

Impact Study: Essential Skills and Food Sanitation and Hygiene Training

Final Report
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Royal Alexandra Hospital Food Court – Edmonton
Sawridge Inn and Conference Centre (Sweetgrass Café) – Slave Lake
Smitty's Restaurant - Lethbridge
Sorrentino's Bistro Bar – Jasper

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Executive Summary

The Alberta Workforce Essential Skills (AWES) working with the Alberta Restaurant and Foodservices Association (ARFA) and Alberta's Training for Excellence Corporation (ATEC), undertook to investigate the impact of the implementation of the new food safety certification regulations in relationship to workers' essential skills. The province of Alberta through Alberta Health and Wellness, as of April 2005, is increasing the requirement for food operations to employ a minimum of one worker per shift with certification in food sanitation and hygiene. There is the potential that all food-handling employees may require certification in the future.

The **goals** of the impact study were to research the correlation between food safety training and essential skills and to lay the foundation for the development of user-friendly, practical training materials for food safety certification. The specific objectives were to:

1. Identify potential skill gaps and essential skills training needs for workers required to pass food sanitation and hygiene certification.
2. Review current food safety training materials.
3. Assess readability and design of food safety training materials considering those with limited essential and language skills.
4. Recommend practical strategies and solutions for addressing identified needs.

The **methodology** that the research team used to meet these objectives was a case study approach. They met with and interviewed industry representatives from eleven food establishments in Alberta. In order to get a variety of responses from which to generalize, selected operations in the study represented a cross-section of food establishments from small to large, fast food to fine dining, and rural to urban. Additional data were collected in a telephone survey of fifteen operations in Edmonton; the observation of a training class; conversations with trainers and a project leader with Alberta Health and Wellness; and the review of training resources.

The **results** of the research show the food safety is increasingly becoming a critical environmental issue of the decade and a major concern for the industry and for the general public. It was concluded that food safety training and certification should have a broader outreach. Most interviewees, from managers to supervisors to front line servers, readily endorsed the need for everyone in the food industry to become well-informed about safe food handling.

A number of **barriers** to food safety training and certification were identified. Food operations struggle with constraints imposed by lack of time, the production cycle, high turnover of staff, training accessibility and convenience, availability of course offerings, cost burdens to employers and employees, and language and essential skills limitations. Categorically, smaller food operations and operations in rural areas experience more of the barriers.

The **focus** of this study was to determine the connection between safe food handling training and **essential skills** of workers in food services. The emerging theme, identified in the findings, is that employees believe their essential skills are adequate for food safety training and certification. Many employees are educated, often attending school while working in the industry, and consequently do not see a need for improving essential skills. Others feel that

their literacy skills are adequate and, in fact, their work has not called for them to use other skills than basic literacy skills. Contrary to this, formal classroom trainers articulated that they make accommodations to low literacy and language skills on a recurring basis. During classroom lecture delivery, the most frequent adaptation is using oral communication with accompanying pictures, charts and videos in lecture delivery to convey content to learners. In-house managers, supervisors and co-workers typically pass on information through one-to-one buddy teaching and are less conscious of limited essential skills issues because they automatically adjust their teaching style to accommodate learners' abilities.

Essential skills related to food safety training and the certification exam will increasingly become a concern with the changing demographics. With an expected need to recruit workers from non-traditional markets that include new immigrants, aboriginals, older workers, and seniors who wish to supplement retirement income, essential skills will, in all probability, develop as an issue in the training and certification process.

An increase in the necessity for certification training and refresher courses for workers in the industry will demand greater availability, versatility and variety to the **training options**. As training opportunities and preferences expand to alternative delivery systems and resources, the non-traditional hires are more likely to be impacted by essential skills and language issues. The alternatives to classroom driven training for both certification training and updating courses may be in a self-study, correspondence, or computer mediated format. With these delivery methods, workers will need the essential skills important for working independently.

Recommendations

The impact study revealed a number of barriers to workers' success in food safety training and certification. Limited essential skills directly impact the successful completion of the training and certification process. We are recommending these solutions.

Stakeholders continue to address and reduce the barriers that prevent workers from taking and succeeding in training.

1. Ensure that training for certification is appropriate and accessible.
2. Develop food safety course material and instruction that addresses learners with language and literacy limitations.
3. Increase communication and outreach about course offerings.
4. Help support workers with low literacy and language in writing the provincial exam.

The project partners work with food operations to raise awareness about the impact of limited essential skills on safe food handling and hygiene training.

1. Provide training around essential skills to those who deliver food safety training whether in a classroom or one-on-one situation
2. Work with government regulatory bodies to raise awareness of the impact of increasing the certification requirements for those workers with essential skills limitations.

Introduction

Study Context

Two years ago, Alberta's Training for Excellence Corporation (ATEC), together with Alberta Human Resources and Employment, conducted a series of strategic planning meetings with the Alberta tourism industry. Approximately forty (40) people from government, education, and the tourism industry participated in the investigation of human resources challenges and opportunities for the tourism industry. Two Alberta Workforce Essential Skills (AWES) consultants participated on this taskforce to raise awareness of workforce essential skills issues. The result of the taskforce is a five-year industry driven strategy for proactively addressing human resource challenges and opportunities in tourism in Alberta. One of the strategies that came out of the strategic planning is to increase the relevance and accessibility of education/training offerings.

Background

In 2002, tourism employed approximately 166,000 people in Alberta. The overall growth projection for the tourism industry to the year 2010 is high. Although tourism is a high employer of youth, the future employee market, based on demographics, is shrinking. Recruitment and retention of workers is one of the biggest challenges facing the industry. Current labour force data indicates that service industries are going to have to dig deeper into the labour pool. The tourism industry must begin to recruit and hire from non-traditional markets to be able to provide service. To fill positions, the industry is looking to hire new immigrants, aboriginals (a group that is currently underemployed), older workers and seniors who wish to supplement retirement income. A resulting challenge that the task force identified will be meeting the needs of this "new" group of workers, including their literacy and language needs.

Alberta's food service industry, a significant sector of employment opportunities in Alberta, employs thousands of people who prepare and serve foods, and manage restaurant and fast food businesses. In the food services sector, employment turnover will increase as members of the baby boom generation retire over the next five to ten years with younger workers replacing them. The occupational groups specifically cooks, food and beverage servers, food service supervisors, chefs, restaurant and food service managers, bartenders, food services supervisors, food counter attendants, and kitchen helpers will expand in the next four years. With the changing population demographics, there will be more job opportunities but a smaller labour pool from which to draw on.

Food Safety Certification

There is an emerging emphasis on food safety training and certification as the food industry becomes more concerned about food safe practices. The province of Alberta through Alberta Health and Wellness is planning to increase the certification requirements for food operations. Business regulations for food operations with more than six

"It is estimated that foodborne illness results in medical costs and productivity losses of over one billion dollars annually to the Canadian economy."

– Health Canada, Policy Development Framework: 2001

employees, as of April 2005, will call for one employee per shift to be certified in food safety and sanitation, up from one employee per establishment. There is the potential that all food-handling employees may require certification in the future.

Alberta Restaurant and Food Services Association (ARFA) recognizes that this may have an impact on some of their membership. ARFA believes that currently there are valued employees across the province that may not have the language and literacy skills to pass the food safety certification. Included in this group are immigrants, older workers and aboriginals.

AWES, working with ARFA and ATEC, has undertaken the task of determining whether limited essential skills will impact worker's success in achieving certification when the new food safety certification regulations are implemented.

Essential Skills at Work

Workforce essential skills are the enabling skills that provide people with a foundation for learning job-specific skills which allow them to perform the tasks required in their occupations. These essential skills underlie the performance of most workplace tasks and help to enlarge the knowledge and technical skills required in the workplace. The term 'essential skills' replaces narrower terms such as 'literacy' or 'basic skills' which refer to only some of the skills which can be considered 'essential' in modern workplaces.

For the purpose of setting skills standards in Canada, the 'essential skills profiles' have been developed as a part of the Human Resources Skills Development Canada (HSRDC) Essential Skills Research Project. The essential skills, skills that people use in their jobs and in their everyday lives, include the following:

- Reading Text
- Oral Communication
- Document Use
- Working with Others
- Writing
- Numeracy (Math)
- Continuous Learning
- Thinking Skills
- Computer Use

Collaborating Organizations

The Alberta Workforce Essential Skills (AWES) committee, working with the Alberta Restaurant and Foodservices Association (ARFA) and Alberta's Training for Excellence Corporation (ATEC), initiated this research project to investigate the impact of the implementation of the food safety and sanitation certification.

Alberta Workforce Essential Skills Steering Committee (AWES)



The AWES Steering Committee [<http://www.nald.ca/AWES/>] was formed in 1998 to build upon and support the work of established networks, organizations and individuals active in the field of workforce essential skills in Alberta. AWES has an ongoing commitment to providing a forum in which to foster partnerships, facilitate networking opportunities and promote collaboration by undertaking activities that demonstrate the value of workforce literacy and language training and development. It is a non-profit group dedicated to promoting and facilitating essential skills training projects and increasing the awareness of the importance of essential skills training for workers.

Alberta Restaurant and Foodservices Association



The Alberta Restaurant and Foodservices Association (ARFA) [<http://www.arfa.net/>] services the hospitality industry and Alberta consumers by representing the industry on various councils and committees to ensure that the quality of products and service standards in Alberta are maintained at a high level. ARFA represents 1200 members from hotels, restaurants, clubs, bars, food distributors and equipment companies. The Association works closely with Alberta Health and Wellness, Alberta Liquor Industry Roundtable, Alberta's Training for Excellence Corporation (ATEC), Alberta Gaming Industry Association, Coalition of Tourism Associations, and Alberta Human Resources and Employment, to mention some of the partnerships. The association focuses on maintaining and enhancing a positive business environment for the restaurant and foodservices industry in Alberta. They do this through:

- monitoring government activities, both provincial and municipal.
- lobbying for legislative and regulatory change.
- negotiating for and providing savings and benefits to members.
- establishing standards of excellence.
- promoting education and training.
- networking through social functions and meetings.
- gathering suppliers of goods and services together at the annual ARFEX trade show for industry members to preview and sample.

- informing members of issues and ‘hot concerns’ and providing office and support services.

Alberta’s Training for Excellence Corporation

Alberta’s Training for Excellence Corporation (ATEC) [<http://www.atec.ca/>] is a service-oriented, customer driven training and consulting company that was created in 1988. It is a not-for-profit corporation and is the Tourism Education Council in Alberta. Since 1996 it has been delivering internationally recognized and award winning programs in customer service, management and team effectiveness to all levels of business. ATEC consults with clients to identify their needs and connect them with the products or services that best meet their needs. ATEC is also the national certifying body for tourism occupations in Alberta and the agent for tourism youth employment and career awareness initiatives. They are well-known for the SERVICE BEST™ training program now delivered to many different sectors nationally and internationally.



Conducting the Research

Terminology in the Report

The terms ‘food sanitation and hygiene’ along with ‘food safety’ and ‘food safe handling’ are used synonymously and interchangeably throughout the report. They refer to a wide range of food safety procedures and practices to prevent food borne illnesses and to handle food hygienically.

Goals and Objectives

The purpose of this study was to gather concrete information on the connection between employees’ levels of essential skills and their achieving success in safe food handling training and certification.

A number of goals were formulated:

- Research the relationship between success in food sanitation and hygiene training certification and workers’ essential skills.
- Lay the foundation for development of user-friendly, practical, plain language training materials for food sanitation and hygiene certification.
- Increase awareness of the importance of workplace essential skills in the tourism industry.
- Develop a working relationship in the tourism sector between AWES and the Alberta Restaurant and Foodservices Association.

The specific objectives of the research were to:

- identify potential skill gaps and essential skills training needs for workers required to pass food sanitation and hygiene certification.
- review current food safety training materials.
- assess readability and design of food safety training materials considering those with limited essential and language skills.
- recommend practical strategies and solutions for addressing identified needs.

Methodology

Members of ARFA are a large and diverse group, thus, an all-encompassing analysis of the sector would require time and resources beyond the scope of this project. Accordingly, this research project offers a snapshot of the industry relevant to the challenges and actualities of food safety training in a range of contexts. The project team selected a case study process, largely focused on qualitative data, to conduct the research. A major strength of the case study method involves using multiple sources and techniques in the data gathering process. Tools

used to collect data include face-to-face interviews, a telephone survey, documentation review, telephone interviews and the observation of a food safety training session.

For the case study approach, the team solicited eleven restaurants and food serving establishments in various regions in Alberta. The selected food operations represent a cross-section ranging from small to large, fast food to fine dining, and rural to urban to ensure that all voices and perspectives are heard and utilized in this study. The 'Profile of Participating Companies' section further in the report describes the diversity of the contributing establishments in the industry.

The chief data gathering technique was the face-to-face interviews. In most cases, the consultants met with three staff members at each establishment to get their input. They usually were an owner/operator or a manager, a line supervisor and a front line employee.

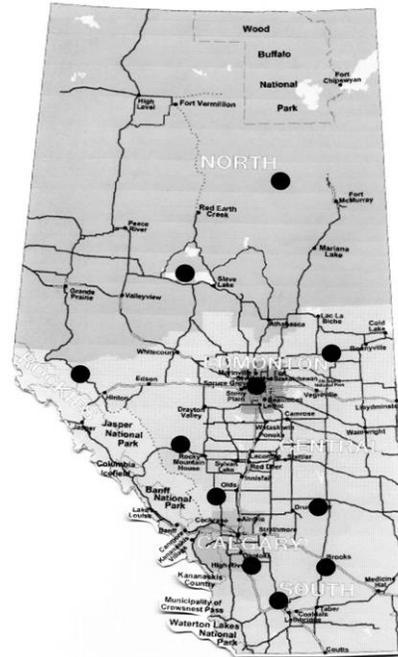
Project Activities

In order to meet the project objectives, the AWES project team conducted the following activities:

- Thirty-one face-to-face interviews with managers, owner/operators, supervisors, servers, cooks, front line attendants and bartenders/servers throughout the province.
- Telephone survey of fifteen (15) food establishments in Edmonton to identify food safety training practices. This was conducted by ATEC.
- Two telephone interviews with food safety educators with the Regional Health Authorities.
- Observation of a food safety training session.
- Telephone interview with the Project Team Leader (Disease Control and Prevention Branch) with Alberta Health and Wellness
- Development of a one-page 'terms of reference' overview of the project (Appendix 1) used to introduce participants to the project's goals and action plan.
- Preparation of the interview tool for managers/supervisors and employees.
- Review of training materials from five organizations and training providers.
- Meeting with the ARFA Education committee.
- Meeting with ATEC.
- Inclusion of a notice of the working relationship with ARFA and ATEC on the AWES web site under "What's New" link at <http://www.nald.ca/awes/>.
- Examination of provincial food safety certification requirements in Canada.
- Telephone conversations with managers of five food establishments in Edmonton, other than those in the case studies.
- Informal conversations with employees of three food operations.

Profile of the Participating Food Operations

The interview sample represents both private and public operations that are members of ARFA and are located in urban and rural centres across Alberta. Consultants conducted interviews in Brooks, Calgary, Edmonton, Fort McMurray, Jasper, Lethbridge, Lloydminster, Slave Lake, and Sundre. The map to the right displays the geographic location of the participating establishments.



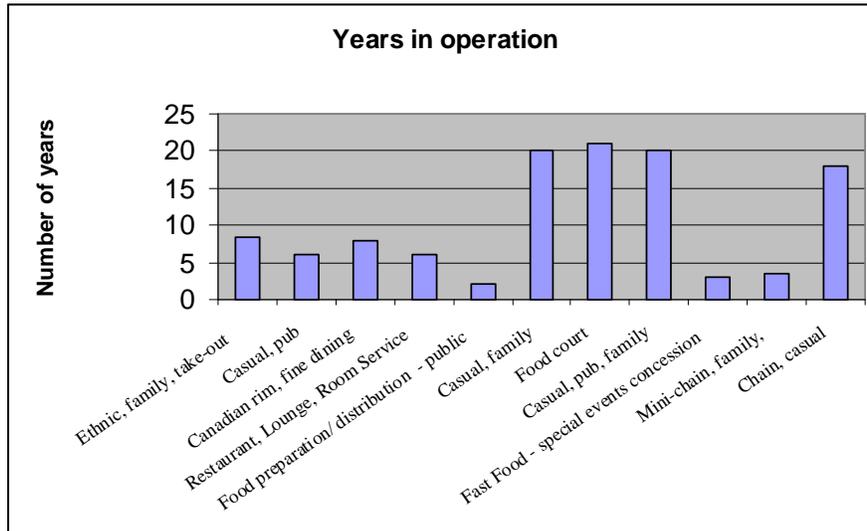
Participating establishments

Eleven food service operations selected for the case studies contributed to the research results. An effort was made to get representation from a broad spectrum of different types of food establishments, locations and sizes. The type of operation and the size are displayed below.

Type of Operation	Staff population
Ethnic, family, take-out	3
Casual, pub	8
Canadian cuisine, fine dining	25
Restaurant, Lounge, Pub, Room Service	50
Food preparation and distribution - public	52
Casual, family	60
Food court	85
Casual, pub, family	100
Fast Food - special events concession service	300 volunteers for fundraisers
Mini-chain, family,	15
Chain, casual	20

Years in Operation

The participating establishments in the case studies represent a cross section of restaurant operations: ethnic, family, chain, fast food, fine dining, and public food services. The majority have been in existence for less than 10 years. The following chart shows the numbers of years in operation.



Turnover

For the most part, turnover rate of staff is high, particularly with servers and dishwashers. In general, managers said that only a small number of employees stay one to two years or more. This affects the continuity and the frequency of delivering training. In a few establishments where management has a strong commitment to ongoing training and sensitivity to employees' work conditions by organizing continuous training and social events, the turnover rate is low.

Busy Season

The busy season has an impact on training. During this phase, there is little time to do any food safety training. The busy season for the food venues varies. For some it is the summer season catering to vacationers while for others, they are busier in the winter when the ground freezes or when people are not barbecuing. A number of restaurants are busy during the Christmas season especially if located in an urban mall. Operators hire extra staff at this time but then after the busy season, the surplus workers are laid off and the need for training is gone.

Profile of Employees

The employee profile presents contextual information about the educational background, the work experience and the general age of employees in the case study. Managers and employees, evenly split between females and males, provided the project team with this information.

Education

- The majority of the interviewees have completed grade 12 or General Education Development (GED) - grade 12 equivalency.
- A number have some college or university education.
- A few interviewees were educated in another country.
- About 20% of the employees in the participating operations have less than grade twelve.

Age

- The age range of most employees is between 18-25 years.
- Few operations in the case studies employ workers over 40 years of age.
- Only one operation has workers whose average age is 50.
- Of those interviewed, the long term employees had the lowest education.

Length of time in industry

- Typically, managers selected long term and senior employees for the interviews. Thus, all employees have worked in the food services industry for over two years.
- In some cases, work in the industry has been long term but not continuous and sequential.

ESL considerations

- Although the study was not looking specifically for employees with English as a Second Language (ESL), that information surfaced and rounds out the data on the employee profile.
- The percentage of ESL employees per operation ranged from 0% to 90%.
- Operations that employ ESL workers tend to be those in the urban areas.
- Ethnic restaurants in general employ ESL individuals.

Results of the Research

Key findings, derived from a variety of sources, are drawn primarily from case studies conducted in eleven food operations. Additional data was obtained from a telephone survey of fifteen Edmonton food establishments about their training programs; a review of provincial activity with reference to certification requirements; interviews with food safety trainers; interview with a project leader with Alberta Health and Wellness; and an examination of food safety training material. The report reflects the contributions and perspectives of owners, managers, supervisors, employees and trainers.

The research team noted that managers and owners, whose urgent priorities involve production and service, have hectic and busy schedules. This is reflected in the **communication process** about the project. ARFA assisted the research team by sending out letters of introduction outlining the research project to food establishments prior to our phone calls to set up a meeting appointment. Nine out of ten of the managers did not recall receiving the communication.

The research team found that **interviewees**, in large, were friendly, interested and receptive to working with us. They willingly took time out of their busy schedule to answer questions about their job and about food safety, and in a number of cases to tour through the kitchen or preparation area. We learned that workers in the industry are knowledgeable about food safety and aware of future direction. Although for some workers, food service work is a temporary measure to another career, there are many workers who are enthusiastic about their career, proud of their jobs, and show a commitment to their work. Their perceptions and experience in the food services industry has enhanced our research. The insightful information has helped us to understand the importance of food safe handling and its ramifications for the local and global community.

The Importance of Food Safety

As a starting point to explore and learn about food safety, the research team asked stakeholders for their point of view and understanding of the importance of food safety in the industry. The recurrent theme and pattern is that food safe handling has become an issue of increasing significance with implications to customers, to workers in the field and to the industry at large.

Managers spoke of the central role of food safety in the link between customer safety, and improving and maintaining business. Managers said that it is essential not only for the customer but *“from the co-worker safety standpoint”*. In a highly competitive industry, they said that safe food handling is a must.

“Everything in the industry is related to food. Your business is directly connected to the public perception of how safe your food is.”

“It’s important for the bottom line. You need to give people good food that won’t make them ill.”

Front line employees voiced similar opinions about the necessity and the importance of safe food handling relevant to their clientele. *“It is important to serve people safe food because of*

the potential to poison them and make them sick". They also see the relationship between good, safe food and managing a reputable food service business. They told us about protecting their reputation and being responsible for the welfare of other people. *"I take pride in my work and don't want to make people sick"*.

Employees foresee food safe handling practices becoming more of a burning issue in the future. They believe that *"health and safety issues will be stricter"* in the future. They predict that *"people are going to need certified training"* in order to be employed in the industry because of the *"trend to more safety standards"*. Some employees went so far as to say that *"the industry will get more particular with regulations and requiring tickets"*. Employees seem willing to learn about food handling techniques but they feel that industry needs to draw up guidelines and standards about food safety.

While many frontline employees may not have gone through food safety training or have the necessary essential skills to complete the formal certification process, they are cognizant of their changing role and responsibility in safeguarding public health and assuring food safety in the face of regulatory requirements. They demonstrate that they have a working knowledge and awareness of issues related to the dangers of food poisoning and the proper handling of potentially hazardous foods. They see food safe certification as a *"good thing"*.

Training in the Food Services Industry

It was essential to get a pulse of interviewees' knowledge and experience with training for food safe handling when it was provided. All managers, except for two, had acquired their knowledge by taking food safety training. They demonstrated their commitment to learning by doing constant refreshers or taking formal courses two to three times over. However, one of the managers, who said he had not taken any training, commented that *"training is common sense"*.

Most of the interviewed supervisors have a food safety certificate, while many front-line employees have *not* participated in training and the certification process. Nonetheless, the employees are aware of the essential procedures in food safe handling. When asked what important and critical things they do to handle food safely, they revealed, in their descriptions, their knowledge and awareness of the critical components of food safety.

Both managers and employees learned about food safety from a number of different resources:

- a one to four day course with the Regional Health Authority.
- experience and participation at the work site.
- a training session at a local college facilitated by the local health unit.
- an orientation with the health inspector.
- a formal educational program at SAIT or NAIT.
- a component of a franchise training program.
- knowledgeable supervisors or managers.
- as a component of a 4-hour orientation training session mediated on a computer at a grocery chain.

- a high school home economics course.
- continuous short-term in-services at work.
- a video.
- a program in the country from which they emigrated.
- from parents who owned a restaurant.

Managers are unanimous in their views about the value of employees taking food safety training. *“Training in food safe handling is a must.”* On the whole, they are aware and are dedicated to providing training for their employees.

“The food safety course is a very good program to implement. It is long overdue. We could benefit from it”.

“If you handle food, you should have food safety training”.

Managers demonstrate their commitment to training:

- by sending workers out to training.
- by ensuring that experienced workers buddy up with co-workers for training.
- by arranging in-house training around production and employee schedules.
- through consistent line checks and ongoing follow-up at preparation stations.
- by regularly attending refresher courses. Many managers have taken the course two or three times and do constant refreshers.

Managers also support food safety certification for their employees. *“They need stricter rules. You can’t work until you have the course.”* They feel that not only kitchen staff but all servers should be required to take food handling training and certification.

“60-70% of the contamination is between the kitchen door and the table”.

“You need a food safety certificate to operate in the kitchen – it should be mandatory, including dishwashers and servers”.

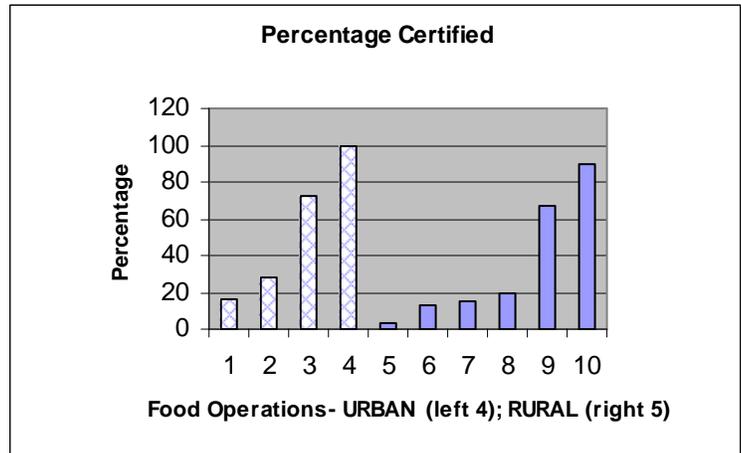
Similarly employees commented on the significance for the server to have food safety training.

“It should be mandatory for servers to take the food safety training”.

Number of Employees with Food Safety Certification

Quantifiable information about employees in the case studies who have completed the training leading to certification is presented in the table and chart. The number of foodservice employees who are certified varies from 3% to 100% of the employee base. Employees who hold a certificate may be owners, cooks, kitchen staff, front end staff, food aides, and supervisory or administrative staff. The table below distinguishes between urban and rural operations.

	Operation	Percentage of employees certified
Urban centres	1	16%
	2	28%
	3	72%
	4	100%
Small town and rural centres	5	3%
	6	13%
	7	15%
	8	20%
	9	67%
	10	90%
	11	Not available



Food Safety Training Survey

As an additional data gathering resource, ATEC conducted a telephone interview with contacts at fifteen food properties in Edmonton. Managers were asked about 1) the food safety training courses that are offered to their staff and 2) the number of staff who had taken the training. The targeted operations included five hotels, four speciality restaurants, one fine dining restaurant, and four casual/family chain restaurants.

Results indicate that hotel dining rooms employ workers who have food safety training and in most cases certification. Chain restaurants are similar to hotels in that the employees tend to have training in food safety but not necessarily the certification. High end restaurants employ chefs who are red seal certified and thus, are not inclined to provide training courses.

Telephone Survey

The table displays the employee population in each operation and those that have food safety training.

Food operation	Total number of staff	Those who have food safety training
Events Catering	400	75%
Fine dining	15	53% (all staff); chefs, 100%
Hotel	33	100%
Hotel	30	100%
Hotel	30	100%
Hotel	30	100%
Hotel	28	> 25%
Hotel	25	> 50%
Specialty (chain)	15	20%
specialty	6	33-50%
specialty	13	62%
specialty	5	100%
casual/family chain	10	100%
casual/family chain	13	100%
Pizza chain	15-20	10-13%
casual/family chain	28-34	7-11%

Programs

The majority of the operations use the Foodsafe course. The Foodsafe, Advanced.fst (a higher level food safety course developed by Traincan, Inc.) and the Capital Health approved courses provide food safety training that includes a certification exam at the end of the session.

The table below shows the breakdown of the programs used to train employees in this telephone survey.

Number of properties	Program
6.....	FoodSafe
2.....	Advanced.fst
1.....	Own program - Capital Health Approved
3.....	No program but chefs are Red Seal certified or have been trained at NAIT
2.....	No formal course
1.....	One-on-one orientation with HACCP and Food storage management

Current Training Methods and Programs

In the case studies, managers, employees and trainers, when asked about the programs and the delivery methods for food safety training, indicated that a broad range of delivery services and venues were utilized. Some of the methods include:

Formal Training

Formal training in food safety, conducted in a planned setting, is a systematic, goal-oriented approach to prepare participants for either writing a certification exam at the end of the course or for handling food safely. Programs fall into the following methods:

Classroom based Programs

Commonly, food service staff in the urban centres are more likely than workers in the rural centres to participate in formal food safety training. They usually take training at local health centres or on-site with third party providers. Program content consists of critical components of food safety which is delivered using a variety of teaching techniques such as video tapes integrated with lectures, class discussion, CDs using a computer (chain restaurants), hand-outs, overhead visuals, small group activities and games.

Programs commonly used in Alberta include:

- An approved program at the regional public health centres and/or local colleges.
- The food operations own food safety programs developed in-house and approved by Regional Health.
- The FightBac program, a Canadian approved program launched in 1998.
- In-service sessions of thirty minutes to one hour using a program developed by the Regional Support Services education committee.
- FoodSafe (British Columbia Health Authorities)
- Advanced.fst (Traincan, Inc.)

A few employees said they have completed *Serving it Right*, a responsible beverage serving program offered in British Columbia.

New Hire Orientation

In about half of the cases, employees are given a formal new hire orientation on site and given a book of procedures or a take-home employee handout which includes a food safety component.

In-service on-site learning

On a daily basis in some operations, shift meetings are the vehicle to address new food safety topics. In others, employees are made aware of issues at health and safety meetings or at staff meetings (once a month) when they are offered regular in-service sessions and given food safety hand-outs. A few establishments deliver food safety training in short term half hour to one hour sessions. During in-service sessions, “*food safety or any kind*

of training is done with fun and humor". The stress of learning (for some) is reduced in the techniques that use games, having no right or wrong answers and oral questioning. The learning/training culture in these operations encourages continuous learning.

Informal Training

A number of the food establishments, particularly those that are smaller and independent, do *not* provide formal training. Instead, food safety is learned in an informal way through knowledge networks, through coaching, and from daily experiences and communications with people at work.

"We pass on the information all the time, everyday, informally as things happen, as it is needed such as the temperature of the equipment, keeping the steam tables at 140°, the dishwasher at 180°. Don't leave stuff out".

Informal training, in an ongoing interactive process, as one interviewee remarked, relies heavily on communication. *"If communication isn't good, there are problems in training."*

Buddy Training - One-on-one and small group

Many operations facilitate impromptu informal refreshers on a periodic basis. In most cases, on-the-job, one-to-one training is the usual method of delivery and learning of food safety practices. The manager, operator, supervisor, or an experienced co-worker act as a buddy or coach to demonstrate procedures and give examples to employees in a hands-on approach. Many employees have the opportunity to teach co-workers on the job either in a one-to-one or small group situation. They are largely enthusiastic about this training experience but recognize that training others can be a challenge since people have different capabilities and potential. The greatest barrier to effective training is lack of time. *"... it is harder (to train) when we are busy"*.

Food safety as "Common Sense"

On a number of occasions, both managers and employees remarked that food safety was *"a lot of common sense"*. *"You just don't cut up vegetables where you just finished cutting chicken"*. Another employee observes that many employees have done some kind of food safety and sanitation training but do not have a certificate. *"For most people, it (food safety) is common sense"*. Long term employees have developed good sound judgment through being aware and self-directed in their approach to food safe handling. Typically they learn by reading newspaper articles related to food and health safety, asking questions, and discussing relevant concerns and issues on the job at meetings or informally with other co-workers.

Certification Process

As of April 1, 2005, in premises where there are six or more staff, a minimum of one person on shift must hold Provincial Food Safe qualifications. When there are five or fewer employees, at least one member of either the management or supervisory staff must be Food Safe certified.

Certification to meet this regulation can be achieved through the following routes:

- The Regional Health Authorities approved course** The Regional Health Authorities (RHA) offer an approved course (minimum of ten hours) to food service workers. Workers write a certification exam supplied by Alberta Health and Wellness at the conclusion of the course. Educational institutions are often used as training venues for the approved course.
- Technical Schools** Technical schools such as NAIT (Northern Alberta Institute of Technology) and SAIT (Southern Alberta Institute of Technology) include safe food handling in their regular chef and culinary courses. The schools administer the provincial exam and Alberta Health and Wellness issues the certificate.
- Accredited Programs** A small number of accredited programs have been granted an equivalency status to teach food safety courses and to administer their own exam. They are:
- a) Foodsafe
 - b) ServSafe and Advanced.fst (Traincan, Inc.)
 - c) Foodwise (Canada Council of Grocery Distributors).
- Where there are two levels to a course as in the case of Foodsafe, certification can only be obtained through the highest level.
- Independent trainers** Independent trainers can receive training status from Alberta Health and Wellness by meeting the criteria specified in their expected learning outcomes. They require that the participants take the Alberta Health and Wellness certification exam.
- Individuals: Challenging the Exam** Individual food service workers are able to challenge the certification exam without a formal training course. Alberta Health and Wellness stipulates the criteria for an individual who applies to write the exam. The Regional Health Authorities pre-screen the applicants who must validate their work and training experience. Then applicants arrange with a public health inspector to complete the exam.

Future plans

- Online Training** At this time, some online food safety training courses are available but are not endorsed by Alberta Health and Wellness for certification. Alberta Health and Wellness are working on approving online food safety delivery and certification as another option for the future.

A Summary of Food Safety Programs by Province

Current food safety legislation is becoming a front burner issue as many provinces are moving toward mandating certification. The decision to implement such action is inspired by the need to protect consumers from food borne illness, to ensure that customers and food service workers are safe, and to prevent hazardous food safety incidents.

The following information on food safety programs in Canada (as of June 2003) displays provincial activity with regard to where requirements exist, who can train and what is accepted as a training standard.

The table illustrates that Alberta is a leader in requiring food safety certification for food services workers.

Province	Food Safety Training Legislation			
	Requirement	Recommended	Who can train?	Certification
British Columbia	√ (operator and one employee in his/her absence)		Accredited trainers	By approved course
Alberta	√ (with 6 or more employees, at least one must be trained)		Accredited trainers	Certification exam by approved course or provincial exam
Saskatchewan	√		Nutritionists, dietitian or person with food science background who has completed approved course	Certification exam by approved course
Manitoba		√ (only Winnipeg has their own bylaw that requires food handler training)	Accredited trainers	City certification exam
Ontario		√ (except Brantford who makes it mandatory for foodservice managers)	Accredited trainers	Certification exam by approved course accepted
Quebec		√ (pushing for requirement)	When required, trainers and offered training must be recognized by Ministry of Agriculture, Fishing and Food.	When required, provincial exam
New Brunswick		√	Accredited trainers	No mandatory certification
Prince Edward Island		√	Accredited trainers	No requirement for exam or certification
Nova Scotia		√ (except some municipal bylaws require it)	Accredited trainers	Province offers certification exam, but approved course exam also accepted

Newfoundland and Labrador		√	Accredited trainers	No exam
Northwest Territories		√ (soon to become requirement - one person per shift)	Accredited trainers	Exam by approved course accepted
Yukon		√	Delivered by high school and college professors or accredited trainers	No requirement for exam or certification
Nunavut		√	No requirements on trainers	No exam required

Food Safety Training Manuals

To get a sense of what training resources are available, the research team collected training material and analyzed them for design and readability with a broad spectrum of learners in mind. We were able to gather five workbooks (three are local) because many food establishments have not developed any training materials for employees, do not have any available resources on site or have training material that is proprietary.

For the purposes of this study, the criteria for examining the ‘user friendliness’ or general usability of the training materials adheres to the principles of clear language. The guidelines for the analysis incorporates a review of the layout, organization, format, appearance and design, sentence structure, paragraph structure, vocabulary and a glossary of terms. Based on these criteria, the resources are assessed by their effective traits and by the limitations or shortcomings for a diverse audience. (Appendix 3 for Principles of Plain Language)

Training materials that were analyzed encompass important and major components of food safe handling and hygiene. The manuals or workbooks are designed to be used as:

- a support or supplementary material (a ‘textbook’) for classroom facilitation.
- an independent study material.
- hand-outs for use in the food operations’ workplace.

Only one of the workbooks reviewed is designed and developed on the principles of plain language. It is highly recommended as a model. Two other resources recognize that the target audience could cover a broad spectrum of essential skills and accommodate this by having two levels. Materials range in effectiveness and suitability. (See appendix 4 for the complete review)

Food Safety Trainers in Alberta

Trainers with the Regional Health Authorities, an important and useful source of information on the training context and delivery, are responsible for much of the formal certification training facilitated in the province. We heard a number of positive comments about the trainers in Alberta from both managers and employees. They stated that “*the Board of Health has a good product and course, and is very accommodating*”. Public health educators are sensitive

to participants' needs and respond to those with learning issues by making accommodations and providing them with a comfortable environment for learning the content and passing the certification exam.

Barriers to Training and Certification

A number of barriers to taking food safe handling training are cited by all interviewed stakeholders. Their responses, both logistical and attitudinal, point to the existing stumbling blocks to participating in training. As one employee commented, "*Time, distance, format, costs are all obstacles.*" The most significant barriers are:

- availability and accessibility of courses
- time
- money

Operations in outlying communities who do not have direct access to food safe programs experience more barriers to participation in training than do urban operations. The majority of the employees from rural or small centres indicate that they have *not* taken a food safe handling course. Restaurant chains tend to send staff to training while 'mom and pop' restaurants are inclined not to send staff out because of time, staffing and money.

Cost Factor

Employees state that lack of money or cost would be a problem in taking classes independently or on their own. They would need to bear costs which would include not only the course fee, but time away from work and missed wages. Unless they get compensated, it becomes a survival issue. Consequently, "*people won't go on their own time. If the owners paid, that would be OK.*" Cost for many is a barrier particularly for young employees. "*... 18 and 19 year olds on their own can't afford a course.*"

Managers confirm this by saying that the primary barrier to taking safe food handling training for employees is the cost factor and economic reasons. "*It's a money issue*". The cost factor is also felt by managers as well.

"The financial burden is huge. It's hard to implement something like this because the profit margin is not there in the business. There isn't a dollar value to having this certification. What they need for the bottom-line is someone who cooks and plates".

The cost for twenty employees attending one meeting a month is estimated at \$700 in wages and loss of production time. "*Businesses are not willing to pay for staff to sit them down and train. It is problematic to take a group of employees away from work*"

Large franchises, in their commitment to food safety, cited that there are no real barriers but recognized that they have to pay workers to take the training - and willingly do so. A manager remarked, that although the profit margin for some has gone down over the years, "*they can't afford to have foodborne illness and (they can't afford) not to send people to training*".

Course availability and accessibility

A barrier to taking certification training is the lack of available courses. There are “*simply not enough of them*”. Employees said that “*food safety courses are not offered or have never been offered*” in their locale. When offered, they are not available at a convenient time and are often conducted during work time. In addition, there is a lack of accessibility to the few courses that are available. The distance to a facility that provides the training is too great for many in the rural areas. “*The main centers (for food safety training) are Red Deer, Calgary and Lethbridge but they are not convenient*”. A few mentioned that they are *not* aware that there are other available alternatives in course delivery and format. When a course is available nearby, operations take advantage of the opportunity. One manager in a smaller Alberta centre said, “*It was easy for him to sign everyone up for Food Safe training because the college is across the street. Convenience, availability and accessibility are important*”.

Other Issues

Managers, employees and trainers recognize the many mitigating problems around the reality of workers participating in a course. In the volume of information that came forth, numerous hurdles to taking training came forward.

Limited Essential Skills

- In formal training situations, essential skills’ problems are more likely to become apparent. “*Some courses could be a challenge for some employees*” and more difficult for workers with limited essential skills.
- Materials do not support learners with limited essential skills.
- In some operations, the material is written to accommodate a grade eight level.

Availability of Refresher courses

- Refresher courses that review the main elements of food safety procedures and that update workers on regulatory changes in the industry are not available. In order to be involved in continual training, workers have to participate in the two-day course which becomes a barrier based on time, costs and convenience.

No need (felt by employees)

- They had “*never felt the need to take a course and never asked to take it*”. “*If his employer wanted him to go to a course, he would go*”.
- Food safety certification is not required to get a job in the industry or at their work location.

Busy Season

- It is difficult to organize a course during the busy season whether in the summer or winter time. In the off-season, workers are no longer employed with them.

High staff turnover

- An unstable staff and high staff turnover are barriers to formalized food safety training.
- Managers do not conduct training because they are *“too busy putting out other fires – understaffing, people leaving, trying to hire new waitresses.”*
- Because turnover is so high, managers are concerned that employees will leave after they have invested in the training and certification. They have no guarantee that they will re-hire certified employees.

Scheduling issues

- Planning and organizing training according to production is a challenge. Flexibility has to be specifically built into the production cycle.
- When training is done through a third party provider, courses have to be organized around the provider’s schedule. *“This doesn’t always coincide with our needs since occasionally we would like to train more often.”*

Negative Attitudes to Certification

- Employers in one community *“would not do training and the certification because it’s not necessary and they don’t worry about it”*.
- Some think they know all they need to know. *“We’re only responsible for the front of house. We don’t really need any training around that. We know how (customers) like to be treated by a waitress.”*
- The course had not been offered by their company and even if it had, they would not pay for it on their own.
- Long term employees’ negative attitudes affect their commitment to taking formal training. *“New and inexperienced workers should be given the training since they are more teachable, more compliant and open to learning.”*
- Employees in rural areas tended not to place the same emphasis on food safety training as did their counterparts in urban regions where accessibility and exposure to the food safety process is more common place.

Temporary Employment

- Some said they did not want to take any more training in the food services area because *“they were not planning to stay in the business”*.
- Employees, in a transitional career phase, do not identify food services work as a vocation, thus, employment in the food services industry is an entry level stepping stone to other future employment.

Trade status for cooks

- *“Cooks became an authentic trade only 8-9 years ago. It’s still a struggle because they do not get nearly the hourly pay that another trade journeyman does. No one in the food services industry wants to commit \$200 for food safe training and then go back to work to make \$7 or 8 an hour at work.”*

The Impact of Limited Essential Skills

One of the chief goals of this research study was to investigate and identify potential essential skills’ needs that may impact workers’ ability to obtain food safety certification. To collect that data, the research team asked questions to determine:

- what essential skills are required for food safety training
- if employees’ had the capability of managing essential skills in training
- whether training modifications were made
- what the potential impact of limited essential skills is on certification

Essential Skills Requirements

To examine the impact of limited essential skills on food safety training, it was important to have a clear picture of what essential skills are necessary. Through conversations with interviewees and observations of a training session along with a review of training materials, the team identified some of the essential skills required for learners to be successful in food safety training and practices. The essential skills are shown under the headings used in the HRSDC (Human Resources Skills Development Canada) Essential Skills Profiles.

Reading	Reading and understanding the manual and the certification test (test is composed of fifty (50) multiple choice and true/false questions).
.....	Keeping abreast of new and critical updates such as new legislations or regulations.
.....	Reading relevant worksite publications, magazines, newspapers and so on.
Oral communication	Understanding the vocabulary and nuances of training, especially important for English Second Language staff. Asking questions and participating in discussions.
Writing	Taking short notes in a course.
Document use	Completing checklists, reading charts, indexed lists and temperature grids. Completing the multiple choice questions in the certification exam.

Numeracy	Taking measurements and temperature readings.
Working with others	Utilizing good communication skills. Training others in food safety procedures using a buddy system.
Continual learning	Keeping up with new legislation, job changes, and regular refreshers for new developments.
Thinking skills	Problem solving, decision making and evaluating processes relevant to safe food handling.
Computer use	Possible training on CDs. Personal research on food safety and foodborne illness.

Accommodations for Those with Limited Essential Skills

The majority of the managers stated that *few* alterations had to be made to training in terms of the essential skills of reading, oral communication, computer skills or math. Managers said that essential skills are “*not really necessary*” and “*not needed*”. Employees who train co-workers were also asked if they had experienced essential skills problems in training. They, too, see little difficulty with essential skills in training. This is not surprising since many workplaces do not have a ‘literacy’ rich environment and consequently, workers are seldom called upon to use workplace essential skills. As well, many employees are completing high school or post-secondary education and are highly literate.

Employees, supervisors and operators cited the following reasons for problems with essential skills not surfacing:

- Many of the employees have adequate education and experience.
- Essential skills are not in demand at the job.
- Much of the training is one-to-one which does not accentuate skills problems.
- At-work trainers demonstrate what has to be done and thus, “*training doesn’t require any reading*”.
- Issues of essential skills in formal training sessions are lessened because “*the College had a good common sense delivery approach*” and trainers effectively lead participants through the course. Food safety trainers in such programs reveal that they regularly address and modify instruction for participants’ limitations in literacy and language skills.

Managers, supervisors and trainers make adaptations in a number of areas.

Training Strategies

- Train workers using a one-to-one approach.
- Use visuals whenever possible.
- Deliver at a slower pace.
- Use videos. “*The course is difficult to teach because it*

is boring". Videos help.

- Deliver orally with minimal use of textual material. *"The content is talked out"*.
- Break large groups in the small groups.
- Foster openness in the classroom.
- Divide course work into two levels.

Modifications to textual material

- Modify material to a grade eight level.

Modifications for Second language learners

- Have learners sit at the front. *"If someone's first language is not English, they are asked to sit at the front and trainers make themselves available at breaks"*.
- Engage a trainer who can speak the first language of the employee.
- Offer courses in Cantonese and Vietnamese a few times a year.

Case Study Scenarios

The following case stories demonstrate the need for accommodations.

- In one venue, the owner/manager whose first language is not English commented that they need to hire ethnic cooks because of their ethnic cooking ability. In their workplace, they use their first language to communicate instruction about work tasks and food safety. The cooks would not be able to complete the certification course unless it was delivered in their first language. Both the interviewee and the co-owner took the food safety certification training twice because they did not pass the exam the first time. For them, it was difficult to understand in English. In the second session, they received assistance from the trainer who read out the exam questions orally.
- One supervisor stated that, *"People here are more comfortable with oral communication. In in-service sessions, most of it is done through oral communications but people always want to know if there is a test...because that would require reading and writing and they hold back. They are afraid of written exams. They are smart people but these things are scary for them. Forms such as those from the WCB are scary to do"*.

Older Workers and Aboriginals

- A few older learners (one as old as 70) and some Aboriginal participants who work in oil rig camps in the north have difficulty with the food safety content. Employment with rig camp caterers often requires food safety certification which is a challenge to older and Aboriginal workers. Thus, accommodations are made for them in training sessions. Older workers who have been out of school for a long

time need new strategies to help them learn while Aboriginals' core education may have gaps that prevent them from learning successfully.

Accommodations made for the Certification Exam

The food safety certification exam is composed of randomly selected questions from a test bank of questions developed by Alberta Health and Wellness. The timed exam consists of fifty (50) text based questions which may be a combination of multiple choice and true/false questions with a range of difficulty. To pass the test, a 70% is required. One trainer cited that, *“those with limited reading ability have a lot of trouble with true and false questions.”* Even though the exam is reported as being fair, with many workers achieving the pass grade, trainers said that accommodations to limited literacy and language skills are made during the exam. Trainers said they:

- read test questions to those with limited essential and language skills and have participants respond orally.
- give participants extra time to complete the exam in a safe environment.
- explain terms that appear on the exam that were not covered in class.

Suggestions for Solutions, Incentives and Supports

Suggestions for improving accessibility and support to food safe training and certification are possible strategies directed at the barriers the interviewees identified. One employee summarizes the general picture:

“Having food safety certification wouldn't be a bad thing. It needs to be made accessible so people are encouraged to do it. If they have an incentive such as getting more money per hour, this might get people to take the course”.

Managers, supervisors and employees offered the following ideas for participation supports.

Delivery Considerations *Alternatives*

- Provide a correspondence course.
- Develop computer-based training that staff could take on their own time and at the operation's convenience.
- Have a workbook on food safety available at the worksite.
- Have a mini-manual issued to staff with a test they could write after each unit.

Location

- Offer courses that are local and accessible.
- Have a course facilitated on site by the food inspector. *“You can learn more in a comfortable environment”.*

Time

- Offer training at convenient time frames.

Format

- Provide an introductory six-hour course on food safety to service staff and dishwashers. Cooks would take the two day session. *“The four day course is okay for supervisors and floor supervisors. It is an excessive amount of information for frontline staff”*.

Training techniques

Resources

- Have hand-outs to serve as a reference and reinforcement for easier learning. *“It is good to get some ‘papers’ because then we can study later and concentrate”*.
- Use videos alternated with lecture and discussions similar to what is done in the regional health programs.
- Make some aspect of food safety a required part of reading every day for ten minutes or a section a week.

Learning Supports

- Make the training a social event with fun. *“Have a quiz at the end and when participants pass, provide them with beer, food, and present them with a certificate as an incentive.”*
- Offer the training in a group setting to promote shop talk and shared learning. *“You learn as much from others in the seminar as from the instructor.”*
- Utilize an effective trainer who does not have a monotone voice, and who is encouraging and open to questions and discussions.
- Ensure that the trainers’ approach provides a psychologically safe environment where learners are comfortable in expressing their ideas and concerns about food handling service.
- Have refreshers every three to six months.

Delivery

- Develop an activity-oriented delivery format which would be conducive to learning and retention.
- Deliver the training material more quickly for some. One individual said the course is *“really drawn out”*. He could have

“gone through it a lot faster”.

Pay Incentives

- Have company pay the employees course fees and time off. *“It would be more of an incentive if employers provided the training. Employees would not likely be reluctant.”*
- Attach an increased pay incentive after completing a course. In one operation, employees eagerly ask when they are able to go to the next course so they can get a raise in hourly pay.
- Have government reimburse operations for sponsoring the course. *“Everyone should know this stuff but if the government requires that they have the course, they should pay.”*

Conclusions and Issues

Key Project Learnings

The study, utilizing the gathered qualitative data, was designed to be investigative and explorative. As a result, much of the learning is based on the voice of industry representatives and their perceptions framed in anecdotal and informal information. Strong themes arose and learnings, both intentional and unanticipated, were substantial. The participants themselves added to the richness of learning due to their widely differing prior experience and perspectives. We learned:

- There is a lack of awareness of a need for essential skills in a literacy void environment.
- There is an increased necessity for safe food handling.
- The industry employee base is transitory.
- The market is competitive and not necessarily lucrative.
- The industry is receptive to changes in certification requirements.

The Realities and Challenges of the Food Services Business

The foodservice industry exists in **uncertain times** – economic slowdowns, high attrition rates, keen competition and an increasing demand for exotic and ethnic based food services. New food safety issues occur with regularity. In Alberta, despite a vigorous economy, the province's foodservice industry has been in a slump that predates the setbacks of SARS, Bovine Spongiform Encephalopathy (BSE) and a fall-off in tourism spending. Industry research indicates that the reality for food operations is that the profit margins are *not* there and survival rates in this sector give new startups a 60% chance of existing beyond their second year and just 22% beyond eight years. Continued existence becomes an urgent matter to many owners in the food services business and an obstacle to food safety training.

Demographic changes induced by the aging of the baby boomers, the largest sector in industrial nations, will have far-reaching implications. It is estimated that retiring baby boomers will be traveling more and eating at restaurants more frequently. In fact, consumption of food prepared away from the home has become a trend as more women enter the workforce, need and wish for the convenience of prepared meals, higher incomes, the more single-parent households and a more health conscious public. This places more demands on food services and high expectations of service and safe food. The changing demand for ethnic restaurants will mean that ethnic food services will be opened by immigrants who have different cultural backgrounds and who, too, must meet Canadian food safety regulations and expectations.

Owners and managers are aware that food handling techniques and procedures are critical to safe food production and to the industry as a whole but **numerous barriers** stand in the way of taking training. High turnover, staff recruitment and attrition intersecting with a transient workforce are pervasive problems which will continue to impact the delivery of services in the future. This supports the projections of the five-year industry-driven strategy conducted by ATEC in 2003. For small independent or family operated establishments in rural areas, the

challenge related to logistics of travel to a training centre and having enough staff to cover are overwhelming hurdles to pursuing food safety training. The erratic, busy schedules and busy seasons are also a barrier to training and safe food handling. Little training is conducted during busy periods and consequently food service is at high risk of having a food borne illness occur.

Offering **consistent training** initiatives is an issue for the food services sector. Training is costly; production schedules are demanding; competition is high; the workforce is transitory. Some food operations are unwilling or unable to invest in training because of these realities and obstacles to delivering training. There are operations that try to hire workers who have completed training and are certified, thus reducing the amount of training needed. Ideally being able to recruit from a food safety trained workforce would help ensure food safe practices. However, with recruitment and retention of workers such a big challenge to the industry, this is not always possible. One Canadian province promotes and offers food safety training and certification to entry level individuals for the purpose of giving them an advantage when applying for jobs. Entry level and inexperienced workers are an appropriate target for training since, as mentioned, they are “more teachable and more compliant to learning”.

With an escalating diversity in the food industry and a flood of new technologies and food science discoveries, there is a need for continuously informing workers of new food safety concerns. The Food Retail and Foodservices Code (Education and Training) specifies that **continual food safety education** in all formats and at all locations needs to be promoted by every food operation. The rationale (p. 78) is that:

“Studies have demonstrated the quality of food handling techniques improves for the six months following a formalized training program. However, after that period, food handling practices can deteriorate to pre-education levels.”

In addition, the Food Code recommends that certification be valid for five years after completion of the course at which time a refresher or updating course should be taken. The reality and challenge is that shorter refresher courses that deliver current knowledge of food safety skills are not available for the experienced hospitality worker. We can foresee that there will be a greater demand for the development of refresher courses that may include classroom instruction, employee meetings, on-site seminars and on-the-job training. These will have to be user-friendly and relevant to the people in attendance and the work that they do.

Increased Focus on the Need for Food Handling Practices

There is a growing awareness of the inevitability to **promote food safety** and to communicate that information to all industry stakeholders for the safety of the consumers and the good of the industry. New concerns impinging on food safety have emerged in the foodservices industry: the rapid evolution of micro-organisms, genetically modified food, pesticides, growth hormones, more allergies and internationally supplied foods. New trends result in food safety becoming the environmental issue of the decade and the major concern of the general public.¹ At the heart is the crucial necessity for the food industry to perform due diligence to protect the staff, consumers and the industry by strengthening food safety education and practices.

¹ From the *Foodservice and Hospitality* Oct 2002

The research in this project indicates that training for food safety should have a broader outreach. Most interviewees from managers to supervisors to front line servers endorse the need for everyone in the food industry to become well-informed about safe food handling. Managers and staff recognize the **importance of food safety** and the increasing awareness of the ramification of improper food handling. They articulate their willingness to improve their knowledge and practice of safety procedures.

“People are going to need certified training. There should be a certified standardized awareness class. This could include washing hands, being neat and tidy, wearing appropriate clothing, make up etc. This would be the responsibility of the hiring company. There should be a refresher every two years”.

The industry appears to be ready to make changes and accept mandatory food safety training and certification for industry workers. Operators are aware that repeat business, reputation, and success of a restaurant or food service, and ultimately profitability is determined by consumers' experience and word of mouth endorsement for good, safe food. A food safety certified workforce will help to ensure food safety practices. Until it is a requirement, implementation and enforcement are a challenge.

Essential Skills and Food Safety Training

The focus of this study was to see how workers with limited language and literacy skills might be affected by the increased requirements for safe food handling certification. The findings of the study indicate at present that increased requirements may not have an adverse effect on most operations in the restaurant and food service sector. The emerging theme about employees' essential skills is that they are adequate for training in food safe handling. Contrary to what we expected to find, we heard managers say that employees do not have difficulties with training due to limited essential skills. Like the managers, most employees who participated in this study did not see a need for improving essential skills.

There are several **reasons** why limited essentials skills may not be recognized as an issue.

- Employees in food services are young, tend to have an education and possess more adaptive skills. Many of these young workers are still in school and working part time to earn money in order to follow their chosen career. They feel that their literacy skills are adequate.
- Managers and supervisors who deliver training may not see a connection between a worker's reluctance to take training and his/her essential skills levels. They are generally unaware of how worker's limited language and literacy skills may impact training success. They are preoccupied with production, pressing work related matters, staffing and do not see essential skills as a concern. Managers, supervisors and co-workers who pass on information through one-to-one buddy teaching are less conscious of limited essential skills issues because they automatically modify their teaching style to accommodate learner's level.

- Co-workers are often given the responsibility of passing on information informally about safe food handling. It is possible that these ‘buddy trainers’ may have their own hidden difficulties with essential and language skills. They teach according to their own essential skill level.
- Frequently workers who have not completed their education or who completed it several years ago do not recognize any shortfall in their literacy skills. Their jobs, for the most part, require very little reading and writing. The documents they deal with are usually standard forms which they are trained to use such as the ‘squirrel sheet’. They do not see any need to improve their essential skills. The Conference Board of Canada (1999) confirms this in their research:

“The reality is that most workers with inadequate skills are unaware of it. One reason for the disconnect is that many workers are in jobs that have not required them to use these skills. But this situation is changing. The number of available low-skill jobs is decreasing as the economy becomes more ‘knowledge and information intense’. At the same time, the demand for ‘enabling’ skills—skills that foster new ways of doing things and the ability to adapt to an ever-changing workplace—is increasing.”

- Managers in ethnic restaurants, while they recognize that many of those who work in the kitchen do not speak English well, do not see language limitations as an issue because they deliver food safety training in the first language.

Issues Do Exist

Although managers, supervisors and workers did not see any issues with essential skills related to training, those issues do exist. Trainers who deliver more formal training recognize essential skills problems. They make **accommodations** to low literacy and language skills on a recurring basis. The most frequent adaptation is using oral communication with accompanying pictures, charts and videos in lecture delivery to convey content to learners. These supports have the potential to increase as the profile of people in the workforce changes. They use strategies such as translating materials, hiring staff who speak the same first language or re-writing material to a lower level. These are temporary solutions at best.

Limited language and literacy skills become a barrier and a more urgent concern to achieving success in certification testing. **Second language learners**, without accommodations, often have difficulty in training and certification exams. Modifications such as instruction in the first language, translation of material, use of personal translation dictionaries, and oral delivery, result in reducing observable problems in food safety training.

Essential skills related to food safety training and the certification exam seem not to be a concern at this stage, particularly in a work environment that is not ‘literacy’ rich. This attitude will likely alter with the **changing demographics** and the projected need to dig deeper into the labour pool. The strategic planning study, which led to this research project, points out that the future employee market is shrinking and that service industries will experience more difficulty in finding workers. Already, in one northern Alberta community, restaurants have had to limit their hours of operation because they do not have enough employees. One manager who was

interviewed indicated that he is beginning to experience challenges in hiring. Until recently he never had to recruit; applicants came to him looking for work. This past year he had to advertise to fill jobs.

In the coming years, the restaurant and food service sector will have to **recruit and hire from non-traditional markets**. The tourism industry has identified potential labour pools in new immigrants, Aboriginals, and seniors who wish to supplement retirement income. Importantly, for the future, proactive strategic planning should include the development of training provisions and user-friendly educational resources to meet the literacy and language need of this “new” group of workers. To overlook this would be shortsighted. Improved literacy skills and English communication skills provide the industry with more flexibility and more potential. The Conference Board (1999) research shows that improving employee essential skills creates employees who work smarter and better and who cope well with change in the workplace.

Future changes based on demographic trends will demand greater availability, versatility and variety to the **training options**. Food safety training in an era of constant changes will demand the promotion and the delivery of continual training that may include additional classroom instruction, worksite training, seminars and employee meetings. The industry is looking to offer training using alternative delivery systems and resources to allow workers to access training during down time at work or during split shifts. Literacy and language limitations may be more of a cause for concern as training opportunities and preferences expand. The alternatives to classroom driven training may be in a self-study, correspondence, or computer mediated format, all of which require self-direction and independent learning. Independent study of food safety course modules will critically demand the essential skills required to work autonomously. Considerations have to be taken to adapt and re-construct learning materials so that they are user-friendly and practical.

There are three paths to follow in order to **ensure success** in training workers who have limited essential skills. The first is to ensure that the materials used in training are not only relevant but written in clear or plain language so that workers can read and participate in class and also study independently as they wish. The second is that individuals who conduct training should become aware of essential skills issues and deliver training that supports learners with limitations. Finally it is vital to raise the language and literacy skills of those workers.

While the **present findings** do not point to large deficiencies in language and literacy among workers, changes that are occurring in the restaurant and food services sector may soon alter that. As operations increasingly hire from non-traditional markets, there may be an increase in essential skills gaps and limitations. More stringent requirements regarding safe food handling will also impact training success for workers. In the future, it will be essential to provide food safety training that integrates language and literacy skills for success in both the workplace and training.

Barriers to the Implementation of Food Safety Training

The food service industry will face a number of **barriers** should they implement and proactively promote food safety certification. Food establishments are struggling with constraints imposed by lack of time, the rigid production cycle, high staff turnover, accessibility and convenience of training, availability of course offerings, cost burdens to employers and employees, and language and essential skills limitations. Categorically, smaller food operations and operations in rural areas experience the barriers more intensely.

Effective **communication** is a barrier that should be addressed. In the ARFA Organizational Needs Assessment (1997), it was recommended that communication strategies be expanded to keep ARFA members informed of new training initiatives and to update information on food safety issues. In this project, we, too, learned that operators in their preoccupation with production and service, and running a business are not aware of what training options are available. There is a need for successful and consistent communication, particularly to those in the rural areas. Whatever means of communication is used, it is essential to update and notify members of new regulations, issues, and available alternatives in course delivery and format.

Food Safety as Common Sense

A frequent theme emerged around the use of ‘common sense’ or sound practical judgment in food safety practices. Managers, supervisors and employees cite that the concept and procedures in food safety are “*simply common sense*”. Typically the majority of food service workers are young and inexperienced and to rely on common sense for safely handling food depends upon sheer luck, at best. In reflection, the notion or attitude of common sense can be contested since not everyone’s definition of common sense is the same. Workers from other cultures have different experiences and understandings of the term. Nor is everyone ‘*gifted*’ with common sense. Those who speak about having sound practical judgment have years of experience and observation in the food sector which shapes the foundation for common sense thinking. Yet sensible and practical judgments cannot be excluded or dismissed in the process of food handling; clear thinking assessment of foods appearance and smell relevant to food safety is vital.

Responsibility for Training

At the center of decision-making around food safety certification, an essential question arose from conversations with food service workers: “***Who does the responsibility of food training fall on***”? Some feel that it is the responsibility of the employer or government while a few think each individual should be accountable for being certified in food safety. One manager stated:

“It’s up to the operators and owners. The 20 year old employee will not put himself through a course...they don’t have the same business motivation or the resources. Food safety training is good for the industry. If owners/ operators are committed to food safety, they will make it work”.

In his opinion, employers have the primary responsibility for protecting the safety and health of the customer and workers, while employees are responsible for following the safe work practices of their employers.

Today, consumers readily use lawsuits to receive compensation for injuries due to foodborne illnesses. This is a concern to operators who are ultimately liable. A food safety program on site may provide reasonable defense in a food-related lawsuit. In the guidelines for the industry found in the Food Retail and Foodservices Code (Section 6 – Education and Training), the industry stakeholders should be responsible for **food safety and code compliance**.

“Food safety is too important to rely solely upon monitoring and auditing conducted by the regulatory authority. The food industry should take responsibility for adequately preparing food handlers to fulfill their job requirements, and to significantly contribute to a safe food industry. Food will be safe with the employment of personnel that have the necessary skills and knowledge to process and handle food.”²

Food safety is one of the most important educational initiatives in the restaurant and foodservice industry and should be a collective commitment that engages all stakeholders: employers, public health agencies, government and employees. Each and all should be familiar with their roles and accountability in preventing food contamination. Every worker must understand what training is provided and what training must be completed. Food safety is part of everyone’s job.

² Food Retail and Food Services Code - http://www.health.gov.ab.ca/professionals/foodcode/6_education.pdf

Recommendations

The impact study revealed a number of barriers to workers' success in food safety training and certification. Limited essential skills directly impact the successful completion of the training and certification process. We are recommending these solutions.

Stakeholders continue to address and reduce the barriers that prevent workers from taking and succeeding in food safety training.

1. Ensure that food safety training for certification is appropriate and accessible.

Barriers to training such as time, distance, availability, format, and cost prevent food services workers from successfully participating in training. To reduce the stumbling blocks to participation, the availability of food safety training in small centres and rural areas needs to be increased. Alternative, cost-effective and manageable training should be widely available and convenient. Workers' choices could include classroom sessions, correspondence/self-study, and computer mediated online courses. Ongoing education that includes refresher training via the previously mentioned options should be promoted by all stakeholders.

2. Develop food safety course material and instruction that addresses learners with language and literacy limitations.

It is recommended that clear (plain) language criteria be incorporated into the development of resources to accommodate a variety of learners – those with low literacy and second language, time limitations, different learning styles, and for those who choose the self-study method.

Verbal classroom instruction should be delivered using clear (plain) language principles. To enhance effective two-way verbal communication, considerations in delivery should include the difficulty of the terms used, the amount of information given, the organization of the content, and use of the glossary, plenty of demonstration, role plays, and interaction.

3. Increase communication and outreach about course offerings.

ARFA members need more detailed and current information about all the possibilities and alternatives in training – public health, private agencies, online, and correspondence. The key to successful implementation of a food safety system is accessibility to good training and communication amongst workers in all areas and all levels in the industry.

4. Help support workers with low literacy and language in writing the provincial exam.

Workers who choose to challenge the exam or do training by correspondence should be provided with strategies for writing exams.

To facilitate successful completion of the certification exam, the exam, too, should pay heed to the principles of plain language.

The project partners work with food operations to raise awareness about the impact of limited essential skills on safe food handling and hygiene training.

1. Provide training around essential skills to those who deliver food safety training whether in a classroom or in a one-on-one situation.

Everyone who delivers training whether formally or informally should know how to deliver effective instruction to workers who have limited language or literacy skills.

They should learn ways of checking for understanding particularly necessary with second language workers and recognize when a learner is having difficulty with the course content because of language and literacy limitations.

2. Work with government regulatory bodies to raise awareness of the impact of increasing the certification requirements for those workers with essential skills limitations.

It is very important to consumers to have food establishments that offer food that is healthy and free from micro-organisms that cause illness. While governmental bodies that oversee food safety raise expectations around certification, they need to be aware of workers who could be screened out of their jobs through certification requirements. As operations have to hire people who lack the essential skills required for studying, government may have to make more provision in terms of training around workplace essential skills.

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Appendices

Appendix 1 - Terms of Reference – Overview of Project

PURPOSE

The purpose of this study is gather concrete information on the connection between safe food handling/sanitation and essential skills and to facilitate an awareness of the need for a sound essential skills base for successful training.

NOTE: There are nine **essential skills** identified by Human Resources Skills Development (Can.) through the Essential Skills Research Project (http://srv600.hrdc-drhc.gc.ca/esrp/english/general/home_e.shtml). The skills are reading text, writing, numeracy (math), oral communication, document use, working with others, continuous learning, thinking skills, and computer use. In this impact study, we will concentrate on the literacy skills of reading text, document use, writing, math, and oral communication.

OBJECTIVES

- **identify** potential skill **gaps** and essential skills training needs for workers required to pass food sanitation and hygiene certification.
- **review** current food sanitation and hygiene training materials and delivery methods.
- **assess** readability and design of food sanitation and hygiene training materials for those with limited literacy skills.
- **recommend** practical strategies and solutions for addressing identified needs.

METHODOLOGY

A case study approach will be used. The aim is to achieve a cross-section of food establishments in the survey. In each of the 10-12 locations, three people will be interviewed: a manager, a supervisor or lead hand, and an employee.

Activities for the project will include:

- tour and observations to get the big picture and chain of events
- structured interviews
- collection and analysis of existing training materials

DELIVERABLES

- a written report documenting process, results, analysis and including recommendations.
- identification of supports and barriers.
- identification of a list of food sanitation and hygiene training courses and comments about the application to workers' limited essential skills.
- establish a foundation for developing user-friendly, practical, plain language training for food sanitation and hygiene in Alberta.

Matrix to ensure cross-section

Restaurant	Type(s)	Region	Urban/rural	Large/small

Type (Pick List)
Traditional
Ethnic
Specialty
Coffee Shop
Fast Food
Cafeteria
Self-Serve
Chain

Appendix 2A Interview Instrument – Managers’ Tool

Organization _____ Date: _____ Type of Food Service Operation _____ Region _____

A. General contextual questions

Job position of contact person _____

Length of time with present establishment _____

Information about the establishment:

When was your business established? _____

How long have you been at this location? _____

How would you classify your restaurant? _____

How many employees do you have? _____

How many ESL employees do you have? _____

What is the general age of the employees? _____

What education have your employees completed in general? _____

How many are over or under 40? _____

Do you have staff turnover? _____

How would you rate your employee turnover (low, medium, high)? _____

What area do you have the greatest turnover? _____

What hours are you opened? _____

What is your busy season? _____

Do you hire extra people then? _____

B. Employee Training

1. What training do you consider essential for all your employees? How do they get the training? Have they taken: Service Best, ATEC certification, or Responsible Alcohol Service? _____
2. Do you train or do you send employees out for training? _____
3. If you train, how do you currently handle the training for the employees here? What works best? One to one, small group, hand-outs... Do you make modifications to your training because of English proficiency, literacy, age, gender or disabilities? _____
4. Have you ever taken the Food Safety and Sanitation certification? If yes, how have you passed on the information to the employees? _____
5. What programs do you use to train employees in food handling and hygiene? How is this delivered? _____
6. Do you think it is important for all employees to take the food safe handling training? Why or why not? _____
What are the barriers to you to provide food safety training? _____
What would make it easier for you to provide food safety training for employees? Where? When? How? (format, fee) _____
What would make it easier for employees to take training? _____
8. Alberta legislation now requires that one person per shift on site be certified in food safety and sanitation. Would you feel confident that all of the employees would be able to successfully complete the course? _____
10. What kind of training might help employees? Comments
_____ Reading in house material
_____ Working with documents (graphs, charts, tables)
_____ Oral communication (speaking/listening)
_____ Math skills and measurement: gauges, instruments,
_____ Computers/electronic equipment
_____ Buddy system (how to train co-workers)
_____ Other

Appendix 2B Interview Instrument Employees' Tool



Date: _____ Organization _____

A. General contextual questions

Employee Job Position _____ Length of Time with employer/company _____

1. **Tell me about your job.**
 What kind of restaurant is it?
 How many people work here?
 When is the busy season?
 What shift(s) do you work?
 How long have been in the food services industry?
 Where else have you worked in the food service industry?
 Why did you leave?
2. What were the qualifications to get the job? Did you need certification with ATEC? What education do you have?
3. How do you think your job might change in the future? *Are you aware of future changes that might impact your job?*

B. Training/Learning

4. When you started at this worksite, how were you trained? How did you learn to do your job?

<ul style="list-style-type: none"> buddy system (peer coaching) formal new hire orientation none - just did it 	<ul style="list-style-type: none"> demonstration by supervisor on paper (employee manual) other
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5. If you have new tasks on the job, how do you learn them?
6. Have you ever had to teach anybody at work? If yes, what did you do? How did it go?
 What would make it easier for you to train somebody?
7. What training have you taken since starting here?
 Have you taken: Service Best ATEC certification Responsible Alcohol Service
8. Tell me what are the important and critical things you do to handle food in a safe and hygienic way?
 Why is it important to handle food safely?

Possible Answers

- *Allergens (peanuts, shellfish, fish, eggs, milk, preservatives)*
- *Physical contaminants (wood slivers, bits of glass, hair, jewelry, insects)*
- *Chemical contaminants (cleaners, paint, soap)*
- *Biological contaminants - harmful micro-organisms (bacteria, fungi (yeasts, moulds), viruses, parasites/protozoa)*
- *Hot handling and cold handling in preparing food (temperature control)*
- *Proper storage*
- *Personal hygiene*
- *Cleaning and sanitizing of equipment*
- *Getting rid of garbage*

9. How did you learn about safe food handling?
10. Did you take a food training course? Did you find it difficult or easy? Explain.
11. If you haven't taken any training, why haven't you? What stands in the way?
 What would make it easier for you to take training?
12. What would be on your wish list for training?
13. Would you consider training for:

reading and writing document use oral communication (speaking/listening) math/measurement	computers/electronic equipment how to train co-workers other
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Further comments if any:

Appendix 3 - Principles of Plain Language Writing

PLAIN LANGUAGE CRITERIA

<p>FOCUS ON THE READER OR AUDIENCE</p>	<ul style="list-style-type: none"> • Does it make sense to the reader? • Have the following criteria been considered: age, culture, education, job experience, knowledge of material, position, abilities, knowledge of language? • Are the readers entry level workers, unfamiliar with the work, ages 30-55, 30% English as a Second Language
<p>CONTENT</p>	<ul style="list-style-type: none"> • Is the purposed clearly identified? • Are the objectives clearly outlined? • Does the information give readers the big picture by including a brief overview or a detailed table of contents?
<p>FOLLOW-UP ACTION</p>	<ul style="list-style-type: none"> • Is action the reader will take considered?
<p>ORGANIZATION AND STRUCTURE</p>	<ul style="list-style-type: none"> • Is the main message placed up front? • Is the material organized around a progression of difficulty? • Is the information organized logically? <ul style="list-style-type: none"> • Is the information organized from general to specific? • Is the information organized from most important to least important? • Does the resource provide ‘here and now’ application situations that link to reality? • Are step by step instructions provided and clear? • Are sentences short and clear? Do the sentences: <ul style="list-style-type: none"> ○ Have an average of 20 words per sentence? ○ Include only 1 or 2 ideas in a sentence? ○ Avoid unnecessary preambles? ○ Is the active voice used? ○ Integrate the ‘you’ approach? (speaking directly to reader) Avoid negatives as much as possible? ○ • Is the length of the paragraph appropriate to the reader? <ul style="list-style-type: none"> ○ Is one topic limited to each paragraph? ○ Are short paragraphs used to help break the information up into manageable parts? ○ Are vertical lists, point form, or question and answer format used when possible? • Does it include a table of contents and a glossary of terms?
<p>STYLE AND LANGUAGE</p>	<ul style="list-style-type: none"> • Is the choice of vocabulary appropriate? • Are familiar words used? • Are unfamiliar words and acronyms explained? • Are action words used instead of nouns?

	<ul style="list-style-type: none"> • Are adverbs and adjectives used sparingly? • Are technical words explained? • Is the message personalized using pronouns “I”, “you” and “we”? • Is the active voice used most often?
FORMAT, APPEARANCE AND DESIGN	<ul style="list-style-type: none"> • Does the format match the purpose? • Does the layout include white space, sidebars, tips for learning, color? • Is the document designed for easy reading? • Are headings, numbers and bullets and lists used effectively? • Are graphics, tables and charts in place of text and flowcharts to show relationship between ideas used? • Do the tables include gridlines for easier reading? • Is white space enhanced with increased margins, shorter lines of text, vertical lists and uneven right margins? • Does the format include highlighting (not overused) including bold, italics, color, shading, boxes, underline and font size and style?
READABILITY	<ul style="list-style-type: none"> • What is the readability of the text? • Has the text been tested for suitability and for readability for the audience?
OTHER CONSIDERATIONS	<ul style="list-style-type: none"> • What is the thickness of the resource? • How dense is the information? • Is it copyright free? • What is the cost factor?

Appendix 4 - Training Material Review

Review of Food Safety Training Materials

Five training manuals or workbooks were collected, reviewed and analyzed for design and readability for a diverse audience. The audience could be those with:

- limited literacy and language skills.
- time constraints.
- pursuing a program of self-study.
- different learning style preferences.

Readability Criteria

Readability formulas or software were not used to analyze the readability because they are limited to measuring only the relative difficulty of the text. By themselves, they are not adequate in determining a match between the reading level of written material and the ‘reading with understanding’ level of the reader. In addition, the analysis is best done on connected and flowing text and the training material has short sentences and many vertical lists. For the purposes of this study, the criteria for examining the readability of the training materials follow the principles of plain language. Therefore, the guideposts for assessment were based on the layout, organization, format, appearance and design, sentence structure, paragraph structure, vocabulary and a glossary of terms – to mention some. (Appendix 3 for criteria)

Analysis of the Training Resources		
Training Resources	Effective traits	Limitations
Resource 1 <i>‘Food Handling Procedures’</i>	Includes short and clear sentences with one or two ideas; in point form; many vertical lists using bullets and enumerations; information is logically organized; good white spaces with increased margins and short lines; good format using highlighting such as bold, underline, and font style; headings used effectively; vocabulary defined in the main body of text; few negatives; good cross-references to terminology; terms are explained; thickness of manual not overwhelming.	Format and design does not include tables, charts or graphics, no color or sidebars or tips for learning; no glossary of terms; table of contents could include more detail; no introduction that includes a brief overview to give the big picture; some of the sections could have more clearly defined the purpose; a summary review at the end of some sections are included but not for all.
Resource 2 <i>‘The Food safety Starter Kit’</i>	Has two levels - basic and advanced level- recognized the differing levels of learning and focus.	

Resource 2 <i>Basic level</i>	<p>Includes a table of contents; good introductory overview of the content, and how to use the book; each section have an informative table of contents; glossy with good use of photographs; use of color for headings; good organization of content; sentences and paragraphs are short and clear; design includes lots of headings, bold type, enumerations, bullets, different font styles, graphics, tables, flow charts, boxes and sidebars; Excellent real life pictures; each section includes a ‘test yourself’ practice quiz; each unit includes relevant terms with their definitions given within the concept explanation; objectives are included with each new unit; has an appendix that includes a glossary of terms, a comprehensive table of causes and prevention of food borne illnesses, information on chemical sanitizers, HACCP, and WHMIS. Format of course book is convenient.</p>	<p>Although there are white spaces, the text appears dense at times; font size is small; for a basic level, it may be too comprehensive.</p>
Resource 2 <i>Advanced level</i>	<p>Introduction to course book is thorough; has a table of contents and an index at the back; includes “Cases in Point’ which engages the reader; clear objectives; includes pre and post tests to assess reader; sentences are proper length under 20 words; good end of the unit summaries; format and design includes numerous tables with gridlines, charts, bulleted vertical lists and bold face headings; good graphics; includes an appendix and a glossary of terms; the course book is very comprehensive. The small format is portable and convenient.</p>	<p>Some material could use vertical lists; text dense with small font size; fewer tables and pictures in the latter half of the book. Practice test questions are only multiple choice and not other types, like short answer or true/false; a thick resource.</p>
Resource 2 ‘on-line demo address’ (Internet hosted)	<p>User friendly; design is based on plain language guidelines.</p>	<p>Need of a computer with Internet</p>
Resource 2 <i>Video</i>	<p>Short, twelve (12) minutes long; good summaries and organizers to aid retention; information is organized in steps; clear text and vertical lists to information that is textual; lots of color and graphics with demonstrations at restaurants; explanations are concise covering main components of food safety.</p>	<p>Could include real life case scenarios illustrating the ramifications of food borne illnesses.</p>
Resource 3 ‘Food safety Level 1 and 2’	<p>Each section ends with a summary and review questions (multiple choice, true/false, short answer); has short and clear sentences with one or two ideas; vertical lists in point form using bullets and enumerations; information is logically organized; good white spaces with increased margins and short lines; good format using highlighting such as bold, underline, and font style; headings used effectively; good graphics, organizational</p>	<p>No glossary of terms; table of contents could include more detail; no introduction to give a brief overview and a global perspective; some of the sections could have more clearly indicated and defined purposes.</p>

	charts, tables, to display concepts and cycles; good food safety self-monitoring checklist at the back of manual; vocabulary defined in the main body of text; few negatives; good cross-references to terminology; terms are explained. Convenient size.	
Resource 4 <i>'Safe Food Handling Training Manual'</i> [Out-of- province resource]	Good introductory overview of the content and its uses; organization of the workbook clearly identifies the topics; focused on the reader; is organized and states in the 'forward' that it is written using plain language principles; each unit includes relevant terms (with a pronunciation guide) and their definitions, objectives, step by step instruction and study tips; each section concludes with a review and quiz; new vocabulary is explained; sentences are in active voice, short and clear averaging 20 words or less per sentence; use of short paragraphs; design includes vertical lists, bolding, enumerations, bullets, different font style, graphics, tables, charts, boxes and sidebars; interestingly written; includes a table of contents and a glossary of terms. Would be excellent for self-study.	Thickness; cost
Resource 5 <i>'Good Practices for Food Handlers'</i> <i>(Adapted from the Ontario Department of Health)</i>	One table in the document displays information well; formatting includes vertical lists with bullets; some procedural information is listed with step by step instructions which are clear; titles of each component in large bold print; white spaces adequate on most pages; not costly.	No table of contents or introductory overview to give the big picture; no glossary of terms; format largely designed in column form throughout – no variation, all done in point form; no sidebars or tips for learning; no color; no clear explanations of unfamiliar terms; Small print and dense in places; table does not include gridlines; some sentences in introductory piece are long with cumbersome vocabulary; no graphics; poor quality paper.