTION WHEN SIGNIFICANT WEIGHT CHANGE* OCCURS (Y = Yes, N = No, E = Exception)		
				Y	E	N
1. *AB*	*12*	*11*	*1*	✓	–	–
2. *CD*	*12*	*12*	*0*	✓	–	–
3. *EF*	*12*	*12*	*0*	✓	–	–
4. *GH*	*6*	*6*	*0*	✓	–	–
5. *IJ*	*12*	*12*	*0*	✓	–	–
6. *KL*	*12*	*10*	*0*	✓	–	–
7. *MN*	*12*	*12*	*0*	✓	–	–
8. *OP*	*8*	*8*	*0*	✓	–	–
9. *QR*	*12*	*12*	*0*	–	–	✓
10. *ST*	*12*	*12*	*0*	✓	–	–
TOTAL (Y, E)	***110***	***107***	***1***	***9***	***0***	

*> 5%/1 month, > 7.5%/3 months, >10%/ 6 months

PART A - NUTRITION CARE PLAN

TOTAL AUDIT SCORE =

$$\frac{\text{TOTAL (Y + E of COLUMNS 1-10)}}{\text{NUMBER AUDITED x 7}} \times 100 =$$

$$\frac{(7+7+7+7+7+7+7+7+6+7)}{10 \times 7} \times 100 = \frac{69}{70} \times 100 = 99\%$$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

PART B - WEIGHT MONITORING

TOTAL AUDIT SCORE =

$$\frac{\text{(TOTAL OF COLUMNS 2 + 3) + TOTAL COLUMN 4 (Y + E)}}{\text{TOTAL OF COLUMN 1 + NUMBER AUDITED}} \times 100 =$$

$$\frac{(107 + 1) + (9 + 0)}{110 + 10} \times 100 = \frac{117 \times 100}{120} \times 100 = 98\%$$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

Form revised 2008

SAMPLE

COMMENTS
Part A
1. *QR initial care plan not developed within 2 calendar weeks (RD was on holidays). Not reviewed within 14 calendar weeks as when time came he was hospitalized (exception).*
Part B
1. *AB hospitalized for 1 month (exception).*
2. *GH admitted June 2008.*
3. *KL missing March and April 2008 weights (no documented reason).*
4. *OP admitted April 2008.*

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Part A - *QR initial care plan not within 2*	*To set system in place where new admissions*	
calendar weeks; RD was on holiday.	*are seen by a relief RD if regular RD on*	
	holidays (by Dec. 1/08).	*S. Evers*
Part B - *KL missing weights for March*	*To discuss at interdisciplinary team meeting*	
and April.	*Dec. 19/08.*	
	To discuss documentation of weights with	
	Unit 2 staff on Dec. 21/08.	
	Write instructions on monthly weight record	
	including direction on documenting reasons	
	why weights are missed (by Dec. 21/08).	*S. Evers*
	Repeat audit in Jan. 2009 on a new sample	
	of charts.	*S. Evers*
	DATE OF NEXT AUDIT: *January 17, 2009*	*S. Evers*

Nutrition Care Plan Implementation - Background Information

An important part of providing quality nutrition care is ensuring the plan is implemented and monitored on a regular basis. A cooperative network between each person in care and those who work in the facility promotes the ongoing process of nutrition care planning.

There are several tools that may be used to ensure nutrition care plan implementation. These are discussed in more detail in **Chapter 4 - Menu Planning** and **Chapter 5 - Food Preparation and Service** and include resources such as menus for therapeutic diets and texture modifications, standardized recipes, production schedules, written diet standards and a roster/binder that outlines the nutrition care plan at point of service.

There are also several methods with which to track nutrition care plan implementation. These include meal rounds and observations, monitoring daily records of intake, chart notes, discussions at meetings held at the change of nursing shifts, discussions with care and foodservice staff, checking with the person in care, discussion at interdisciplinary meetings, and using computerized systems that can track nutrition care.

Conducting audits of the implementation of the nutrition care plan at meal and snack times is one means of evaluating the effectiveness and efficiency of the entire care plan process (e.g. assessment, intervention, outcomes). The audit process collects relevant data to determine if the nutrition care plan is correctly implemented and if it is accepted. Adjustments can be made if needed.

The last two audits of this chapter provide examples of forms that may be used to review the implementation of the nutrition care plan at meal and snack times. Blank forms are available in **Chapter 8**.

Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit

This is a required audit. A blank audit form is located in **Chapter 8**.

Purpose of the Audit:	To audit: **1)** whether meals offered to those in care correspond with the nutrition care plan (Part A), and **2)** whether the plan is accepted by the person in care (Part B).
Acceptable Audit Score:	100%
Audit Frequency:	• If the minimum acceptable audit score is met, complete the Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit once per year. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

1. Complete the audit.

- Randomly select 10% (maximum of 20, minimum of 4) of those in care who are at high nutrition risk. Perform each audit while a selected person in care is being served a meal.

Part A: NCP - Meal Implementation

- In **Column 1** (PIC's Initials/Location) record the person's initials and location (e.g. dining room, room number).

- In **Column 2** (Meal NCP Orders) record the NCP orders that apply to meal times (e.g. portion sizes, texture modification, therapeutic diet, dietary restrictions, special supplements, eating aids and assistance provided, behaviour support such as verbal reinforcement and positioning). <u>This is the standard to which all other documentation about the NCP should correspond.</u>

- In **Column 3** (Meal NCP in the Kitchen is the same as **Column 2**) determine whether the NCP order in the kitchen (e.g. meal list, diet kardex, etc.) corresponds to the standard NCP order in **Column 2**.

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the NCP order in the kitchen corresponds to the standard in **Column 2**, put a tick (✓) under Y (Yes).
  - If the NCP order in the kitchen does not correspond to the standard in **Column 2**, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the NCP order in the kitchen and the standard, put a tick (✓) under E (Exception). Document the reason (e.g. change made that day to meal plan) for the exception in the comments area of the audit.

- In **Column 4** (NCP in the Dining Room is the same as **Column 2**) determine whether the NCP order in the dining area corresponds to the standard NCP order in **Column 2**.

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the NCP order in the dining room corresponds to the standard in **Column 2**, put a tick (✓) under Y (Yes).
  - If the NCP order in the dining room does not correspond to the standard in **Column 2**, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the NCP order in the dining room and the standard, put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit. Note that if you do not have the NCP orders available in the dining room then you would indicate E (Exception).

- In **Column 5** (Meal NCP in Other Locations) indicate other location(s) where the NCP is written and determine if it corresponds to the standard NCP order in **Column 2**.

Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the NCP order written in the other location corresponds to the standard in **Column 2**, put a tick (✓) under Y (Yes).
  - If the NCP order written in the other location does not correspond to the standard in **Column 2**, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the NCP order in the other location and the NCP standard order, put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit on the following page. Note that if you do not have the NCP orders available in another location then you would indicate E (Exception).

- In **Column 6** (Meal NCP Provided to PIC is the Same as **Column 2**) determine whether all parts of the NCP provided to the person in care corresponds to the standard NCP order in **Column 2**.

  Put one tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the meal provided corresponds with the NCP order, put a tick (✓) under Y (Yes).
  - If the meal provided does not correspond with the NCP order, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the standard NCP order and the meal that is provided (e.g. person is sick and is served an alternate diet), put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit.

Part B: NCP - Meal Consumption

- In **Column 7** (At Least 75% of the Meal is Consumed and NCP Directions are Accepted by PIC) determine whether the person in care actually consumes at least 75% of the food provided (as directed by the NCP) and, where applicable, accepts all other directions outlined in the NCP (e.g. assistive equipment).

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines.

  - If at least 75% of the food is consumed and the directives of the NCP are accepted, put a tick (✓) under Y (Yes).
  - If less than 75% of the food is consumed or the NCP are not accepted, put a tick (✓) under N (No). Try to determine why the answer is no (e.g. discuss with care staff, talk to person in care).
  - If the reason the person in care did not consume the meal provided is valid (e.g. was out at mealtime) then put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit. If the person in care refuses to consume their meal or accept the directives of the NCP, this information should be communicated to the Registered Dietitian.

2. Score the audit.

Part A: NCP Meal Implementation

Under **Columns 3**, **4**, **5**, and **6** total the number of tick marks for Y and the number of tick marks for E. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL OF COLUMNS 3 TO 6 (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED x 4}} \times 100$$

Part B: NCP Meal Consumption

Under **Column 7** total the number of tick marks under Y and total the number of tick marks under E. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{COLUMN 7 (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED}} \times 100$$

3. Determine whether the minimum audit score is met or not met for Part A and Part B.

An acceptable score for Part A is 100%. An acceptable score for Part B is 100%. If an unacceptable score is obtained for Part A (implementation), then the next audit should include only reviewing Part A. If an unacceptable score is obtained for Part B, it is ideal to do both Parts A and B when conducting the next audit.

4. Document any problems identified and reasons, corrective actions that will be taken, and date for re-audit.

Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit

SAMPLE

NAME OF AUDITOR: *Victoria Atwater*	LOCATION/UNIT: *Main Dining Area*	DATE OF AUDIT: *May 3, 2008*	MEAL (CIRCLE ONE): Breakfast Lunch (Supper)

The standard

NOTE: If you do not document the NCP in these locations, then mark as "E"

Y = YES, E = EXCEPTION, N = NO, NCP = NUTRITION CARE PLAN, PIC = PERSON IN CARE

		PART A												PART B		
1. PIC'S INITIALS/ LOCATION	2. MEAL NCP ORDERS (DIET, SUPPLEMENTS, EATING AIDS AND ASSISTANCE, BEHAVIOUR SUPPORT, POSITIONING, ETC.)	3. MEAL NCP IN THE KITCHEN IS THE SAME AS COLUMN 2			4. MEAL NCP IN THE DINING ROOM IS THE SAME AS COLUMN 2			5. MEAL NCP IN OTHER LOCATION(S) (Specify: ________) IS THE SAME AS COLUMN 2			6. MEAL NCP PROVIDED TO PIC IS THE SAME AS COLUMN 2			7. AT LEAST 75% OF THE MEAL IS CONSUMED AND NCP DIRECTIONS ARE ACCEPTED BY PIC		
		Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N
1. *AA/Main*	*General, weighted utensils*	✓	–	–	–	–	✓	–	✓	–	–	–	✓	✓	–	–
2. *BB/Main*	*General, minced, verbal prompts to slow eating*	✓	–	–	✓	–	–	–	✓	–	✓	–	–	✓	–	–
3. *CC/Main*	*General, pureed, soup in a mug, assisted with feeding*	✓	–	–	✓	–	–	–	✓	–	–	–	✓	✓	–	–
4. *DD/Main*	*Vegetarian, provide straw for beverages*	✓	–	–	✓	–	–	–	✓	–	✓	–	–	✓	–	–
5. *EE/Main*	*Minced, thickened fluids (nectar)*	✓	–	–	✓	–	–	–	✓	–	✓	–	–	✓	–	–
6. *FF/Main*	*General, cut up, nosy cup, non-slip mat under plate*	✓	–	–	–	–	✓	–	✓	–	–	–	✓	–	–	✓
7. *GG/Main*	*General, pureed, thickened fluids (pudding consistency)*	✓	–	–	✓	–	–	–	✓	–	✓	–	–	✓	–	–
8. *HH/Main*	*General, minced, large portions, extra gravy*	✓	–	–	✓	–	–	–	✓	–	✓	–	–	✓	–	–
9. *II/Main*	*Low potassium diet, open lids to packages*	✓	–	–	✓	–	–	–	✓	–	✓	–	–	✓	–	–
10. *JJ/Main*	*General, allergic to eggs, give soy milk*	✓	–	–	✓	–	–	–	✓	–	✓	–	–	✓	–	–
	TOTAL (Y, E)	*10*	*0*		*8*	*0*		*0*	*10*		*7*	*0*		*9*	*0*	

PART A: NCP - Meal Implementation (Total Audit Score)

$$= \frac{\text{COLUMN 3 (Y+E)} + \text{COLUMN 4 (Y+E)} + \text{COLUMN 5 (Y+E)} + \text{COLUMN 6 (Y+E)}}{\text{NUMBER OF PEOPLE AUDITED x 4}} \times 100$$

$$= \frac{(10 + 0) + (8 + 0) + (0 + 10) + (7 + 0)}{10 \times 4} \times 100 = \frac{35}{40} \times 100 = 88\ \%$$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

PART B: NCP - Meal Consumption (Total Audit Score)

$$= \frac{\text{COLUMN 7 (Y+E)}}{\text{NUMBER OF PEOPLE AUDITED}} \times 100$$

$$= \frac{(9 + 0)}{10} \times 100 = 90\ \%$$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

Form revised 2008

SAMPLE

COMMENTS
Part A: *AA and FF received all of NCP standard except the eating aids. Not written on meal sheet in dining room that*
dietary aids (DAs) used for meal set up. CC didn't receive soup in mug but asked staff to do that after meal received.
Part B: *Despite AA not receiving weighted utensils, managed to consume their meal with reg. utensils - took longer*
and had difficulty. FF unable to consume fluids from regular cup. Also only ate ½ of his meal.

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Part A: *Part A - AA and FF did not receive*	*Checked with staff responsible for updating*	
eating aids. Not written on sheet in dining	*DR meal sheet - they didn't think eating aids*	
area that DAs used for meal set up.	*needed to be on the sheet - instead had*	
	made an informal list. Reviewed procedure	
	for recording mealtime NCP and will follow-	
	up at next dietary staff meeting (June 1/08).	*VA*
For person in care FF nosy cup not	*Discussed with cook who does orders. Put all*	
given - out of stock	*assistive aids on inventory list with par*	
	(minimum) levels indicated. To review order	
	procedures at next dietary staff meeting	
	(June 1/08).	*VA*
CC did not receive soup in mug	*Spoke with kitchen staff who didn't think they*	
	needed to serve the soup that way as care	
	staff are assisting PIC and can put soup in	
	mug as needed. Reviewed how NCP at meal	
	service is to be implemented by kitchen and	
	care staff (e.g. how duties are separated).	
	Will review at next dietary staff meeting	
	(June 1/08).	*VA*
	DATE OF NEXT AUDIT: *January 17, 2009*	*V. Atwater*

Snacks as Nourishment - Background Information

Snacks (foods or beverages consumed between meals) are important contributors to energy and nutrient intakes. At least two healthy snacks (i.e. each providing at least one food group) should be provided each day, once between meals and again in the evening.

Nutrition supplements are products that provide calories and nutrients to promote optimal health and functioning when a person's nutrition needs cannot be met through their regular diet. These may be provided at snack or meal times. Nutrition supplements are usually prescribed by a primary health care provider or required by a Registered Dietitian.

When a specific nutrition supplement is ordered by the primary health care provider or is needed to fulfill the requirements of the nutrition care plan, the facility must provide the specific product at no additional charge to the person in care for as long as the person in care requires it. If the facility would like to provide a different nutrition supplement, they should consult with the primary health care provider and request a change in the order for the nutrition supplement. It is also important to identify if there is an over-reliance on nutrition supplements that may affect the appetite for regular meals or snacks.

Policies and procedures should be implemented to address persons in care who need assistance or supervision with eating and drinking between meals, as well as those who are sleeping or not available at the time that snacks are distributed. There should also be a policy/procedure in place to track nourishments and snacks, including intake and usage.

Further resources are located in **Appendix 1**.

Nutrition Care Plan - Snack Implementation and Consumption Audit

This is a required audit. A blank audit form is located in **Chapter 8**.

Purpose of the Audit:	To audit: **1)** whether snacks offered to those in care correspond with the nutrition care plan (Part A), and **2)** whether the plan is accepted by the person in care (Part B).
Acceptable Audit Score:	100%
Audit Frequency:	• If the minimum acceptable audit score is met, complete the Nutrition Care Plan (NCP) Snack Implementation and Consumption Audit twice per year; once for am or pm snack and once for evening (hs) snack. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

1. Complete the audit.

- Randomly select 10% (maximum of 20, minimum of 4) of those in care who are not receiving the facility's regular snack. The audit should include only those who are receiving a therapeutic snack and/or have specific directions for snack times written in their nutrition care plan (e.g. needs assistance with snacks). Perform each audit while a selected person in care is being served a snack.

Part A: Snack Implementation

- In **Column 1** (Initials/Location) record the person's initials and location (e.g. dining room, room number).

- In **Column 2** (NCP Orders For Snacks) record the NCP orders that apply to snack times (e.g. portion sizes, texture modification, dietary restrictions, special supplements, eating aids and assistance provided, behaviour support such as verbal reinforcement, positioning and any other special instructions). This is the standard to which all other documentation about the NCP should correspond.

- In **Column 3** (NCP posted in kitchen) determine whether the NCP order in the kitchen (e.g. snack list, diet kardex, etc.) corresponds to the standard NCP order in **Column 2**.

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the NCP order in the kitchen corresponds to the standard in **Column 2**, put a tick (✓) under Y (Yes).
  - If the NCP order in the kitchen does not correspond to the standard in **Column 2**, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the NCP order in the kitchen and the standard, put a tick (✓) under E (Exception). Document the reason (e.g. new order that day) for the exception in the comments area of the audit.

- In **Column 4** (NCP accessible in dining area) determine whether the NCP order in the dining area corresponds to the standard NCP order in **Column 2**.

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the NCP order in the dining room corresponds to the standard in **Column 2**, put a tick (✓) under Y (Yes).
  - If the NCP order in the dining room does not correspond to the standard in **Column 2**, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the NCP order in the dining room and the standard, put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit. Note that if you do not have the NCP orders available in the dining room then you would indicate E (Exception).

- In **Column 5** (Snack NCP in Other Locations) indicate other location(s) where the NCP is written.

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the NCP order written in the other location corresponds to the standard in **Column 2**, put a tick (✓) under Y (Yes).
  - If the NCP order written in the other location does not correspond to the standard in **Column 2**, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the NCP order in the other location and the NCP standard order, put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit. Note that if you do not have the NCP orders available in another location then you would indicate E (Exception).

- In **Column 6** (Snack Items Provided) determine whether the NCP provided to the person in care corresponds to the standard NCP order.

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the snack provided corresponds with the NCP order, put a tick (✓) under Y (Yes).
  - If the snack provided does not correspond with the NCP order, put a tick (✓) under N (No).
  - If there is a valid reason for an inconsistency between the standard NCP order and the snack that is provided (e.g. person refuses to follow the NCP, is sick and is served an alternate item), put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit.

Part B: Snack Consumption

- In **Column 7** (NCP Nourishment Consumed) determine whether the person in care actually consumes at least 75% of the food provided (in accordance with NCP) and accepts the directions of the NCP (e.g. accepts assistive devices).

  Put a tick (✓) under Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If at least 75% of the food is consumed and the NCP directives are accepted (e.g., uses the assistive aids), put a tick (✓) under Y (Yes).
  - If less than 75% of the food is consumed or refuses the NCP directives, put a tick (✓) under N (No). Try to determine why this answer is indicated as no (e.g. discuss with care staff, talk to person in care).
  - If the reason the person in care did not consume the snack provided is valid (e.g. was out at snack time, was sick and was served an alternate diet) then put a tick (✓) under E (Exception). Document the reason for the exception in the comments area of the audit. If the person in care refuses to consume their snack or accept the directives of the NCP, this information should be communicated to the Registered Dietitian.

2. Score the audit.

Part A: NCP Snack Implementation

Under **Columns 3**, **4**, **5**, and **6** total the number of tick marks under Y and the number of tick marks under E. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL OF COLUMNS 3 TO 6 (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED x 4}} \times 100$$

Part B: NCP Snack Consumption

Under **Column 7** total the number of tick marks under Y and total the number of tick marks under E. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{COLUMN 7 (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED}} \times 100$$

3. Determine whether the minimum audit score is met or not met for Part A and Part B.

An acceptable score for Part A is 100%. An acceptable score for Part B is 100%. If an unacceptable score is obtained for Part A (implementation), then the next audit should include only reviewing Part A. If an unacceptable score is obtained for Part B, it is ideal to do both Parts A and B when conducting the next audit.

4. Document any problems identified and possible reasons, corrective actions that will be taken, and date for re-audit.

Nutrition Care Plan (NCP) - Snack Implementation and Consumption Audit

SAMPLE

NAME OF AUDITOR: *M. Smith*	LOCATION/UNIT: *Unit 4*	DATE OF AUDIT: *Dec 1, 2008*	MEAL (CIRCLE ONE): AM PM (HS)

The standard

Y = YES, E = EXCEPTION, N = NO, NCP = NUTRITION CARE PLAN, PIC = PERSON IN CARE

NOTE: If you do not document the snack NCP in these locations, mark as "E"

	PART A														PART B		
1. PIC'S INITIALS/ LOCATION	2. NCP ORDERS FOR SNACK (DIET, SUPPLEMENTS, EATING AIDS AND ASSISTANCE, BEHAVIOUR SUPPORT, POSITIONING, ETC.)	3. SNACK NCP IN THE KITCHEN IS THE SAME AS COLUMN 2			4. SNACK NCP IN THE DINING ROOM IS THE SAME AS COLUMN 2			5. SNACK NCP IN OTHER LOCATION(S) (Specify: *RN station*) IS THE SAME AS COLUMN 2			6. SNACK NCP PROVIDED TO PIC IS THE SAME AS COLUMN 2			7. AT LEAST 75% OF THE SNACK IS CONSUMED AND NCP DIRECTIONS ARE ACCEPTED BY PIC			
		Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	
1. *AA/Unit 4*	*Milkshake, provide straw*	✓	–	–	–	✓	–	✓	–	–	✓	–	–	✓	–	–	
2. *BB/Unit 4*	*1 can Ensure thickened (nectar)*	✓	–	–	–	✓	–	✓	–	–	✓	–	–	✓	–	–	
3. *CC/Unit 4*	*Boost Pudding, open containers*	✓	–	–	–	✓	–	–	–	✓	–	–	✓	–	✓	–	
4. *DD/Unit 4*	*4 oz. 2% milk, nosey cup*	–	✓	–	–	✓	–	–	✓	–	–	✓	–	–	✓	–	
5. *EE/Unit 4*	*Pureed fruit with polycose and needs to be fed*	✓	–	–	–	✓	–	✓	–	–	✓	–	–	–	✓	–	
6. *FF/Unit 4*	*½ can Resource*	✓	–	–	–	✓	–	✓	–	–	✓	–	–	–	–	✓	
7. *GG/Unit 4*	*½ can Ensure*	✓	–	–	–	✓	–	✓	–	–	✓	–	–	✓	–	–	
8. *HH/Unit 4*	*2 digestive cookies*	✓	–	–	–	✓	–	✓	–	–	–	✓	–	✓	–	–	
9. *II/Unit 4*	*½ meat sandwich*	✓	–	–	–	✓	–	✓	–	–	✓	–	–	–	–	✓	
10. *JJ/Unit 4*	*Pudding*	✓	–	–	–	✓	–	✓	–	–	✓	–	–	✓	–	–	
	TOTAL (Y, E)	*9*	*1*		*0*	*10*		*8*	*1*		*7*	*2*		*5*	*3*		

PART A: NCP - Snack Implementation (Total Audit Score)

$$= \frac{\text{COLUMN 3 (Y+E)} + \text{COLUMN 4 (Y+E)} + \text{COLUMN 5 (Y+E)} + \text{COLUMN 6 (Y+E)}}{\text{NUMBER OF PEOPLE AUDITED} \times 4} \times 100$$

$$= \frac{(9 + 1) + (0 + 10) + (8 + 1) + (7 + 2)}{10 \times 4} = \frac{38}{40} \times 100 = 95\%$$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

PART B: NCP - Snack Consumption (Total Audit Score)

$$= \frac{\text{COLUMN 7 (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED}} \times 100 = \frac{(5 + 3)}{10} = 80\%$$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

Form revised 2008

SAMPLE

COMMENTS
Part A: *CC - Checked kitchen communication book and snack written by RD. Information to be transferred to snack list*
by kitchen staff. Was given a regular snack
DD - snack order changed this afternoon. "Exception" for snack provided and consumed - has flu
HH - received 3 arrowroots (acceptable substitute) - marked as "exception" for snack provided
Part B: *EE - "Exception" for snack consumed - person in care out with family*
FF - not consumed; person in care states it is too sweet
HH - did not consume snack - refused. Refer issue to RD for follow-up

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
One snack order not implemented and	*Reviewed procedure for ordering*	
consumed - problem identified with snack	*nourishments with kitchen staff verbally, in*	
order (i.e. not on list).	*communication book and at staff meeting. Will*	
	conduct another audit in 2 weeks.	*M. Smith*
One snack not consumed as person in care	*Discussed with RD who talked with persons in*	
indicated it was too sweet.	*care and different supplements to be tried. To*	
One snack not consumed as person refused.	*develop communication system to notify RD*	
One snack not consumed as person was out	*when snacks are refused. Review system for*	
with family.	*communicating when people are out to avoid*	
	food waste. Will conduct another audit in 2	
	weeks - to include these people in this	
	sample.	*M. Callahan*
	DATE OF NEXT AUDIT: *Dec. 15, 2008*	*M. Smith*

Chapter Three

Nutrition Care - Special Considerations

Chapter 3: Nutrition Care - Special Considerations

This chapter provides background information on special considerations in nutrition care planning, including hydration, enteral feedings, and nutrient intakes from food and non-food sources. The following audit tools relevant to special considerations in nutrition care are discussed:

- Hydration Program Audit (Required)
- Enteral Feeding Implementation Audit (Required)
- Audit of Excess Nutrient Intakes (Optional)

Special considerations in nutrition care include:

- Hydration
- Enteral Feeding
- Intake of nutrients from food and non-food sources.

Each audit is reviewed in terms of its purpose, recommended frequency, who should complete it and procedures. A completed example of each audit is given. Blank audit forms are provided in **Chapter 8**. Further resources are located in **Appendix 1**.

Hydration - Background Information

Hydration needs vary depending on age, body size, health status, activity, and environmental conditions (e.g. temperatures of 24 degrees Celsius or warmer). The facility menu must provide a minimum of 1500 ml of fluid per day. Fluids include water, milk, juice, soft drinks, sweetened fruit drinks, soup, supplements, gelatin (e.g. Jello®) thickened fluids, tea and coffee at meals or snacks (2). As part of daily care, the hydration status of the person in care should be monitored and any of the following signs, symptoms or risk factors reported to the nurse and Registered Dietitian (see **Table 7**):

Table 7: Hydration Status: Signs, Symptoms and Risk Factors

Indicators	Description
Physical	Increased thirst, decreased skin elasticity and turgor, dry lips/mouth, coated wrinkled tongue, dry and sunken eyes, fever, muscle spasms
Behaviour/ Neurologic	Fear of incontinence, unusual behaviour, weakness, dizziness, fainting, falls, confusion or increased level of confusion
Health Conditions/ Status	Immobile, weight loss, dysphagia, diabetes, heart, kidney or liver failure, on low calorie tube feedings, increased heart rate, loss of appetite, postural hypotension
Medications	Use of diuretics, laxatives, or psychotropic medications (e.g. antipsychotics and anxiolytics) that cause dryness of the mouth, constipation or urinary retention
Digestion/Bowel/ Bladder	Constipation, fecal impaction, high output drainage, decreased urine output, dark urine, strong urine order, urinary tract infections, painful urination, nausea, vomiting
Labs	Abnormal lab values (e.g. sodium, potassium, hemoglobin, albumin, blood urea nitrogen, creatinine)

A facility must have a hydration policy, standard and/or program in place that is communicated, discussed and reviewed by those involved. To facilitate adequate hydration:

- Assess the hydration status of all those in care at admission and on a regular basis (e.g. at reassessment/review).

- Develop interdisciplinary care plans for hydration management for those identified as at risk that should incorporate food preferences and eating and swallowing abilities.

- Identify those in care requiring fluid restrictions and flag the charts of those at risk for dehydration.

- Provide extra fluids at activities, programs, social functions, medication administration, snack time, and during the warm summer months.

- Involve family members and others in the management of hydration for those in care.

- Ensure that facility staff and others involved in care receive regular education or in-service training on the prevention, signs and symptoms of dehydration.

- Facilitate fluid intake by:

  - Providing reminders to those in care to drink beverages (e.g. post signs, provide verbal prompts).
  - Placing snacks/fluids and water jugs with glasses in each room.
  - Locating water dispensers or jugs of ice water and cups in common areas (e.g. activity room, TV room).
  - Providing water bottles and wheelchair cup holders.
  - Circulating with fluids prior to meal service (e.g. as persons in care arrive in dining room).

- Vary how fluids are presented (e.g. hot beverages, frozen popsicles, lemon or other citrus-flavoured waters).

- Define standard serving sizes of fluids offered for purposes of In/Out Records (e.g. juice, water, milk glass = 250 ml). Monitor and document input-output daily for those at risk.

- Assist those who require help with drinking. Provide texture-modified fluids of the right consistency where appropriate.

Further resources are located in **Appendix 1**.

Hydration Program Audit

Part A of this audit is required; Part B is optional. A blank audit form is located in **Chapter 8**.

Purpose of the Audit:	There are two parts to this audit. Part A is a required audit and assesses whether the facility has appropriate procedures in place to ensure adequate hydration of persons in care. Part B is optional. It audits actual fluid intakes by individual persons in care.
Acceptable Audit Score:	100%
Audit Frequency:	• If the minimum acceptable audit score is met, complete the Hydration Program Audit (Part A) once per year. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

1. Complete Part A of the audit.

- Obtain a copy of the cycle menu, information on portion sizes from the food service department, care plans and policies and procedures to help you complete the audit. Review each question on the audit and put one tick (✓) under Y (Yes), N (No) or E (Exception) that reflects the current practice in the facility.

2. Score the audit.

Total the number of tick marks under Y and the number of tick marks under E. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL } (Y + E)}{13} \times 100$$

3. Determine whether the minimum audit score of Part A is met or not met.

An acceptable score for Part A is 100%.

4. Document any problems identified and possible reasons, corrective actions that will be taken, and date for re-audit.

Part B (Optional):

1. Complete Part B of the audit.

Review the nutrition care plans and select up to three people who are at risk of dehydration. Note review of each person and their fluid intake records do not need to be taken at the same time.

- In **Column 1** (Person in care's initials) record the person in care's initials.
- In **Column 2** (Estimated fluid needs) indicate the estimated fluid needs. **Table 8** shows some methods of estimating fluid needs (4):

Table 8: Some Methods of Estimating Fluid Needs (assuming no renal impairment)

CRITERION	FLUID NEEDS	
Weight	100 ml/kg for 1st 10 kg, 50 ml/kg for next 10 kg and 20 ml/kg for each kg above 20 kg or 1500 ml for the first 20 kg and add 20 ml/kg over 20 kg	
Age & Weight	16-30 years, active: 40 ml/kg/d 20-55 years: 35 ml/kg/d	55-75 years: 30 ml/kg/d > 75 years: 25 ml/kg/d
Energy	1 ml per kcal (~3.5 ml/kg usual body weight)	

Source: American Dietetics Association. Nutrition Care Manual. Chicago: American Dietetics Association, 2008 (4).

- In **Column 3** (Amount provided according to recorded fluid intake) indicate the total amount of fluid consumed by the person in care. To collect this information, you may refer to in/out records or conduct a 24-hour fluid intake record (see sample provided after the Hydration Audit). Sources of hydration include all beverages and items such as ice cream pudding, yogurt, mousse, etc. If you want to consider the fluid content of foods, **Table 9** lists the percent water of some common foods.

Table 9: Water Content of some Common Foods, %

Milk/Milk Alternatives	% Water	Meat/Meat Alternatives	% Water
Cottage cheese	79	Roast beef or ham, cooked	59-60
Sour cream	80	Cod, broiled	65
Ice cream or pudding	67-69	Pork chop	53
Yogurt	74-85	Chicken, roasted	71
Fruits/Vegetables		Lentils, drained	69
Beets or carrots, cooked	91	Peanut butter	2
Peas or squash, cooked	82	**Grains**	
Banana or applesauce	76	Cookies/crackers	2-4
Orange	86	Bread, white	35
Watermelon	93	Pasta	72
Other Foods			
Jello® (84%), Cream soup (83%), Brownie (10%), Angel food cake (34%)			

Source: Bowes and Church's Food Values of Portions Commonly Used, 2004 (15)

- In **Column 4** (Fluid requirements met) indicate Y (Yes), N (No) or E (Exception) according to the following guidelines:

  - If the amount consumed (**Column 3**) meets or exceeds the estimated needs of the person in care (**Column 2**) put a tick (✓) under Y (Yes).
  - If the amount consumed (**Column 3**) is less than the estimated needs of the person in care (**Column 2**) put a tick (✓) under N (No). In the last column you may make comments.
  - If the amount consumed is less than the estimated needs of the person in care and there is some type of exception (e.g. person was sick) then put a tick (✓) under E (exception). In the last column you may make comments.

2. Score the audit.

Under **Column 4** of Part B, total the number of tick marks under Y and the number of tick marks under E. Use the formula on the audit form to determine the total audit score.

3. Determine whether the minimum audit score of Part B is met or not met. An acceptable score for Part B is 100%.

4. Document any problems identified and possible reasons, corrective actions taken, and date for re-audit.

When you re-audit, you may find it helpful to select the person(s) in care who didn't have their fluid needs met as identified on the original audit.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED}} \times 100$$

SAMPLE

Hydration Program Audit

PART A: (Required)

#	Item	Y	E	N
1	The facility provides those in care with a minimum of 1500 ml of fluid per day (e.g. based on menu, fluids provided with medications and any other fluid provision sources).	✓	-	-
2	The Registered Dietitian assesses the hydration status of all persons in care as part of the admission assessment and at all reassessments/reviews (e.g. in/out records reviewed, nutrition assessment form describes fluid intake).	✓	-	-
3	If a person in care is identified to be at risk for dehydration, an Interdisciplinary Care Plan is developed (e.g. specifies actions to be taken by the various departments to facilitate increased fluid intake).	-	-	✓
4	Those in care requiring fluid restrictions are clearly identified (e.g. in kitchen, dining room).	✓	-	-
5	Provisions are put in place to encourage fluid intake (e.g. staff provide reminders and prompts, signs are posted reminding those in care to drink, staff circulate at mealtime with a water jug to refill glasses).	✓	-	-
6	Fluids are offered to those who attend activities and social functions.	✓	-	-
7	Fluids are offered to all people in care at snack times (e.g. those that come to common area and those that may stay in their rooms).	-	-	✓
8	Beverages available at all meals and snacks include water, juice, and milk in addition to coffee and tea.	-	-	✓
9	Fluids are included as part of the facility's bowel program or protocol.	✓	-	-
10	Fluids are placed within easy reach at meals.	✓	-	-
11	During warm summer months, extra fluids are provided and encouraged.	✓	-	-
12	Fluids are readily available in lounge areas, common areas, bedside, etc.	✓	-	-
13	Facility staff and all others involved in care receive ongoing training on hydration.	✓	-	-
	TOTAL (Y, E)	***10***	***0***	

TOTAL AUDIT SCORE = $\frac{\text{PART A TOTAL (Y + E)}}{13} \times 100 = \frac{10}{13} \times 100 = 77\%$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

PART B: (Optional)

1. Person in care's initials	2. Estimated fluid needs	3. Amount provided according to recorded fluid intake	4. Fluid needs met (Y = YES, N = NO, E = EXCEPTION)			Comments
			Y	E	N	
1. CW	*2000 ml*	*1220 ml*	-	-	✓	*See fluid record*
2. HR	*2000 ml*	*2200 ml*	✓	-	-	
3. TN	*2200 ml*	*2200 ml*	✓	-	-	
		TOTAL (Y, E)	***2***	***0***		

TOTAL AUDIT SCORE = $\frac{\text{PART B TOTAL (Y + E)}}{\text{NUMBER AUDITED}} \times 100 = \frac{2}{3} \times 100 = 67\%$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

Adapted from: North Shore LTC Facility RD's and VCH-North Shore, Hydration Program Audit, 2008

SAMPLE

Fluid Intake Record

PERSON IN CARE'S NAME: *CW*	DATE: *May 31/08*

1 cc = 1 ml

NOTE: These are the facility standards that have been written in

GUIDELINES:

Juice glass - *110 cc*
Foam cup - *150 cc*
Pop can - *355 cc*
Milk carton - *110 cc*
Thickened milk - *85 cc*

Thickened juice - *110 cc*
Thickened supplement drink e.g. Ensure - *85 cc*
Jello - *100 cc*
Ice cream - *80 cc*

Pudding or Mousse - *85 cc*
Yogurt - *95 cc*
Supplement drink e.g. Ensure glass - *200 cc*

Hot cereal - *100 cc*
Soup - *110 cc*
Coffee/tea - *180 cc*

	ITEM	AMOUNT OFFERED	AMOUNT CONSUMED	COMMENTS
Breakfast	*Juice*	*110 cc*	*110 cc*	
	Milk	*110 cc*	*110 cc*	
	Coffee	*180 cc*	*100 cc*	
	Hot cereal	*110 cc*	*110 cc*	
		-	-	
AM Snack		-	-	
		-	-	
		-	-	
Lunch	*Juice*	*110 cc*	*110 cc*	
	Water	*110 cc*	*110 cc*	
	Soup	*110 cc*	*110 cc*	
		-	-	
		-	-	
PM Snack		-	-	
		-	-	
		-	-	
Dinner	*Water*	*110 cc*	*110 cc*	
	Tea	*180 cc*	*180 cc*	
		-	-	
		-	-	
		-	-	
Evening Snack	*Milk*	*110 cc*	*110 cc*	
		-	-	
Fluids Provided with Medications	*Water with morning*	*110 cc*	*60 cc*	
	medications	-	-	
		-	-	
During the Night		-	-	
	TOTAL	***1350 cc***	***1220 cc***	

Form developed 2008

SAMPLE

COMMENTS
Part A: *Q. 3 - Those at risk only written in nutrition notes and on meal sheets; not in an interdisciplinary plan.*
Q. 7 - Those in care who stay in their room not always offered beverages - no regular rounds done.
Q. 8 - Only water and juice offered at all meals - milk only at breakfast.
Part B: *CW - not receiving adequate fluids. Fluid intake records indicate he doesn't drink any fluids between meals.*

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Part A: *For those at risk of dehydration no*	*To review results at interdisciplinary meeting*	
interdisciplinary plan written. Those in care who	*and discuss developing comprehensive plans*	
stay in room not regularly offered beverages.	*for those at risk of dehydration (June 16/08).*	
Also, milk not offered at lunch and supper.	*Review between meal procedures with*	
	nursing director - try to incorporate regular	
	beverage rounds for those in their room by	
	care staff.	
	Discuss with kitchen staff about	
	offering milk as beverage at all meals	
	(by June 16/08).	*RT & DW*
Part B: *CW - not receiving adequate fluids.*	*Dietitian to review CW's NCP. As above*	
Fluid intake records indicate he doesn't drink	*(Part A) to discuss with nursing having*	
any fluids between meals. CW tends to stay in	*regular rounds of offering beverages*	
room and watch TV.	*(by June 16/08).*	*DW & TN*
	DATE OF NEXT AUDIT: *July 11, 2008*	*R. Turner*

Enteral Feedings - Background Information

The facility must provide enteral feeding formula as specified in the nutrition care plan or as ordered by the primary health care provider. Enteral feeding formulas must be supplied by the facility for as long as the person in care requires them. The care plan for the person receiving enteral feeding should include:

- The name of the tube-feeding product.
- Feeding volume and method of administration (including rate of feeding, temperature of feeding).
- Precautions to prevent bacterial contamination, aspiration and other complications.
- Flushing instructions and medication administration.
- Criteria for monitoring.
- Directives regarding oral feeding (e.g. NPO, ice chips).

Further to these directives, the following best practices for enteral feeding (2;16) should be used:

- Use informed decision-making protocols if enteral feedings are being considered.
- Initiate enteral feeding based on assessment of the person in care's condition by the Registered Dietitian, judgment of the interdisciplinary/enteral feeding team members, advance directives and the wishes of the person in care and their family.
- Provide nutrition and hydration care for those receiving enteral feeding that is managed by the interdisciplinary care team and overseen by the Registered Dietitian.
- Monitor tolerance, weights and pertinent lab values to assist in providing the correct formula and rate of flow. Each person in care receiving enteral feeding should be monitored on every shift; their progress and condition, symptoms of intolerance to the formula or administration method and signs/symptoms of dehydration should be checked by interdisciplinary team members.
- Ensure that, for those in care who are away from the facility, every effort is made to provide the same formula and schedule. If the formula is not available, consult with the Registered Dietitian so that a nutritionally comparable product is provided.
- Review nutrition care plans monthly.
- Assess periodically regarding transition back to oral feeds.
- Provide protocols, policies, procedures and tools for the effective implementation and management of the enteral feeding program, with input/support from appropriate referring source or previous providers, when applicable.

Further resources are located in **Appendix 1**.

Enteral Feeding Implementation Audit

This is a required audit. A blank audit form is available in **Chapter 8**.

Purpose of the Audit:	To audit the provision of enteral feedings to those in care.
Acceptable Audit Score:	100%
Audit Frequency:	• If the minimum acceptable audit score is met, complete the Enteral Feeding Implementation Audit once per year. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

1. Complete the audit.

- With interdisciplinary staff, discuss how the audit will be conducted to respect both the person in care's and staffs' sensitivity to being observed. Inform person in care and staff. Select up to three people in care who require enteral feeding. Note their initials on the audit form.

- Check care plan for each person in care to determine enteral feeding order (e.g. product, amount to tube feeding, method and rate of delivery, times of feeding, flushing instructions, weight records, weight goals, positioning instructions, directives regarding oral intake, etc.). Check the facility policy and procedure for enteral feeding (including flushing instructions, disposal or washing of feeding bags, instructions regarding leftover product, handling complications of tube feeding, etc).

- Observe feeding procedure and complete the audit. For each question, indicate one tick (✓) under Y (Yes), N (No) or E (Exception). If an exception is ticked, document the reason for the exception in the comments area of the audit.

2. Score the audit.

Total the number of tick marks under Y and the number of tick marks under E for each person audited. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTALS (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED x 17}} \times 100$$

3. Determine whether the minimum audit score of Part A is met or not met. An acceptable score for the Enteral Feeding Audit is 100%.

4. Document any problems identified and possible reasons, corrective actions taken, and date for re-audit.

If questions are scored “no”, identify policies, protocols that may be needed or education and training needs for staff and develop a plan to address those needs.

Enteral Feeding Implementation Audit

SAMPLE

NAME OF AUDITOR: *A. Ross*	DATE: *Nov. 20/08*

PIC = PERSON IN CARE, Y = YES, E = EXCEPTION, N = NO

	CRITERIA	PIC INITIALS			PIC INITIALS			PIC INITIALS		
		UB								
		Y	E	N	Y	E	N	Y	E	N
1	Protocols, policies, procedures and tools for implementation and management of the enteral feed are available.	✓	-	-	-	-	-	-	-	-
2	A written tube feeding schedule is in place including any specifications about oral feeding (e.g. NPO, ice chips).	✓	-	-	-	-	-	-	-	-
3	Preparation of formula done in a clean manner.	✓	-	-	-	-	-	-	-	-
4	Appropriate product used.	✓	-	-	-	-	-	-	-	-
5	Correct amount of product administered.	✓	-	-	-	-	-	-	-	-
6	Person in care is positioned appropriately during enteral feeding.	✓	-	-	-	-	-	-	-	-
7	Person in care is positioned for appropriate time (e.g. 2 hours) after enteral feed.	✓	-	-	-	-	-	-	-	-
8	Correct rate of flow of product administered.	✓	-	-	-	-	-	-	-	-
9	Correct amount of additional fluid provided.	✓	-	-	-	-	-	-	-	-
10	Procedure to flush tube done appropriately.	✓	-	-	-	-	-	-	-	-
11	Bag washed and stored according to facility procedure.	✓	-	-	-	-	-	-	-	-
12	Unused tube feeding used within appropriate time frame.	✓	-	-	-	-	-	-	-	-
13	Amount of formula and water flush administered are documented daily.	✓	-	-	-	-	-	-	-	-
14	Enteral feeding symptoms and tolerance monitored and documented (e.g. weight monitoring, pertinent lab values, signs of dehydration, site integrity, etc.).	✓	-	-	-	-	-	-	-	-
15	A written plan is in place for enteral feeding when the person in care is off site.	✓	-	-	-	-	-	-	-	-
16	Any changes to enteral feeds are signed off by a Registered Dietitian with Reserved Act A.	-	-	✓	-	-	-	-	-	-
17	There is periodic interdisciplinary assessment regarding transition back to oral feeds.	✓	-	-	-	-	-	-	-	-
	TOTALS (Y, E)	*16*	*0*		-	-		-	-	

TOTAL AUDIT SCORE = $\frac{\text{TOTALS (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED x 17}}$ x 100 = $\frac{16}{1 \times 17}$ x 100 = 94%

Form revised 2008

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

SAMPLE

COMMENTS
Question 16 - *Change to fluids (increase of 50 ml per each flush) made by RN. RD hadn't signed off on change.*

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Order change not signed off by RD.	*Spoke with RD who was unaware of order*	
	change. RD reviewed person in care's order	
	and revised. Concern to be discussed at this	
	week's staff meeting (Nov. 22) - review policy	
	and written in communication book for all staff	
	to sign on. To conduct audit in 3 weeks.	*R. Divender*
	DATE OF NEXT AUDIT: *December 11, 2008*	*A. Ross*

Nutrients from Non-Food Sources - Background Information

The use of nutritional and non-nutritional supplements is becoming increasingly popular. It is estimated that about two-thirds of British Columbians consume supplements. The most common supplements are a combination of vitamins and minerals, vitamin C, vitamin E, calcium and various natural and herbal supplements. Supplements are most commonly used by older people with higher incomes (17). For those over 50 years of age, synthetic sources of vitamin B_{12} and vitamin D are recommended (18;19).

The Upper Tolerable Limits (ULs) in the *Dietary Reference Intakes* (DRI) provide standard reference intake values that consider the potential toxicity of selected micronutrients. The UL is defined as "the highest level of daily nutrient intake that is likely to pose no risk of adverse health effects for almost all apparently healthy individuals in the specified life-stage group. As intake increases above the UL, the potential risk of adverse effects may increase" (20). The UL concept addresses increasing concerns about the potential for negative effects of over-consuming some nutrients, particularly with the widespread use of dietary supplements and fortified foods.

Vitamins and minerals can be harmful if taken in excessive doses. For example, overdoses of vitamin A can damage the liver, too much vitamin D can damage the kidneys and cause calcium to be deposited in the soft tissues of the body and high doses of vitamin B_6 can cause neurological damage. Overdoses of selenium can cause brittle nails, hair loss, and gastrointestinal and neurological problems.

Some dietary supplements are safe for some people but not for others. For example, taking too much magnesium may cause only a mild case of diarrhea in a healthy individual but it can be detrimental to a person with kidney disease. Therefore it is important to consider the physiological, health and lifestyle needs of the person in care when assessing intakes from supplement sources.

This manual provides an Audit of Excess Nutrient Intakes based on the ULs of the DRIs. This audit is optional. If you have a system in place for monitoring excess nutrient intakes then the audit is unnecessary. Alternatively, the audit can be used as a tool to help you devise such a system. The audit does not include assessment of boron, nickel, chloride, iodine, fluoride, molybdenum or vanadium as these are not commonly found in prescribed pharmacological sources or there is less established information about their adverse effects.

Further resources are located in **Appendix 1**.

Audit of Excess Nutrient Intakes

This is an optional audit. A blank audit form is available in **Chapter 8**.

Purpose of the Audit:	To audit if the amount of food and non-food sources of vitamins and minerals provided to those in care exceed the Tolerable Upper Intake Levels (ULs) of the *Dietary Reference Intakes.*
Acceptable Audit Score:	100%
Audit Frequency:	This is an optional audit.
Responsible Staff:	Registered Dietitian.

Procedure:

1. Complete the audit.

- Select persons in care who are taking single nutrient supplements, more than one daily multivitamin/mineral supplement, and/or mineral based medications (e.g. antacids with magnesium). Collect a copy of their medication list (medication, dose, frequency). For each item, indicate type, dose, frequency and nutrient content on one line of the audit form. You may need to contact the pharmacist, check the *Canadian Pharmacist's Association's Compendium of Pharmaceuticals and Specialties (CPS)* or check online to obtain the nutrient content of the product. The nutrients may be derived from different sources. **Table 10** lists some conversions that may be helpful in completing this audit (next page):

- Consider the amount of nutrient absorbed from supplemental sources. For example, there are different types of iron preparations that contain different amounts of elemental (pure) iron: ferrous fumarate has 33% elemental iron, ferrous gluconate has 11.6% elemental iron, and ferrous sulfate contains 20% of elemental iron. Similarly for calcium, there are different types of preparations: calcium carbonate is 40% elemental calcium, calcium citrate is 21% elemental calcium, calcium phosphate is 38% elemental calcium and lactate calcium is 13% elemental calcium.

Total the amounts of nutrients from the supplements and other non-food sources in Row 2 (Total).

Estimate the amount of nutrient intake the person in care usually consumes as food and enter the amount in Row 3 (Amount from food).

- **Table 11** provides usual intakes of different nutrients for various age/gender groups based on the BC Nutrition Survey. To make a conservative intake estimate, you can use the median value (i.e. 50% of those in that age/gender group ate amounts of the nutrient less than that value and 50% ate amounts of the nutrient greater than that value). Intakes at the 25th (i.e. 25% of those in that age/gender group ate amounts of the nutrient less than that value and 75% ate amounts greater than that value) and 75th percentile (i.e. 75% of those in that age/gender group ate amounts of the nutrient less than that value and 25% ate amounts greater than that value) are also presented and may be used if you think they are more applicable to the person's situation.

Table 10: Conversions for Nutrient Contents

Nutrient		
Folate	1 mcg dietary folate equivalent (DFE) = 0.5 mcg folate as a supplement (taken on empty stomach) or 0.6 mcg folate as a supplement consumed with meal	
Vitamin A	Many supplements will report vitamin A content in IU or retinol equivalents (RE).	
	1 (RE) =	1 mcg Retinol or 6 mcg beta carotene or 12 mcg other provitamin A carotenoids or 3.33 IU from animal food (Retinol) or 5 IU from mixed foods or 10 IU from plant foods (carotenoids)
	1 Retinol Activity Equivalent (RAE) =	1 mcg Retinol or 12 mcg beta carotene or 24 mcg other provitamin A carotenoids
		RE, if RE = Retinol or RE x 0.5, if RE = carotenoids
	IU Vitamin A =	0.3 mcg Retinol or 3.6 mcg beta carotene
	For vitamin A supplements and foods fortified with vitamin A: 1 RE = 1 RAE	
Vitamin D	40 IU vitamin D = 1 mcg of cholecalciferol (D_3) or ergocalciferol (D_2)	
Vitamin E	Vitamin E is expressed in IUs, mg or in mg of α-tocopherol equivalents (TE). One mg of vitamin E in TE includes the various components of vitamin E and their activity levels	
	1 IU vitamin E = 0.909 mg all-rac-alpha-tocopherol (synthetic)	
	1 mg alpha-tocopherol = 1 alpha-tocopherol equivalent	

- You will notice that the boxes for certain nutrients from food sources are blacked out on the audit sheet. These nutrients are not audited for any of the following reasons: **1)** that nutrient cannot be accurately estimated from food intake (e.g. selenium); **2)** The UL does not include food sources (e.g. UL for magnesium only considers pharmacological sources) or **3)** UL only includes fortified food sources which cannot easily be estimated.

In Row 4 (Overall total), total the nutrient amounts from food and non-food sources.

Compare the total consumed by the person in care in **Row 4** (Overall total) to the UL indicated for that nutrient in **Row 5** (UL). Complete **Row 6** (< UL?) of the table by writing Y (Yes) if the total amount of the nutrient from food and non-food sources is below the UL or N (N) if the total amount of the nutrient from food and non-food sources is above the UL.

2. Score the audit.

Total the number of tick marks or Y’s (Row 6) in the entire audit (i.e. for all persons audited).

Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL NUMBER OF Y's}}{\text{TOTAL NUMBER OF NUTRIENTS AUDITED x TOTAL NUMBER OF PEOPLE AUDITED}} \times 100$$

3. Determine whether the minimum audit score is met or not met.

An acceptable score for the Audit of Excess Nutrient Intakes is 100%. To help you assess the implications of the audit score, refer to **Table 12: Potential Toxicity Symptoms of Nutrients with Tolerable Upper Intake Levels**. Take into consideration the person in care's physiological, health and lifestyle requirements.

4. Document any problems identified, corrective actions taken, and date for re-audit.

Table 11: Selected Nutrient Intakes From Food Sources of BC Adults 18 years (BC Nutrition Survey) (21)

	Vitamin C (mg)			Vitamin B_6 (mg)			Calcium (mg)			Iron (mg)			Phosphorous (mg)			Zinc (mg)		
	PERCENTILES																	
	25th	50th	75th	25th	50th	75th	25th	50th	75th	25th	50th	75th	25th	50th	75th	25th	50th	75th
Males																		
19-30 y	71	92	132	2.0	2.4	2.9	724	1030	1377	15.0	19.0	23.0	1371	1723	2127	11.0	14.0	17.0
31-50 y	55	94	155	1.7	2.1	2.3	652	883	1143	13.0	17.0	21.0	1327	1589	1786	11.0	13.0	16.0
51-70 y	60	98	137	1.5	2.0	2.3	618	771	1062	13.0	16.0	20.0	1183	1457	1696	9.4	12.0	15.0
>70 y	74	96	123	1.5	1.8	2.1	567	726	951	12.0	14.0	17.0	1046	1275	1461	8.2	10.0	12.0
Females																		
19-30 y	52	74	110	1.2	1.4	1.6	589	758	1007	10.0	12.0	15.0	997	1120	1277	8.0	9.0	10.0
31-50 y	53	76	118	1.2	1.4	1.6	526	679	876	9.7	12.0	15.0	917	1069	1240	7.6	8.8	11.0
51-70 y	68	101	130	1.3	1.5	1.9	489	666	863	9.6	12.0	14.0	927	1065	1315	7.3	8.7	10.0
>70 y	53	85	122	1.2	1.5	1.7	516	662	843	9.5	12.0	13.0	901	1066	1292	7.1	8.1	9.8

Table 12: Critical Adverse Effects of Selected Nutrients With Tolerable Upper Intake Levels (18)

Nutrient (UL)	Critical Adverse Effect
Vitamin A (pre-formed) (3000 mcg)	Liver abnormalities. For women of childbearing age is teratogenic. Other effects include nausea, vomiting, headache, increased cerebrospinal fluid pressure, vertigo, blurred vision, muscular incoordination, nervous system changes, and bone and skin abnormalities.
Vitamin D (50 mcg)	Hypercalcemia. Other effects include anorexia, nausea, vomiting, increased thirst and urination, metastatic calcification of soft tissues (kidneys, blood vessels, heart, lungs), and renal disorders.
Vitamin E (1000 mg α-tocopherol)	Increased tendency to hemorrhage. Adults deficient in vitamin K, including those taking coumarin drugs, have increased risk of coagulation defects.
Vitamin C (2000 mg)	Osmotic diarrhea and gastrointestinal disturbances. Other effects include increased oxalate excretion and kidney stone formation, uric acid excretion, pro-oxidant effects, rebound scurvy, increased iron absorption/iron overload, reduced vitamin B_{12} and copper status, increased oxygen demand, and erosion of dental enamel.
Niacin (35 mg)	Vasodilation (flushing). Gastrointestinal effects for those treated with nicotinic acid. Hepatic toxicity has been reported in patients treated medically with the vitamins.
Vitamin B_6 (100 mg)	Neuropathy.
Folate (1000 mcg)	Precipitate or exacerbate the neurological damage of vitamin B_{12} deficiency.
Choline (3.5 g)	Hypotension and fishy body odor is a secondary consideration. Also nausea and diarrhea.
Calcium (2.5 g)	Kidney stone formation or milk-alkali syndrome (hypercalcemia and renal insufficiency). Also affects iron, zinc, magnesium, and phosphorus absorption
Phosphorus (3 or 4 g)	Hyperphosphatemia. Other effects include hypocalcemia, adjusted calcium-regulating hormones, and calcification of nonskeletal tissues (especially kidneys).
Magnesium (350 mg)	Osmotic diarrhea. Other effects include nausea, abdominal cramping, serious neurological and cardiac symptoms, and death.
Selenium (400 mcg)	Hair and nail brittleness/loss. Other effects include gastrointestinal disturbances, skin rash, garlic breath, fatigue, irritability, and nervous system disorders.
Iron (45 mg)	Gastrointestinal side effects. Other effects include impaired zinc absorption, increased risk for vascular disease and cancer, and systemic iron overload.
Copper (10 000 mcg)	Liver damage. Other effects include abdominal pain, cramps, nausea, diarrhea, and vomiting.
Zinc (40 mg)	Influences copper metabolism. Other effects include epigastric pain, nausea, vomiting, abdominal cramps, diarrhea, headaches, and immune response impairment.
Manganese (11 mg)	Elevated blood magnesium concentration and neurotoxicity.

SAMPLE

Audit of Excess Nutrient Intakes

NAME OF AUDITOR: *J. Monroe*	DATE: *Sept. 10/08*
INITIALS OF PERSON IN CARE: *SM*	AGE/GENDER: *65/F*

1 Non-food source of nutrient/dose (e.g. supplements, medications)	Vitamin A (mcg RAE) or (IU RAE)	Vitamin C (mg)	Vitamin D (mcg)	Vitamin E (mg)	Vitamin B_3 (mg)	Vitamin B_6 (mg)	Vitamin B_9 (mcg)	Choline (mg)	Calcium (mg)	Copper (mcg)	Iron (mg)	Magnesium (mg)	Manganese (mg)	Phosphorous (mg)	Selenium (mcg)	Zinc (mg)
Vitamin B complex with C OD	-	1000	-	-	100	50	50	400	-	-	-	-	-	-	-	-
300 mg Ferrous gluconate (35 mg elemental iron) OD	-	-	-	-	-	-	-	-	-	-	35	-	-	-	-	-
30 ml Magnesium Citrate (290 mg magnesium) OD	-	-	-	-	-	-	-	-	-	-	-	290	-	-	-	-
2 Total	-	1000	-	-	100	50	50	400	-	-	35	290	-	-	-	-
3 Amount from food		101				1.5			-		12			-		-
4 Overall total	-	1101	-	-	100	52	50	400	-	-	47	290	-	-	-	-
5 UL	3000 mcg RAE	2000	50	1000	35	100	1000	3500	2500	10,000	45	350	11	3000 (> 70) 4000 (19-70)	400	40
6 < UL?	-	Y	-	-	N	Y	Y	Y	-	-	N	Y	-	-	-	-

Estimate nutrient amount by comparing to usual nutrient intakes (**Table 11**)

INITIALS OF PERSON IN CARE:	AGE/GENDER:

2 Total																
3 Amount from food																
4 Overall total																
5 UL	3000 mcg RAE	2000	50	1000	35	100	1000	3500	2500	10,000	45	350	11	3000 (> 70) 4000 (19-70)	400	40
6 < UL?																

TOTAL AUDIT SCORE = TOTAL NUMBER OF Y / (TOTAL NUMBER OF NUTRIENTS AUDITED x TOTAL NUMBER OF PEOPLE AUDITED) x 100 = 5 / (7 x 1) x 100 = 71%

ACCEPTABLE AUDIT SCORE (100%)

☐ MET ☑ NOT MET

Form developed 2008

SAMPLE

COMMENTS
Vitamin B_3 (niacin) from vitamin B complex exceed ULs
Iron exceeds UL (taken as single supplement)

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Vitamin B_3 (niacin) from vitamin B complex	*Discussed results of audit with SM - reason*	
exceed ULs	*unknown for why she is taking the*	
	supplement. Discussed with pharmacist.	
	B complex discontinued (Sept. 10/08).	*J. Monroe*
Iron exceeds UL	*Reviewed chart to verify if SM has iron*	
	deficiency anemia - not indicated. Discussed	
	with SM who thought she was on supplement	
	as she doesn't eat much red meat. Reviewed	
	with pharmacist. Iron dose to be lowered.	
	Will monitor SM's intake with food records to	
	get intake information on iron (Oct. 10/08)	
	and track her blood levels for iron (ongoing).	*J. Monroe*
	DATE OF NEXT AUDIT: *November 15, 2008*	*J. Monroe*

Chapter Four

Menu Planning

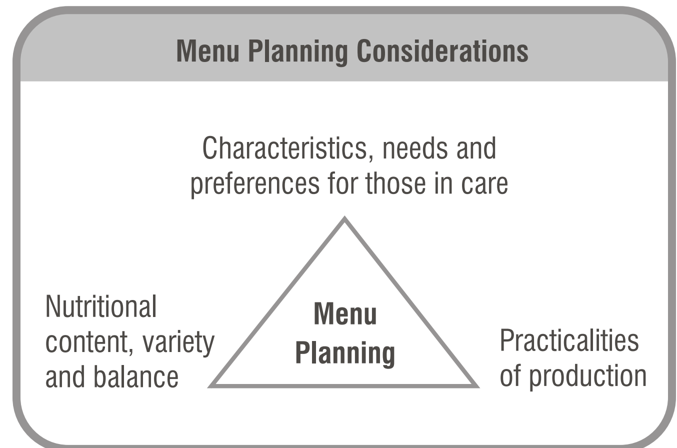
Chapter 4: Menu Planning

This chapter gives background information on menu planning. The following tools relevant to menu planning are discussed:

- Menu Audit or Computerized Nutrient Analysis of the Menu Audit (Required)
- The Menu Substitution Tracking Form and Audit (Required)

Each audit is reviewed in terms of its purpose, recommended frequency, who should complete it and procedures.

A completed example of each audit is given. Blank audit forms are provided in **Chapter 8**. Further resources are located in **Appendix 1**.



Menu Planning - Background Information

Menus are planned to provide appetizing, nutritionally balanced, cost effective meals and beverages for the people in care. To comply with the Legislation and best practices for menu planning, the following principles apply (2;22;23):

- There is a consultation process used. This includes review of satisfaction questionnaires, food committee comments, results of dining audits, feedback from frontline staff and plate waste records. The consultation also includes review of the current population's medical conditions, medications, lab data, diet histories and functional and cognitive abilities in determining and providing the types of therapeutic diets, texture-modified foods, modified fluid consistencies and nutritional supplements that are required.
- Minimum four-week cycle menus are provided that include meals, snacks and beverages. Menus are revised for variety (e.g. seasonally or twice yearly) and provide regular opportunities for meals chosen by those in care (e.g. on their birthday) and special events (e.g. Robbie Burns Day).
- Menus in long-term care are liberalized as much as possible in order to enhance quality of life and the enjoyment of food while providing good nutrition.
- Tools and processes for determining the nutritional content of the menu are used, including the current *Eating Well with Canada*'s *Food Guide*, the current *Dietary Reference Intakes* (DRI), the current approved *Manual of Clinical Dietetics* and other evidence-based healthy eating guidelines.
- The main cycle menu specifies portion sizes, or there is a standard portion chart available for all foods and beverages provided daily (i.e. for all regular and therapeutic diets, texture-modified meals, modified fluid consistencies and nutritional supplements).

- All menu choices, including therapeutic and texture-modified food variations for each day, are documented, readily available to those in care, their decision makers, and staff in an appropriate manner. Modifications made follow the main menu as closely as possible to provide the same choice.
- At least a three-day emergency menu plan is in place to meet nutrition needs in extenuating circumstances. However, it is ideal to have a five-day emergency menu plan available.
- All menus are approved by the Registered Dietitian.

The Cycle Menu

The menu is the focal point of food service operations as it is used to help make decisions regarding kitchen space, equipment, staffing, purchasing and storage. In addition to the principles of menu planning previously outlined, the cycle menus should consider the following:

- Meals provide at least three different food groups and snacks provide at least one food group.
- Provide a variety of foods including an assortment of bright-coloured vegetables and fruit. Variety also means providing different food items for the same days of each week.
- At least 50% of grains offered each day are whole grain. Examples of whole grains include brown rice, pot barley, whole oats or oatmeal, quinoa, whole rye and whole grain wheat.
- Limit foods high in fat and salt. High sodium foods include processed cheese, gravies, sauces, salted processed meats, canned, ready-to-serve or dried soups and condiments.
- Provide at least one dark green vegetable daily. Examples include asparagus, broccoli, bok choy, Brussels sprouts, collard greens (e.g. kale, Swiss chard), green peas, green beans, romaine lettuce and spinach.
- Provide at least one orange vegetable daily. Examples include carrots, pumpkin, squash, yams and sweet potatoes. Some orange-coloured fruits such as apricots, cantaloupe, mango and papaya are also sources of carotenoids and can be served in place of an orange vegetable.
- Provide more fruits than juice. Fruit-flavoured drinks are not nutritionally equivalent to 100% juice.
- Provide fish twice a week to provide a source of omega-3 fatty acids.
- Provide meat alternatives such as eggs, nuts, seeds, tofu and legumes.
- Provide two cups of liquid low fat milk (skim, 1% m.f. or 2% m.f.) daily as a source of vitamin D. Soy beverages fortified with calcium and vitamin D are nutritionally adequate alternatives.
- Include 30 to 45 ml (2 to 3 Tbsp) of unsaturated fat each day. This includes oil used for cooking, baking, salad dressings, margarine and mayonnaise. Vegetable oils such as canola, olive and soybean as well as soft margarines are low in saturated and trans fats.
- Limit caffeine to no more than 400 mg a day from all sources. A 250-ml cup of brewed coffee has 135 mg of caffeine, blended tea has 43 mg of caffeine and green tea has 30 mg of caffeine (24).
- Provide a minimum of 1500 ml of fluid throughout the day.
- Date the menu at the time of implementation and post each week in the kitchen and daily for those in care, staff, family, volunteers, etc.
- Provide nutrition claims that are accurate.
- Offer choice. For non-selective menus, provide an alternative for those who do not like the regular items.
- Use locally produced foods as feasible.

If the basic menu does not provide for adequate intake of energy and nutrients, then the care efforts of the Registered Dietitian are compromised. It has been argued that the menu is only as good as the food actually consumed and that Registered Dietitian time would be better spent focusing on ensuring consumption of the foods. While it is true that the menu does not necessarily reflect the food actually consumed, if it is not adequate even those who consume the entire menu will not have an adequate intake. For information that will assist in menu planning, refer to **Appendix 7 - Minimum Suggested Serving Sizes for the Elderly**, **Appendix 8 - Suggested Menu Items** and **Appendix 9 - Conversions and Equivalents**. **Table 13** provides a meal pattern that, if followed, will help you to meet the minimum standards of *Eating Well with Canada*'s *Food Guide*.

Table 13: Sample Meal Pattern to Meet Minimum Standards of Eating Well with Canada's Food Guide

BREAKFAST	**LUNCH**	**SUPPER**
Water and Juice (100%)	Water and Juice (100%)	Water, Soup or Juice (100%)
Fruit	Milk/Milk Alternatives	Milk/Milk Alternatives
Cereal, whole grain (could have bran, flax or wheat germ added)	Meat/Alternative	Meat/Alternative
Milk/Milk Alternatives (fluid)	Pasta, Rice or Other Grain (preferably whole grain)	Pasta, Rice or Other Grain (preferably whole grain)
Meat/Alternative	Two vegetables (a green or orange type + another e.g. potato)	Two vegetables (a green or orange type + another e.g. potato)
Grain	Sauces and Garnishes	Sauces and Garnishes
Jam, Jelly	Dessert*	Dessert*
Hot beverage	Hot beverage	Hot beverage
AM SNACK	**PM SNACK**	**HS SNACK**
Beverage	Beverage	Milk (fluid)
Fresh Fruit	Baked item* (e.g. cookie)	Grain product

* Preferably containing whole grains, dried or regular fruits, nuts or milk/milk alternatives

Standardized Recipes

Recipe standardization is the process of tailoring a recipe to suit a particular purpose in a food service operation. Standardized recipes are used to make sure that the same quantity and quality are obtained each time a food item is produced. Advantages of recipe standardization include increased productivity, cost savings and reduced anxiety of persons in care with special dietary needs. Recipes can be numbered in a system so that new ones may be added easily, arranged in groups (e.g. salads, desserts) and then in alphabetical order, or organized by week and day of the menu. In **Chapter 5 - Food Preparation and Service**, standardized recipes are discussed in more detail in terms of their criteria.

Cultural, Religious and Personal Considerations

Respect for the food practices of those in care enhances the quality of life and satisfaction with food service. To help meet personal preferences, consider keeping breakfast flexible to resemble the person in care's meal pattern at home. Breakfast offers familiar foods and therefore is most comforting; it is usually the best-consumed meal and individual food preferences can be easily accommodated (e.g. selection of juices, cereals).

Obtain information on specific cultural and religious food practices by interviewing the person in care, their family and facility staff who share similar cultural practices and by consulting references. Some of the more common ethnic groups include South Asians from India, Pakistan, and East Africa where religion plays a significant role in dietary laws; Jewish people who follow a kosher diet; and Chinese people who may favour rice, fish, chicken, pork, green vegetables and soup with all meals (25). **Information gathered should include:**

- How is food normally served and eaten? On a plate, or in a bowl? With a fork, spoon, soup spoon, Chinese soup spoon, chopsticks, or scooped up with a bread product such as roti?
- Is food served plain or with sauces? Are vegetables usually served raw, cooked or pickled?
- Is there a "most preferred" food (e.g. rice, noodles, potatoes, soup)? Is this food served at each meal?
- Are there forbidden foods or forbidden food combinations? Are there special foods that are served during illness, at feasts and celebrations?
- Are dairy products eaten on a regular basis? Are they served hot, cold, cooked with rice or tapioca, served as buttermilk or yogurt?

There are many things that can be done to accommodate preferences. These include reviewing equipment to determine if special items (e.g. rice steamer) could make food preparation easier, trying various ethnic foods for all of those in care, encouraging cooking staff to attend ethnic cooking classes, checking food stores and suppliers for ethnic food items and encouraging family members to bring in familiar foods that may provide comfort to the person in care. Often only small modifications are needed. For example, someone originally from China could be served baked chicken chopped in a bowl of rice with sauce and cooked vegetables, and be given chopsticks. A South Asian person could be served the baked chicken with rice, plain cooked vegetables and chutney. A vegetarian could be served tofu or beans with vegetables and rice. Sauces and spices such as chutneys or oyster sauce can be provided on the side.

Nutrient Analysis of Menus

As an alternative to reviewing menus, a nutrient analysis may be used. In order for the analysis to be accurate, the menu must be supported by standardized recipes, complete manufacturers' nutrient data for prepared foods and specified portion sizes (26). The limitations to computerized nutrient analysis of menus include the time needed to conduct the analysis, the availability of programs on site, the selection of software that is comprehensive and credible, accuracy of data from manufacturers, how to record nutrients when data is not available for some nutrients in specific foods and how to analyze alternate menu choices. However, the software required to complete a nutrient analysis on site is an important tool for Registered Dietitians to access for many areas of practice and is becoming standard for medical nutrition best practice (26). Similar to lab data being considered a basic tool for health professionals, nutrient analysis software is a readily available means to evaluate individual intakes, to plan, implement and manage nutrition care for unique therapeutic applications not historically seen in residential facilities (e.g. dysphagia) (27) and can be used as a continuous quality improvement tool (26). Computerized nutrient analysis software also enables comparison of the menu with the *Dietary Reference Intakes* (DRI). However, the components of the DRI must be applied correctly for group planning. **Table 14** summarizes the different components of the DRI and their use in planning nutrient intakes for a group.

Table 14: Components of the Dietary Reference Intakes

Standard	Definition	Use In Planning for Groups
Estimated Average Requirement (EAR)	A nutrient intake value that is estimated to meet the requirements of half of the healthy individuals in a group. It is used to assess adequacy of intake of population groups and, along with knowledge of the distribution of requirements, to develop RDAs.	Plan for an acceptably low proportion of a group with intakes below the EAR.
Recommended Dietary Allowance (RDA)	The average daily dietary intake level that is sufficient to meet the nutrient requirements of nearly all (98%) healthy individuals in a group. A target for individuals to ensure enough intake.	Do not use the RDA to plan mean intakes for groups. Mean intake at the RDA may lead to an unacceptably high prevalence of inadequate intakes.
Adequate Intake (AI)	A recommended daily intake level based on observed or experimentally determined approximations by a group (or groups) of healthy people.	Median usual intake at or above the AI implies a low prevalence of inadequate intake. The AI should be used with less confidence if it has not been established as a median intake of a healthy group.
Tolerable Upper Intake Level (UL)	A recommended daily nutrient intake that is likely to pose no risks of adverse health effects to almost all individuals in the general population. As intake increases above the UL, the risk of adverse effects increases.	Plan to minimize the proportion of a group with intakes above the UL to

Table adapted from "Use of Dietary Reference Intakes (DRIs) for planning and assessing nutrient intakes of apparently healthy individuals and groups". In: Barr SI (2006). Applications of Dietary Reference Intakes in dietary assessment and planning (28).

In the past, average intakes of groups were frequently compared with the RDA; today, however, RDAs have no role in evaluating the diets of groups. Instead, the EAR should be used, where group prevalence of nutrient inadequacy can be estimated as the proportion of the group with usual intakes below the EAR. In 1999, the BC Nutrition Survey examined the intakes of BC adults (29). The data from this survey (distribution of intakes) provides information on the prevalence of inadequacy for selected nutrients for given age/gender groups. This information can be used to set nutrient goals for menu planning; typically the EAR plus a "safety factor" is used.

At the time of this manual's publication, it is recognized that less than 35% of facilities in BC have the technology to analyze their menus by computerized means (22); therefore two options for auditing a facility's menu are provided:

- Menu Audit - this compares the menu to *Eating Well with Canada*'s *Food Guide* (2007).
- Computerized Nutrient Analysis of the Menu Audit - this compares the menu to the DRIs.

Both audits also examine whether the menu meets the needs and preferences of those in care. Because both methods are based on healthy individuals rather than those living in residential care, it is important to assess the menu by other means such as acceptance and plate waste and to make adjustments to adapt to the needs of the persons in care.

Menu Audit

This is a required audit; alternatively the Computerized Nutrient Analysis of Menu Audit may be done. A blank audit form is available in **Chapter 8**.

Purpose of the Audit:	The audit has two parts. Part A audits the number of servings provided and compares them with the *Eating Well with Canada*'s *Food Guide*. Part B audits whether the menu is meeting certain directives of *Eating Well with Canada*'s *Food Guide* as well as the preferences and needs of those in care. The auditor can choose to use this audit or the Computerized Nutrient Analysis of Menu Audit.
Acceptable Audit Score:	100%
Audit Frequency:	• Audit all menus provided in the facility (e.g. fall/winter and spring/summer menu). Also perform an audit when major changes are made to a menu. • If the minimum acceptable audit score is met, complete the Menu Audit once per year or when a new menu is implemented (e.g. the next seasonal menu). • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Registered Dietitian or supervisor of food services/nutrition manager

Procedure:

1. Complete the audit.

- Collect a copy of the facility cycle menus (e.g. regular, texture-modified and therapeutic), the nourishment rotation (if not included on the cycle menu) and the standard facility portion sizes.
- It is advised that you audit the general menu, a texture-modified menu and a therapeutic diet. You may choose to audit a different menu type for each week (e.g. week 1 - general, week 2 - pureed, week 3 - minced and week 4 - diet for diabetes) to meet this recommendation.
- Use *Eating Well with Canada*'s *Food Guide* Serving Size Guidelines (Table 15), standard facility portions, and the following lists of foods and serving sizes to determine the number of servings provided on each day of the menu for the four food groups.

Fruit and Vegetables: www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/fruit/index-eng.php
Grains: www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/grain-cereal/index-eng.php
Milk/Milk Alternatives: www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/milk-lait/index-eng.php
Meat/Alternatives: www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/milk-lait/index-eng.php

Part A

- Make a copy of each menu reviewed so that you can make marks on it when determining number of servings and file it with your audit.

- Review each day of the menu separately. Review each food item. If the menu is selective, use first choice items only. If the menu is non-selective, use all offered menu items. For an “a la carte system”, use the equivalent of first choice or use a rotation of entrée choices, documenting which choice is used (e.g. mark on the copy of the menu).

- Determine the food group and the number of servings represented by that food item. Write the number of servings in an appropriate box (M, MA, VF, G) for that day. The criteria for including serving sizes are (30):

NUMBER OF SERVINGS	CRITERION
Not counted as a serving	< 25% serving
0.25 (1/4) serving	25% - 37.9% serving
0.5 (1/2) serving	38% - 62.9% serving
0.75 (3/4) serving	63% - 87.9% serving
1 serving	88% - 100% serving

For mixed dishes (e.g. soups, casseroles, desserts and baked goods) that contain more than one food group, analyze the recipe using the Dietitians of Canada Recipe Analyzer (go to **http://www.dietitians.ca/eatwell** and choose Recipe Analyzer). Enter the ingredients of the recipe in the analyzer. The analyzer will provide a full nutrient profile for a serving of that recipe and the number of food guide servings the recipe provides. If a recipe is not available, use manufacturers' ingredients lists, manufacturer's nutrient data or the Canadian Nutrient File at **http://www.healthcanada.gc.ca/cnfonline** to make the food guide determinations.

Total the number of servings for each of the four food groups for each day. For each day of the menu, determine if the minimum recommendations of the *Eating Well With Canada*'s *Food Guide* are met by comparing the totals for each food group with the standards. Select the age group that reflects your facility population and choose the minimum serving standard.

FOOD GROUP	MINIMUM NUMBER OF RECOMMENDED SERVINGS ACCORDING TO AGE GROUPS	
Milk & Alternatives (M)	19 to 50 years - 2 servings	51+ years - 3 servings
Meat & Alternatives (MA)	19+ years - 2 servings	
Vegetables & Fruit (VF)	19+ years - 7 servings	
Grain Products (G)	19+ years - 6 servings	

If the minimum number of servings for all food groups for that day are provided put a tick (✓) in the "Standard Met" box at the bottom of the audit form. If the minimum number of servings is not provided on that day, leave that box blank.

Part B

For this part of the audit, review all diet types when responding to the questions. For each question, indicate a tick (✓) under Y (Yes), N (No) or E (Exception). If an exception is ticked, document the reason for the exception on the comments sheet.

2. Score the audit

Part A

Count the total number of ticks representing days on which the standard was met.
Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{NUMBER OF DAYS STANDARD MET}}{\text{TOTAL NUMBER OF MENU DAYS AUDITED}} \times 100$$

Part B

Count the total number of Y and E ticks.
Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL } (Y + E)}{14} \times 100$$

3. Determine whether the minimum audit score is met or not met for Part A and B.

An acceptable score for Part A is 100%.

An acceptable score for Part B is 100%.

4. Document any problems identified, corrective actions that will be taken, and date for re-audit.

If only one part of the audit does not meet the minimum score, only that part needs be re-audited. However, if you have made significant changes to your menu as a result of the initial audit, you may need to do both parts for the re-audit.

Table 15: Eating Well With Canada's Food Guide Serving Guidelines For Selected Foods To Use With The Menu Audit

MILK AND MILK ALTERNATIVES (1 serving equivalents)			
Milk Alternatives		**Milk**	
Buttermilk	250 ml (1 cup)	Cow's milk, skim, 1%, 2%, whole, chocolate, lactose reduced, reconstituted powdered milk	250 ml (1 cup)
Cheese, block (e.g. cheddar, Mozzarella, feta) or processed	50 g (1 1/2 ounces)		
Cheese, cottage or quark	250 ml (1 cup)		
Cheese, goat	50 g (1 1/2 oz)	Milk, evaporated, canned, undiluted	125 ml (1/2 cup)
Cheese, parmesan	75 ml (5 tbsp)		
Cream soup, made with milk	250 ml (1 cup)	Milk, goat, enriched	250 ml (1 cup)
Fortified soy beverage	250 ml (1 cup)	Milk, powdered	25 g / 75 ml (1/3 cup)
Kefir	175 g / 175 ml (3/4 cup)	(note: fortified soy beverages are an option for people who do not drink milk)	
Pudding/custard (made with Milk)	125 ml (1/2 cup)		
Paneer	50 g (1 1/2 oz)		
Yogurt (plain and flavoured)	175 g / 175 ml (3/4 cup)		
Yogurt drinks	200 ml (3/4 to 1 cup)		
MEAT AND ALTERNATIVES *(all are represented as cooked)* **(1 serving equivalents)**			
Meat Alternatives		**Meat, Fish, Poultry, and Shellfish**	
Beans, lentils, dried peas: cooked or canned	175 ml (3/4 cup)	Beef, bison/buffalo, pork, poultry, lamb, veal: boneless	75 g (2 1/2 oz) / 125 ml (1/2 cup)
Egg	2 medium	Chicken: with bone	100 g (3 1/2 oz)
Hummus	175 ml (3/4 cup)	Fish, fresh, frozen (e.g. herring, mackerel, trout, salmon, sardines, tuna)	75 g (2 1/2 oz) / 125 ml (1/2 cup)
Nuts, shelled	60 ml (1/4 cup)		
Peanut butter or nut butters	30 ml (2 tbsp)		
Seeds, shelled	60 ml (1/4 cup)	Fish and shellfish, canned (e.g. crab, salmon, tuna)	75 g (2 1/2 oz) / 125 ml (1/2 cup)
Tofu	150 g / 175 ml (3/4 cup)		
GRAINS (1 serving equivalents)			
Non Whole Grain		**Whole Grain**	
Bagel, white	1/2 bagel, 45 g	Bagel, whole grain	1/2 bagel, 45 g
Baguette, French	1 slice, 35 g	Barley, cooked	125 ml (1/2 cup)
Bannock	1 medium, 35 g	Bran	90 ml (6 tbsp)
Bread, white, 60% whole wheat	1 slice, 35 g	Bread, pumpernickel, rye or whole grain	1 slice, 35 g
Cereal, cold	30 g (1 oz)		
Cereal, cooked, (e.g. cream of wheat)	150 g (6 oz) / 175 ml (3/4 cup)	Bulgur, cooked	125 ml (1/2 cup)
Congee, cooked	125 ml (1/2 cup)	Cereal, cold, whole grain	30 g (1 oz)
Cornbread	1 slice, 35 g	Cereal, cooked, whole grain (e.g. oatmeal)	150 g (6 oz) / 175 ml (3/4 cup)
Couscous - cooked	125 ml (1/2 cup)		
Crackers, saltines	30 g or 10 crackers	Couscous, whole wheat - cooked	125 ml (1/2 cup)
English muffin, white	1/2 muffin, 35 g	Crackers, rye or whole grain	30 g

continued...

Table 15: Eating Well With Canada's Food Guide Serving Guidelines For Selected Foods To Use With The Menu Audit cont'd

GRAINS (1 serving equivalents)			
Non Whole Grain		**Whole Grain**	
Flour, white	40 ml (2 1/2 tbsp)	English muffin, whole grain	1/2 muffin, 35 g
Muffin, non-whole grain	1/2, 35 g	Flax, ground	30 ml (2 tbsp)
Naan	1/4 naan, 35 g	Flour, whole grain	40 ml (2 1/2 tbsp)
Pancake	1 small, 35 g	Muffin, whole grain	1/2 muffin, 35 g
Pasta/noodles, white, cooked	125 ml (1/2 cup)	Noodles, whole grain, cooked	125 ml (1/2 cup)
Pita, white	1/2 pita, 35 g	Pita, whole grain	1/2 pita, 35 g
Pizza Crust 10" (white flour)	1/8	Pizza Crust 10" (100% whole wheat)	1/8
Polenta, cooked	125 ml (1/2 cup)	Popcorn, plain	500 ml (2 cups)
Pretzels	30 g (1 oz)	Quinoa, cooked	125 ml (1/2 cup)
Rice cake	2 medium	Rice, brown or wild, cooked	125 ml (1/2 cup)
Rice, white, cooked	125 ml (1/2 cup)	Roll, whole wheat	1 roll, 35 g
Roll, white	1 roll, 35 g	Tortilla, whole wheat	1/2 piece, 35 g
Tortilla, corn	1/2 piece, 35 g	Waffle, whole wheat	1 small, 35 g
Waffle	1 small, 35 g		
VEGETABLES AND FRUIT (1 serving equivalents)			
Dark Green Vegetables		**Orange Vegetables or Fruit**	
Asparagus	125 ml (1/2 cup) / 6 spears	Carrots	125 ml (1/2 cup) / 1 large
Green beans	125 ml (1/2 cup)	Pumpkin	125 ml (1/2 cup)
Bok choy, cooked	125 ml (1/2 cup)	Sweet potato	125 ml (1/2 cup)
Broccoli	125 ml (1/2 cup)	Yams	125 ml (1/2 cup)
Brussel sprouts	125 ml (1/2 cup) / 4 sprouts	Apricot, fresh	3 fruits
Chard	125 ml (1/2 cup)	Cantaloupe	125 ml (1/2 cup)
Edamame (soy beans)	125 ml (1/2 cup)	Mango	125 ml (1/2 cup) / 1/2 fruit
Endive	250 ml (1 cup)	Mango, dried	60 ml (1/4 cup)
Kale/collards, raw	250 ml (1 cup)	Mango, juice	125 ml (1/2 cup)
Leeks	125 ml (1/2 cup) / 1/2 leek	Nectarine	1 fruit
Lettuce, romaine, raw	250 ml (1 cup)	Papaya	1/2 fruit
Mesclun mix, raw	250 ml (1 cup)	Peach	1 medium
Okra	125 ml (1/2 cup)		
Peas	125 ml (1/2 cup)		
Pepper, sweet, green	125 ml (1/2 cup) / 1/2 medium		
Snow peas	125 ml (1/2 cup)		
Spinach, raw	250 ml (1 cup)		
Zucchini	125 ml (1/2 cup)		
Other Vegetables and Fruit			
Avocado	1/2 fruit	Lettuce, raw (e.g. iceberg or butterhead)	250 ml (1 cup)
Bamboo shoots	125 ml (1/2 cup)	Lychee	10 fruits
Banana	1 medium	Mixed vegetables	125 ml (1/2 cup)

continued...

Table 15: Eating Well With Canada's Food Guide Serving Guidelines For Selected Foods To Use With The Menu Audit cont'd

Other Vegetables and Fruit (continued)			
Beets	125 ml (1/2 cup)	Mushrooms	125 ml (1/2 cup)
Berries	125 ml (1/2 cup)	Orange	1 medium
Bitter melon	125 ml (1/2 cup) / 1/2 pod	Pear	1 medium
Cabbage	125 ml (1/2 cup)	Peppers, bell	125 ml (1/2 cup) / 1/2 medium
Cauliflower	125 ml (½ cup) / 4 flowerets	Pineapple	125 ml (1/2 cup) / 1 slice
Celery	1 medium stalk	Plantain	125 ml (1/2 cup)
Chayote	125 ml (1/2 cup)	Plum	1 fruit
Corn	125 ml (1/2 cup) / 1 ear	Potato	#8 Scoop, 125 ml (1/2 cup)
Cucumber	125 ml (1/2 cup)	Prunes, cooked	60 ml (1/4 cup)
Dried fruit	60 ml (1/4 cup)	Radishes	125 ml (1/2 cup)
Eggplant	125 ml (1/2 cup)	Rhubarb	125 ml (1/2 cup)
Fig, fresh	2 medium	Salad: leaf salad	250 ml (1 cup)
Fruit juice	125 ml (1/2 cup)	Turnip	125 ml (1/2 cup)
Fruit Laxative	30 ml (2 tbsp)	Vegetable juice	125 ml (1/2 cup)
Grapefruit	1/2 fruit	Watermelon	125 ml (1/2 cup)
Grapes	20 fruits		
Guava	125 ml (1/2 cup) / 1 fruit		
Honeydew	125 ml (1/2 cup)		
Kiwi	1 large fruit		
Kohlrabi	125 ml (1/2 cup)		

Menu Audit

SAMPLE

NAME OF AUDITOR: *K. Teal*	MENU SEASON: *Spring/Summer menu*	REFERENCE AGE GROUP : *19 to 50 years*	DATE OF AUDIT: *Jan. 10/08*

	MILK AND MILK ALTERNATIVES (M)	MEAT AND ALTERNATIVES (MA)	VEGETABLES AND FRUIT (VF)	GRAIN PRODUCTS (G)
19 to 50 years	2 SERVINGS	2 SERVINGS	7 SERVINGS	6 SERVINGS
51+ years	3 SERVINGS	2 SERVINGS	7 SERVINGS	6 SERVINGS

Choose the age group that best reflects your facility's population

Part A:

	DIET TYPE: *Regular* **MENU WEEK:** *Week 1*							**DIET TYPE:** *Pureed* **MENU WEEK:** *Week 2*						
DAY	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
M	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M	1	1	1	1.5	1	1	1	1	1	1	1	1	1	1
M	1	-	-	-	-	-	-	-	-	-	-	-	-	-
M	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MA	0.5	0.5	0.5	0.5	0.5	0.5	0,5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MA	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MA	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VF	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VF	2	2	2	2	2	2	2	2	2	1	2	2	2	2
VF	3	3	3	3	3	3	3	3	3	2	3	3	3	3
VF	2	2	2	2	2	2	2	2	2	-	2	2	2	2
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	2	2	2	2	2	2	2	2	2	2	2	2	2	2
G	2	2	2	2	2	2	2	2	2	2	2	2	2	2
G	1	1	1	1	1	1	1	1	1	1	1	1	1	1
G	2	2	2	2	2	2	2	2	2	2	2	2	2	2
G	1	2	1	1	1	1	1	1	2	1	1	1	1	1
G	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL FOR EACH FOOD GROUP														
M	3	2	2	2.5	2	2	2	2	2	2	2	2	2	2
MA	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
VF	8	8	8	8	8	8	8	8	8	4	8	8	8	8
G	8	9	8	8	8	8	8	8	8	8	8	8	8	8
STANDARD MET?	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓

	DIET TYPE: *Diabetes* **MENU WEEK:** *Week 3*							**DIET TYPE:** *Minced* **MENU WEEK:** *Week 4*						
DAY	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**
M	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M	1	1	1	1	1	1	1	1	1	1	1	1	1	1
M	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MA	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MA	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VF	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VF	2	2	2	2	2	2	2	2	2	2	2	2	2	2
VF	3	3	3	3	3	3	3	3	3	3	3	3	3	3
VF	2	2	2	2	2	2	2	2	2	2	2	2	2	2
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VF	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	2	2	2	2	2	2	2	2	2	2	2	2	2	2
G	2	2	2	2	2	2	2	2	2	2	2	2	2	2
G	1	1	1	1	1	1	1	1	1	1	1	1	1	1
G	2	2	2	2	2	2	2	2	2	2	2	2	2	2
G	1	2	1	1	1	1	1	1	2	1	1	1	1	1
G	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL FOR EACH FOOD GROUP														
M	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MA	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
VF	8	8	8	8	8	8	8	8	8	8	8	8	8	8
G	8	8	8	8	8	8	8	8	8	8	8	8	8	8
STANDARD MET?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

If all food groups meet the minimum serving requirements then standard is met for that day

Form revised 2008

Part B of audit on following page...

SAMPLE

Menu Audit - Part B

	The menus for ***all diet types*** have:	Y	E	N
1	At least 2 servings of fluid milk offered daily for vitamin D.	✓	-	-
2	At least one dark green vegetable* and/or one orange vegetable (i.e. carrots, sweet potatoes, yams, pumpkin or winter squash) and/or one of the selected orange fruits (i.e. apricots, cantaloupe, mango, nectarine, papaya and peach) daily.	-	-	✓
3	Whole grain products offered daily.	✓	-	-
4	At least 2 servings of fish each week.	✓	-	-
5	A cycle of at least 4 weeks in length.	✓	-	-
6	Three meals and at least 2 snacks offered each day (one snack is offered in the evening).	✓	-	-
7	Seasonally available foods included (e.g. fall/winter and spring/summer menus).	✓	-	-
8	Foods made from various preparation methods as well as an assortment of colours, flavours, and textures on a per meal, daily and weekly basis.	✓	-	-
9	Standard portion sizes for food and beverages.	✓	-	-
10	Standardized recipes available for all types of food items.	✓	-	-
11	A rotation for all therapeutic and texture-modified diets that follows the master menu as closely as possible.	✓	-	-
12	Included the preferences, cultural, ethnic and religious needs of those in care.	✓	-	-
13	Been reviewed by the council or food committee (where applicable) representing those in care.	✓	-	-
14	Remained available to those in care and their families/substitute decision makers.	✓	-	-
	TOTAL (Y, E)	*13*	*0*	

*see **Table 15** for a complete list

Part A:

TOTAL AUDIT SCORE = $\frac{\text{NUMBER OF DAYS STANDARD MET}}{\text{TOTAL NUMBER OF DAYS OF MENU AUDITED}} \times 100 = \frac{27}{28} \times 100 = 96\%$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

Part B:

TOTAL AUDIT SCORE = $\frac{\text{TOTAL (Y + E)}}{14} \times 100 = \frac{13}{14} \times 100 = 93\%$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

SAMPLE

COMMENTS
Part A: *Week 2 of pureed menu doesn't provide enough fruit/vegetable servings on day 10. Lunch meal is lacking a vegetable serving. Supper is also lacking 2 servings.*
Part B: *Q. 2 not all days have at least one of these types of vegetables/fruit.*

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Week 2 of pureed menu doesn't provide	*To reassess pureed menu.*	
enough fruit/vegetable servings on day 10.	*Add three more servings of fruits/vegetables.*	
	Re-audit entire pureed menu by April 30/08.	*T. Flanagan*
Not all days have at least one of these	*To review all menu rotations and make*	
types of vegetables/fruit.	*revisions to comply with this standard.*	
	Re-audit menus by April 30/08.	*T. Flanagan*
	DATE OF NEXT AUDIT: *April 30, 2008*	*W. Clark*

Computerized Nutrient Analysis of Menu Audit

This audit may be done as an alternative to the Menu Audit. A blank audit form is available in **Chapter 8**.

Purpose of the Audit:	The purpose of the Computerized Nutrient Analysis of Menu Audit is to **1)** compare the nutrient content of cycle menu with the *Dietary Reference Intakes* to ensure nutritional adequacy; **2)** review the menu to ensure it reflects certain directives of *Eating Well with Canada*'s *Food Guide* and the preferences and needs of those in care. The auditor can choose to use this audit or the Menu Audit. The audit is split into two sections. Part A audits the menu compared to the reference standards. Part B audits whether the menu is meeting certain directives of *Eating Well with Canada*'s *Food Guide* as well as the preferences and needs of those in care.
Acceptable Audit Score:	100%
Audit Frequency:	• Audit all menus provided annually in the facility (e.g. fall/winter menu and spring/summer menu). This includes when major menu changes are made. • If the minimum acceptable audit score is met, complete the Computerized Nutrient Analysis of Menu Audit of that menu once per year or when a new menu is implemented. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Registered Dietitian or supervisor of food services/nutrition manager.

Procedure:

1. Do the computerized nutrient analysis of the menu.

- Collect a copy of the facility menus (e.g., regular, texture-modified and therapeutic), the nourishment rotation (if not included on the cycle menu) and the standard facility portion sizes. Make a copy of each menu you audit so that you can make marks on it as needed and file with your audit.

- It is advised to audit the general menu, a texture-modified menu and a therapeutic diet. You may choose to audit a different menu type for each week (e.g. Week 1 - General, Week 2 - pureed, Week 3 - minced and Week 4 - diet for diabetes) to meet this recommendation.

- Use a computerized nutrient analysis program to analyze each day of the cycle menu. There are many nutrient analysis programs available. Choose ones that have the Canadian Nutrient File in their foods database. If other programs are used, keep in mind that there are differences in some comparable foods offered in the U.S. For example, in the U.S. milk is not fortified with vitamin D. Therefore, if a program based on U.S. nutrient data is used, the vitamin D content of the menu will be underestimated.

- When setting up the nutrient analysis, you may need to enter characteristics of an individual so that the applicable standards are integrated into the results. This is usually done so that you can compare results to the Recommended Dietary Allowances (RDA). However, since you will not be using the RDA as a frame of reference you can enter any age, gender and anthropometric data (e.g. female, 51 years old, height of 163 cm and weight of 57 kg).

- Try to be as accurate as possible when entering foods. For example, while the name of a food item in the program be may the same as that used in the facility, it is more accurate to enter the recipe that is actually used in the facility.

- Use the standard meal pattern. If the menu is selective, use the first choice items. Include juice/fruit, cereal, milk/milk alternative, entrée, bread, spreads and beverages at breakfast, and appetizer, entrée, vegetable(s), bread, spreads, dessert and beverages for lunch and dinner. Include designated snacks and all condiments.

2. Print out and assess the reports.

Nutrient analysis software create detailed reports. To determine how well the menu is meeting the needs of those in care you should focus on the "average" nutrient and energy information for each week. Most programs will provide the following information:

a. A listing of the individual foods and beverages entered and their nutrient breakdown.
b. A summary of the nutrient analysis for each day. In addition, if specified by the user, they provide averages of nutrient intakes over more than one day. You can choose to do the weekly average for the purposes of this audit.
c. Comparisons of the level of nutrient intake to goal percentages for the reference person (e.g. percent of RDA). Note these are not applicable to the menu audit.
d. Breakdown of macronutrients including the percent of total calories they provide.

Part A

Complete Part A of the audit. **Table 16** outlines the goals that should be met for energy and various nutrients and will help you interpret the results. These are based on the DRIs and BC Nutrition Survey nutrient intake data.

Note that the values for α-linolenic and linoleic acid should be interpreted with caution as many nutrient analysis programs do not provide complete information on these. Vitamins A, D, E and K as well as selected minerals are not included in the audit. This is because most software programs have incomplete data on these and the BC Nutrition Survey does not provide usual nutrient distributions for them, so comparisons cannot be made.

Compare each nutrient value to the standards. Mark a tick (✓) under Y (Yes) if the standard is met, N (No) if the standard is not met or E (Exception) if the standard is not met and there is a valid reason for this (e.g. incomplete data on nutrient content of some foods). Document the exception on the comment form.

Part B

This section of the Menu Audit examines certain directives provided in *Eating Well with Canada*'s *Food Guide* and whether menus meet the needs and preferences of those in care. Note that Part B of this audit does not include a question about providing whole grains daily (as is the case with the Menu Audit). This is due to the fact that Part A assesses the fibre content of the menu.

- For each question, mark a tick (✓) under Y (Yes), N (No) or E (Exception). If an exception is ticked, document the reason for the exception in the comments area of the audit.

3. Score each part of the audit.

Part A

Total the Y's and E's for each week at the bottom of the columns. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL (Y + E)}}{\text{TOTAL NUMBER OF WEEKS MENU AUDITED} \times 24} \times 100$$

Part B

Total the Y's and E's at the bottom of the columns. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTAL (Y + E)} \times 100}{13}$$

4. Determine whether the minimum audit scores for Part A and Part B are met or not met.

Acceptable scores for each part of the audit are 100%.

5. Document any problems identified and possible reasons, corrective actions taken, and date for re-audit.

If a nutrient inadequacy cannot be corrected, standard procedures are necessary to provide nutritional intervention on an individualized basis with appropriate documentation (e.g. fibre enhancement for a pureed diet).

Table 16: Guidelines for Interpreting Weekly Averages from the Computerized Nutrient Analysis Reports

Energy (Weekly average at least the estimated Total Energy Expenditure of the age group (based on sedentary activity)[+])

Age range (years)	19 - 30 y	31 - 50 y	51 - 70 y	70 y+
Total Energy Expenditure (kcal)	2000	1900	1800	1600

Macronutrients (AMDR = Adequate Macronutrient Distribution Range)

Protein	Carbohydrates
Weekly average within the AMDR of 10 to 35% of calories. Ideally between 15 to 30%[++].	Weekly average within AMDR of 45 to 65% of calories. Ideally it should be between 50 to 60%[++].

Fat ➡	
Total	Weekly average within AMDR of 20 to 35% of calories. Ideally 20 to 30%[++].
Saturated	Weekly average less than 10% of calories.
α-Linolenic acid	Weekly average within AMDR of 0.6 to 1.2% of calories or at least at Adequate Intake level of 1.6 grams for males and 1.1 grams for females.
Linoleic acid	Weekly average within AMDR of 5 to 10% of calories or at least at Adequate Intake level of 17 grams for males or 12 grams for females.

Dietary Fibre	Cholesterol
Weekly average at least 38 grams for men and 21 grams for women between 19 to 50 years; 30 grams for men and 21 grams for women over 50 years of age[+++] (can use minimum of 21 grams).	Weekly average less than 300 mg*.

Sodium	Potassium	Caffeine	Water
Weekly average does not exceed 2300 mg[+++]. (Adequate Intake for 51 to 70 years: 1300 mg[+++]; >70 years: 1200 mg[+++])	Weekly average at least at Adequate Intake of 4700 mg[+++].	Weekly average less than 400 mg**.	Weekly average at least 1500 ml.

Selected Vitamins and Minerals
Minimum levels are based on the vitamin and mineral intake data of the BC Nutrition Survey (29) where the levels are set that allow for a low prevalence of inadequacy for that age/gender group (i.e., the EAR plus a safety factor).
For nutrients that have a UL indicated, average nutrient values should not exceed these numbers.

Age	Vitamin C (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg-NE)	Vitamin B_6 (mg)	Folate (DFE)	Magnesium (mg)	Pantothenic Acid (mg)	Vitamin B_{12} (mcg)	Calcium (mg)	Iron (mg)	Phosphorous (mg)	Zinc (mg)
	Min^ - Max	Min^	Min^^	Min.^^^	Min^ - Max	Min^ - Max~	Min^	Min^^^	Min^	Min^^^ - Max	Min# - Max	Min@ - Max	Min^ - Max
Males													
19-30	132-2000	2.8	2.3	25	2.9-100	647-1000	475	5	6.2	1000-2500	19-45	1371-4000	17.0-40
31-50	155-2000	2.3	2.1	25	2.3-100	572-1000	430	5	5.2	1000-2500	17-45	1327-4000	16.0-40
51-70	137-2000	2.4	2.0	25	2.3-100	593-1000	450[%]	5	4.6	1200-2500	16-45	1183-4000	15.0-40
>70	123-2000	1.8	1.9	25	2.1-100	408-1000	450[%]	5	4.6	1200-2500	14-45	1046-3000	12.0-40
Females													
19-30	110-2000	1.7	1.6	20	1.6-100	418-1000	323	5	3.2	1000-2500	15-45	997-4000	10.0-40
31-50	118-2000	1.6	1.5	20	1.6-100	437-1000	340[%]	5	3.2	1000-2500	15-45	917-4000	11.0-40
51-70	130-2000	1.7	1.5	20	1.9-100	386-1000	350[%]	5	3.2	1200-2500	14-45	927-4000	10.0-40
>70	122-2000	1.5	1.4	20	1.7-100	346-1000	340[%]	5	3.3	1200-2500	13-45	901-3000	9.8-40

[+]Based on BC Nutrition Survey, [++]Based on BC Nutrition Survey to allow for low prevalence of being less than the minimum AMDR or exceeding the AMDR, [+++] Based on Adequate Intakes of DRI, *Health and Welfare Canada, 1990 (31), **Health Canada, 2007, http://www.hc-sc.gc.ca/iyh-vsv/food-aliment/caffeine_e.html (24), ^Set at 75th percentile of usual intakes (BCNS), ^^Set at 50th percentile of usual intakes (BCNS), ^^^ Set between Recommended Dietary Allowance (RDA) and 25th percentile of usual intakes (BCNS) or at Adequate Intake (AI) level, ~Maximum (UL) only applies to synthetic forms obtained from supplements, fortified foods, or a combination of the two, #Set at 50th percentile for males and 75th percentile for females of usual intakes (BCNS), @Set at 25th percentile of usual intakes (BCNS), %Set above 75th percentile as there was high prevalence of inadequate intakes in these groups

SAMPLE

Computerized Nutrient Analysis of Menu Audit

NAME OF AUDITOR: *I. Hepner*	DATE OF AUDIT: *Dec. 2008*	MENU SEASON: *Fall/Winter*	REFERENCE PERSON USED: *51. y.o. female; reference height and weight*

Based on 51 y.o female; values from **Table 16**

Y = YES, E=EXCEPTION, N=NO

		DIETS AUDITED:	*General*			*Pureed*			*Minced*			*Diabetes*		
Nutrient	**Standard Guidelines**	**Standard Used**	**Week 1 Average**			**Week 2 Average**			**Week 3 Average**			**Week 4 Average**		
			Y	E	N	Y	E	N	Y	E	N	Y	E	N
1 Water/Fluids	≥ 1500 ml	-	✓	-	-	✓	-	-	✓	-	-	✓	-	-
2 Energy	See Table 16 (≥ TEE)	*1900 kcal*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
3 Carbohydrate	Ideal is 50 to 60% of total calories	*50-60% of total kcal*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
4 Total fiber	See Table 16	*≥ 21 g*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
5 Total fat	Ideal is 20 to 30% of total calories	*20-30% of total kcal*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
6 Protein	Ideal is 15 to 30% of total calories	*15 to 30% of total kcal*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
7 Thiamin	See Table 16	*1.7 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
8 Riboflavin	See Table 16	*1.5 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
9 Niacin	See Table 16	*20 NE*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
10 Pantothenic Acid	See Table 16	*5 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
11 Vitamin B_6	See Table 16	*1.9 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
12 Folate	See Table 16	*386 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
13 Vitamin B_{12}	See Table 16	*3.2 mcg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
14 Vitamin C	See Table 16	*130 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
15 Sodium	< 2300 mg	*< 2300 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
16 Potassium	≥ 4700 mg	*≥ 4700 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
17 Calcium	See Table 16	*1200 mg*	✓	-	-	-	-	✓	-	-	✓	✓	-	-
18 Phosphorous	See Table 16	*927 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
19 Magnesium	See Table 16	*350 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
20 Iron	See Table 16	*14 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
21 Zinc	See Table 16	*10 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
22 α-Linolenic acid*	0.6 - 1.2% of total calories or ≥ 1.1 g	*≥ 1.1 g*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
23 Linoleic acid*	5 - 10% of total calories or ≥ 12 g	*≥ 12 g*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
24 Caffeine	< 400 mg	*< 400 mg*	✓	-	-	✓	-	-	✓	-	-	✓	-	-
		TOTAL (Y, E)	*24*	*0*		*23*	*0*		*23*	*0*		*24*	*0*	

*interpret cautiously as many nutrient analysis programs do not provide complete data on many foods for these nutrients (look for many missing values in the nutrient breakdown of foods known to have this nutrient and tick (✓) exception where applicable)

Note: Vitamin A, D, E, and K and selected minerals are not included in the analysis as most nutrient analysis software do not provide sufficient information on these nutrients and BC Nutrition Survey data is not available for them in order to make appropriate comparisons.

Form developed 2008

Part B of Computerized Nutrient Analysis of Menu Audit on the following page...

SAMPLE

Computerized Nutrient Analysis of Menu Audit Part B

The menus for ***all diet types*** have:		Y	E	N
1	At least 2 servings of fluid milk offered daily for vitamin D.	✓	-	-
2	At least one dark green vegetable* and/or one orange vegetable (i.e. carrots, sweet potatoes, yams, pumpkin or winter squash) and/or one of the selected orange fruits (i.e. apricots, cantaloupe, mango, nectarine, papaya and peach) daily.	-	-	✓
3	At least 2 servings of fish each week.	✓	-	-
4	A cycle of at least 4 weeks in length.	✓	-	-
5	Three meals and at least 2 snacks offered each day (one snack is offered in the evening).	✓	-	-
6	Seasonally available foods included (e.g. fall/winter and spring/summer menus).	✓	-	-
7	Foods made from various preparation methods as well as an assortment of colours, flavours, and textures on a per meal, daily and weekly basis.	✓	-	-
8	Standard portion sizes for food and beverages.	✓	-	-
9	Standardized recipes available for all types of food items.	✓	-	-
10	A rotation for all therapeutic and texture-modified diets that follows the master menu as closely as possible.	✓	-	-
11	Included the preferences, cultural, ethnic and religious needs of those in care.	✓	-	-
12	Been reviewed by the council or food committee (where applicable) representing those in care.	✓	-	-
13	Remained available to those in care and their families/substitute decision makers.	✓	-	-
	TOTAL (Y, E)	*12*	*0*	

*see **Table 15** for a complete list

Part A:

TOTAL AUDIT SCORE = $\frac{\text{TOTALS (Y + E)}}{\text{TOTAL NUMBER OF WEEKS MENU AUDITED x 24}}$ x 100 = $\frac{(24+0) + (23+0) + (23+0) + (24+0)}{4 \times 24}$ x 100 = 98%

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

Part B:

TOTAL AUDIT SCORE = $\frac{\text{TOTAL (Y + E)}}{13}$ x 100 = $\frac{12}{13}$ x 100 = 92 %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

SAMPLE

COMMENTS
Part A: *# 17 - Calcium - Standard not met for pureed menu week 2 and minced week 3 - provides only 700 to 800 mg*
calcium on these days.
Part B: *Q. 2 - 7 days on menu do not have these types of vegetables/fruit including week 1 days 5 and 7,*
week 2 days 2 and 5, week 3 day 4 and week 4 days 1 and 4.

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Q. 17 - Calcium - Standard not met for	*Pureed menus to be reviewed for calcium*	
pureed menu week 2 and minced menu	*content. Will incorporate one more serving of*	
week 3 - only 700 to 800 mg provided	*fluid milk into pureed menu daily.*	
	Re-audit by January 15/09.	*I. Hepner*
Not all days have at least one of these	*To review all menu rotations and make*	
types of vegetables/fruit	*revisions to comply with this*	
	recommendation.	
	Re-audit menus by Feb. 1/09.	*T. Flanagan*
	DATE OF NEXT AUDIT: *January 15/09 (pureed menu)* *February 1/09 (full audit)*	*I. Hepner*

Menu Substitutions - Background Information

Any menu changes (meals and snacks) must be documented (including the date of substitution or change), filed and saved for one year, and must be available to licensing staff on request. One satisfactory method of documenting menu substitutions is to write the changes permanently on a copy of a dated cycle menu and to keep this revised menu for one year. Another method is to record menu changes in a book that contains the Menu Substitution Tracking Form and Audit in this manual. Regardless of the system, a monitoring mechanism must be in place and it should be audited. Substitutions and changes must be made and saved electronically in computerized menus. They must also be indicated on the menu posted for those in care.

Substitutions and alternatives must provide equivalent nutritional value (i.e. substituted items are from the same food group(s) as the original menu item). It is important to note the reason for a menu substitution (e.g. special occasion, ingredient not in stock, recipe not available, the menu item is not enjoyed by those in care, staff are not trained to prepare) to determine if a revision to the menu is required or if operational changes need to be made. Specific foods and beverages provided for items that are generically described (including snacks) on the cycle menu should be recorded. For example, if the cycle menu states "fruit" then the actual fruit provided should be documented (e.g. peach slices). If the cycle menu lists "Chef 's Choice" for a meal then the actual food item(s) served should be documented.

Some may suggest that a nutritional equivalent to a food item need not be provided if the overall daily menu meets the minimum servings for that food group for that day without making the appropriate substitution. While it may be true that if an inappropriate substitute is made the overall daily menu may still meet the minimum servings for a given food group, it is best practice to have food service staff provide foods that are nutritional equivalents by food group to ensure appropriate substitutes are made.

To help food production staff to make appropriate menu substitutions, you may want to provide written lists of acceptable food substitutions for each food group on a meal pattern (e.g. foods that contain high vitamin A and appropriate substitutes for meat). **Table 15** in this manual can be used or adapted for this purpose. Using a substitution list limits the need for staff to contact the Registered Dietitian each time there is a menu change and helps ensure that those in care receive appropriate replacements to the original menu item.

Menu Substitutions - Tracking Form and Audit

This is a required audit. A blank audit form is available in **Chapter 8**.

Purpose of the Audit:	To audit if the menu substitutions made are nutritionally comparable to the original menu item(s).
Acceptable Audit Score:	100%
Audit Frequency:	• Complete the Menu Substitution Tracking Form (Part A) daily. • Complete the Audit part of the form (Part B) at least once a year. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Continue to complete the Menu Substitution Tracking Forms daily and repeat the audit after a given time. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

The Menu Substitutions Tracking Form and Audit is a tool for recording menu substitutions on an ongoing basis (Part A). Instruct staff how to record all menu substitutions (i.e. meals, snacks); all columns of Part A should be completed. Specific foods and beverages provided for items that are generically described on the cycle menu should also be recorded on this form. For example, if the cycle menu lists "Cook 's Choice" then the actual food items served should be documented and at least 3 food groups provided. In addition, snack substitutions should be included as they can contribute significantly towards meeting nutritional needs. After a defined time period (at least once per year) audit the actual substitutions made by completing Part B.

1. Complete Part B of the audit.

Compare each menu substitution with the original item using the *Eating Well with Canada*'s *Food Guide* groups.

- Complete the checklist by ticking (✓) Y (Yes) if the substituted item is from the same food groups and provides similar nutritional value, (✓) N (No) if the substituted item is not from the same food groups or (✓) E (Exception) (e.g. substitutions made are due to a special event or occasion). If an exception is ticked, document the reason for the exception on the comments form.

2. Score the audit.

Total the Y's and E's at the bottom of the columns. Use the formula on the audit form to determine the total audit score.

$$\text{TOTAL AUDIT SCORE} = \frac{\text{TOTALS (Y + E)}}{\text{TOTAL ITEMS AUDITED}} \times 100$$

3. Determine whether the minimum audit score is met or not met.

An acceptable score is 100%.

4. Document any problems identified and reasons, corrective actions taken, and date for re-audit.

Menu Substitutions Tracking Form and Audit

SAMPLE

All meal and snack substitutions are written on the tracking form. **M = Milk and Alternatives, MA = Meat and Alternatives, VF = Vegetables and Fruit** and **G = Grain Products.**

TRACKING FORM																
PART A: COMPLETED BY FOOD SERVICE STAFF														PART B: COMPLETED BY AUDITOR		
DATE	ORIGINAL MENU ITEM	FOOD GROUP(S) Put a ✓ for the food groups the menu item contains				REASON FOR CHANGE	SUBSTITUTED ITEM	FOOD GROUP(S) Put a ✓ for the food groups the menu item contains				STAFF SIGNATURE	STANDARD MET (Y = YES, N = NO E = EXCEPTION)		
		M	MA	VF	G			M	MA	VF	G		Y	E	N
Example: *May 1/08*	*Lasagna*	✓	✓	✓	✓	*No lasagna noodles*	*Spaghetti with meatballs topped with cheese*	✓	✓	✓	✓	*C. Petch*			
Feb. 10/08	1. *Baked chicken*	-	✓	-	-	*Chicken left at unsafe temperature for > 4 hours*	*Baked pork chops*	-	✓	-	-	*T. Thompson*	✓	-	-
Mar. 11/08	2. *Vegetable Beef Soup*	-	✓	✓	-	*There was no leftover beef to use in soup*	*Chicken vegetable soup*	-	✓	✓	-	*G. Hina*	✓	-	-
May 15/08	3. *Snack - Banana Loaf*	-	-	-	✓	*No bananas*	*Snack - blueberry bran muffin*	-	-	-	✓	*K. Sitter*	✓	-	-
Jun. 20/08	4. *Green Beans*	-	-	✓	-	*Fresh beans spoiled*	*Broccoli*	-	-	✓	-	*I. Cop*	✓	-	-
July 20/08	5. *Mixed Fruit Dessert*	-	-	✓	-	*John's birthday*	*Birthday cake with ice cream*	-	-	-	-	*T. Hood*	-	✓	-
Aug. 25/08	6. *Cook's Choice*	-	-	-	-	-	*Chili, salad, whole wheat bun and yogurt*	✓	✓	✓	✓	*T. Thompson*	✓	-	-
Sep. 11/08	7. *Shepherd's Pie*	-	✓	✓	-	*No ground beef left in fridge to thaw*	*Perogies filled with potato and cheese and mixed vegetables*	✓	-	✓	✓	*G. Hina*	-	-	✓
	8.														
	9.														
	10.														
												TOTAL (Y, E)	*5*	*1*	

NAME OF AUDITOR: *C. Tann* | DATE OF AUDIT: *Sept. 23/08*

TOTAL AUDIT SCORE = $\frac{\text{TOTALS (Y + E)}}{\text{TOTAL ITEMS}} \times 100 = \frac{5+1}{7} \times 100 = \frac{6}{7} \times 100 = 86\ \%$

Form developed 2008

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

SAMPLE

COMMENTS
Item 5 - substitution was an exception as it was the birthday of a person in care who chose the meal.
Item 7 - substitute lacked a meat/alternative. Spoke with staff member who thought that since cheese contained protein it
was a reasonable substitute for ground beef in the Shepherd's Pie.

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Item 7 - substitute lacked a meat/alternative.	*Clarified with staff member that milk / milk alt.*	
Staff member thought that cheese was an	*and meat / meat alt. are not nutritionally*	
appropriate substitute for beef since contains	*equivalent. At the next dietary staff meeting*	
protein.	*will review menu substitutions and do brief*	
	talk on Canada's Food Guide (Oct. 10/08).	*C. Tann*
	Dietary staff requested example sheet of	
	appropriate substitutes to be kept with audit	
	form. Will develop the form. Re-audit in	
	December 2008.	*C. Tann*
	DATE OF NEXT AUDIT: *By December 15/08*	*C. Tann*

Chapter Five

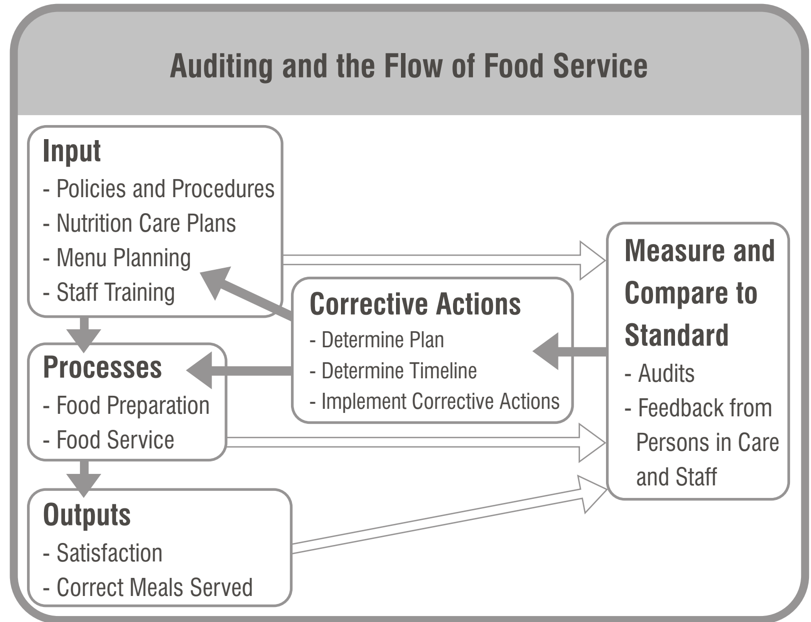
Food Preparation and Service

Chapter 5: Food Preparation and Service

This chapter gives background information on food preparation and service. In addition, the audit tools and checklists relevant to food preparation and service are discussed. These include:

1. Nutrition and Food Services Policies and Procedures Checklist (Optional)
2. The Meal Service Audit (Required)
3. The Dining Environment Audit (Required)

Each audit is reviewed in terms of its purpose, frequency, who should complete it and procedures. A completed example of each audit is given. Blank audit forms are provided in **Chapter 8**. Further resources are located in **Appendix 1**.



Policies and Tools - Background Information

Policies and Procedures

Policies and procedures relating to nutrition and food service should be a collaborative effort of the interdisciplinary team. They should be available to persons in care, families, facility staff and the public. **Comprehensive, well-written policies:**

- Communicate the vision, mission, values and expectations.
- Support and direct care and services by promoting consistency.
- Reflect acceptable industry and professional practices and legislative requirements.
- Provide guidance to new and existing staff in the provision of care in the event of staff absences.
- Promote information sharing and opportunities for learning.

The policy development process is continuous; it includes development, implementation, regular review and revision as necessary. Policies may need revision due to changes that affect the facility operation including revision of the Legislation, new organizational structure or changes in the needs of those in care. An interdisciplinary approach to policy development is particularly helpful in the areas of distribution of meals and snacks, which usually involves food services, activation and nursing. For example, the interdisciplinary team should develop policies that outline where responsibilities pass from one department to another. The food service department may be responsible for the preparation and service of meals and nourishments while the nursing department may be responsible for delivering them.

Tools for Organization and Administration

Tools to help organize the food service system will ensure that daily functioning is effective and efficient. **Recommended tools for administration and organization include (2):**

- A mission statement as well as specific, timely and measurable long term goals, short term objectives, organizational chart, budget (allocation of resources), protocols, policies, procedures and tools.
- Adequate staffing to provide a quality program, including a Registered Dietitian and food service supervisor/nutrition manager in accordance with the Legislation. Other necessary qualifications may require cooks with qualified trade papers and food handlers who have completed a recognized food service worker training program and have current FoodSafe certification.
- Written accessible standards for special diets that specify the types and amounts of foods and fluids to serve.
- Specifications for food purchasing including name, form, use, grade or quality, brand, size of unit, units per case, price per unit and minimum inventory levels that take into account the menu, equipment and storage space. It is also good to have the manufacturer's information on productions (e.g., ingredients, etc) as reference.
- Food production plans that maximize the resources of the department including (2):
  - Purchasing procedures (i.e. ordering, receiving and food storage).
  - Staff schedules and protocols for food safety and sanitation including HACCP guideline and taste testing.
  - Cleaning schedules for production, service and ware washing areas.
  - Procedures for preventative maintenance, safe operation and cleaning of equipment.
  - Procedures for waste management.
- Standardized recipes for all food, beverages and diet types that include (1;2):
  - Date of implementation, item name (and number if needed) and ingredient quantities.
  - Method for combining ingredients in sequence, portion size, yield, appropriate serving utensil, panning information (e.g. type and size of pans) and garnishes to be included.
  - Estimates of preparation times as well as HACCP - guidelines for monitoring time and temperatures at various stages of production (e.g. panning, baking, heating and serving).
  - Methods for adjusting recipe yields and how to modify and serve all items for texture and therapeutic diets (e.g. size to cut pieces prior to processing, when to add thickening agent).
  - Cost per portion and a nutritional breakdown (e.g. by food groups or nutrients) of the standardized recipe available on file (Dietitians of Canada's Recipe Analyzer can provide this).
  - A test or evaluation prior to being incorporated into the menu and an annual review.
- Daily production schedules that include names/recipes of the item(s) and the meals for which they are intended, assignment of employees to production of specific items, time that preparation should be started and completed, direction on advance production (e.g. items to be defrosted), portion sizes and number of portions required by choice, diet type and service area.
- Dietary records for identification of therapeutic modifications, food allergies/intolerances, food restrictions due to current medications, feeding aids, portion sizes, food dislikes and beverage preferences.
- Communication and documentation processes (e.g. a tool/binder with tabs or dividers) that convey all new information to team members (e.g. memos, minutes, dining rooms concerns), and require accountability by all staff for reviewing (e.g. reading previous reports back to the last shift worked), reporting any incidents or concerns that occur and assuming accountability for any corrective actions taken.
- Systems to ensure appropriate service of food, adequate assistance at meals and snacks, and delivery of the correct diet to the correct person in care.

A blank Policies and Procedures Checklist for Nutrition and Food Services is provided in **Chapter 8** to help you plan, develop and implement policies and procedures for your nutrition and food services department. It provides an outline of common policies and procedures found in nutrition and food services departments.

Food Product Quality - Background Information

Food product quality refers to the characteristics of food that are acceptable to those in care. The main quality attributes of food include safety, nutritional value, and sensory attributes such as taste. Controls must be in place throughout procurement, production, and service to maintain food product quality. Programs such as HACCP ensure that food safety standards are met while nutritional value is typically determined by evaluating the menu in comparison to *Eating Well with Canada's Food Guide* or the *Dietary Reference Intakes.* In this section of the manual, the focus is on the sensory quality of food products: appearance (e.g. size, shape, colour, gloss, and consistency), temperature, taste, aroma and texture.

The word quality is often used in combination with standards. Food product standards define what is expected in a food product. Persons in care rely on standards for food that is consistently appealing, to know what ingredients are present in foods, and to meet health and personal requirements (e.g. kosher, halal, vegetarian). Standards also provide the basis for monitoring performance and taking corrective action as needed. For example, a food product standard may ensure that food and beverages are provided at safe and palatable temperatures throughout meal service. To meet this standard, protocols may be set in place (such as having appropriate equipment to transport food and specifying that meals should be delivered within five minutes of plating). To monitor performance of this standard, temperatures of food and beverages are recorded at the point of service and corrective actions taken (e.g. reheat food item) where needed.

Meeting food product standards is becoming especially challenging due to the growing diversity of people in care. Menus should be tailored to religious or cultural requirements (e.g. kosher, vegetarian) and the provision of therapeutic foods or foods that are modified for health reasons (e.g. renal, texture-modified) to the maximum extent practical (i.e. considers characteristics of the people in the facility, number of people with a specific need, capacity and capability of the facility, availability of different suppliers). Standards to address these special needs help to ensure that:

- Staff of the facility know appropriate foods to offer for various special dietary needs.
- All people in care consistently receive a nutritionally adequate and appropriate diet that addresses their dietary needs.

Food product standards should be in a written format accessible to all dietary staff. They should specify how to provide the diets ordered in terms of what foods and fluids to serve and how much of the foods or fluids to provide. The food items offered according to the standards should correspond as much as feasible with the regular menu. The written standards may be done in several ways. You could write them on the standardized recipes or food production schedules, provide separate menus for each type of requirement (e.g. diet type), make additions to the standard menu where needed or have separate written quality standards for all foods and beverages served. The last example may classify the foods into groups (e.g. cereal, pasta, rice) and then list and define each item in that category offered in the facility in terms of its standard. The following provides a detailed example:

Category ▸ Cereal, Pasta, Rice:

Food Item	Standard
Cereal, hot	Colour of the cereal depends on the colour of the grain: tan for oatmeal, white for cream of wheat, and yellow for cornmeal. Cooked cereal should be tender with a cooked starch flavour. Consistency should be thick, and the texture smooth. Cooked cereal should be served hot and in accordance with food safety standards. Standardized portions are appropriate for all therapeutic and texture-modified diets.

Many food service texts and resources have these standards available; you may adopt and modify them as necessary (e.g. for specific diet types). The following are examples of modifications that may be needed:

- Meal with a lower sodium entrée if the regular entrée is of significantly higher sodium content than usually served.
- Meal with fresh fruit, or juice-packed canned fruit in place of a concentrated sweet dessert.
- Modified meal may have an altered texture to accommodate the needs of an individual with problems chewing or swallowing. Examples of such meals include ground meat, thickened liquids or all pureed foods.

The Meal Service Audit that follows is a tool to evaluate the food product quality standards in your facility.

Meal Service Audit

This is a required audit. A blank audit form is available in **Chapter 8**.

Purpose of the Audit:	To audit the meals served to those in care including the appropriateness of items, correspondence with the standard, and quality.
Acceptable Audit Score:	100%
Audit Frequency:	• This audit is completed 12 times per year and includes at least 6 therapeutic and/or texture-modified meals. Also select different meals (e.g., breakfast, lunch, supper, snacks) and those where food items are modified to meet personal requirements (e.g. kosher). • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

1. Complete the audit.

Part A: Food Item Standard

- Order the meal to be audited, check that it is the same as that served to those in care and record the diet/texture on the audit form. In a given year, audit at least 6 therapeutic and/or texture-modified meals where the items served are different than the regular menu. Vary the meals chosen in order to include breakfasts, lunches and suppers.

- Obtain a copy of the food standards and write these in Column 1. Check that the items meet the standards.

  - Place a tick (✓) in the "yes" column if the food served corresponds with the written standard. For example, the minced ham served is according to the facility's "definition" of minced (e.g. ¼ inch pieces, moist).
  - Place a tick (✓) in the "no" column if the written standard is not met.
  - If the modified menu item was not provided and the standard was met, place a tick (✓) in the "exception" column (e.g. minced ham is the standard but minced chicken had to be substituted).

Part B: Food Evaluation

Eat each meal item and tick (✓) on the audit whether the characteristics are acceptable or unacceptable.

- **Aroma.** A food item with an acceptable aroma has pleasant odor. Food modified for texture or therapeutic diets should smell similar to the food that has not been modified. If the food typically has a lack of aroma (e.g. milk) and there is none, then the score would be acceptable.
- **Temperature.** A menu item with an acceptable temperature is served at a temperature that is appropriate (i.e. hot foods served hot and cold foods served cold). Temperature may affect the blending of flavours.
- **Appearance.** An acceptable menu item will look appetizing. Appearance includes the shape, size, colour, surface condition, arrangement of the foods (e.g. "eye appeal") and, in some products (e.g. baked products, meats, etc.), the interior colour. Cut up, minced or pureed items are acceptable when the items are separated on the plate and they are the same colour as the food that has not been modified in texture.
- **Taste.** For the purposes of this audit, taste and aroma are considered separately (together they make up flavour). The main tastes are sweet, sour, bitter, and salty. Some terms to describe taste include stale, rancid, metallic, cardboard like, sharp, pungent, tart, burnt, spicy, and bland. Also consider if there is any aftertaste. An acceptable score would mean that the menu item (even if modified) has the appropriate taste.
- **Texture.** This is the structure and feel (by mouth and fingers) of the food. A menu item with an acceptable texture will have the correct consistency. Some examples of acceptable texture include: a crunchy salad, smooth mashed potatoes, tender and juicy roast beef and pureed foods that are smooth and semi-liquid. Some examples of unacceptable texture include: a limp and soggy salad, lumpy mashed potatoes, tough roast beef, crumbly muffin, slimy fruit salad, and watery soup.

2. Score each section of the audit.

Part A: Food Item Standard

Total the number of ticks in the Y and E columns of the Standard Followed column. Use the formula on the audit sheet to determine the food item standard score.

$$\text{FOOD ITEM STANDARD SCORE (\%)} = \frac{\text{TOTAL (Y + E)}}{\text{TOTAL ITEMS AUDITED}} \times 100$$

Part B: Food Evaluation

Total the number of ticks in the "acceptable" boxes of columns 1 to 5. Use the formula on the audit sheet to determine the food evaluation audit score.

$$\text{FOOD EVALUATION AUDIT SCORE (\%)} = \frac{\text{TOTAL NUMBER OF ACCEPTABLE (COLUMNS 1 TO 5)}}{\text{TOTAL NUMBER OF MENU ITEMS AUDITED x 5}} \times 100$$

3. Determine whether the minimum audit score for each section of the audit is met or not met.

An acceptable score is 100% for Part A and Part B of this audit.

4. Document any problems identified and possible reasons, corrective actions taken, and date for re-audit.

If the score of either part is unacceptable, both parts of the audit should be conducted again.

Meal Service Audit

SAMPLE

NAME OF AUDITOR: *T. Fisher*	LOCATION/UNIT: *Dining room - special care unit*	DATE OF AUDIT: *Aug. 10, 2008*	MENU CYCLE: week *3* day *4*	MEAL (CIRCLE ONE): Breakfast Lunch (Supper)

Y = Yes, N = No, E = Exception

PART A: FOOD ITEM STANDARD				PART B: FOOD EVALUATION									
DIET/TEXTURE: *Regular/minced texture*													
Menu Items Selected (Give full description of the standard they are to meet)	Standard Followed?			1. Aroma		2. Temperature		3. Appearance		4. Taste		5. Texture	
	Y	E	N	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable
1. *Minced ham (1/4" pieces)*	✓	-	-	✓	-	✓	-	✓	-	✓	-	✓	-
2. *Whipped potato*	✓	-	-	✓	-	-	✓	✓	-	✓	-	-	✓
3. *Peas*	✓	-	-	✓	-	✓	-	✓	-	✓	-	✓	-
4. *Cut up cherry cobbler*	-	-	✓	✓	-	✓	-	✓	-	✓	-	✓	-
5.	-	-	-	-	-	-	-	-	-	-	-	-	-
6.	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS	*3*	*0*		*4*		*3*		*4*		*4*		*3*	

PART A: FOOD ITEM STANDARD

DIET STANDARD SCORE = $\frac{\text{TOTAL (Y + E)}}{\text{TOTAL ITEMS AUDITED}} \times 100 = \frac{3}{4} \times 100 = 75\ \%$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ UNMET

PART B: FOOD EVALUATION

FOOD EVALUATION AUDIT SCORE = $\frac{\text{TOTAL \# OF ACCEPTABLE (COLUMNS 1 TO 5)}}{\text{\# OF MENU ITEMS AUDITED x 5}} \times 100 \quad \frac{(4 + 3 + 4 + 4 + 3)}{4 \times 5} \times 100 = \frac{18}{20} = 90\ \%$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ UNMET

Form revised 2008

SAMPLE

COMMENTS
Food items were taken from special care unit not main dining room.
Part A - *Cherry cobbler not modified to minced standard.*
Part B - *Potatoes were served cold and texture unacceptable (lumpy - not whipped).*

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Part A: *Cherry cobbler offered as regular*	*Diet standards reviewed and discussed with*	
(should have been minced)	*dietary staff on current shift. Note put in*	
	communication book about minced diet	
	standard. In-service on diet standards	
	scheduled Aug. 22/08.	*T. Fisher*
Part B: *Temperature and texture of potatoes*	*Checked recorded meal temperatures for*	
unacceptable (cold)	*potatoes in main kitchen and standard met.*	
	Dietary staff to document temperatures of	
	food items after transport to special care unit	
	and reheat product as needed. Procedures will	*Dietary aids that*
	be set in place regarding this (by August	*transport items to*
	17/08).	*SCU / T. Fisher*
	Spoke with cook re: potato texture who didn't	
	realize "whipped" potatoes were to be served;	
	reviewed menu and standardized recipe with	
	cook. Will follow-up when menu item served	
	again (Week 1 Day 2 of menu).	*T. Fisher*
	DATE OF NEXT AUDIT: *Sept. 12, 2008*	*T. Fisher*

Dining Environment - Background Information

Providing a supportive dining environment for all meals, beverages and snacks contributes to satisfaction with food service. In this section, best practices for meal service (2;32) are discussed in detail.

Provide persons in care with assistance to prepare them for the dining experience.

Begin the dining experience with assisting persons in care to the dining room according to their plan of care (independently, wheelchair, walker) and no more than 20 minutes before the meal. They should be properly groomed and dressed, wearing any needed sensory aids (hearing aids, dentures etc.), seated comfortably, properly positioned and have clothing protection as preferred. Offer beverages as people arrive for meals.

Provide a safe, relaxed, supportive and restorative dining environment.

For a new person in care, plan a positive introduction to meals by assigning dining room location and accompanying the person in care to the first meal. Introduce them to tablemates, serving staff and the dining room service. An area to socialize before the meal also helps create a supportive dining environment.

Provide help in a non-embarrassing way such as having a private area for those who may be disturbing to others. Allocate ample time (e.g. 45 to 60 minutes) and make provisions for those who eat slowly (e.g. to maintain food temperature by using a heated holder for the plate). In the plan of care include the estimated time required to provide assistance in eating for those who are totally dependent.

A safe and supportive dining room should be clean, well lit, have appropriately-set tables, seasonal décor and a homelike ambiance (e.g. comfortable temperature, minimal noise, appetizing smells). Each dining room should have an adequate amount of dishware and assistive devices, adjustable-height tables, comfortable chairs and appropriate seating for team members assisting those in care. In addition, adequate dining room supervision should be provided by a team member trained to handle risks such as choking and other response protocols. Ideally, all staff should be available to assist during meals.

A supportive and restorative dining program serves meals at approximately equal intervals during the day. Provide a full breakfast even to those who choose to sleep late. In mental health settings, some may choose their own 'start of day'. Do not offer the evening meal before 1700, unless otherwise documented, and based on the preferences of the majority. The regional medical health officer may provide written approval for variations to mealtimes when it is in the best interest of the person in care. Contact your regional licensing staff for more information.

Train staff to provide supportive dining services by watching for signs that a person's needs are changing (e.g. tiring more readily), educating them about assistance devices that restore independence in eating and having them recognize that receiving correct foods enhances the feeling of personal worth for the person in care.

Provide choice and social opportunities

Have planned menu choices (appetizer, entrées, desserts and alternates) for all diets available and served at the same time. Rotate the order of the table-by-table service on a regular basis to allow everyone the opportunity to be served first. Have second servings and beverage refills available. Although difficulties in chewing may be encountered, never alter a food's texture unless it is necessary. Choices should be visual unless the person's care plan indicates otherwise (e.g. verbal, use of likes and dislikes, a family-marked menu). Have families bring in personal preferences if desired. Where possible, ensure choice for those who prefer to sleep in on weekends by serving a brunch. Finally, provide dining opportunities that include celebrations.

Social opportunities consider seating patterns and interaction with staff. Review seating plans regularly to

ensure that those in care are eating with suitable tablemates. When appropriate, seat those requiring assistance at tables of four with two requiring complete assistance together with two requiring some assistance. Try to avoid using U-shaped “feeding” tables. Being seated while assisting helps to involve the person in care in communication. Direct conversation to those in care.

While dining service should be encouraged, accommodate alternative types of service (e.g. temporary trays) under special circumstances and according to established policy. Provide supervision and assistance to maintain the safety of the person in care. Document the need for tray service in the nutrition care plan.

Make provisions for those who don't attend a meal or snack time

Provide meals and snacks if required when a person in care is absent from the facility during a meal or snack. Pre-packed take-away meals or snacks should be nutritionally equivalent to the meal or snack that they replace and available at no added cost. Document who might be resting or away during meals, snacks or beverage rounds so that these items can be provided at a time suitable to their individual needs.

Provide organized dining and sequence of service

Assign regular tables to team members so they become familiar with personal needs and preferences. Have systems for verifying that each person's documented nutrition care needs are attended to (e.g. an interdisciplinary binder that contains up-to-date and clear directions based on the dietary profile or the nutrition care plan). Create traffic patterns that minimize confusion and accommodate those with disabilities; provide wide aisles and storage space for walkers. Allow those in care to complete one course before offering the next and circulate with hot beverages and desserts after the main course has been served. Clear tables after all have finished eating and have left the dining areas. Minimize the number of dining room seating shifts. A team approach to providing meals will facilitate a well-paced meal service.

Recognize right to respect, dignity and privacy of persons in care with practices around treatments at mealtime

Do not disguise medications in food served as part of the meal; they can have a negative impact on its taste. Medication systems, such as the use of applesauce, should be outlined in a separate policy. Whenever possible, provide medications as the person in care arrives or leaves the dining room to minimize meal time interruptions and allow for more nursing supervision and assistance during dining.

Involve persons in care in food services

Involvement in food services can range from ensuring that aromas from foods in the kitchen can spread into the facility for everyone's enjoyment to having persons in care participating in therapeutic or rehabilitative food programs. You might have persons in care involved in food committees, taste testing panels, tending a facility's garden, helping with composting of food waste or recycling, or helping to set up the dining area. Educate persons involved in food preparation about hygiene, food storage and appropriate preparation.

Assist those in care to maintain or acquire food-related skills. Activities such as baking and small meal preparation can enhance quality of life. Many facilities have small kitchens where those in care can make a cup of tea, a snack, or bake with the help and supervision of staff as part of the activity program. The care plan should provide information on the person's participation in food service activities, if appropriate, and the level of supervision required to ensure safety. The following strategies make kitchens safer and easier to use for people who may have disabilities.

- For those in wheelchairs or who need to sit while cooking, hang an unbreakable mirror (toy or auto supply stores) at an angle above the stove so that they can see into the pots on the stovetop.

- Dycem, a foam-like non-slip product, is a great jar opener. Paint can openers and bottle openers can also be used to pry apart lids so that jars can be opened with less hand strength.
- Place a piece of non-slip plastic shelf lining under a dish to keep it from sliding on the table.
- Provide pots, pans and utensils that have flat handles; they are much easier to grip. For larger pots and pans, choose ones with handles on each side so that they can be lifted without gripping.
- For those in wheelchairs, have the doors and shelves removed from cabinets under the sink.
- Put a lazy Susan or pull-out shelves in refrigerators and cabinets so that items are easier to reach.
- For those in wheelchairs, a flat board can be set on their lap to help carry things around the kitchen.
- To stabilize a mixing bowl, set it in a drawer and shut the drawer against the bowl's sides. Lean against the drawer to keep pressure on the bowl's sides.
- Choose knives that are lightweight and balanced; the handle should be about as heavy as the blade.
- Provide an extended reacher to make it easier to reach things on higher shelves.
- To make the refrigerator door or cabinet doors easier to open, tie a loop of ribbon or rope around the door handle. A person can slip their forearm through the loop and pull the door open.
- Put a towel or fabric mat under appliances on the counter. This makes it easier to pull the appliance to the front of the counter.
- Use a long-handled spoon to help lift pot lids. This helps balance the weight of the lid.

A well-developed dining program can promote the well-being of those in care and staff. The **Dining Environment Audit** that follows is a tool that may be used to evaluate your current program and provide for future planning.

Dining Environment Audit

This is a required audit. A blank audit form is available in **Chapter 8**.

Purpose of the Audit:	To audit the dining environment in the facility.
Acceptable Audit Score:	100%
Audit Frequency:	• If the minimum acceptable audit score is met, complete the Dining Environment Audit once per year or when meal routines change. • If the minimum acceptable audit score is not met, identify the reasons and develop and implement a corrective action plan with target dates. Repeat the audit. Continue these steps until the concern is addressed.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

1. Complete the audit.

- Observe mealtime procedures. For some questions of this audit, you may also need to refer to documents such as policies and procedures and staff training records.
- Complete the audit by ticking (✓) Y (Yes), N (No) or E (Exception). If an exception is ticked, document the reason for the exception on the comments form.

2. Score the audit.

Total the number of ticks in the Y and E columns of the audit sheet.
Use the formula on the audit sheet to calculate the total audit score.

$$\text{TOTAL AUDIT SCORE (\%)} = \frac{\text{TOTALS (Y + E)}}{23} \times 100$$

3. Determine whether the minimum audit score is met or not met.

An acceptable score for the Dining Environment Audit is 100%.

4. Document any problems identified and possible reasons, corrective actions taken, and date for re-audit.

If questions are scored "N", identify policies and policies that may be needed or education or training needs for staff.

Dining Environment Audit

SAMPLE

NAME OF AUDITOR:	LOCATION/UNIT:	DATE OF AUDIT:	MEAL PROCEDURES OBSERVED:
A. Wing	*2nd floor dining room*	*May 14, 2008*	Breakfast (Lunch) Supper

	Y = Yes, N = No, E = Exception	Y	E	N
1	In-service training on assisted eating and feeding skills is provided to all relevant staff as needed.	✓	-	-
2	Special occasions, holidays and birthdays are celebrated.	✓	-	-
3	Dining area provides adequate space for all people to maneuver.	✓	-	-
4	Lighting and temperature in the dining room is appropriate.	✓	-	-
5	Dining area provides a pleasant and social environment.	✓	-	-
6	Distractions such as TVs and loud music are minimized at meal times.	✓	-	-
7	Cutlery and dishes are visually appealing and suited to the needs of those in care. They are not cracked, chipped or discoloured.	✓	-	-
8	Dining room furnishings and table set up (e.g. tablecloths, centerpieces) are suited to those in care.	✓	-	-
9	The menu is posted in the dining area.	✓	-	-
10	Meals are served at posted times.	✓	-	-
11	There is a regular rotation of the service of tables (so no one table is always served last).	✓	-	-
12	People are offered assistance with meals in a timely manner.	✓	-	-
13	Pace of meal service is appropriate (e.g. not too rushed or too long between courses of meal service).	✓	-	-
14	Meals are served at the same time for everyone seated at the same table.	✓	-	-
15	Measures are in place to ensure appropriate food and beverage temperatures are maintained throughout meal service.	✓	-	-
16	For those requiring pureed foods, menu items are served separately rather than mixed together.	✓	-	-
17	Safe feeding practices are demonstrated (e.g. positioning, technique) at meals and snacks.	-	-	✓
18	Seconds helpings and beverage refills are offered if appropriate.	✓	-	-
19	Alternate food is provided if requested including for those on texture-modified diets.	✓	-	-
20	There is sufficient food provided (e.g. the kitchen did not run out of a menu item).	✓	-	-
21	Staff who serve food are observed to be polite and respectful to those in care. Dining room conversations are directed to persons in care.	✓	-	-
22	Food and fluid intake is encouraged.	✓	-	-
23	Food safety and sanitation practices are observed at meals and snacks.	✓	-	-
	Total (Y, E)	*22*	*0*	

Form developed 2008 by the BC Licensing Nutritionists

TOTAL AUDIT SCORE (%) = $\frac{\text{TOTALS (Y + E)}}{23} \times 100 = \frac{22}{23} \times 100 = 96\ \%$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☑ NOT MET

SAMPLE

COMMENTS

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Question 17 - *unsafe feeding technique*	*Discussed concern with staff member;*	
observed with person in care not properly	*demonstrated and monitored safe feeding*	
positioned (reclined), staff member standing	*practice for remainder of meal.*	
while providing assistance and tablespoon	*Also reviewed PIC's care plan with her.*	
instead of teaspoon used for feeding. Staff	*To review policies and procedures re: new staff*	
member is new to facility and indicated she	*training and will develop and implement an*	
had not received training in providing assisted	*educational module on safe feeding practice.*	
feeding as part of her orientation to facility.	*Directives around adequate supervision during*	
	meals for those newly hired also to be	
	established. Discuss at next interdisciplinary	
	meeting (May 23). Re-audit in June 2008.	*A. Wing*
	DATE OF NEXT AUDIT: *June 28, 2008*	*A. Wing*

Chapter Six

Satisfaction and Accountability

Chapter 6: Satisfaction and Accountability

This chapter discusses satisfaction and accountability related to nutrition and food services. In addition, relevant audit tools are discussed and include:

- The Satisfaction with Nutrition and Food Services Questionnaire (Required)
- The Plate Waste Audit (Optional)

Each audit is reviewed in terms of purpose, recommended frequency, who should complete it and procedures. A completed example of each audit is given. Blank audit forms are provided in **Chapter 8**. Further resources are located in **Appendix 1**.

Satisfaction with Food and Nutrition Services - Background Information

Assessing the satisfaction of those in care with nutrition and food service helps identify concerns and set planning goals and objectives. There are many methods for obtaining satisfaction information.

Input from meetings, focus groups and individuals

Staff should facilitate a forum for those in care and their family/substitute decision makers that promotes the collective and individual interests and addresses concerns. Food issues highlighted in the minutes are passed on to the food advisory committee (if available); department responses are documented. Food service-related committees/focus groups can help evaluate food service. Focus groups of five to 15 people may also help gather more specific information. Minutes of any meetings and outcomes should be posted for those in care to review and should be kept for one year. Provide a suggestion box so those in care and their families can give anonymous feedback. Each suggestion should be documented and followed up with a written response. Obtain feedback from staff who assist with food service, especially for persons in care who are unable to communicate. Ask food service workers about comments and requests they receive. If you provide meals to staff, volunteers, students on placement, etc. you may also want to obtain their feedback. If you cater functions or provide meals to other programs, also talk to those who receive those services. Finally, conduct exit interviews of persons in care and staff as another means of gathering nutrition and food services satisfaction information.

Surveys of Persons in Care

A survey such as that provided in this manual (Satisfaction with Nutrition and Food Services Questionnaire) may be conducted to gather information on the level of satisfaction with specific aspects of the food service operation. The questionnaires may be completed individually, as face-to-face interviews or as a combination of the two methods. A careful examination of results can assist in refining menu offerings and service systems.

Meal Rounds and Monitoring Food Waste

Regular observation of meals can provide direct feedback. Meal rounds should be a shared function among staff. As part of the rounds, the staff member may walk through the facility's dining area, talk to persons in care and carefully listen to their responses. Often the most input will be elicited from asking open-ended questions such as "How was your meal?" "What could we do to improve your dining experience". This allows the person in care to comment on a variety of attributes related to the food, the service, or the dining environment. As part of your meal observations, you may want to monitor and follow-up with persons in care who eat out for meals frequently as this may be a sign of dissatisfaction with the facility's meal service.

Routine food waste monitoring (i.e. the types and volumes of foods discarded) can help to measure acceptability. Average food waste per meal in health care facilities ranges from 20 to 30% depending on the type of service provided (e.g. bulk, plated). The most common reasons for waste include organization factors such as (33):

- Inappropriate timing and presentation of meals.
- Disturbances by medical personnel.
- Bored or unfamiliar with menu.
- Being left to wait for food while others eat.
- Negative attitude of those serving food.
- Lack of assistance.
- Unsuitable environment (e.g. uncomfortable seating, cramped/cluttered conditions, noise).
- Insufficient encouragement.
- Food items are placed out of reach.

Individual factors contributing to plate waste include:

- Not being given the opportunity to select their own meals.
- Being provided with incorrectly prepared diets.
- Side effects of diseases and treatments (e.g. medications, pain, discomfort).
- Inability to swallow.
- The diet provided identifies them as "different".

In this manual, the **Satisfaction with Nutrition and Food Service Questionnaire** (required audit) and the optional **Plate Waste Audit** are provided as means with which to obtain feedback from persons in care about the department's operations.

Satisfaction with Nutrition and Food Services Questionnaire

This is a required audit. A blank questionnaire and a scoring form are available in **Chapter 8**.

Purpose of the Audit:	To audit the satisfaction of those in care with nutrition and food services.
Acceptable Audit Score:	> 70% for each question (1 to 16) of the survey.
Audit Frequency:	• If the minimum acceptable audit score is met, complete the Nutrition and Food Services Questionnaire once per year. • If the minimum acceptable audit score is not met, identify reasons and develop and implement a corrective action plan with target dates. Repeat the survey. Continue doing these steps until the concern is addressed.
Responsible Staff:	Interdisciplinary team members, trained volunteers, family members.

Procedure:

1. Complete the audit.

- Select the group of people in care to be surveyed or distribute questionnaires to all. You should try to survey at least half of those who reside in the facility. If there are numerous dining areas, be sure to select persons in care from each to get good representation of feedback on all types of meal service.

- Inform those in care and staff how and when questionnaires will be distributed and collected. Explain how the information will be used and that responses will be kept confidential. Consider involving volunteers and family members in assisting those in care with completing the questionnaires.

2. Score the audit.

- Use the Nutrition and Food Services Questionnaire Scoring Form to collect and review answers. For each of question 1 to 16, total the number that responded “yes”, “no” and “doesn't apply”.

- Total the number of responses for each question by adding columns A, B and C. Write the total in Column D. Score each question.

$$\text{SCORE FOR QUESTION (\%)} = \frac{\text{NUMBER OF YES RESPONSES FOR QUESTION (Column A)}}{\text{TOTAL NUMBER OF RESPONSES TO QUESTION (Column D)}} \times 100$$

3. Determine whether the minimum audit score is met or not met for all of questions 1 - 16.

An acceptable score is >70% for each of questions 1 to 16. Responses to question 17 and 18 may be reviewed and used in refining menu options.

4. Document any problems identified and possible reasons, corrective actions taken, and date for re-audit.

If you obtain less than a 50% overall response rate, consider other means of evaluating satisfaction (e.g. plate waste audit, organize a food committee, focus group, etc.).

SAMPLE

Satisfaction with Nutrition and Food Services Questionnaire Scoring

NAME OF AUDITOR: *C. Kane*	NUMBER OF QUESTIONNAIRES RETURNED: *100*	NUMBER OF QUESTIONNAIRES DISTRIBUTED: *120*	OVERALL RESPONSE RATE: *83%*	DATE OF AUDIT: *September 2, 2008*

QUESTION	A. # YES	B. # NO	C. # DOESN'T APPLY	D. TOTAL # RESPONSES	SCORE FOR QUESTION (%) = #YES / # RESPONSES x 100
1 Do you enjoy the foods you are served?	84	16	0	100	84/100 x 100 = 84%
2 Does the food taste good?	80	15	0	95	80/95 x 100 = 84%
3 Does your food look good?	85	10	0	95	85/95 x 100 = 89%
4 Are hot foods served hot enough?	89	10	0	99	89/99 x 100 = 90%
5 Are cold foods served cold enough?	89	10	0	99	89/99 x 100 = 90%
6 Are you usually getting enough to eat?	78	16	0	94	78/94 x 100 = 83%
7 Do you eat most of the food you receive at each meal?	87	13	0	100	87/100 x 100 = 87%
8 Are you given enough time to finish your meals?	85	10	0	95	85/95 x 100 = 89%
9 If you do not like the meal served, are you offered another choice?	72	19	0	91	72/91 x 100 = 79%
10 Do you receive adequate help at mealtimes?	87	13	0	100	87/100 x 100 = 87%
11 If you are on a special diet, do the foods we offer meet your needs?	85	10	0	95	85/95 x 100 = 89%
12 Do you enjoy eating with your tablemates?	85	10	0	95	85/95 x 100 = 89%
13 Is your table setting clean and neat?	89	10	0	99	89/99 x 100 = 90%
14 Are suggestions about meal service dealt with to your satisfaction?	67	33	0	100	67/100 x 100 = 67%
15 Do we meet your personal, cultural or religious food preferences?	80	15	0	95	80/95 x 100 = 84%
16 Are those who serve your meals pleasant and friendly?	85	10	0	95	85/95 x 100 = 89%

ACCEPTABLE AUDIT SCORE (>70%) FOR ALL QUESTIONS FROM 1 TO 16: ☐ MET ☑ NOT MET

Form revised 2008

SAMPLE

COMMENTS
Question 12 - *less than 70% indicated that their suggestions about meal service were not dealt with to their satisfaction with 20 people providing their name on the questionnaire.*

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Question 12 - *less than 70% indicated that their suggestions about meal service were not dealt with to their satisfaction. No formal policy/procedure currently exists for handling food complaints/suggestions*	*For those who provided their name, follow-up will be done to find out more details.*	*L. McColl*
	Review results with dietary staff at next meeting with suggestion that a policy/procedure for handling food suggestions be developed. Have staff brainstorm ideas for such a policy and implement by Oct. 20/08.	*L. McColl /*
	Re-audit in 4 months time.	*Dietary staff*
	DATE OF NEXT AUDIT: *January 2009*	*C. Kane*

Plate Waste Audit

This audit is optional. The blank audit form is available in **Chapter 8**.

Purpose of the Audit:	To audit the acceptance of food/beverage items by a group of people in care.
Acceptable Audit Score:	Between 0 - 30% per food or beverage item audited. This indicates how much of the food/beverage item was left.
Audit Frequency:	As determined by the facility. Audit different days, dining areas and meals.
Responsible Staff:	Member of the interdisciplinary team.

Procedure:

1. Complete Part A of the audit.

- Select 10% of those who live in the facility (minimum of 4) and select as many food and/or beverage items as desired to audit. If you have several dining areas, try to audit each of them at different times. Doing this can help you pinpoint where most food waste is occurring (e.g. from plated service in main dining room? from bulk service to other dining rooms?). You may also use this audit to evaluate items provided at snack times.
- With staff, develop a procedure to identify and collect all dishes that contain the food or beverage item being audited. This may include identifying the plates/glasses with dots that have the person in care's initials on the bottom and having staff put these on a separate cart. This type of audit works well with two people working together: one does the visual check while the other “ticks” off the appropriate amount.
- In the first column, indicate the person in care's initials and the diet they receive. The diet information may help you to pinpoint food waste that may be occurring from specific modified food items.
- Estimate the amount of the food item left by the person in care and tick (✓) the appropriate column:

F = Full portion not eaten	**1/4** = 1/4 portion not eaten
3/4 = 3/4 portion not eaten	**0** = No food remaining
1/2 = 1/2 portion not eaten	

2. Score the audit.

- Count the number of times each response was selected in each column. Write the totals in Row A.
- Multiply the totals in Row A by the multiplier in Row B, outlined as follows (underlined numbers are the multipliers):

total # F x 4   total # 3/4 x 3   total # 1/2 x 2   total # 1/4 x 1   total # 0 x 0

- Write the column score (Row A x Row B) in Row C.

- Use the formula on the audit sheet to calculate the Row D Audit Score:

$$\text{AUDIT SCORE (\%) (per item)} = \frac{(\text{total \# F x 4}) + (\text{total \# 3/4 x 3}) + (\text{total \# 1/2 x 2}) + (\text{total \# 1/4 x 1}) + (\text{total \# 0 x 0})}{\text{NUMBER OF PEOPLE AUDITED x 4}} \times 100$$

OR

$$\text{AUDIT SCORE (\%) (per item)} = \frac{(\text{Row C score for F}) + (\text{Row C score for 3/4}) + (\text{Row C score for 1/2}) + (\text{Row C score for 1/4}) + (\text{Row C score for 0})}{\text{NUMBER OF PEOPLE AUDITED x 4}} \times 100$$

3. Determine whether the audit criterion is met or not met for each food item.

An acceptable score is <30%. Average reported plate waste scores for food items vary from 20 to 30% depending on the type of service. You may want to adjust the acceptable score according to what your facility considers an appropriate level of food waste. The maximum should, however, be 30%.

4. Document any problems identified and possible reasons, corrective actions taken, and date for re-audit.

For subsequent audits, include any food items that had an unacceptable score in the original audit.

Plate Waste Audit

NAME OF AUDITOR: *R. Dawn*	DATE OF AUDIT: *August 13, 2007*	DINING AREA: *1st Floor Dining Room*	MENU CYCLE: *Week: 1 Day: 2*	MEAL: *Breakfast* (*Lunch*) *Dinner*

FOOD/BEVERAGE ITEM:	*Macaroni and Cheese*					*Green Salad*					*Fruit Crisp*					*Orange Juice*					—				
PERSON IN CARE'S INITIALS/DIET	**AMOUNT LEFT**					**AMOUNT LEFT**					**AMOUNT LEFT**					**AMOUNT LEFT**					**AMOUNT LEFT**				
	F	**3/4**	**1/2**	**1/4**	**0**	**F**	**3/4**	**1/2**	**1/4**	**0**	**F**	**3/4**	**1/2**	**1/4**	**0**	**F**	**3/4**	**1/2**	**1/4**	**0**	**F**	**3/4**	**1/2**	**1/4**	**0**
1. *AA/Regular*	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
2. *BB/Regular*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
3. *CC/Regular*	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	✓	-		-	-	-	-	-
4. *DD/Minced*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
5. *EE/Regular*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
6. *FF/Vegetarian*	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
7. *GG/Minced*	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-	✓	-	-	-	-	-
8. *HH/Vegetarian*	-	✓	-	-	-	-	✓	-	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
9. *II/Minced*	-	-	✓	-	-	-	-	✓	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
10. *JJ/Vegetarian*	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
11. *KK/Regular*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
12. *LL/Regular*	-	-	-	✓	-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
13. *MM/Vegetarian*	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
14. *NN/Regular*	-	-	-	-	✓	-	-	-	✓	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
15. *OO/Pureed*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
16. *PP/Minced*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
17. *QQ/Pureed*	✓	-	-	-	-	✓	-	-	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
18. *RR/Regular*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
19. *SS/Regular*	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	✓	-	-	-	-	-	-
20. TT/Pureed	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
21. *UU/Regular*	✓	-	-	-	-	✓	-	-	-	-	-	-	-	-	✓	-	-	-	-	✓	-	-	-	-	-
A. TOTALS:	5	1	1	4	10	2	1	1	4	10	-	-	-	1	20	-	-	1	1	19	-	-	-	-	-
B. MULTIPLY BY:	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0
C. COLUMN SCORE:	20	3	2	4	0	8	3	2	4	0	-	-	-	1	0	-	-	2	1	0	-	-	-	-	-
D. AUDIT SCORE* (SEE FORMULA BELOW)	*(20 + 3 + 2 + 4) x 100 = 35% / 4 x 21*					*(8 + 3 + 2 + 4) x 100 = 20% / 4 x 21*					*(1 + 0) x 100 = 1% / 4 x 21*					*(2 + 1 + 0) x 100 = 4% / 4 x 21*					—				
ACCEPTABLE SCORE (<30%) MET?	☐ MET ☑ NOT MET					☑ MET ☐ NOT MET					☑ MET ☐ NOT MET					☑ MET ☐ NOT MET					☐ MET ☐ NOT MET				

*AUDIT SCORE (per item) = $\frac{\text{(TOTAL \# F X 4) + (TOTAL \# 3/4 X 3) + (TOTAL \# 1/2 X 2) + (TOTAL \# 1/4 X 1) + (TOTAL \# 0 X 0)}}{\text{4 x \# PEOPLE AUDITED}}$ x 100

Form revised 2008

SAMPLE

COMMENTS
Macaroni and cheese audit score > 30% - unacceptable. Most "full" portions remaining were for regular or vegetarian
diets; one was for pureed.

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
Macaroni and cheese audit score > 30%	*Reviewed results with cook. Standardized*	
Spoke with those audited who left full portions	*recipe reviewed and liquid ingredients*	
remaining to obtain feedback. Suggested that	*adjusted. Recipe as 4 portions to be tried and*	
the meal item was too milky/runny-looking	*sampled among staff and members of food*	
and not appetizing.	*committee. If acceptable, will try new recipe*	
	in 2 ½ weeks time when menu item	
	offered again.	
	Re-audit at that time (Aug. 30/08).	*R. Dawn*
	DATE OF NEXT AUDIT: *August 30, 2008*	*R. Dawn*

Nutrition and Food Service Records - Background Information

An important part of the food service system is accountability, measured by defining the goals of the department and having records in place for tracking achievement towards those goals. Facilities should maintain clear paper or computer records of food purchases, menu plans and menu substitutions, nutrition and food services audits, and food services education and training programs for at least one year. Facilities may choose to keep records for longer to assist in establishing baselines, monitoring trends and tracking improvements or for accreditation purposes. **The following food services records should be kept for at least one year:**

1. Invoices of Food-Related Purchases

Invoices or the supplier's statement of what was delivered and the expected payment must be kept for at least one year. Specific food cost documentation (e.g., cost per person per meal day) is not required by the Legislation, but is considered part of best practices for planning purposes.

There are a variety of tools and resources available that can help you develop methods for calculating food costs (see **Appendix 1- Resources**). Facility staff should discuss what items will be included in the food cost calculation such as:

- Cost of food and beverages provided to staff (e.g. staff meals, purchases), management, guests or programs (e.g. meals-on-wheels, adult day programs) and any actual revenue or equivalent revenue value from these foods and beverages.
- Other food items including bottled water, emergency food supply, ice and soft drinks.
- Non-food items such as tube-feeding supplies, disposable supplies, recycling charges, fuel surcharge and chemicals for dishwashing.
- Recovery items including catering charges, recycling charge refunds, and additional tube-feeding funding.

2. Menus and Menu Substitutions

Menu substitutions and the tracking form and audit were discussed in **Chapter 4**. Any changes to the cycle menu must be recorded. In addition to the menu substitutions, each menu rotation (dated the day they were implemented) is to be kept for one year.

3. Nutrition and Food Service Audits

Completed copies of all nutrition and food service audits should be maintained for one year.

4. Staff Education and Training Records

Staff must be provided with initial and ongoing training to ensure safe and appropriate food preparation and service, provision of appropriate care, and adequate assistance to and supervision of those in care during meals and snacks. The interdisciplinary team should develop an education and training plan by evaluating the education needs, skills and abilities (including literacy level) of staff. If volunteers, families or students provide assistance at mealtimes or with cooking activities they should receive appropriate training.

Training can be provided using a variety of methods including:

- Orientation of new staff
- Staff meetings or meetings with individual staff
- Written direction using a communication book, bulletin boards, etc.
- Providing self-directed training tools
- In-services with staff groups
- Community college or technical school courses

Education and training events should be provided in response to items identified during the nutrition and food service audit process. **Some suggested topics for education and training include:**

- Allergy awareness
- Assisted feeding techniques
- Auditing methods
- Behaviour and eating
- Choking prevention
- Communicating positive attitudes
- Constipation
- Dining room program
- Duty of care
- Dysphagia
- Emergency preparation
- Food preparation for different cultures and religions
- Food presentation
- Food safety plan and FoodSafe, Level 1 and Level 2 as appropriate
- Green (sustainable) food services
- HACCP (Hazard Analysis Critical Control Points)
- Handling food complaints
- Height and weight measures
- How / what to refer to the dietitian
- Hydration
- Meal management
- Menu substitutions
- Nourishment delivery
- Infection control
- Portion control
- Recipe development
- Recording food and fluid intake
- Safe lifting
- Supervision of room tray service (if provided)
- Texture modifications
- Therapeutic diets
- WHMIS (Workplace Hazardous Materials Information System)

Appendix 10 contains a Sample Education and Training Attendance Form that can be kept on file.
Education and training records should state:

- Topic/name of program/title of self-directed learning module or course.
- Name of presenter/trainer/module developer/course instructor.
- Date, time and location.
- Names of staff in attendance/who completed the module or course.

The sessions should be evaluated and the evaluations documented (e.g. were goals met, were there suggestions for improvement or other topics) to assess the effectiveness of the program and help future planning.

Besides the menu substitutions and tracking form, there are no audits for this section. However, document tracking systems are expected for food-related purchases, nutrition and food service audits and staff education and training.

Chapter Seven

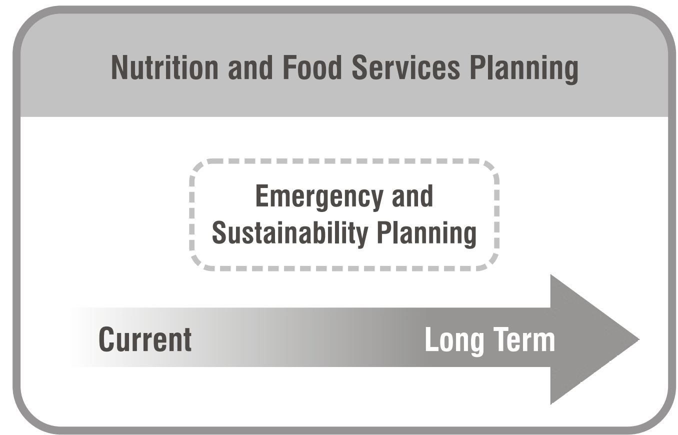
Emergency and Sustainability Planning

Chapter 7: Emergency and Sustainability Planning

This chapter discusses emergency planning and sustainability in nutrition and food services and the relevant checklists are reviewed. These include:

- Emergency Preparedness Checklist (Optional)
- Sustainability in Food Services Checklist (Optional)

Both checklists are provided in **Chapter 8**.



Emergency Planning - Background Information

As part of short-term and long-term planning, facilities should have written contingency plans for handling internal and external disasters. **The mandate of a food services operation during an emergency is to:**

1. Provide immediate food service in the given conditions taking into consideration the type and amount of food, availability of supplies, staff, and facilities, religious and cultural requirements and time of year.

2. Ensure the nutritional needs of priority groups (e.g. workers requiring extra fluids and salt in high temperatures, persons on modified diets) to maintain a reasonable physical status.

The principles that apply to feeding those in care in an emergency include:

1. Safe water and food. The need for safe water in an emergency is critical. Food must be uncontaminated and prepared and served under the most sanitary conditions possible.

2. Simplicity, prioritization and efficiency. Meals should be simple, familiar and acceptable. Hot beverages, juices, soups and simple snacks are useful foods for immediate feeding. Procedures should be simplified.

Emergency Food Service Planning

Develop emergency plans in consultation with local and municipal emergency planning groups such as engineering (maintaining emergency equipment), fire (safety of designated buildings), public health (safe water sources and food safety) and transportation (safe transport routes for required food). Also connect with similar food services organizations that are close by as they may provide back-up (e.g. if there is an extended power outage, food from fridges and freezers can be transferred).

Disasters can be classified as natural, industrial, social/political and facility-specific (see **Table 17**) (1;34;35).

Table 17: Examples of Disasters and Emergencies for Planning

Natural	Industrial	Social / Political	Facility-Specific
• Fire • Flood • Earthquakes • Weather (Snowstorms, Tornados) • Disease outbreak (e.g. influenza)	• Food defense violations and recalls • Hazardous material spills • Heating, water, power disruptions or failures • Explosion • Mid-air crash	• Labour disruptions, strikes • Civil disturbances, riots • Sabotage • Bomb threat or hostage taking	• Medication interruptions • Disruptions in food service and laundry • Search for missing person in care • Suicide attempt by person in care • Internal evacuations • External disasters where facility receives people affected by a disaster

Each type of disaster should be documented in the nutrition and food services disaster manual and a food services emergency plan developed for each that provides directions regarding what needs to be done and assigned tasks to individuals indicated. Once written, the contents of the manual forms part of the facility's emergency response plan, which in turn is part of the overall community emergency response plan. The food services emergency plan as outlined in the nutrition and food services department's disaster manual should be clear, concise, realistic, flexible and up-to-date. As part of the planning process, anticipate potential problems and develop solutions to them. Some suggested items to include in the plan are:

1. **Name, Statement of Purpose and Organizational Details:** A name distinguishes the plan. The statement of purpose establishes the plan's objectives. Provide details about the organizational structure and alternate arrangements.

2. **Implementation and Alerting Procedures:** State who implements the plan, under what circumstances, and notification procedures (e.g. a key person alerts primary staff, alternates and essential community groups, primary staff use a fan-out system to notify other staff and community groups alert their own staff).

3. **Resources:** Outline specific resource requirements covering
   - Personnel - provide names, addresses and telephone numbers of all trained workers.
   - Food service resources - provide addresses and telephone numbers for prospective reception centres and contact persons (with home numbers as well).
   - Supplies and equipment - list necessary equipment and supplies including their sources, contact names, addresses, and telephone numbers

4. **Training, Testing, Reviewing and Updating the Plan:** Explain who is responsible for the training program, when and where training will take place, and who will conduct the training. Describe testing responsibilities and frequency. Provide reviewing methods and procedures for updating the plan.

5. **Supplies:** Emergency supplies for least three days should available to cover the needs of those in care and staff. Ideally supplies should be available for five days. Outline how the supplies will be rotated to maintain quality (e.g. menu items used every six months or prior to the expiration dates). Indicate how the supplies will be stored in a clean, safe and accessible location (e.g. away from areas of high humidity or heat, combustible materials, strong odours or chemicals, free from pests, structurally sound, easily accessible and close to a ground floor exit).

The Emergency Menu and Supplies

Develop an emergency menu that will cover at least three days. Ideally, a five-day emergency menu should be developed. Provide all those in care with a general diet with the exception of those with food allergies, dysphagia, those requiring pureed texture, enteral feedings and any other special diet identified by the Registered Dietitian. Update the emergency menu at least quarterly to ensure it reflects the special diet needs of the current facility population. Follow these emergency menu planning principles:

- Use liquids from canned fruits and vegetables for cooking and drinking.
- Use perishable food before non-perishable food.
- Use refrigerated food first, frozen food next and then dry food.
- Store a minimum of three litres of water per person per day for maintenance (e.g. eating and drinking). Six liters of water or more are required for comfort (e.g. eating, drinking and washing).

A sample menu and supplies list is provided in **Appendix 11**.

Finally, be sure to negotiate written statements of agreement with organizations that have agreed to provide personnel, facilities, food or beverages, and equipment for the food service during an emergency.

Reviewing, Testing and Distributing the Food Service Emergency Plan

Once you have developed the food services emergency plan, trained workers, and located equipment and supplies, the next step is to test the response procedures and evaluate performance. Simulated exercises could incorporate:

- Operation with minimum food supplies and staff.
- Unforeseen problems (e.g. equipment breakdown).
- Emergency-type meals, mass feeding and improvised feeding areas.

Distribute the food services emergency plan in advance to relevant emergency response organizations and service groups to ensure coordinated efforts in an emergency.

A blank emergency preparedness checklist that outlines best practices in food services for emergency planning is provided in **Chapter 8**. You may use this as a planning tool for emergency preparedness.

Food Services Sustainability - Background Information

Principles of sustainability form part of best practice standards for food services. Sustainability attempts to provide optimal outcomes for the human and natural environments now and in the future. There are four major threats to the environment: toxic wastes, the thinning of the ozone layer, global warming and deforestation. Sustainable practices help to minimize these threats. **To improve sustainable practices:**

- Minimize material use
- Maximize energy and water efficiency
- Replace the use of toxic substances
- Enhance recycling and maximize use of renewables
- Enhance product durability
- Offer a service instead of a product

There are many benefits to sustainable practices. These include saving money by reducing waste management fees and conserving energy, water, fuel and other resources. Using systems such as the Total Cost Assessment (TCA) in your financial practices can help you identify the true profitability of investments you may be considering. In addition, sustainable practices provides better compliance with health, safety and environmental regulations, shows due diligence and reduce risks of accidents. Finally, sustainable practices will allow the facility to meet the demands of staff and those in care for sustainable products. The following strategies will help maximize sustainability.

Manage your Food and Material Supply, Distribution and Waste

A healthy sustainable food system exists when food is harvested, produced, processed, and distributed in a manner that does not compromise the land, air or water. Request product information regarding ingredients and processing practices from all companies that supply food. Make this information available to those in care. Factors to consider for sustainable purchasing include:

- What raw materials, emissions and energy are used to make the product or are needed to use it?
- What are the labour practices of the manufacturers and suppliers?
- Where are products imported from and what transport is needed to get the products to the facility?
- What waste (e.g. packaging used to transport the product) is associated with the product?

As part of your environmental impact assessment of food products you may want to refer to the life cycle assessment method of the International Organization of Standardization (ISO), which evaluates the resources used to perform different activities from the raw product through the chain of production.

Managing your supply includes purchasing and demanding products and services that have reduced environmental impacts. Select suppliers who use minimal, reusable, biodegradable, compostable and/or recyclable packaging. Where feasible, purchase products made without chemicals. Seek out suppliers that can provide what you need with the least frequency of trips to your establishment and purchase products that

To manage your distribution and waste, review all items and practices offered in your facility. Examine possibilities for offering local, organic, free-range, antibiotic-free, fair trade and vegetarian food options. Where feasible, reduce the use of disposables and napkins used at each meal. Have systems for streamlining food production (e.g. forecasting, standardized recipes) and dealing with leftovers (e.g. composting, collecting food waste and making it available to farmers with animals). Recycle items such as plastic and glass containers, aluminum, tin, and steel cans, corrugated cardboard, cooking oil, tetra-paks, newspaper, and polystyrene. Check with your municipality to determine whether they recycle other materials. Finally, encourage sustainable food-related practices beyond the facility's systems. For example, provide incentives to staff who use paper or reusable lunch bags or who bring mugs to work rather than using disposable coffee cups. Encourage employees to carpool to and from work.

Conserve Energy and Water and Reduce Environmental Impacts of Equipment and Building

Food service departments should be aware of the importance of energy and water conservation. **Table 18** provides suggestions for conserving energy and water:

Table 18: Strategies for Conserving Energy and Water

Conserve Energy	Conserve Water
• Ensure refrigerator/freezer doors are not left ajar or leaking. • Use equipment only as needed and to capacity. Preheat times of 10 to 15 minutes are usually sufficient. Open oven doors only to load and unload items. Operate dishwashing machines only when there is sufficient volume to warrant it. Schedule food production so that use of warmers is kept to a minimum. • Check all thermostats regularly and for adequate insulation of pipes, refrigeration and freezing equipment. • Lower thermostats on water heaters to the lowest allowable level. • Write menus to include food items that do not require cooking when possible, especially during warm weather. • Install timers on fans and exhaust systems. • Schedule defrost cycles during off-peak demand periods. • Track, monitor and minimize utility costs (e.g., lighting, heating, ventilating, and air conditioning).	• Use fewer dishes to reduce the water and energy needed to clean them. • Replace spray washers with nozzles that automatically shut off. • Presoak dishes in basins rather than running water. • Use aerators, low flush toilets. • Limit dishwashing to full loads and use a high efficiency dishwasher. • Use dry sweeping methods to clean loading dock, floors, etc. instead of high-pressure water or hoses. • Install spring-operated valves on kitchen and restroom faucets.

Proper maintenance and upgrading of equipment (e.g. heating and ventilation systems) can provide energy and cost savings, increase process efficiency and improve air quality. When doing renovations or constructing a new site, consider sustainable building strategies that focus on the prevention of environmental damage.

To review your current sustainability practices, a **Checklist of Sustainability in Food Services** is provided in **Chapter 8**. Periodic use of this checklist will help current and future planning.

Chapter Eight

Forms for the Audit Program

Chapter 8: Forms for the Audit Program

This chapter contains the audit forms and checklists available to review the nutrition and food services department's practices. **Table 19** summarizes the audits and the number of copies needed annually. A comment form is provided at the end of the chapter; one copy is needed for each audit. These forms are available as Excel spreadsheets on the government publications website:

http://www.publications.gov.bc.ca
(Title: "*Audit Tools to Accompany the Audits and More Manual*").

The Purpose of Auditing

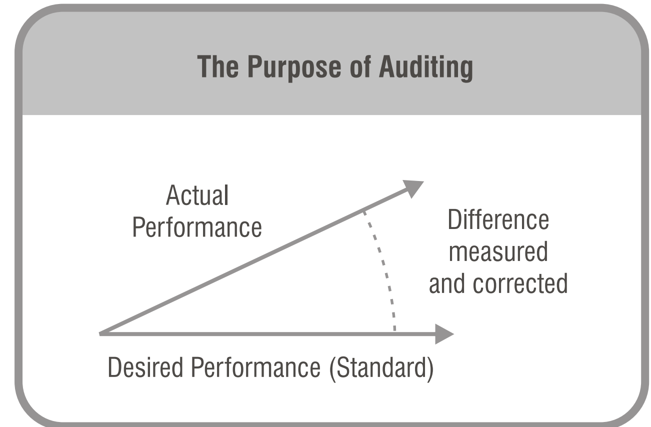


Table 19: Summary of Audit and Checklist Forms

Audit, Form or Checklist	Number of Copies/Year
Summary of Nutrition and Food Service Audits Form	1
Required Audits (Intended to comply with the Adult Care Regulations)	
Nutrition Care Plan Audit	1
Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit	1
Nutrition Care Plan (NCP) - Snack Implementation and Consumption Audit	2
Hydration Program Audit	1
Enteral Feeding Implementation Audit	1
Menu Audit or Computerized Nutrient Analysis of Menu	2
Menu Substitutions Tracking Form and Audit	Copies as needed (at least 1)
Meal Service Audit	12
Dining Environment Audit	1
Satisfaction with Nutrition and Food Services Questionnaire	Depends on number to be surveyed
Satisfaction with Nutrition and Food Services Scoring Form	1 per survey
Comments Form (at end of chapter)	1 per audit or checklist
Optional Audits and Checklists	
Nutrition and Food Services Policies and Procedures Checklist, Plate Waste Audit, Audit of Excess Nutrient Intakes, Emergency Preparedness Checklist and Sustainability in Food Services Checklist	Copies as needed

To ensure completion of the audit program, it is best to plan an audit schedule each year.

The summary form on the following page will help you to organize your annual plan. Plan to do one to two different types of audits each month. Many find it helpful to organize the audits into a binder with monthly tabs or dividers. Rotate the audits throughout the year among menu planning, nutrition care and food preparation and service to allow for review of each part of the nutrition and food service system throughout the year.

Based on pilot testing of the audits, most forms take between 20 and 45 minutes to complete. The menu audits require more time the first time they are performed; subsequent reviews will take less time (e.g. with computerized analysis all foods would be entered and future reviews would just require modifying items). Given this information, about 15 hours per year are needed to complete the audit program.

Summary of Nutrition and Food Service Audits and Checklists

Facility Name: **Year:** **A= Part A of Audit, B = Part B of Audit**

Name of Audit	Staff Responsible	Staff Assigned to Complete Audit	Frequency per Year	Date Scheduled	Date Completed	Audit Score	Date of Re-Audit	Date Re-Audit Completed	Re-Audit Score
REQUIRED AUDITS									
Nutrition Care Plan Audit	interdisciplinary		1			A. B.			A. B.
Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit	interdisciplinary		1			A. B.			A. B.
Nutrition Care Plan (NCP) - Snack Implementation and Consumption Audit	interdisciplinary		2			A. B. A. B.			A. B. A. B.
Hydration Program Audit (Part B Optional)	interdisciplinary		1			A. B.			A. B.
Enteral Feeding Implementation Audit	interdisciplinary		1						
Menu Audit (or Computerized Nutrient Analysis of Menu)	RD or supervisor of food services / nutrition manager		When menu is changed (select general diet plus at least one week of a texture modified and one week of a therapeutic diet). Audits done at least 2/year.			A. B. A. B.			A. B. A. B.
Menu Substitution Tracking Form and Audit	interdisciplinary		1						
Meal Service Audit	interdisciplinary		12 (select therapeutic diet and/or texture modified foods every second audit).			A. B. A. B. A. B. A. B. A. B.			A. B. A. B. A. B. A. B. A. B.

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cont'd /2

Summary of Nutrition and Food Service Audits and Checklists cont'd

Facility Name: **Year:** **A= Part A of Audit, B = Part B of Audit**

Name of Audit	Staff Responsible	Staff Assigned to Complete Audit	Frequency per Year	Date Scheduled	Date Completed	Audit Score	Date of Re-Audit	Date Re-Audit Completed	Re-Audit Score
REQUIRED AUDITS cont'd									
Meal Service Audit cont'd	interdisciplinary		12 (select therapeutic diet and/or texture modified foods every second audit).			A. B.			A. B.
						A. B.			A. B.
						A. B.			A. B.
						A. B.			A. B.
						A. B.			A. B.
						A. B.			A. B.
						A. B.			A. B.
Dining Environment Audit	interdisciplinary		1						
Satisfaction with Nutrition and Food Services Questionnaire	interdisciplinary		1						
OPTIONAL AUDITS / CHECKLISTS									
Nutrition and Food Services Policies and Procedures Checklist	interdisciplinary								
Audit of Excess Nutrient Intakes	RD								
Plate Waste Audit	interdisciplinary								
Emergency Preparedness Checklist	RD or supervisor of food services/ nutrition manager								
Sustainability in Food Services Checklist	RD or supervisor of food services/ nutrition manager								

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cont'd /3

Summary of Nutrition and Food Service Audits and Checklists cont'd

Facility Name: **Year:**

Name of Audit	Staff Responsible	Staff Assigned to Complete Audit	Frequency per Year	Date(s) Scheduled	Date Completed	Audit Score	Date of Re-Audit	Date Re-Audit Completed	Re-Audit Score
OTHER AUDITS (write in any other audits you may use in your facility)									

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Nutrition Care Plan Audit

NAME OF AUDITOR	DATE OF AUDIT

Part A - Nutrition Care Plan

PIC = PERSON IN CARE, Y = Yes, N = No, E = Exception

Initials of PIC	1.			2.			3.			4.			5.			6.			7.			8.			9.			10.		
Item	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N
Nutrition care plan is:																														
1. Developed within 2 weeks of admission																														
2. Documented in the overall care plan																														
3. Reviewed within 14 weeks of admission																														
4. Reviewed as set out in the care plan																														
5. Revised in response to the person's needs																														
6. Monitored to ensure implementation																														
7. Completed by the Registered Dietitian																														
TOTALS (Y, E)																														

Part B - Weight Monitoring

INITIALS OF PERSON IN CARE	1. NUMBER OF MONTHS PERSON IN FACILITY IN PAST 12 MONTHS	2. TOTAL NUMBER OF MONTHS WEIGHT WAS RECORDED	3. DOCUMENTED EXCEPTIONS (INDICATE NUMBER OF MONTHS)	4. APPROPRIATE INTERVENTION WHEN SIGNIFICANT WEIGHT CHANGE* OCCURS (Y = Yes, N = No, E = Exception)		
				Y	E	N
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
TOTAL (Y, E)						

*> 5%/1 month, > 7.5%/3 months, >10%/ 6 months

PART A - NUTRITION CARE PLAN	PART B - WEIGHT MONITORING
TOTAL AUDIT SCORE = TOTAL (Y + E of COLUMNS 1-10) / NUMBER AUDITED x 7 x 100 = ______________ x 100 = = ______%	**TOTAL AUDIT SCORE** = (TOTAL OF COLUMNS 2 + 3) + TOTAL COLUMN 4 (Y + E) / TOTAL OF COLUMN 1 + NUMBER AUDITED x 100 = ______ x 100 = ______%
ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ UNMET	ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ UNMET

Form revised 2008

Nutrition Care Plan (NCP) - Meal Implementation and Consumption Audit

NAME OF AUDITOR:	LOCATION/UNIT:	DATE OF AUDIT:	MEAL (CIRCLE ONE): Breakfast Lunch Supper

Y = YES, E = EXCEPTION, N = NO, NCP = NUTRITION CARE PLAN, PIC = PERSON IN CARE

	PART A													PART B		
1. PIC'S INITIALS/ LOCATION	2. NCP ORDERS FOR MEAL (DIET, SPECIAL SUPPLEMENTS, EATING AIDS AND ASSISTANCE, BEHAVIOUR SUPPORT, POSITIONING, ETC.)	3. MEAL NCP IN THE KITCHEN IS THE SAME AS COLUMN 2			4. MEAL NCP IN THE DINING ROOM IS THE SAME AS COLUMN 2			5. MEAL NCP IN OTHER LOCATION(S) (Specify:________) IS THE SAME AS COLUMN 2			6. MEAL NCP PROVIDED TO PIC IS THE SAME AS COLUMN 2			7. AT LEAST 75% OF THE MEAL IS CONSUMED & NCP DIRECTIONS ARE ACCEPTED BY PIC		
		Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N
1.																
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																
	TOTAL (Y, E)															

PART A: NCP - Meal Implementation (Total Audit Score)

$$= \frac{\text{COLUMN 3 (Y+E) + COLUMN 4 (Y+E) + COLUMN 5 (Y+E) + COLUMN 6 (Y+E)}}{\text{NUMBER OF PEOPLE AUDITED x 4}} \times 100$$

= ____________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

PART B: NCP - Meal Consumption (Total Audit Score)

$$= \frac{\text{COLUMN 7 (Y+E)}}{\text{NUMBER OF PEOPLE AUDITED}} \times 100 = ________ \%$$

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Form revised 2008

Nutrition Care Plan (NCP) - Snack Implementation and Consumption Audit

NAME OF AUDITOR:	LOCATION/UNIT:	DATE OF AUDIT:	MEAL (CIRCLE ONE): AM PM HS

Y = YES, E = EXCEPTION, N = NO, NCP = NUTRITION CARE PLAN, PIC = PERSON IN CARE

	PART A													PART B		
1. PIC'S INITIALS/ LOCATION	2. NCP ORDERS FOR SNACK (DIET, SPECIAL SUPPLEMENTS, EATING AIDS AND ASSISTANCE, BEHAVIOUR SUPPORT, POSITIONING, ETC.)	3. SNACK NCP IN THE KITCHEN IS THE SAME AS COLUMN 2			4. SNACK NCP IN THE DINING ROOM IS THE SAME AS COLUMN 2			5. SNACK NCP IN OTHER LOCATION(S) (Specify:_________) IS THE SAME AS COLUMN 2			6. SNACK NCP PROVIDED TO PIC IS THE SAME AS COLUMN 2			7. AT LEAST 75% OF THE SNACK IS CONSUMED & NCP DIRECTIONS ARE ACCEPTED BY PIC		
		Y	E	N	Y	E	N	Y	E	N	Y	E	N	Y	E	N
1.																
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																
	TOTAL (Y, E)															

PART A: NCP - Snack Implementation (Total Audit Score)

$$= \frac{\text{COLUMN 3 (Y+E)} + \text{COLUMN 4 (Y+E)} + \text{COLUMN 5 (Y+E)} + \text{COLUMN 6 (Y+E)}}{\text{NUMBER OF PEOPLE AUDITED} \times 4} \times 100$$

= ____________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

PART B: NCP - Snack Consumption (Total Audit Score)

$$= \frac{\text{COLUMN 7 (Y+E)}}{\text{NUMBER OF PEOPLE AUDITED}} \times 100$$

= ____________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Form revised 2008

Hydration Program Audit

PART A: (Required)

		Y	E	N
1	The facility provides those in care with a minimum of 1500 ml of fluid per day (e.g. based on menu, fluids provided with medications and any other fluid provision sources).			
2	The Registered Dietitian assesses the hydration status of all persons in care as part of the admission assessment and at all reassessments/reviews (e.g. in/out records reviewed, nutrition assessment form describes fluid intake).			
3	If a person in care is identified to be at risk for dehydration, an Interdisciplinary Care Plan is developed (e.g. specifies actions to be taken by the various departments to facilitate increased fluid intake).			
4	Those in care requiring fluid restrictions are clearly identified (e.g. in kitchen, dining room).			
5	Provisions are put in place to encourage fluid intake (e.g. staff provide reminders and prompts, signs are posted reminding those in care to drink, staff circulate at mealtime with a water jug to refill glasses).			
6	Fluids are offered to those who attend activities and social functions.			
7	Fluids are offered to all people in care at snack times (e.g. those that come to common area and those that may stay in their rooms).			
8	Beverages available at all meals and snacks include water, juice, and milk in addition to coffee and tea.			
9	Fluids are included as part of the facility's bowel program or protocol.			
10	Fluids are placed within easy reach at meals.			
11	During warm summer months, extra fluids are provided and encouraged.			
12	Fluids are readily available in lounge areas, common areas, bedside, etc.			
13	Facility staff and all others involved in care receive ongoing training on hydration.			
	TOTAL (Y, E)			

TOTAL AUDIT SCORE = $\frac{\text{PART A TOTAL (Y + E)}}{13}$ x 100 = ____________ % ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

PART B: (Optional)

Y = YES, N = NO, E = EXCEPTION

1. Person in care's initials	2. Estimated fluid needs	3. Amount provided according to recorded fluid intake	4. Fluid needs met			Comments
			Y	E	N	
1.						
2.						
3.						
		TOTAL (Y, E)				

TOTAL AUDIT SCORE = $\frac{\text{PART B TOTALS (Y + E)}}{\text{NUMBER AUDITED}}$ x 100 = ____________ % ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Adapted from: North Shore LTC Facility RD's and VCH-North Shore, Hydration Program Audit, 2008

Fluid Intake Record

PERSON IN CARE'S NAME
DATE

GUIDELINES (write in your facility's standard amounts where applicable)

Juice glass -		Thickened juice -		Yogurt -	
Foam cup -		Thickened supplement drink e.g. Ensure -		Supplement drink e.g. Ensure glass -	
Pop can -		Jello -		Hot cereal -	
Milk carton -		Ice cream -		Soup -	
Thickened milk -		Pudding or mousse -		Coffee/tea -	

INTAKE

	ITEM	AMOUNT OFFERED	AMOUNT CONSUMED	COMMENTS
Breakfast				
AM Snack				
Lunch				
PM Snack				
Dinner				
Evening Snack				
Fluids Provided with Medications				
During the Night				
	TOTAL			

Form developed 2008

Enteral Feeding Implementation Audit

NAME OF AUDITOR:	DATE:

PIC = PERSON IN CARE, Y = YES, E = EXCEPTION, N = NO

	CRITERIA	PIC INITIALS			PIC INITIALS			PIC INITIALS		
		Y	E	N	Y	E	N	Y	E	N
1	Protocols, policies, procedures and tools for implementation and management of the enteral feed are available.									
2	A written tube feeding schedule is in place including any specifications about oral feeding (e.g. NPO, ice chips).									
3	Preparation of formula done in a clean manner.									
4	Appropriate product used.									
5	Correct amount of product administered.									
6	Person in care is positioned appropriately during enteral feeding.									
7	Person in care is positioned for appropriate time (e.g. 2 hours) after enteral feed.									
8	Correct rate of flow of product administered.									
9	Correct amount of additional fluid provided.									
10	Procedure to flush tube done appropriately.									
11	Bag washed and stored according to facility procedure.									
12	Unused tube feeding used within appropriate time frame.									
13	Amount of formula and water flush administered are documented daily.									
14	Enteral feeding symptoms and tolerance monitored and documented (e.g. weight monitoring, pertinent lab values, signs of dehydration, site integrity, etc.).									
15	A written plan is in place for enteral feeding when the person in care is off site.									
16	Any changes to enteral feeds are signed off by a Registered Dietitian with Reserved Act A.									
17	There is periodic interdisciplinary assessment regarding transition back to oral feeds.									
	TOTALS (Y, E)									

$$\textbf{TOTAL AUDIT SCORE} = \frac{\text{TOTALS (Y + E)}}{\text{NUMBER OF PEOPLE AUDITED x 17}} \times 100 = ________ \%$$

Form revised 2008

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ UNMET

Menu Audit

NAME OF AUDITOR:	MENU SEASON:	REFERENCE AGE GROUP:	DATE OF AUDIT:

	MINIMUM NUMBER OF RECOMMENDED SERVINGS			
	MILK AND MILK ALTERNATIVES (M)	MEAT AND ALTERNATIVES (MA)	VEGETABLES AND FRUIT (VF)	GRAIN PRODUCTS (G)
19 to 50 years	2 SERVINGS	2 SERVINGS	7 SERVINGS	6 SERVINGS
51+ years	3 SERVINGS	2 SERVINGS	7 SERVINGS	6 SERVINGS

Part A:

	DIET TYPE:			MENU WEEK:				DIET TYPE:			MENU WEEK:				DIET TYPE:			MENU WEEK:				DIET TYPE:			MENU WEEK:			
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
M																												
M																												
M																												
M																												
MA																												
MA																												
MA																												
VF																												
VF																												
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G																												
G																												
G																												
TOTAL FOR EACH FOOD GROUP																												
M																												
MA																												
VF																												
G																												
STANDARD MET?																												

Form revised 2008

Part B of audit on following page...

Menu Audit - Part B

The menus for *all diet types* have:

#	Item	Y	E	N
1	At least 2 servings of fluid milk offered daily for vitamin D.			
2	At least one dark green vegetable* and/or one orange vegetable (i.e. carrots, sweet potatoes, yams, pumpkin or winter squash) and/or one of the selected orange fruits (i.e. apricots, cantaloupe, mango, nectarine, papaya and peach) daily.			
3	Whole grain products offered daily.			
4	At least 2 servings of fish each week.			
5	A cycle of at least 4 weeks in length.			
6	Three meals and at least 2 snacks offered each day (one snack is offered in the evening).			
7	Seasonally available foods included (e.g. fall/winter and spring/summer menus).			
8	Foods made from various preparation methods as well as an assortment of colours, flavours, and textures on a per meal, daily and weekly basis.			
9	Standard portion sizes for food and beverages.			
10	Standardized recipes available for all types of food items.			
11	A rotation for all therapeutic and texture-modified diets that follows the master menu as closely as possible.			
12	Included the preferences, cultural, ethnic and religious needs of those in care.			
13	Been reviewed by the council or food committee (where applicable) representing those in care.			
14	Remained available to those in care and their families/substitute decision makers.			
	TOTAL (Y, E)			

*see Table 15 for a complete list

Part A:

TOTAL AUDIT SCORE = $\frac{\text{NUMBER OF DAYS STANDARD MET}}{\text{TOTAL NUMBER OF DAYS OF MENU AUDITED}}$ x 100 = __________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Part B:

TOTAL AUDIT SCORE = $\frac{\text{TOTAL (Y + E)}}{14}$ x 100 = __________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Computerized Nutrient Analysis of Menu Audit

NAME OF AUDITOR:	DATE OF AUDIT:	MENU SEASON:	REFERENCE PERSON USED:

Y = YES, E=EXCEPTION, N=NO

		DIETS AUDITED:												
Nutrient	Standard Guidelines	Standard Used	Week 1 Average			Week 2 Average			Week 3 Average			Week 4 Average		
			Y	E	N	Y	E	N	Y	E	N	Y	E	N
1 Water/Fluids	≥ 1500 ml													
2 Energy	See Table 16 (≥ TEE)													
3 Carbohydrate	Ideal is 50 to 60% of total calories													
4 Total fiber	See Table 16													
5 Total fat	Ideal is 20 to 30% of total calories													
6 Protein	Ideal is 15 to 30% of total calories													
7 Thiamin	See Table 16													
8 Riboflavin	See Table 16													
9 Niacin	See Table 16													
10 Pantothenic Acid	See Table 16													
11 Vitamin B_6	See Table 16													
12 Folate	See Table 16													
13 Vitamin B_{12}	See Table 16													
14 Vitamin C	See Table 16													
15 Sodium	< 2300 mg													
16 Potassium	≥ 4700 mg													
17 Calcium	See Table 16													
18 Phosphorous	See Table 16													
19 Magnesium	See Table 16													
20 Iron	See Table 16													
21 Zinc	See Table 16													
22 α-Linolenic acid*	0.6 - 1.2% of total calories or ≥ 1.1 g													
23 Linoleic acid*	5-10% of total calories or ≥ 12 g													
24 Caffeine	< 400 mg													
		TOTAL (Y, E)												

*interpret cautiously as many nutrient analysis programs do not provide complete data on many foods for these nutrients (look for many missing values in the nutrient breakdown of foods known to have this nutrient and tick (✓) exception where applicable)

Note: Vitamin A, D, E, and K and selected minerals are not included in the analysis as most nutrient analysis software do not provide sufficient information on these nutrients and BC Nutrition Survey data is not available for them in order to make appropriate comparisons.

Part B of Computerized Nutrient Analysis of Menu Audit on the following page...

Form developed 2008

Computerized Nutrient Analysis of Menu Audit - Part B

The menus for ***all diet types*** have:		Y	E	N
1	At least 2 servings of fluid milk offered daily for vitamin D.			
2	At least one dark green vegetable* and/or one orange vegetable (i.e. carrots, sweet potatoes, yams, pumpkin or winter squash) and/or one of the selected orange fruits (i.e. apricots, cantaloupe, mango, nectarine, papaya and peach) daily.			
3	At least 2 servings of fish each week.			
4	A cycle of at least 4 weeks in length.			
5	Three meals and at least 2 snacks offered each day (one snack is offered in the evening).			
6	Seasonally available foods included (e.g. fall/winter and spring/summer menus).			
7	Foods made from various preparation methods as well as an assortment of colours, flavours, and textures on a per meal, daily and weekly basis.			
8	Standard portion sizes for food and beverages.			
9	Standardized recipes available for all types of food items.			
10	A rotation for all therapeutic and texture-modified diets that follows the master menu as closely as possible.			
11	Included the preferences, cultural, ethnic and religious needs of those in care.			
12	Been reviewed by the council or food committee (where applicable) representing those in care.			
13	Remained available to those in care and their families/substitute decision makers.			
	TOTAL (Y, E)			

*see Table 15 for a complete list

Part A:

TOTAL AUDIT SCORE = $\frac{\text{TOTALS (Y+E)}}{\text{TOTAL NUMBER OF WEEKS AUDITED x 24}}$ x 100 = ________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Part B:

TOTAL AUDIT SCORE = $\frac{\text{TOTAL (Y + E)}}{13}$ x 100 = ________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Form developed 2008

Menu Substitutions Tracking Form and Audit

All meal and snack substitutions are written on the tracking form. **M = Milk and Alternatives, MA = Meat and Alternatives, VF = Vegetables and Fruit** and **G = Grain Products.**

TRACKING FORM															PART B: COMPLETED BY AUDITOR		
PART A: COMPLETED BY FOOD SERVICE STAFF																	
DATE	ORIGINAL MENU ITEM	FOOD GROUP(S) Put a ✓ for the food groups the menu item contains				REASON FOR CHANGE	SUBSTITUTED ITEM	FOOD GROUP(S) Put a ✓ for the food groups the menu item contains				STAFF SIGNATURE		STANDARD MET (Y = YES, N = NO E = EXCEPTION)		
		M	MA	VF	G			M	MA	VF	G			Y	E	N
Example: May 1/08	*Lasagna*	✓	✓	✓	✓	*No lasagna noodles*	*Spaghetti with meatballs topped with cheese*	✓	✓	✓	✓	*C. Petch*				
	1.															
	2.															
	3.															
	4.															
	5.															
	6.															
	7.															
	8.															
	9.															
	10.															
												TOTAL (Y, E)				

NAME OF AUDITOR:	DATE OF AUDIT:

TOTAL AUDIT SCORE = $\frac{\text{TOTAL (Y + E)}}{\text{TOTAL ITEMS}}$ x 100 = ________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Form developed 2008

Meal Service Audit

NAME OF AUDITOR:	LOCATION/UNIT:	DATE OF AUDIT:	MENU CYCLE:	MEAL (CIRCLE ONE): Breakfast Lunch Supper

Y = Yes, N = No, E = Exception

PART A: FOOD ITEM STANDARD			
DIET/TEXTURE:			
Menu Items Selected (Give full description of the standard they are to meet)	**Standard Followed?**		
	Y	**E**	**N**
1.			
2.			
3.			
4.			
5.			
6.			
TOTALS			

PART B: FOOD EVALUATION									
1. Aroma		**2. Temperature**		**3. Appearance**		**4. Taste**		**5. Texture**	
Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable

PART A: FOOD ITEM STANDARD

DIET STANDARD SCORE = $\frac{\text{TOTAL (Y + E)}}{\text{TOTAL ITEMS AUDITED}}$ x 100 = ____________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

PART B: FOOD EVALUATION

FOOD EVALUATION AUDIT SCORE = $\frac{\text{TOTAL \# OF ACCEPTABLE (COLUMNS 1 TO 5)}}{\text{\# OF MENU ITEMS AUDITED x 5}}$ x 100 = ____________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Form developed 2008

Dining Environment Audit

NAME OF AUDITOR:	LOCATION/UNIT:	DATE OF AUDIT:	MEAL PROCEDURES OBSERVED: Breakfast Lunch Supper

	Y = Yes, N = No, E = Exception	Y	E	N
1	In-service training on assisted eating and feeding skills is provided to all relevant staff as needed.			
2	Special occasions, holidays and birthdays are celebrated.			
3	Dining area provides adequate space for all people to maneuver.			
4	Lighting and temperature in the dining room is appropriate for all of those who live in the facility.			
5	Dining area provides a pleasant and social environment.			
6	Distractions such as TVs and loud music are minimized at meal times.			
7	Cutlery and dishes are visually appealing and suited to the needs of those in care. They are not cracked, chipped or discoloured.			
8	Dining room furnishings and table set up (e.g. tablecloths, centerpieces) are suited to those in care.			
9	The menu is posted in the dining area.			
10	Meals for all people in care are served at posted times.			
11	There is a regular rotation of the service of tables (so no one table is always served last).			
12	People are offered assistance with meals in a timely manner.			
13	Pace of meal service is appropriate (e.g. not too rushed or too long between courses of meal service).			
14	Meals are served at the same time for everyone seated at the same table.			
15	Measures are in place to ensure appropriate food and beverage temperatures are maintained throughout meal service that include those who take more time to eat.			
16	For those requiring pureed foods, menu items are served separately rather than mixed together.			
17	Safe feeding practices are demonstrated (e.g. positioning, technique) at meals and snacks.			
18	Seconds helpings and beverage refills are offered if appropriate.			
19	Alternate food is provided if requested including for those on texture-modified diets.			
20	There is sufficient food provided (e.g. the kitchen did not run out of a menu item).			
21	Staff who serve food are observed to be polite and respectful to those in care. Dining room conversations are directed to persons in care.			
22	Food and fluid intake is encouraged.			
23	Food safety and sanitation practices are observed at meals and snacks.			
	Total (Y, E)			

TOTAL AUDIT SCORE = $\frac{\text{TOTALS (Y + E)}}{23}$ x 100 = ______________ %

ACCEPTABLE AUDIT SCORE (100%) ☐ MET ☐ NOT MET

Form developed 2008 by the BC Licensing Nutritionists

Satisfaction with Nutrition and Food Services Questionnaire

How can we make our nutrition and food services better? Please answer the questions below, and give the form to a staff member. If you would like help to fill out the form, someone will be happy to assist.

		YES	NO	DOESN'T APPLY
1	Do you enjoy the foods you are served?	☐	☐	☐
2	Does the food taste good?	☐	☐	☐
3	Does your food look good?	☐	☐	☐
4	Are hot foods served hot enough?	☐	☐	☐
5	Are cold foods served cold enough?	☐	☐	☐
6	Are you usually getting enough to eat?	☐	☐	☐
7	Do you eat most of the food you receive at each meal?	☐	☐	☐
8	Are you given enough time to finish your meals?	☐	☐	☐
9	If you do not like the meal served, are you offered another choice?	☐	☐	☐
10	Do you receive adequate help at mealtimes?	☐	☐	☐
11	If you are on a special diet, do the foods we offer meet your needs?	☐	☐	☐
12	Do you enjoy eating with your tablemates?	☐	☐	☐
13	Is your table setting clean and neat?	☐	☐	☐
14	Are suggestions about meal service dealt with to your satisfaction?	☐	☐	☐
15	Do we meet your personal, cultural or religious food preferences?	☐	☐	☐
16	Are those who serve your meals pleasant and friendly?	☐	☐	☐

17 a) Which foods that we serve are your least favourite?

b) Which foods that we serve are your most favourite?

18 Are there food items that you like that could be served here? Please indicate items. ____________________

Comments? ____________________

Thank you for completing the questionnaire. If you would like someone to come and talk to you about this questionnaire, please provide your name ____________________

Form revised 2008

Satisfaction with Nutrition and Food Services Questionnaire Scoring Form

NAME OF AUDITOR	NUMBER OF QUESTIONNAIRES RETURNED →		TOTAL NUMBER OF QUESTIONNAIRES DISTRIBUTED →		OVERALL RESPONSE RATE →		DATE OF AUDIT

QUESTION	A. # YES	B. # NO	C. # DOESN'T APPLY	D. TOTAL # RESPONSES	SCORE FOR QUESTION (%) = $\frac{\#YES}{\#\ RESPONSES}$ x 100
1 Do you enjoy the foods you are served?					
2 Does the food taste good?					
3 Does your food look good?					
4 Are hot foods served hot enough?					
5 Are cold foods served cold enough?					
6 Are you usually getting enough to eat?					
7 Do you eat most of the food you receive at each meal?					
8 Are you given enough time to finish your meals?					
9 If you do not like the meal served, are you offered another choice?					
10 Do you receive adequate help at mealtimes?					
11 If you are on a special diet, do the foods we offer meet your needs?					
12 Do you enjoy eating with your tablemates?					
13 Is your table setting clean and neat?					
14 Are suggestions about meal service dealt with to your satisfaction?					
15 Do we meet your personal, cultural or religious food preferences?					
16 Are those who serve your meals pleasant and friendly?					

ACCEPTABLE AUDIT SCORE (>70%) FOR ALL QUESTIONS FROM 1 TO 16: ☐ MET ☐ NOT MET

Form revised 2008

Plate Waste Audit

NAME OF AUDITOR:	DATE OF AUDIT:	DINING AREA:	MENU CYCLE: WEEK: DAY:	MEAL: Breakfast Lunch Dinner

FOOD/BEVERAGE ITEM:																									
PERSON IN CARE'S INITIALS/DIET	AMOUNT LEFT					AMOUNT LEFT					AMOUNT LEFT					AMOUNT LEFT					AMOUNT LEFT				
	F	3/4	1/2	1/4	0	F	3/4	1/2	1/4	0	F	3/4	1/2	1/4	0	F	3/4	1/2	1/4	0	F	3/4	1/2	1/4	0
1.																									
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20.																									
A. TOTALS:																									
B. MULTIPLY BY:	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0	4	3	2	1	0
C. COLUMN SCORE:																									
D. AUDIT SCORE* (SEE FORMULA BELOW)																									
ACCEPTABLE SCORE (<30%) MET?	☐ MET ☐ NOT MET					☐ MET ☐ NOT MET					☐ MET ☐ NOT MET					☐ MET ☐ NOT MET					☐ MET ☐ NOT MET				

*AUDIT SCORE (per item) =

$$\frac{(\text{TOTAL \# F X 4}) + (\text{TOTAL \# 3/4 X 3}) + (\text{TOTAL \# 1/2 X 2}) + (\text{TOTAL \# 1/4 X 1}) + (\text{TOTAL \# 0 X 0})}{\text{4 x \# PEOPLE AUDITED}} \text{ x 100}$$

Form revised 2008

Nutrition and Food Services Policies and Procedures Checklist

NAME OF AUDITOR:	DATE OF AUDIT:

The following is a checklist that you may use in the planning and development of policies and procedures for a nutrition and food service department. For any items listed below where you indicate "no", you may want to consider whether a policy needs to be developed and implemented.

Y = Yes, N = No, E = Exception

POLICY AND PROCEDURES	Y	E	N
1. Introduction			
Philosophy, mission statement and objectives			
Relationships with other departments administration, pastoral care, finance, housekeeping, materials management, medical staff, nursing, occupational therapy, social work and recreation			
2. Management Tools			
Communication including meetings departmental, interdepartmental			
Budget - operating, capital, controls			
Monthly and yearly records			
Meal census			
Purchases - food, other supplies, equipment, etc.			
Cost analysis (recoveries, other expenses, physical inventory and reports)			
3. Quality Continuous Improvement			
In-service education			
Preventive maintenance			
Quality improvement			
Feedback from persons in care (food committees, handling food complaints, etc.)			
Orientation and employment practices - hiring, sick time, medical examinations, payroll, salaries and wages, hours of work, payday, vacation and terminations			
Union agreements			
Job descriptions and work schedules			
Employee evaluations and discipline			
Education of students			
4. Sanitation, Safety and Security			
Cleaning, sanitizing - cleaning schedules, WHMIS, waste management			
Safe food practices including HACCP, temperature control, personal hygiene and pest control			
Person in care's private food and drink			
Fire regulations			

Form developed 2008

Continued on next page...

Nutrition and Food Services Policies and Procedures Checklist cont'd

POLICY AND PROCEDURES	Y	E	N
4. Sanitation, Safety and Security (cont.)			
Security			
Ergonomics (safe lifting, preventing musculoskeletal injuries)			
5. Food Service Purchasing, Receiving, Storage and Issuing			
Specifications - food, equipment and other supplies			
Inventory control - minimum/maximum standards of inventory			
Procurement of local food			
Delivery schedules including frequency			
Requisitioning			
Areas of storage			
6. Food Preparation, Production and Distribution			
Diet orders			
Diet/food item standards including therapeutic and texture-modified diets, diets for medical procedures, food allergies and intolerances			
Food preparation - production sheets, recipe standardization, portion control and leftover use			
Nourishments and tube feedings			
Tray make-up and delivery			
Clerical records			
Food tasting			
Vending			
Outreach programs (e.g. Meals on Wheels)			
Considerations for persons in care helping with food services			
Sustainable practices			
7. Menu and Meal Service			
Provisions for brunch			
Catering for special events			
Contingency planning (e.g. bomb threat, emergency feeding, food poisoning, internal/external disaster, strike, food recalls)			
Staff and guest meals			
Meal rounds including supervision and assistance			
Meal service for infection containment			
Menu planning/posted menu			
Nourishments			
Packed meals and snacks			

Form developed 2008

Continued on next page...

Nutrition and Food Services Policies and Procedures Checklist cont'd

POLICY AND PROCEDURES	Y	E	N
7. Menu and Meal Service (cont.)			
Food donations			
Personal foods of persons in care			
Dining procedures			
Handling food complaints			
Refusal to eat/drink			
Requests for additional servings			
8. Nutrition Care			
Communication of changes in the status of those in care (e.g. weight changes)			
When to refer to Registered Dietitian			
Nutritional assessment/care plan - how it is incorporated into the overall care plan and how changes are communicated			
Bowel management			
Discharge planning			
Drug-nutrient interactions			
Special considerations - dysphagia management, hydration, pressure ulcers and wound care, palliative care guidelines			
Eating aids			
Food intake records			
Height and weight records			
Short stay persons in care			
Education of those in care and their family			
Enteral feeding			
Vitamin/mineral supplements (recommended uses for specific age/gender groups e.g. vitamin D)			

Form developed 2008

Audit of Excess Nutrient Intakes

NAME OF AUDITOR:	DATE:
INITIALS OF PERSON IN CARE:	AGE/GENDER:

1 Non-food source of nutrient/dose (e.g. supplements, medications)	Vitamin A (mcg RAE) or (IU RAE)	Vitamin C (mg)	Vitamin D (mcg)	Vitamin E (mg)	Vitamin B_3 (mg)	Vitamin B_6 (mg)	Vitamin B_9 (mcg)	Choline (mg)	Calcium (mg)	Copper (mcg)	Iron (mg)	Magnesium (mg)	Manganese (mg)	Phosphorous (mg)	Selenium (mcg)	Zinc (mg)
2 Total																
3 Amount from food																
4 Overall total																
5 UL	3000 mcg RAE	2000	50	1000	35	100	1000	3500	2500	10,000	45	350	11	3000 (> 70) 4000 (19-70)	400	40
6 < UL?																

INITIALS OF PERSON IN CARE:	AGE/GENDER:

	Vitamin A (mcg RAE) or (IU RAE)	Vitamin C (mg)	Vitamin D (mcg)	Vitamin E (mg)	Vitamin B_3 (mg)	Vitamin B_6 (mg)	Vitamin B_9 (mcg)	Choline (mg)	Calcium (mg)	Copper (mcg)	Iron (mg)	Magnesium (mg)	Manganese (mg)	Phosphorous (mg)	Selenium (mcg)	Zinc (mg)
2 Total																
3 Amount from food																
4 Overall total																
5 UL	3000 mcg RAE	2000	50	1000	35	100	1000	3500	2500	10,000	45	350	11	3000 (> 70) 4000 (19-70)	400	40
6 < UL?																

TOTAL AUDIT SCORE = $\frac{\text{TOTAL \# Y}}{\text{\# NUTRIENTS x \# PEOPLE AUDITED}}$ x 100 = ___________ %

ACCEPTABLE AUDIT SCORE (100%): ☐ MET ☐ NOT MET

Form developed 2008

Emergency Preparedness Checklist

NAME OF AUDITOR:	DATE CHECKLIST COMPLETED:

The following is a checklist that you may use for emergency planning. For any items indicated as "no", you may want to consider whether planning is needed.

Y = Yes, N = No, E = Exception	Y	E	N
Procedures			
1. An emergency team has been established.			
2. Written procedures to ensure safe foods during a food recall and for preventing intentional contamination of food.			
3. Emergency preparedness plan that identifies specific responsibilities for the facility's food services.			
4. Written procedures to ensure safe food during different types of disasters.			
5. The facility requires all vendors who make deliveries on-site to conduct background checks on delivery personnel.			
Facilities and Equipment			
1. There is an adequate, dedicated delivery vehicle.			
2. There is at least a three-day emergency menu. Ideally, there should be a five-day emergency menu.			
3. There is at least a three-day emergency food and water supply on-hand at all times including products suitable to meet diet/texture modifications and enteral feeds. Ideally there should be a five-day supply on-hand.			
4. Contracts with roofing, construction, and custodial companies are in place.			
5. Vendors or community organizations have agreed to supply temporary food storage (e.g. refrigeration, warehouse).			
Safety of Staff and Persons in Care			
1. Food deliveries are checked for signs of tampering.			
2. There is a means of determining inventory levels and missing food service items and other irregularities are investigated immediately.			
3. Areas with restricted personnel access are protected (i.e. security guard, keys, etc.).			
4. Food vendor communication procedures are included in the emergency plan.			
5. Security guards and/or video cameras are in place that include monitoring of the food service department.			
6. Where applicable, vendors must show photo identification and sign in prior to making deliveries.			
7. Delivery schedule is posted with the name of the company, the driver's name, and the day and time of delivery.			
Staffing			
1. There is a designated media/lead spokesperson.			
2. Staff members have contact phone numbers (cell and land) of all emergency team members accessible at all times.			
3. There is current contact information for all staff members.			
4. Staff and responsibilities have been designated for emergency preparedness. Staff have been cross-trained to do different duties as feasible. New employee orientation includes training of emergency preparedness.			
5. All employees have some type of identification while on the premises.			
6. New employees are placed on day shift initially for increased observation.			

Form developed 2008

Continued on next page...

Emergency Preparedness Checklist cont'd

Y = Yes, N = No, E = Exception	Y	E	N
Emergency Facilities and Equipment			
1. The computer server is protected from physical damage (e.g. flooding, fire).			
2. Generator backups are available in the main facility kitchen.			
3. There is a safe backup of water supply.			
4. There is fire prevention equipment.			
5. Communication via long-distance band radios (walkie-talkies) has been established.			
6. Designated emergency shelters have been identified.			
7. There is a backup supply of fuel for generators.			
8. Sanitizer kits are available during emergencies.			
9. The main kitchen is equipped with emergency lighting.			
10. The main kitchen can prepare and serve safe food during an electrical and/or gas outage.			
11. All access doors to storage facilities are locked and secure at all times.			
12. Security lights are in operation during evening hours.			
13. Emergency supplies are in place (e.g. matches, flashlights, tarps, raincoats, batteries).			

Implement any corrective actions to address "no" responses.

Sustainability in Food Services Checklist

NAME OF AUDITOR:	DATE CHECKLIST COMPLETED:

The following is a checklist that you may use to assess your sustainability practices. For any items indicated as "no", you may want to consider whether planning is needed.

Y = Yes, N = No, E = Exception	Y	E	N
Purchasing			
1. Local, seasonal, organic, free range, fair trade and antibiotic-free food purchasing program (e.g. participating in "Eat Local BC" campaign).			
2. Purchase from environmentally and socially responsible companies.			
3. Purchase recycled, non-toxic and biodegradable packaging.			
4. Department requests for proposals and purchase specifications include environmental statements.			
5. Newly purchased products (e.g. trays) are made from recycled material.			
6. "Green" cleaning products have replaced more caustic products (e.g. use phosphate-free detergent).			
7. Plan deliveries to conserve fuel.			
8. Support like-minded local suppliers and service providers working to "green" their operations.			
Menu Planning, Preparation and Service			
1. Vegetarian meals offered on a regular basis.			
2. Bulk condiments are used. Individualized portion packages used only as needed (e.g. milk, jams, etc.)			
3. The use of paper towels is limited.			
4. Napkins are made from post consumer paper.			
5. Use alternatives to disposable dishes.			
6. Facility provides healthy vending.			
7. Reduce food waste by use of forecasting, standardized recipes and plate waste audits.			
Waste Management			
1. Send organic waste to compost as feasible.			
2. Recycle program (e.g. for paper, plastic, metal, cardboard, paper, beverage containers, glass, etc.).			
3. System for collection and disposal of cooking oil.			
Equipment and Building			
1. Water conservation practices (e.g. use water-saving equipment and fixtures).			
2. Carbon dioxide and air pollution reduction practices (including alternative fuel use, renewable energy sources, emission control devices, etc.).			
3. Regular maintenance and upgrading of process equipment, such as heating, ventilation, air conditioning, motors and compressed air systems.			
4. Indoor air quality standards and practices.			
5. Building construction and renovation based on ecological design principles.			
6. Reduce use of lights. Maximize use of daylight and access to views in work spaces.			

Form developed 2008

Continued on next page...

Sustainability in Food Services Checklist cont'd

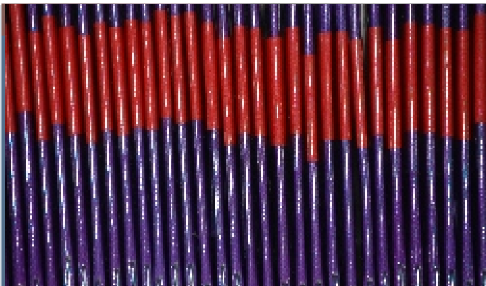
Y = Yes, N = No, E = Exception	Y	E	N
Equipment and Building (cont.)			
7. Use energy-efficient equipment and lighting.			
8. Fan-speed devices for forced-circulation evaporators in walk-in coolers when full cooling is not necessary.			
Encouraging sustainable practice among those in the facility			
1. Policies and procedures regarding sustainable practice.			
2. Facility grows some of its own foods (e.g. a garden, fruit trees, indoor herb garden, etc.)			
3. Provide discounts/incentives for staff that bring their own mug, use paper or reusable lunch bags for bagged lunches rather than plastic or for other sustainable practices.			
4. Reduce paper use (e.g. print and photocopy less, have email tag lines suggesting emails be printed out only as necessary, use scrap paper for notes, reuse large envelopes and file folders, etc.)			
5. Meetings held by video or teleconference to reduce transportation.			
6. "Green" meetings/conferences held.			
7. Donate unwanted items such as old uniforms.			

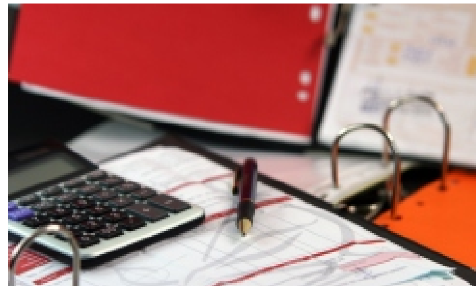
Implement any corrective actions to address "no" responses.

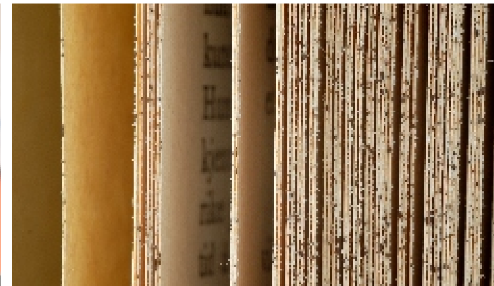
COMMENTS

CONCERNS IDENTIFIED	CORRECTIVE ACTION (INCLUDE DATE OF EACH ACTION)	STAFF RESPONSIBLE
	DATE OF NEXT AUDIT:	

Appendices







1 - 13

Appendix 1 - Resources

Acts

Community Care and Assisted Living Act. Copies available for purchase from Crown Publications at: http://www.crownpub.bc.ca. Copies also available on the Internet at http://www.health.gov.bc.ca/ccf but these are not the official versions of the legislation.

Alcohol and Drug Abuse/Nutrition

Dekker, Trish. **Nutrition and Recovery: A Professional Resource for Healthy Eating during Recovery from Substance Abuse.** Toronto: Centre for Addiction and Mental Health, 2000. Available at: http://www.camh.net/About_Addiction_Mental_Health/CAMH_Library/Nutrition2007.pdf

Behaviour Change and Counselling

King, K, Klawaitter B. Nutrition Therapy Advanced Counseling Skills. 2007. USA: Lippincott, Williams and Wilkins.

Best Practices

BC Ministry of Health Service. **Guidelines for Elderly Mental Health Care Planning for Best Practices for Health Authorities**. 2002. Victoria: BC Ministry of Health.

Brown JP, Josse RG and The Scientific Advisory Council of the Osteoporosis Society of Canada (2002). 2002 clinical practice guidelines for the diagnosis and management of osteoporosis in Canada. *Canadian Medical Association Journal*, 167 (suppl); S1-S34.

Canadian Clinical Guidelines for Enteral and Parenteral Nutrition.
Available at: http://www.criticalcarenutrition.com/docs/cpg/srrev.pdf

Cohn TA, Sernyak MJ. (2006). Metabolic Monitoring for Patients Treated with Antipsychotic Medications. *Canadian Journal of Psychiatry*, 51(8); 492-96, 2006.

College of Dietitians of Ontario. **Record Keeping Guidelines for Registered Dietitians**. 2004. Available at: http://www.cdo.on.ca.

Dorner B, Niedert KC, Welch PK. (2002). Position of the American Dietetic Association: Liberalized Diets for Older Adults in Long-Term Care. *Journal of the American Dietetic Association*, 102(9); 1316-1323.

Emerson M, Kerr P, Del Carmen Soler M, Anderson Girard T, Hoffinger R, Pritchett E, Otto M. (2006). American Dietetic Association. Standards of Practice and Standards of Professional Performance for Registered Dietitians (Generalist, Specialty, and Advanced) in Behavioural Health Care. *Journal of the American Dietetic Association*, 106(4); 608-613.

Best Practices (cont.)

Griffin B, Dunn JM, Irvin J, Speranza IF. (2001). Standards of professional practice for dietetics professionals in management and foodservice setting. *Journal of the American Dietetic Association*, 101; 944-946.

Ontario Long Term Care Action Group and Dietitians of Canada. Best Practices for Nutrition, Food Service and Dining in Long Term Care Homes - A Working Paper. 2007. Available through the online Resources Inventory of Dietitians of Canada.

Regional Geriatric Program of Toronto. Toronto Best Practices Initiative - Long Term Care Guidelines. Available at: http://rgp.toronto.on.ca/node/133

Care Philosophies and Programs

The Eden Alternative, http://www.edenalt.com
Gentlecare, http://www.gentlecare.com
Gentle Teaching, http://www.gentleteaching.com/index.htm

Design and Equipment

Birchfield JC. **Design and Layout of Foodservice Facilities**. 2007. New Jersey: John Wiley and Sons, Inc.

Katsigris C, Thomas C. **Design and Equipment for Restaurants and Foodservice**. 2008. New Jersey: John Wiley and Sons, Inc.

Diet Guidelines

Health Canada. **Eating Well With Canada's Food Guide**. 2007.
Available at: http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index_e.htm

Health Canada. **Eating Well With Canada's Food Guide**: **A Resource for Educators and Communicators**. 2007. Available at: http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/index_e.html

Health Canada's **Dietary Reference Intakes Reference Values for Vitamins**, 2005.
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Nutrition Assessment and Care Plan Summary

NAME:	SEX: ☐ MALE ☐ FEMALE	DATE OF BIRTH:	AGE:	ROOM #:
PHYSICIAN:	NEXT OF KIN:	ADMISSION DATE:		
DIAGNOSIS / MEDICAL CONCERNS:				
FOOD ALLERGY / INTOLERANCE / REACTIONS:				
MEDICATIONS:				
POSSIBLE DRUG NUTRIENT INTERACTIONS:				
NUTRITIONAL SUPPLEMENTS:	LAXATIVES (INCLUDING NATURAL):			
SIGNIFICANT LAB DATA:				

ANTHROPOMETRICS

ADMIT WEIGHT:	CURRENT HEIGHT:	CURRENT WEIGHT:	USUAL WEIGHT:	COMMENTS:
BMI:	WAIST CIRCUMFERENCE:	WEIGHT HISTORY:		
AVERAGE WT/HT/AGE/SEX:	GOAL WEIGHT RANGE:			

NUTRITIONAL THERAPY CHECKLIST

				COMMENTS:
APPETITE:	☐ GOOD	☐ FAIR	☐ POOR	
CHEWING:	☐ GOOD	☐ FAIR	☐ POOR	
SWALLOWING:	☐ GOOD	☐ FAIR	☐ POOR	
FLUID INTAKE:	☐ GOOD	☐ FAIR	☐ POOR	

DENTITION: ☐ OWN ☐ DENTURE ☐ USED
☐ UPPER ☐ LOWER ☐ FITS

HEARING: ☐ FUNCTIONAL ☐ NON-FUNCTIONAL
☐ AIDE ☐ LEFT ☐ RIGHT ☐ USED

SIGHT: ☐ FUNCTIONAL ☐ NON-FUNCTIONAL
☐ GLASSES ☐ USED

COMMUNICATION: ☐ YES ☐ NO

COMPREHENSION: ☐ YES ☐ NO

BOWEL FUNCTION: ☐ NO CONCERNS ☐ DIARRHEA
☐ CONSTIPATION

MOBILITY: ______________________

DEXTERITY: ______________________

FEEDING: ☐ SELF ☐ SET-UP ☐ REMIND
☐ ASSIST ☐ TOTAL FEED

SPECIAL NEEDS: ☐ PLATE GUARD ☐ UTENSILS
☐ DIVIDED PLATE ☐ OTHER

COMMENTS:

Form revised 2008

Nutrition Assessment and Care Plan Summary cont'd

NAME:

FOOD PREFERENCES

MILK	JUICE	FLUIDS	BREAD	CEREAL	FRUIT LAX	FRUIT
RED MEAT	CHICKEN	FISH	CHEESE	SALAD	VEGETABLE	OTHER

LIFESTYLE FACTORS

SMOKES: Yes No Estimated Daily Amount:

ACTIVITY: Limited Sedentary Lightly active Moderately active Very active

HOBBIES AND INTERESTS:

NUTRITIONAL RISK FACTORS

- ☐ Weight is 20% below usual
- ☐ Unintentional significant weight loss
- ☐ Poor appetite or major appetite change
- ☐ Poor fluid intake (<30 ml/kg BW)
- ☐ Tube feeding
- ☐ Serum albumin levels < normal
- ☐ Decubitis ulcers
- ☐ Chronic infection
- ☐ Severe underweight
- ☐ Chewing /swallowing difficulties
- ☐ Alcohol/drug/tobacco use
- ☐ Concern regarding laboratory values
- ☐ Constipation
- ☐ Drug-nutrient interaction
- ☐ Edema
- ☐ Elimination of >1 major food group
- ☐ Inability to feed self
- ☐ At least one condition with nutritional implications (AIDS, Cancer, Cardiovascular Disease, Dementia, Depression, Diabetes Mellitus, GI disorder, Renal Disease, Liver Disease, Osteoporosis, etc.)
- ☐ Poor pain control
- ☐ Chronic diarrhea/nausea/vomiting
- ☐ Skin breakdown
- ☐ Recent hospitalization
- ☐ Severe trauma/fracture/surgery
- ☐ Severe overweight
- ☐ Specific food intolerance or allergy
- ☐ Impaired cognitive function
- ☐ Atypical food habits (e.g. pica)
- ☐ Other: (specify)

NUTRITION RISK LEVEL (✓ one) (factors in the left column usually indicate high risk. The RD must evaluate all factors affecting the person in care)	☐ HIGH ☐ MODERATE ☐ LOW

COMMENTS

DIET ORDER:	DATE OF ORDER:
SIGNATURE:	DATE:

Form revised 2008

Nutrition Care Plan

NAME OF PERSON IN CARE:	REVIEW DATE:

Nutrition-Related Considerations (strengths, abilities, preferences, needs, safety, security)	Goals	Actions	By Whom	Start Date	Review Date

SIGNATURE:	DATE:

Form developed 2008

Sample Nutrition Assessment Monitoring Form

Example: Joe was assessed Feb. 5th and low risk. Next assessment will be Feb. 5th of the following year (Steps: erase this year's entry and mark for next year as a reminder)

NAME OF PERSON IN CARE:	RISK	YEAR:												YEAR:											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Example: *Joe Smith*	*L*		*5th*												*5th*										

Risk levels: L= low, M = moderate, H = high

Form developed 2008

Registered Dietitian Referral Form

Use this form to notify the Registered Dietitian when the condition of a person in care *changes* in a way that impacts their nutritional health and well-being.

NAME OF PERSON IN CARE:	ROOM #

REASON FOR REFERRAL (check boxes that apply):

☐	New diagnosis with nutritional implications (e.g. Anemia, Anorexia, Bone Fracture, Cancer, Chronic Obstructive Pulmonary Disease, Colostomy, Osteoporosis, Hypertension, Congestive Heart Failure, Crohn's Disease, Dementia, Depression, Diabetes, Gastric Reflux, Liver Failure, Renal Failure)
☐	Physician-initiated diet change
☐	Difficulty swallowing and/or chewing; coughing regularly during meals; choking incident
☐	Appetite change
☐	Weight change
☐	Ongoing diarrhea, nausea, vomiting
☐	Medication with nutritional implications (e.g. Cardiac drugs, Diuretics, Oral Hypoglycemics, Insulin, Prednisone)
☐	Change in bowel function or medication for constipation
☐	Change in ability to feed self
☐	Taking longer than 30 minutes to finish eating a meal
☐	Skin breakdown/ pressure ulcer/ wound
☐	Laboratory values with nutritional implications outside of normal range (e.g. Cholesterol, Hematology Panel, Ferritin, Folate, B_{12}, Hemoglobin A_1C, Glucose Fasting/Random, Potassium, Sodium, Urea/Creatinine, Calcium, Phosphorus, TSH, Albumin)
☐	Chronic infections (e.g. Respiratory Tract, Urinary Tract, Yeast)
☐	Has been taking fluids only for more than 72 hours
☐	Poor fluid intake
☐	Restriction of one of the four food groups
☐	Recent hospitalization
☐	Edema
☐	
☐	
☐	
☐	

SIGNED:	DATE:

FOR DIETITIAN'S USE:

PRIORITY: ______________ FOLLOW UP DATE: ______________ COMPLETED: ______________

Adapted from the North Shore Long Term Care Facility Registered Dietitians and Vancouver Coastal Health North Shore's Dietitian Referral Form, 2008

Nutrition Transfer Form

TO:	NAME OF PERSON IN CARE:
FACILITY/UNIT:	DATE OF BIRTH: / ADMISSION DATE:

CURRENT DIET PROVIDED:

FOOD ALLERGIES:

FOOD PREFERENCES:

NOURISHMENTS /SUPPLEMENTS RECOMMENDED: ☐ YES ☐ NO

TYPE:	AMOUNT PER DAY:	DURATION:

DENTITION: ☐ TEETH ☐ DENTURES ☐ UPPER ☐ LOWER ☐ FITS ☐ USED

	GOOD	FAIR	POOR
APPETITE:	☐	☐	☐
CHEWING:	☐	☐	☐
SWALLOWING:	☐	☐	☐
FLUID INTAKE:	☐	☐	☐
FOOD INTAKE:	☐	☐	☐

COMMENTS:

SPECIAL NEEDS: ☐ PLATE GUARD ☐ DEEP DISH ☐ OTHER

DIETARY INTERVENTION:

BOWEL FUNCTIONS: ☐ NO CONCERN ☐ CONSTIPATION ☐ DIARRHEA

FEEDING: ☐ SELF ☐ REMIND ☐ ASSIST ☐ TOTAL FEED

WEIGHT ON ADMISSION:	HEIGHT ON ADMISSION:

WEIGHT HISTORY:

NUTRITION RISK LEVEL: ☐ HIGH ☐ MODERATE ☐ LOW

RELEVANT DIAGNOSES / MEDICAL CONCERNS:

RELEVANT LABORATORY DATA:

NUTRITION CONCERNS:

DATE:	SIGNATURE:		
	PHONE:	FAX:	EMAIL:

Form revised 2008

Significant Weight Loss Table

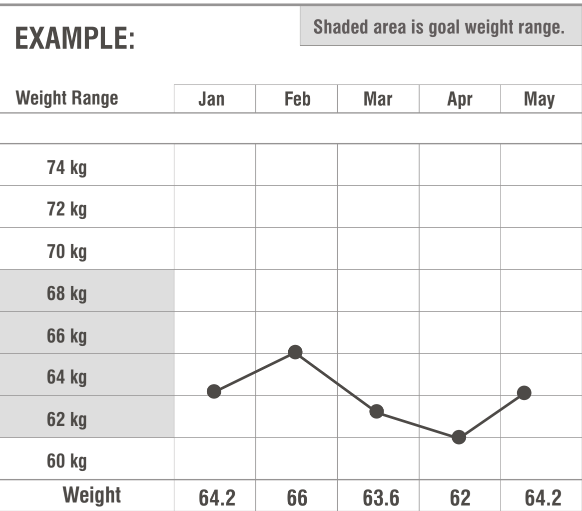
This table can be used to quickly calculate significant weight loss.

Initial Weight (kg)	5%	7½%	10%	Initial Weight (kg)	5%	7½%	10%	Initial Weight (kg)	5%	7½%	10%
30	29	28	27	**55**	52	51	50	**80**	76	74	72
31	30	29	28	**56**	53	52	51	**81**	77	75	73
32	30	30	29	**57**	54	53	51	**82**	78	76	74
33	31	31	30	**58**	55	54	52	**83**	79	77	75
34	32	31	31	**59**	56	55	53	**84**	80	78	76
35	33	33	32	**60**	57	56	54	**85**	81	79	77
36	34	33	33	**61**	58	57	55	**86**	82	80	77
37	35	34	33	**62**	59	57	56	**87**	82	81	78
38	36	35	34	**63**	60	58	57	**88**	84	81	79
39	37	36	35	**64**	61	59	58	**89**	85	82	80
40	38	37	36	**65**	62	60	59	**90**	86	83	81
41	39	38	37	**66**	63	61	59	**91**	86	84	82
42	40	39	38	**67**	64	62	60	**92**	87	85	83
43	41	40	39	**68**	65	63	61	**93**	88	86	84
44	42	41	40	**69**	66	64	62	**94**	89	87	85
45	43	42	41	**70**	67	65	63	**95**	90	88	86
46	44	43	42	**71**	67	66	64	**96**	91	89	87
47	45	44	43	**72**	68	67	65	**97**	92	90	88
48	46	44	43	**73**	69	67	66	**98**	93	91	88
49	47	45	44	**74**	70	68	66	**99**	94	92	89
50	48	46	45	**75**	71	69	67				
51	48	47	46	**76**	72	70	68				
52	49	48	47	**77**	73	71	69				
53	50	49	48	**78**	74	72	70				
54	51	50	49	**79**	75	73	71				

Adapted from Pocket Resource for Nutritional Assessment, CDHCF 1997.

Monthly Weight Graph

NAME:	
YEAR OF WEIGHT GRAPH:	
WEIGHT ON ADMISSION:	
ADMISSION DATE:	
HEIGHT:	
IDEAL BODY WEIGHT RANGE:	
GOAL WEIGHT RANGE:	



WEIGHT RANGE	MONTH											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
MONTHLY WEIGHT:												

***REMEMBER TO WEIGH THE PERSON AT APPROXIMATELY THE SAME TIME OF DAY EACH MONTH.**

Form developed 2008

Suggested Minimum Serving Sizes for the Elderly

	Average Female Serving Size	Average Male Serving Size		Average Female Serving Size	Average Male Serving Size
Breakfast Items			**Main Meal Items**		
Juice	4 oz (125 ml)	4 oz (125 ml)	Beans, Lentils, Dried Peas, cooked	4 oz (125 ml)	4 oz (125 ml)
Prunes (3 whole prunes + 30 ml juice)	3 oz (90 ml)	3 oz (90 ml)	Fish, cooked, boneless	2 oz (50 g)	2 oz (50 g)
Cereals, cooked	4 oz (125 ml)	6 oz (175 ml)	Chicken, cooked, boneless	2 oz (50 g)	2 oz (50 g)
Bran	1 tbsp (15 ml)	1 tbsp (15 ml)			
Dry cereal	1 oz (30 g) ¾ to 1 cup	1 oz (30 g) ¾ to 1 cup	Chicken, cooked, with bone	3.5 oz (100 g)	3.5 oz (100 g)
Brown sugar	1 tsp (5 ml)	1 tsp (5 ml)	Beef and Veg. Stew	4 oz (125 ml)	6 oz (175 ml)
Toast, whole wheat	1 slice	2 slices	Served on Bun/English Muffin:	½ sandwich	1 sandwich
Margarine	1 tsp (5 ml)	2 tsp (10 ml)			
Eggs, medium	1	1	- Hamburger Patty	1	1
Milk, 1%	4 oz (125 ml)	4 oz (125 ml)	- Barbeque beef or Turkey with sauce	2 oz (50 g)	2 oz (50 g)
Jam, Jelly, Marmalade	1 tbsp (15 ml)	1 tbsp (15 ml)			
Grains			- Eggs Benedict, medium egg sauce	1 (30 ml)	2 (60 ml)
Biscuit (baking powder)	1 (30 g)	1 (30 g)			
Rice, cooked	#8 scoop (125 ml)	#8 scoop (125 ml)	Baked Beans	4 oz (125 ml)	6 oz (175 ml)
Vegetables			Macaroni & Cheese	4 oz (125 ml)	8 oz (250 ml)
Potatoes, whole	½ medium (50 g)	1 medium (120 g)	Quiche	2.5 oz (75 g)	4 oz (120 g)
Potatoes, mashed or salad	#8 scoop (125 ml)	#8 scoop (125 ml)	Sandwich made with	½ sandwich	1 sandwich
			- Whole grain bread	1 slice	2 slices
Vegetables, cooked	#8 scoop (125 ml)	#8 scoop (125 ml)	- Margarine	1 tsp	2 tsp
Fruit			- Meat, Fish	1 oz (25 g)	2 oz (50 g)
Fruit, fresh	1 medium	1 medium	- Egg salad	#6 scoop (40 g)	#12 scoop (80 g)
Plums, canned	2 plus juice	2 plus juice	- Cheese	1 oz (25 g)	2 oz (50 g)
Apricots, canned halves	4 plus juice	4 plus juice	Salad Bowls:		
			- with cottage cheese	4 oz (125 ml)	4 oz (125 ml)
Fruit, other, canned	4 oz (125 ml)	4 oz (125 ml)	- with sliced meat	2 oz (50 g)	2 oz (50 g)
Desserts			Soup (not broth)	4 oz (125 ml)	6 oz (175 ml)
Ice cream	4 oz (125 ml)	4 oz (125 ml)	Tuna casserole	4 oz (125 ml)	6 oz (175 ml)
Milk pudding/custard	#8 scoop (125 ml)	#8 scoop (125 ml)	**Snacks**		
Crisps and cake-type desserts	1 (1.5” cube or 2 x 2 x 1”)	1 (1.5” cube or 2 x 2 x 1”)	A.M. fruit	1 medium	1 medium
			P.M. cookie	1 plain	1 plain
			Evening milk, 1%	4 oz (125 ml)	4 oz (125 ml)
			Sandwich	½	½

Note: Suggested serving sizes given for meats, fish, and poultry are the weights as served after cooking (cooking losses are approximately 1/3). These serving sizes may need to be adjusted to meet individual requirements and preferences.

Suggested Menu Items

Suggested Menu Items - ENTRÉES

Beans, Peas and Lentils
Baked Beans
Bean Casserole
Bean Salad
Burritos
Lentil Burgers
Mexican Rice and Bean Casserole
Split Pea and Lentil Soup
Sweet and Sour Soybeans on Rice
Vegetable Chili
Red Lentil Spaghetti Sauce

Beef
Beef Pot Pie
Corned Beef
Ground Beef
Cabbage Rolls
Casseroles
Chili con Carne
Goulash
Hamburgers
Kebabs
Lasagna
Liver with Onions
Meatballs (Italian, sweet and sour, swedish)
Meatloaf
Salisbury Steak
Shepherd's Pie
Short Ribs, Barbequed
Sloppy Joes
Steak - Minute/Swiss/Spanish
Steak and Kidney Pie
Stew
Stir Fry
Stroganoff
Roast - Pot Roast/Baron of Beef/Dip

Chicken
a la king
Barbequed
Cacciatore
Cajun
Crepes
Curried
Fajitas
Hawaiian
Italian
Kebabs
Lemon
Orange
Oven Baked
Pancit
Pot Pie
Stir Fry
Roast

Fish (Cod, Halibut, Red Snapper Sole, Salmon, Tilapia, Tuna)
Baked/Breaded
Pan Fried
Poached
Scalloped

Ham
Baked Glazed
Casserole
Steak

Lamb
Chops
Roast Leg
Stew, Irish

Pasta as an Entrée
Macaroni, Cheese, Tomato and Beef Casserole
Spaghetti and Meatballs
Fettucini (chicken, shrimp, etc.)

Pork
Chops
Cutlets
Kebabs
Sausages
Spare Ribs
Stew
Stir Fry
Sweet and Sour
Tourtiere

Salads as an Entrée
Caesar Salad (with chicken, shrimp, beef, etc.)
Chef Salad
Chicken Pasta Salad
Cobb Salad
Cottage Cheese and Fruit Salad
Curried Chicken Salad
Seven Layer Salad
Spinach and Egg Salad
Taco Salad
Thai Noodle Salad (with a meat/meat alternative)

Sandwiches
Beef (hot or cold)
Cold Cuts
Corned Beef
Chicken
Crab Salad
Egg Salad
Ham
Peanut Butter (or other nut butters)
Pitas (filled with vegetables and meat/alternative)
Quesadillas
Reuben
Tuna
Turkey (hot or cold)
Salmon
Shrimp Salad
Subs (6")

Sandwiches cont'd
Wraps
Seafood
Fettuccini with Mussels
Fish and Chips
Fish Burger
Fish Cakes or Patties
Tuna Melt or Casserole
Stir Fry

Tofu/Soybean
Scrambled Tofu
Tofu Bean Salad
Tofu Burgers
Tofu Fried Rice
Tofu Onion Pie
Tofu Scalloped Potato
Tofu Stir fry
Tofu Stroganoff
Vegetable Lasagna
Vegetable Quiche
Vegetarian Chili
Edamme

Turkey
a la King
Hot Turkey Sandwich
Pot Pie
Roast
Sausages

Veal
Chopped (e.g. stew)
Cutlets
Roast
Scaloppini

Other
Egg Foo Yong
Omelette
Pizza
Cold Plates (e.g. meat)
Quiche

Continued on next page...

Suggested Menu Items cont'd

Suggested Menu Items - GRAIN PRODUCTS *(USE WHOLE GRAIN PRODUCTS WHEN POSSIBLE)*		
Bagels Barley Biscuits Bread or Buns - white, whole, wheat, rye, sesame, pumpernickel, multi-grain, raisin, egg Breakfast Cereals - Cornmeal; Five/Seven/ Nine Grains; Oatmeal; Oat bran; Red River®/ Sunny Boy®	Cold Breakfast Cereals Couscous Crackers Naan Noodles - macaroni, linguini, fettuccini, spaghetti Muffins Pancakes Papadum	Pita Polenta Quinoa Rice and other grains - white, brown, basmati, wild Scones Taboulli Tortillas Waffles

Suggested Menu Items - SOUPS				
Chowders Corn Clam Fish (e.g. salmon, tuna, halibut) Vegetable **Cream Soups** Asparagus Broccoli Carrot Cauliflower Celery	**Cream Soups continued..** Chicken Corn Leek and Potato Mushroom Onion Pea Potato Pumpkin Spinach Squash Tomato	**Other Soups** Bean and Bacon Beef and Barley Beef Bouillon Beef Noodle or Rice Black Bean Butternut Squash Chicken Gumbo Chicken Noodle Chicken Rice Creole Edamame	**Other Soups continued...** Egg Drop French Canadian Pea French Onion Hamburger Hot and Sour Italian Wedding Lentil Minestrone Mulligatawny Pea Split Pepper Pot Scotch Broth	**Other Soups continued..** Sweet Potato Sweet Red Pepper Tomato Rice Tomato Noodle Turkey Vegetable Turkey Noodle Turkey Rice Vegetable Vietnamese Noodle Wonton

Suggested Menu Items - VEGETABLES				
Argula Artichoke Asparagus Bamboo Shoots Beans - green, yellow, French cut Bean Sprouts Beets Bok Choy Broccoli Broccolini Brussels Sprouts Cabbage - green, red Carrot - regular, baby Cauliflower Celery	Chard Chinese Vegetable Corn - regular, baby Cucumber Daikon Dandelion Greens Endive Eggplant Fiddleheads Gai Lan Jicama Kale Kohlrabi Leeks Mesculin Mix Mustard Greens Okra Onions	Parsnips Peas - regular, sugar, snap Peppers - green, red, yellow Potato - Baked, Boiled, Mashed, Pan Fried/Scalloped Pumpkin Radishes Radicchio Rutabaga Shallots Spinach Squash Sui Choy Sweet Potato Taro	**Salads** Tomato Vegetable Marrow Yams Zucchini Ambrosia Asparagus Beet Broccoli Bacon Caesar Carrot and Raisin Carrot Strips Celery Strips Cole Slaw Cucumber Green Beans with Dill Greek	**Salads continued..** Lettuce Mixed Greens Pasta Potato - regular and sweet potato Roasted Vegetable Spinach Three Bean Salad Tomato Tossed Green Turnip Strips Waldorf

Continued on next page...

Suggested Menu Items cont'd

Suggested Menu Items - FRUIT

Canned Fruit
Applesauce
Apricots
Cherries
Fruit Cocktail
Lychees
Peaches
Pineapple
Plums

Baked Fruit Desserts
Apple Dumpling
Baked Apples, Pears
Brown Betty - Apple/Rhubarb
Cobblers
Cottage Puddings
Crisps

Baked Fruit Desserts continued..
Crumbles - Apple, Apricot, Blackberry, Cherry, Cranberry Mango, Mixed Berry, Peach, Pitted Plum, Raspberry, Rhubarb, Strawberry
Stewed Rhubarb
Stewed Fruit Compote

Fresh Fruit
Apples
Apricots
Bananas
Blackberries
Blueberries
Boysenberry
Cherries
Fresh Fruit Salad
Grapefruit

Fresh Fruit continued..
Grapes
Kiwi
Mangoes
Melon - Cantaloupe, Cassaba, Honeydew, Watermelon
Nectarines
Oranges
Peaches
Pears
Pineapple
Plums
Pomelo
Raspberries
Star Fruit
Strawberries
Tangerines

Suggested Menu Items - DESSERTS *(PREFERABLY WITH FRUIT, NUTS OR SEEDS OR MILK/MILK ALTERNATIVES)*

Angel Food Cake with Fresh Fruit Topping
Baked Custard
Cereal Squares or Bars
Cheesecake
Cookies - Peanut Butter, Oatmeal, Raisin, Fruit and Nut
Cranberry Squares
Custard
Date Squares
Frozen Yogurt
Fruit Trifle
Gingerbread with Fruit Sauce
Ice Cream
Jello® with Fruit

Loafs - Apricot, Banana Bread, Blueberry, Bran, Carrot, Lemon, Pumpkin, Zucchini
Mincemeat Squares
Pies
Puddings - Bread, Vanilla, Banana, Butterscotch, Chocolate, Coconut, Lemon, Mango, Pistachio, Rice, Tapioca, Lemon
Sherbet
Shortcakes
Tarts
Tofu Desserts
Upside-Down Cakes
Yogurt - Plain or with Fruit

Conversions and Equivalents

SCOOP SIZES/ VOLUME MEASURE*	No. 6	6 ounces	= 160 ml
	No. 8	4 - 5 ounces	= 125 ml
	No. 10	3 - 4 ounces	= 90 ml
	No. 12	2 ½ - 3 ounces	= 80 ml
	No. 16	2 - 2 ½ ounces	= 65 ml - 80 ml
	No. 20	1 ¾ - 2 ounces	= 60 ml
	No. 24	1 1/3 ounces	= 40 ml
	No. 30	1 - 1 ¼ ounce	= 30 - 35 ml
	No. 40	¾ ounce	= 20 - 25 ml
	No. 60	9/16 - ½ ounce	= 15 ml
WEIGHTS	1 ounce	= approximately 30 g	
	1 pound	= 16 ounces	= 454 g
	2.2 pounds	= 1 kilogram	
MEASURES	3 teaspoons	= 1 tablespoon	= 15 ml
	2 tablespoons	= 1 fluid ounce	
	16 tablespoons	= 1 cup	= 8 fluid ounces
	1 inch	= 2.54 cm	
IMPERIAL MEASURES	1 cup	= 250 ml	= 20 ounces = 600 ml
	2 ½ cups	= 1 pint	= 40 ounces = 1200 ml
	5 cups	= 1 quart	= 160 ounces = 4800 ml
	4 quarts	= 1 gallon	
AMERICAN MEASURES	1 cup	= 250 ml	= 8 ounces
	2 cups	= 1 pint	= 16 ounces = .47 litres
	4 cups	= 1 quart	= 32 ounces = .946 litres
	4 quarts	= 1 gallon	= 128 ounces = 3.875 litres
SI METRIC UNITS (SYSTEM INTERNATIONAL)	**VOLUME**		
	250 ml	= approximately 1 cup	
	1000 ml	= 1 litre	
	MASS		
	25 g	= approximately 1 ounce	
	1 kg	= 2.2 pounds	
TEMPERATURES	Fahrenheit Degrees to Celsius Degrees: Subtract 32, multiply by 5/9		

*Adapted from Food for fifty by M.K. Molt, 2001, Upper Saddle River, NJ: Prentice Hall.

Education and Training Attendance Form

TOPIC/NAME OF PROGRAM/COURSE/MODULE:	HOW PROGRAM DELIVERED? Workshop Self-Directed Module Other (specify_______________)
PRESENTER/TRAINER:	LENGTH OF EDUCATION SESSION:
DATE:	LOCATION:
OBJECTIVES OF EDUCATION SESSION:	

NAME	POSITION	COMMENTS

RESULTS OF EVALUATION (e.g. Goals met? Suggestions for improvement?):

Adapted from Food Service Policy and Procedures for Health Care Facilities, 2008.

SAMPLE

Emergency Menu For Regular Diet

MEAL	DAY 1	DAY 2	DAY 3
Breakfast	Juice* UHT milk/fortified soy milk** Cold cereal/granola bars Dried fruit (e.g. raisins) Bread Peanut butter Jam Tea/Coffee (optional)	Juice* UHT milk/fortified soy milk** Cold cereal/granola bars Dried fruit (e.g. apricots) Bread Cheese Jam Tea/Coffee (optional)	Juice* UHT milk/fortified soy milk** Cold cereal/granola bars Dried fruit (e.g. prunes) Bread Peanut butter Jam Tea/Coffee (optional)
Snack	Juice*/Water	Juice*/Water	Juice*/Water
Lunch	Juice* Chicken noodle soup Crackers Tuna sandwich Mixed vegetables Chocolate pudding	Juice* Cream of mushroom soup Crackers Chicken salad sandwich Sliced beets Canned peaches	Juice* Tomato soup Crackers Flaked ham or tuna Peas Bread + margarine Tapioca pudding
Snack	Juice*/Applesauce	Juice*/Raisins	Juice*/Applesauce
Supper	Juice* Canned beef stew Instant mashed potatoes Melba toast + margarine Fruit cocktail	Juice* Pork & beans Corn Bread + margarine Vanilla pudding	Juice* Noodles and meat sauce Green beans Bread + margarine Canned pears
Snack	Juice* Digestive cookies	Juice* Bran Crunch Cookies	Juice* Digestive cookies

Serve those on pureed diets: cereal, crackers, cookies or crustless bread soaked in liquid; canned pureed meat, pudding, pureed fruits and pureed vegetables. Mash regular food items well, if used. Provide tomato or nectar juices to persons in care who need thickened fluids.
Ensure that there is an adequate supply of enteral formula for those who are on enteral feedings.
If water supply is unsafe for drinking, be sure to follow water purification procedures when reconstituting evaporated or powdered milk, juices, soups or beverages. Repeat cycle menu as needed for emergency.

*Pre-packaged juice
**Ultra High Temperature (or reconstituted evaporated or skim milk powder acceptable)

Adapted from: Vancouver/Richmond Health Board. Food and Nutrition for Quality Care: A Policy & Procedures Manual. 1999.

SAMPLE

Emergency Equipment/Supplies List

- Absorbent material for cleaning spills
- Aluminum foil
- Bleach to treat water
- BBQ
- BBQ accessories
- Dishpan
- Disposable cutlery and dishes
- Duct tape
- Fire extinguisher
- First aid kit
- Flashlights (+ batteries)
- Frying pan (non-electric)
- Fuel (sterno, butane, lighter fluid) and fuel stove
- Funnels
- Garbage can
- Gas shut off wrench, pliers, tools
- Hand soap in dispenser bottles or hand sanitizer
- Heavy gloves
- Large metal spoons
- Ladles
- Knives
- Manual bottle opener
- Manual can opener with multiple blades
- Matches (waterproof)
- Mixing bowls
- Paper, pens, pencils
- Plastic garbage bags
- Plastic sheeting
- Plastic wrap
- Radios (+ batteries or hand crank type)
- Rain coats
- Saucepan
- Scoops
- Scissors or all-purpose knife
- Strainers
- Tongs
- Wash basin
- Cash (in case credit system is not operational)
- Coins (pay phones)
- Communication lists (e.g. suppliers, local volunteers, staff home phone numbers, etc.)
- Map of building
- Whistle
- Work gloves

Emergency Equipment/Supplies List

The following quantities are based on 50 people in care AND 15 staff members.

ITEMS	PACK SIZE	3-DAY SUPPLY
Aluminum foil	45 cm x 100 m	1 roll
Cup - hot/cold	6 oz - 40 x 25	1 case
Disposable aprons	28 x 46 - 1/100	1 case
Disposable cloths	1/100	1 case
Disposable gloves	1/100 box	2 boxes
Flex straws	8” - 500/box	1 box
Garbage liners	30 x 38 - 250/case	2 cases
Gloves, latex	medium	3 pair
Matches	–	1 dozen
Moist towelettes	1000/case	1 case
Paper cold cups	5 oz - 24/100	1 case
Paper napkins	1/8 fold - 24 x 100	1 case
Paper/plastic plates, 9” and 6”	–	1 case
Paper towels	single fold 9.4” x 10.6” 15 rolls x 268'	1 case
Plastic forks, knives, soup spoons, teaspoons	1000/case	1 case each
Plastic bags	12”x 7” x 22” - 1000/case	1 case
Plastic wrap	17”	2 rolls
Scouring pads	10 x 10 case	1 case
Styro soup bowls	8 oz	1 case
Stir sticks	4.5” - 10/1000 case	1 box
MISCELLANEOUS		
Chlorine bleach	6/3.36 L	1 case
Dish detergent	4/4 L	1 case
Oven mitts	–	2 pair
Plastic jugs	–	6

Adapted from: Vancouver/Richmond Health Board. Food and Nutrition for Quality Care: A Policy & Procedures Manual. 1999.

SAMPLE

Emergency Food Supplies

The following quantities are based on 50 people in care AND 15 staff members.

ITEMS	PACK SIZE	PORTION SIZE	3-DAY SUPPLY
MILK:			
UHT milk*	16/1 L	120 ml (4 fl. oz.)	3 cases
Powdered milk	10 kg	–	1 bag
COFFEE/TEA:			
Instant coffee	1/1000 envelope	1 packet	1 case
Tea bags	4/250 count	1 bag	1 box
Coffee whitener	1000/4g	1 packet	½ case
Sugar portion	7 kg	1 packet	½ box
Sugar replacement	1/2000	1 packet	4 dozen
JUICES: Tetra pack juices*	12/1 L	120 ml. (4 fl. oz)	2 cases
WATER	12 L	–	65 x 12 L
SOUP* : Canned	12/1.36 L	180 ml (6 fl. oz)	5 cans
CEREALS: Dry, flake	72/24 g	1 box	1 case
JAM/PEANUT BUTTER: Portions	200/16 ml	1 portion	½ case
MARGARINE: soft	10 kg	–	1 pail
BREAD/CRACKERS / COOKIES:			
Bread	675 g - 26 slices	2 slices	35 loaves
Soda crackers	500/2 packet	4 each	½ box
Digestive cookies	200/2 packet	2 each	½ box
MAIN ENTRÉE:**			
Tuna (canned)	6/1.7 kg	90 g (3 oz)	2 cans
Beef stew (canned)	680 g - 1 can	184 g (8 oz)	18 cans
Chicken (canned)	3/283 g	90 g (3 oz)	21 cans
Macaroni & cheese (dry)	12/225 g	180 g (6 oz)	16 boxes
Pork & beans (canned)	6/2.84 L	254 g (8 oz)	6 cans
Chicken stew (canned)	680 g - 1 can	184 g (8 oz)	18 cans
FRUIT/VEGETABLES:			
Canned fruits	6/2.84 L	120 ml (4 fl. oz)	3 cans
Applesauce (canned)	6/2.84 L	120 ml (4 fl. oz)	6 cans
Sliced beets (canned)	6/2.84 L	60 ml (2 fl. oz)	1½ cans
MARGARINE: soft	2/1 kg	90 ml (3 fl. oz)	1 kg
MISCELLANEOUS:			
Dried raisins	individual box	14 g = 1 portion	65 boxes
Mayonnaise	4 L	–	1 jar
Relish (sweet)	4 L	–	1 jar

*Needs refrigeration as soon as container is opened.
**A surplus of 5 meals is included in these quantities.

Adapted from: Vancouver/Richmond Health Board. Food and Nutrition for Quality Care: A Policy & Procedures Manual. 1999.

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