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The evolving role of the environmental
health officer: maintaining public health
in the context of a changing food
regulatory environment

Elizabeth Grigonis-Deane
University of Wollongong

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**THE EVOLVING ROLE OF THE ENVIRONMENTAL
HEALTH OFFICER: MAINTAINING PUBLIC HEALTH
IN THE CONTEXT OF A CHANGING FOOD
REGULATORY ENVIRONMENT**

A thesis submitted in fulfillment of the
requirement for the award of the degree

MASTER OF SCIENCE - RESEARCH

From

UNIVERSITY OF WOLLONGONG

By

ELIZABETH GRIGONIS-DEANE, B.A.Sc., B.Sc.

School of Health Sciences 2008

Thesis Certification

CERTIFICATION

I, Elizabeth M. Grigonis-Deane, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Master of Science, in the School of Health Sciences, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Elizabeth M. Grigonis-Deane

7th October 2008

Conference Presentations and Proceedings

Grigonis-Deane, E., Yeatman, H., & Condon-Paoloni, D. (2006). Enhance your brain power! Monitoring health claims on food labels. Poster presented at the *1st International Congress for Public Health and Nutrition*, Barcelona, Spain.

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Thank you all.

List of Acronyms

ANZFA	Australia New Zealand Food Authority
AQIS	Australian Quarantine and Inspection Service
COPONC	Code of Practice on Nutrient Claims
DEETWR	Department of Education, Employment and Workplace Relations
EHO	Environmental Health Officer
EPA	Environmental Protection Agency
FSANZ	Food Standards Australia New Zealand
FSC	Food Standards Code
HREC	Human Research Ethics Committee
ISC	Implementation Sub-Committee

Abstract

This qualitative study aimed to describe how environmental health officers prioritized different components of food regulation enforcement within the context of their overall workload, to gather information about how to better prepare environmental health officers for the demands of their role. A significant change in the role of environmental health officers is occurring due to new legislative requirements related to food labelling.

In 2003, the Australia and New Zealand Food Regulation Ministerial Council (the Ministerial Council) developed a Policy Guideline on Nutrition, Health and Related Claims (the Policy Guideline), providing a framework for the regulation of nutrition, health and related claims.

Environmental health officers are likely to be responsible for the enforcement of these proposed new regulations. The proposed monitoring role is as yet untested and the factors influencing the environmental health officers' decisions about prioritization of work load are unknown. The priority given to the enforcement of such regulations may impact on how effectively environmental health officers perform this aspect of their work load.

The data used in this study were obtained through semi-structured interviews with 37 environmental health officers from three states, NSW, QLD and ACT. The sample included male and female officers at both field and senior level across local and state sites. The interview transcripts were analyzed by thematic coding with the aid of a qualitative software analysis package. The work and control scales survey data were analyzed using SPSS 15.

Results showed that field officers considered themselves to be protectors of the community's health, closely interacting with the community and responding to their demands and complaints. Field officers' routine inspections and investigation of food poisoning and hygiene complaints were given highest priority, while monitoring health claims on food labels was given low priority. Conversely, senior officers reported being more involved with management, interacting with outside organizations and politics, and assigned higher priority to the monitoring of health claims on food labels.

The analysis of environmental health officers' work practices and attitudes using the framework of Lipsky's (1980) theory of street-level-bureaucracy was used to enhance present understanding of the implications for policy implementation at the interface between the public and government.

This study extends existing knowledge about the motivations behind the work practice of environmental health officers, a poorly researched group, and explores their roles within Lipsky's framework of street-level bureaucrats. The study thus extends Lipsky's model into a new area of work practice. Contrary to previous studies indicating street-level bureaucrats use coping mechanisms to decrease frustration caused by work conditions, this study's results revealed that the desire to create positive outcomes for the community drove the behaviour of environmental health officers.

Further results from this study indicate that environmental health officers, through their work practices and especially in their enforcement role, have the capacity to optimize or lessen the benefits to consumers of food regulations such as nutrition and health related claims on food labels.

Three major recommendations arise out of this study to ensure that consumers benefit from the new legislation regarding nutrition and health related claims on food labels.

There should be provision of sufficient resources and timely training in new responsibilities for environmental health officers. Communication between State and local government authorities must continue to be improved and maintained, so that adequate support and appropriate guidance from team leaders is consistently available.

Lastly, increased public education regarding the importance of nutrition, health and related claims as a tool to make healthier food purchases is needed.

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Chapter 1 Introduction

The role of the environmental health officer is to protect and promote good health, hygiene and environmental practices through developing, regulating and enforcing the standing laws and regulations governing public health (DEETWR 2007). Examples of the activities performed by environmental health officers that protect and promote public health include the routine inspection of premises posing risks to public health, such as premises involved in preparing food for consumption, childcare facilities or cooling towers. Environmental health officers are also responsible, bound by Acts and Regulations, for investigating community and industry complaints related to food and other health issues (Food Standards Australia New Zealand 2007).

The Regulations and various Acts currently in place around environmental health, in relation to food safety, have been designed to prevent food borne and other environmentally mediated diseases (Food Standards Australia New Zealand 2007). A high standard of public health is dependent on the environmental health officers' understanding of the application of relevant laws and regulations and their ability and freedom to enforce them. Appropriate training in interpretation and implementation of the continually evolving relevant laws and regulations, for example, of the standards for building specifications of food premises, are essential to the officers' capability to monitor and enforce compliance with such regulations.

Recently, many countries, including Australia, have been prompted by consumer and industry demand for clear regulation concerning health and related claims and many are currently revising regulations (Food Standards Australia New Zealand 2004). However,

the potential benefits of health claims are constrained by many factors such as consumers' lack of education about how to interpret claims, and ineffective monitoring of claims (Bhaskaran and Hardley 2002, Williams et al.. 2003). Food Standards Australia New Zealand (FSANZ 2004), the bi-national agency responsible for the development and review of food standards, is currently developing a Standard for regulation of nutrition, health and related claims, along with a management system by which to enforce the Standard. Environmental health officers currently employed throughout Australia will be responsible for enforcing the Standard by surveillance, identification of questionable claims, and when necessary, the initiation of prosecution of unsubstantiated claims.

The monitoring of claims by environmental health officers is, as yet, untested. Many factors are likely to influence the environmental health officers' decisions about claims. Time constraints, perception of relative importance in comparison to food safety issues, lack of training, prior beliefs and attitudes toward health claims are likely to affect environmental health officers as they do consumers (Paterson et al. 2002).

1.1 Aims

This study aimed, through in depth qualitative semi-structured interviews combined with quantitative data derived from validated survey instruments, to explore the roles of environmental health officers, and their decision making practice in setting priorities in workload, and to gain insight as to how to better prepare the environmental health officers for the requirements of their job. Such insights ultimately may lead to a better understanding of environmental health officers' role in public health. A greater understanding of the environmental health officer's work practice may lead to better

outcomes regarding surveillance of claims, appropriate complaints being lodged with the Implementation Sub-Committee (ISC - a committee within the food regulation system responsible for consistent implementation and enforcement of food standards across Australia) for review and better service to consumers. Examining the environmental health officers' practice in their role, within their everyday work conditions also will provide insight into how policy is implemented at the interface between public and government.

1.2 Objectives

The objectives of this study were first to determine what was included in the environmental health officer's portfolio of work. Next, the study sought to determine what influenced environmental health officers' decisions in prioritizing their everyday workload; including whether the environmental health officer's head of unit set work priorities. The study also sought to describe environmental health officers' training/background; and their perception of the contribution their work made to the community. This may inform our understanding as to whether prioritizing is done on the basis of their superiors' expectations, officers' capability, or if prioritizing decisions were made on the basis of community needs or expectations. Finally the study sought to explore the use of Lipsky's model of street level bureaucracy (Lipsky 1980) as a framework for analyzing environmental health officers' work practices.

1.3 Significance of the study

Increased demand by the food industry and consumers for regulation of health claims on food labels has prompted many countries to develop appropriate regulations (Tee 2000;

Cheftel 2005). Effective regulation, however, requires monitoring and enforcement. Examining how environmental health officers prioritize their current workload, and uncovering the factors which influence their work practice will inform our understanding of the implications regarding the challenges and responsibilities that may be presented to environmental health officers by proposed use of nutrition health and related claims on food labels.

The placement of nutrition and health claims on food labels, and the potential impact these claims may have on health outcomes, is an issue that continues to gather momentum in the literature. The proper use and placement of health claims, combined with consumer education, can be an extremely useful tool for consumers trying to buy healthier foods for themselves and their families (Byrd-Bredbenner et al.. 2000; Garretson and Burton 2000; Tee 2000). Accurate monitoring of claims becomes critical, and vigilance in monitoring will be an important factor to protect the consumer's right to actual, substantiated information. As the number of health claims on the supermarket shelves rises, so too does the risk that consumers will be influenced to buy products they misinterpret as being beneficial to them in some way (Bhaskaran and Hardley 2002).

Findings by Paterson et al.. (2002) indicating that environmental health officers are not prepared to undertake the monitoring role of proposed regulations suggest that research into this area is needed. The study offers the potential for a better understanding of the requirements of the work of environmental health officers, leading to better outcomes regarding monitoring compliance with food regulation enforcement, and ultimately better service to consumers.

1.4 Background to the study

In 2003, the Australia and New Zealand Food Regulation Ministerial Council (the Ministerial Council) developed a Policy Guideline on Nutrition, Health and Related Claims (the Policy Guideline), providing principles upon which regulation of nutrition, health and related claims will be based. The Policy Guideline also incorporates a proposed system of regulation (FSANZ 2004). The Policy Guideline was established for the purpose of creating an environment allowing innovation, and therefore, increased trade opportunities in industry, while the requirements within the Policy Guidelines for substantiation and truthful advertising serve to protect the health and safety of the public with regard to food products.

FSANZ (2004) is currently developing a Standard for the regulation of nutrition, health and related claims, along with a management system by which to enforce the Standard. In developing the Standard, FSANZ is following the principle that regulation is indicated if there are potential risks to public health and safety, or there is a risk of the public being misled, in this case by nutrition, health or related claims on food labels. There is potential for consumers to benefit from the correct use of nutrition, health or related claims on labels, for example the claims should act to increase consumers' ability to recognize healthier foods (Byrd-Bredbenner et al.. 2000; Garretson and Burton 2000; Tee 2000).

Regulation is believed to be necessary to counter any increased risk to the consumer by misleading or unsubstantiated claims (FSANZ 2004). Diligent monitoring of claims will be of utmost importance, in order to ensure that consumers will have appropriate, substantiated, and useful information available to them to help make informed decisions about food purchases,

Regulation of claims will be handled by the Implementation Sub-Committee (ISC); constituted by representatives from New Zealand, Australian and all State and Territory governments. The ISC will serve as “watchdog” with regard to the management of the new claims system. However, environmental health officers in each state or Territory in Australia will be responsible for monitoring health claims on food label, overseen by the ISC. The ISC will handle any complaints which arise, referring complaints to the appropriate jurisdiction for analysis and/or enforcement (FSANZ 2004).

In consequence, the environmental health officers will face new challenges in their role, including the added responsibility of monitoring such claims, deciding whether to pursue substantiation of questionable claims, or indeed, distinguishing appropriate from inappropriate claims on labels. Research by Paterson et al.. (2002) indicates that environmental and food safety officers had concerns about the upcoming new provisions in the Standard. Among those concerns were: “labelling issues of low importance relative to food safety and hygiene issues”; “not well informed of labelling changes in new Code”; “current inspection workload too great to dedicate resources to labelling enforcement”; and “need for consumer education on food labels and their use” (Paterson et al.. 2002:2). No action based on these reported concerns has been documented since that time.

Should new regulations providing for the use of nutrition, health and related claims on food labels be introduced without sufficiently addressing these concerns, the end result may be that the community receives diminished benefits of nutrition, health and related claims on food labels, despite a significant investment of time and effort by the government.

1.5 Structure of the Thesis

The first chapter of this thesis has outlined the purpose, aims and objectives of this study. It has provided background information regarding food labelling and proposed regulations allowing nutrition, health and related claims to be placed on food labels and the potential benefits as well as the recognized difficulties with providing this information. The role environmental health officers may play in shaping the implementation of such policy was outlined. The chapter also identified the significance and value of this research to our current knowledge, specifically, the potential that the intended benefit offered to consumers by the proposed nutrition, health and related claims regulation may not be fully realized despite a significant commitment of time and money in planning the proposed changes.

Chapter Two begins with a literature review of the relevant studies in the area of consumer understanding, trust and attitude toward the information available on food labels. Research on the environmental health officers' role in the enforcement of regulations controlling the proposed use of such claims and the impact of environmental health officers attitudes toward such claims are presented as background to this study. An overview of Lipsky's (1980) theory of street-level bureaucracy, and how it is relevant to this study, is presented. The review focuses on studies that have used Lipsky's theory to explore roles, work context and constraints of working in positions that are similar in some respects to those of environmental health officers, highlighting the consistencies of environmental health officers' work context, conditions, and constraints with those of street-level bureaucrats as described by Lipsky's theory. Previous research in the area of street-level bureaucracy and the relevance of this research to the present study is included here.

Chapter Three presents the methodology of the study including the conceptual framework, procedures in sample selection, recruitment and the interview structure. This is followed by a description of the collection of qualitative data, the quantitative measures used to assist in data analysis, a description of rigour in this study and ethical considerations.

Chapter Four reports the findings of this study. A broad description of the current work load, key influences on environmental health officers work practice and how they make decisions regarding priority of work activities is described. Common obstacles experienced by environmental health officers to performing their duties are presented. This is followed by a focus on the environmental health officers' perceptions of the difficulties they will face should they be made responsible for the enforcement of regulations regarding health claims on food labels.

Chapter Five commences with a discussion of the major findings regarding the role of environmental health officers, how they undertake their responsibilities, highlighting the major differences in responses between senior and field officers. The role of environmental health officers is then positioned in relation to Lipsky's theory of street-level bureaucracy, outlining the ways in which they are consistent with or vary from this theory. The key factors influencing environmental health officers' work practice are discussed and positioned in relation to previous studies that have focused on the work conditions and practices of workers in similar professions. In addition, new insights such as the altruistic nature of those drawn to this career are noted.

Chapter Six comprises the limitations, conclusions and recommendations arising from this study. Strategies are proposed that aim to increase the likelihood that environmental health officers will prioritize the duty of monitoring the proposed nutrition, health and related claims on food labels. The recommendations reflect the need for changes at the organizational and community level, and include training, support, and community education.

Chapter 2

Literature Review

2.1 Introduction

In this section the existing research in the area of consumer understanding and trust in the information presented on food labels is outlined. The studies exploring the possible influences on the work practice of environmental health officers and the relevance of their beliefs and attitudes on the enforcement of compliance with regulations on food labelling and subsequent effects on policy implementation will be presented. Results from previous studies highlighting the major influences on work practice are useful to this study's examination of the work practice of environmental health officers, and concern about lack of competence, confidence, or vigilance on the part of monitoring officers. Concerns about lack of competence in monitoring health claims on food labels potentially may result in officers giving low priority to this area of their food safety activities. Lack of monitoring or enforcement may erode the trust consumers have in the labelling system, either of which could ultimately be detrimental to the beneficial aspects of food regulation including nutrition and health claim labelling.

2.2 Australian Food Regulation Structure

Food Standards Australia New Zealand (FSANZ) regulates food labelling in Australia and New Zealand according to the Food Standards Code (FSC). The FSC provides regulations for food labelling, mandatory information required on nutrition information panels, and other specific standards for vitamins or other additives (Australian Government Department of Health and Aging 2008). The accuracy of information

regarding nutrient content on food labels is informed by the Code of Practice on Nutrient Claims (COPONC), but adherence to the code is voluntary (FSANZ 2004). This tripartite system has created an environment where not all claims are regulated by the FSC or in line with the voluntary COPONC guidelines.

Nutrition or health claims that do not comply with FSC or COPONC guidelines pose a threat to public health. They potentially may confuse or mislead consumers to make choices on food purchases that, in the long-term, may have deleterious health effects (Paterson 2002). To rectify this potential discrepancy in regulation, and to harmonize regulation between Australia, New Zealand and other countries the Australia and New Zealand Food Regulation Ministerial Council agreed to a Policy Guideline on Nutrition, Health and Related Claims (The Policy Guideline) (Roberts 2003). Its purpose is to provide principles on which to base the substantiation and regulation of health and related claims on foods.

Enforcement of the regulations through a claims system was proposed to be implemented by a sub-committee (ISC) made up of representatives from all Australian States and Territories, and from New Zealand. Environmental health officers, as the designated enforcement officers, will be charged with the monitoring of compliance with regulations (FSANZ 2004).

As previously stated, food manufacturers will be permitted to use health and related claims to promote their products in the near future (Australia and New Zealand Food Regulation Ministerial Council 2003). It is arguable that the availability of this information will benefit consumers by providing them with the option of more

information with which to make informed choices in food purchases, but it is equally important that this information be trusted by consumers (Byrd-Bredbenner et al.. 2000; Garretson and Burton 2000; Tee 2000; Bovens and Zouridis 2002) .

Research, described in the following sections, 2.3 and 2.4, has pointed to several potential areas of concern. These included that consumers have been shown to place higher importance on the fat content without considering other nutrients such as sodium or cholesterol, consumers can be misled by some types of nutrition claims, as well as swayed by claims accompanied by a recognized symbol such as the Heart Foundation Tick (Byrd-Bredbenner et al.. 2000; Garretson and Burton 2000; Paterson et al.. 2001; Bhaskaran and Hardley 2002; Paterson et al.. 2002; Cowburn and Stockley 2004) .

It is important, therefore, to recognize that consumers may be influenced by the information provided on labels, and such information must be stringently monitored for accuracy and substantiation of nutrition, health and related claims. For optimal benefit to the consumers to be realized, the information must not only be correct, but trusted by the consumer.

The environmental health officer, in his role as protector of public health through enforcement of the regulations regarding nutrition, health and related claims, are likely to contribute significantly to the level of trust that consumers place on the information on food labels (Paterson 2002).

2.3 Consumer understanding of food labelling

The potential health benefit to consumers through the appropriate use of claims on food labels is constrained by many factors. Poorly presented information may confuse consumers, and potentially lead to misguided food choices and lack of trust in labels (Byrd-Bredbenner et al.. 2000; Garretson and Burton 2000; Cowburn and Stockley 2004).

Paterson et al.. (2001) highlighted that even when poorly understood, consumers rely on the information on labels when making purchases. The authors' qualitative study, which was undertaken for the Australia New Zealand Food Authority, was conducted with 18 consumers groups in Australia and New Zealand. A total of 133 participants were selected on the basis of their responses to a questionnaire designed to record the demographic and other details the sample. Participants were stratified by age, health consciousness, socioeconomic status, sex, location, and cultural/ethnicity factors. The group procedure was structured so that participants were shown pictures of basic food labels and given self-administered questionnaires to assess individual understanding of the information on the labels. Subsequently, group discussion took place, and participants altered perceptions were recorded. Results indicated that there was a lack of understanding by consumers regarding how to interpret many basic food labels and that other labels, such as nutrition claims, were used by consumers in the absence of confidence in or actual understanding of this label information. The authors' argued that the understanding of nutrition labelling by consumers is patchy, consisting of pieces of information garnered from the media, and through word of mouth. The results also showed that consumer knowledge of how to interpret the information on the nutrition

information panel (NIP) was poor, and that most consumers paid attention to only one or two preferred items, such as fat or carbohydrate content, ignoring the rest of the information.

However, studies also found that consumers like having the nutrition claims as an aid in deciding between two similar products, and in that respect, the nutrition claims influence their purchases (Bhaskaran & Hardley 2000; Paterson et al.. 2002).

Consumer skepticism regarding the claims was also reported. Consumers expressed the belief that a claim on one product does not mean it has more nutritional benefit than a similar product without a claim, but that the manufacturer was trying to “dupe” consumers into thinking that it did (Paterson et al.. 2002). This raises a concern that consumers may distrust nutrition, health and related claims on if strong government enforcement of such claims is not in place.

2.4 Consumer trust in food labelling

Consumers’ level of trust in the information on the label is influenced by logos from respected organisations such as the Heart Foundation Tick, or an endorsement from Weight Watcher’s, while they tend to doubt claims put there by the food manufacturer (Garretson & Burton 2000). Bhaskaran & Hardley (2002) found that 80% of respondents in the focus groups of grocery shoppers did not trust manufacturers’ claims. The authors argue that this indicates consumers have more faith in messages coming from organizations involved with health and well-being than in the marketing tools employed by industry to sell goods. Nevertheless, consumers may buy a product on the

strength of the claim, even though they may be doubtful about its veracity, since they have no other information on which to make a judgment.

Research from Levy, Derby and Roe (1997) evaluated the effectiveness of the communication of information on health claims using mock product packages. The results revealed that consumers may respond to health claims in unexpected ways, for example, claims that provided information that was new to the consumer was received more positively than claims providing information familiar to the consumer. The authors argued that consumer's prior experience and beliefs have an effect on their response to new situations; this may impact on consumer's attitude toward, and acceptance or use of, health claims. Levy and his colleagues found that a complex interaction of prior knowledge, judgment about products and compelling-ness of the claim influenced consumer attitudes to health claims. The study findings suggested that consumer responses indicate that they doubted that health claims served the public's health. Instead they reported that consumers judged health claims in a similar way to an advertisement, as a selling point for industry.

2.5 Environmental health officers and food labelling

Environmental health officers, as the front-line monitors of nutrition, health and related claims, will, through action or inaction, have an impact on how the public perceives the health claim regulation policy. Enforcement of label compliance has been reported as poor in the past (Williams et al., 2003). Thus the ultimate trust held by consumers in the messages presented to them may be in the hands of the enforcement officers.

Prior beliefs are known to influence judgment regarding a new situation, both of consumers and of the enforcement officers (Koehler 1993). Such beliefs may affect how those responsible for monitoring will judge health claims. Positive or negative attitudes toward a health claim in general (by a monitor) increases the likelihood that the monitor will judge the claim favorably, or unfavorably. This attitudinal influence has been reported to affect even expert scientists, trained to be objective, as often as the typical consumer (Koehler 1993; White et al.. 2003). Monitors are themselves consumers. It is of concern that the phenomenon of varying amounts of trust placed in messages from different sources, coupled with the attitudinal influence described, may influence the monitors' decision making in either a positive or negative direction when judging claims.

A study conducted for The Australia New Zealand Food Authority involved stakeholder groups including environmental health officers in Australia and New Zealand (Paterson et al.. 2002). This study was considered to be especially relevant as it was specific to environmental health officers working in the area of food safety; however, it was not a peer-reviewed publication. In depth face to face interviews with food safety and environmental health officers investigating a range of themes were conducted yielding information regarding the relevant importance given to food labels, issues of concern and satisfaction with regards to labeling changes, and perception about enforcement and education. The sample comprised public and environmental health officers, senior food officers, and food safety public health officers from local government authorities in Sydney, Melbourne and Perth. Recruitment criteria ensured a mix of environmental health officers with varying experience working in public/environmental health. Self-completion questionnaires captured individual awareness of labeling changes prior to

the face to face interviews, which varied in length from 30 minutes to one and a half hours. A total of 38 food officers took part in this study.

In response to the new provision of the FSC, environmental health officers expressed the opinion that labelling elements (health claims) are of lesser importance than food safety and hygiene, and that labels directly related to health and safety (allergen labels, date marks) are more important than Nutrition Information Panels. Further, the environmental health officers expressed worries regarding training, time, anticipated difficulty in challenging claims, and that there needs to be more consumer education on using information on food labels is of concern

2.6 Theoretical framework

This section will describe a theoretical framework, developed by Lipsky (1980) which has been found useful in analyzing work practices of public servants, and the ways in which such work practices influence the implementation of policy or regulation.

2.6.1 Framework of Street-Level Bureaucracy

The idea that public servants have a direct influence in shaping policy was first presented in Lipsky's (1980) seminal work on street-level bureaucrats. He defined the term *street-level bureaucrats* as those employees working in public service with a high degree of autonomy, who have a high degree of interaction with the community.

Examples of street-level bureaucrats are social welfare workers, police, teachers, legal service workers, or other workers who interact with and dispense benefits to the public.

His argument was that these workers use their professional expertise to address the needs of their clients; they must enforce sometimes vague policy which is open to interpretation; enjoy a high degree of discretion in decision making and are not closely observed in the workplace; and develop coping techniques to manage the constraints of the workplace.

Lipsky (1980) described public servants as street-level bureaucrats, often under-staffed, yet their capacity to shape the policies they are charged with enforcing gives them a substantial amount of responsibility. Such employees work at the interface between the community and government, and in their work practice 'deliver' government policies to the community. The "best" work practice, for example enforcing policy to the letter, means that the intended full benefits of the policy will be realized by the public.

Conversely, less than best work practice can create a continuum where perhaps only minimal benefits of the policy will reach the community.

Lipsky (1980) theorized that in their position at the interface between government and the public, street-level bureaucrats may experience a dilemma in trying to meet their organization's expectations as well as the expectations of the community they serve.

Difficulties can arise when the street-level bureaucrats' capacity to meet the expectations of their management or the community falls short, or when his/her own interests or perception of the value of the work differs from that of management (Lipsky 1980).

Lipsky (1980) suggested that street-level bureaucrats develop strategies to minimize the frustrations rising from the negative aspects of the job. They do this in an attempt to cope with the demands of their role, and perform their duties in a way that adequately meets the expectations of both their organization and their community.

As bureaucrats operating at the interface between government and the public, this thesis proposes that environmental health officers will, consciously or not, have an impact on how the public perceives the health claim regulation policy. The ultimate trust held by consumers in the messages presented to them could be considered to be in the hands of the enforcement officers. The officers' responsibility to the public for protecting consumers' right to truthful information will be juxtaposed with responsibility to their employer to perform their job as directed.

Lipsky's linking of policy, structure within organizations, effect of resourcing, and individual practice in his theory of how implementation of policy is altered by street-level bureaucrats' behaviour provides a sound basis from which to examine the practices of environmental health officers. While Lipsky's theory may not fully explain the behaviour of all front-line workers, school psychologists, social workers, and nurses were seen to employ the coping and rationing mechanisms described by Lipsky to manage their workload (Summers and Semrud-Clikeman 2000; Ellis et al.. 1999; Bergen and While 2005).

There has been criticism of Lipsky's position. Howe (1991) argued that Lipsky was incorrect in his view that workers at the front line have discretion in their work practice. He argued that work practice was not dictated by individuals but through managerial direction and policies as much as limited resources. However, findings from studies exploring the behaviour of street-level workers have shown that while individual workers may differ in their use of discretion, autonomy in the work place was key in how these workers prioritized the services they delivered (Nielsen 2006; Meyers et al.. 1998; Bergen and While 2005).

2.6.2 Environmental health officers as “street-level bureaucrats”

Environmental health officers can be thought of as “street-level bureaucrats,” the phrase coined by Lipsky (1980) to describe the public service employees who act as intermediaries between the public and government agencies. In this role, officers are accountable to both their superiors (employers) and their clients (consumers) within the context of values, morals, and expectations (Vinzant and Crothers 1996). The autonomy possessed by enforcement officers in delivering services to the public shapes the character, flow-on effects, and perceptions of government policies, for example the policy regarding nutrition, health and related claims, by the community they serve (Vinzant and Crothers 1996). In their understanding of the health claims and subsequently, seeking substantiation for claims where appropriate, and in their diligence in monitoring such claims they will, consciously or not, have an impact on how the public perceives the new claims regulation policy.

The officers’ responsibility to the public to protect consumers’ right to truthful information will be juxtaposed with responsibility to their employer to perform their job as directed. This may cause conflict, since they are performing duties independently, under pressure and time constraints, and they may feel under-prepared to make the decisions about the veracity of claims. These conflicts may impact on the use of discretion by environmental health officers in prioritizing their workload duties, and further, in enforcing regulations. Lipsky, (1980) in his theory of street-level bureaucracy, argues that public service workers such as environmental health officers have discretionary power to enforce regulations, and their use of this power can shape policy.

As the environmental health officers will be required to protect consumers from unsubstantiated or inappropriate claims, they can be described as advocates for consumers (FZANZ 2004). By the same token, through monitoring the appropriate implementation of this regulation, they are acting to protect those in the food industry who comply, through identifying and reporting those companies making claims that do not comply with the regulation. However, as Lipsky (1980) discusses, there are often few resources available to street-level bureaucrats. Their advocacy role is at risk of being compromised by the time constraints and other demands placed on environmental health officers.

In order for street-level bureaucrats to do a good job even when conditions are not conducive, Lipsky (1980) argues that they devise practices of working to simplify the complexity of demands placed on them. These practices, while serving to enable the street-level bureaucrats to get the job done, may alter the policies being delivered to the consumer. It could be speculated that an officer in doubt about the strength of a claim, how to obtain substantiation, or initiate prosecution, may either err on the side of the consumer or the industry. The concern is that, food nutrition and related health claim monitoring will “fall off the list”, and neither the interests of consumers nor food industry will be served.

More recent studies have used one or more aspects of Lipsky’s framework to focus on street-level bureaucrats’ work practice and its effect on policy implementation (Ellis et al., 1999; Taylor and Kelly 2006; Evans and Harris 2004; Meyers et al., 1998; McBeath and Webb 2002; Smith and Donovan 2003; Jewell and Glaser 2006). These studies have partly explained how discretion, coping mechanisms and motivation of street-level

bureaucrats lead to discrepancies between policy goals as written and how they will be implemented.

Studies examining the use of discretion by social workers and school psychologists have corroborated Lipsky's (1980) assertion that street level bureaucrats use discretion in their daily work practice in order to manage a sizeable work load under often trying work conditions (Ellis et al.. 1999; Taylor and Kelly 2006). Other findings have corroborated Lipsky's (1980) theory that discretion was used in the work place, for example in the practices of social workers where coping mechanisms are used to ration their services to clients (Ellis et al.. 1999; Evans and Harris 2004; Taylor and Kelly 2006). However, it has not yet been resolved whether this discretion leads to more positive or negative outcomes in policy implementation. Constraints and pressures both internal and external to the work place have been observed to have a negative effect on the ability of welfare workers to fully implement the policy designed to better address their clients' needs (Meyers et al.. 1998; McBeath and Webb 2002; Smith and Donovan 2003; Jewell and Glaser 2006).

Contrary to Lipsky's (1980) reasoning that street-level bureaucrats employ these mechanisms to minimize work frustrations, observations by others suggest other reasons for the use of coping mechanisms. There is evidence that while welfare workers are under pressure from bureaucracy to achieve certain goals, they are motivated by a desire to maximize their sense of work satisfaction (Brodkin 1997; Keiser 1999; Maynard-Moody 2000; Summers and Semrud-Clikeman 2000; Wood 2003; Neilsen 2006).

Further, other researchers have shown that the motivation for use of discretion by front line workers, for example police and rehabilitation workers, may be directed by client

needs over accountability to policy or their supervisor (Maynard-Moody 2000; Riccucci 2005). Similarly, other studies revealed that street-level bureaucrats used discretion in service delivery through judgments based equally on perception of client readiness or need and on political or organizational factors (Weissert 1994; Brodtkin 1997; Walker and Gilson 2004).

Effective policy implementation is dependent on more than good intentions of policy makers, or the actions of those at the frontline of implementation. Clarity of policy goals, along with thorough direction on how to implement policy, has been recognized as crucial to the process of policy change (Hill 2003; Bergen 2005; Walker and Gilson 2004; Wood 2003). Research suggests that beyond the provision of sufficient resources, policy implementers must have a thorough understanding of the reason for change, in order for the best outcomes to be realized (Meyers et al..1998; Hill 2003; Walker and Gilson 2003). Evidence suggests that policy implementation is at risk of negative interpretation by the implementers if they receive insufficient guidance throughout the policy development and implementation process (Bergen 2005).

2.7 Critical reflection on the evidence

As mentioned previously there is very little literature specific to the subject area of this research, environmental health officers and their work practice. Moreover, little of what has been published has been peer-reviewed. Paterson et al.. (2001) provided substantial information pertaining to consumer understanding and use of food labels, and subsequently Paterson et al.. (2002) explored environmental health officer's attitudes regarding the importance of labelling, and their concerns about their potential role in

challenging such labels. These studies involving consumers and environmental health officers which provided much of the evidence on consumer use of food labels and the role of environmental health officers, was prepared for FSANZ and not published in a peer reviewed publication.

The present study attempted to address the gap in current knowledge regarding the factors influencing the work practice of environmental health officers as front line workers. There is body of peer-reviewed literature that has utilized Lipsky's theory of street-level bureaucracy (1980) to examine the influences on the work practice, and subsequent outcomes in service in social work, welfare work, education and nursing. While these studies are not specific to the area of environmental health or food safety, the findings were useful as comparative reference for the discussion of the results of the present study.

While Howe (cited in Evans and Harris 2004) criticized Lipsky (1980), suggesting that workers do not in fact have the level of autonomy that enables them to determine their own work practice, there is significant corroboration for Lipsky's theory found in peer-reviewed study outcomes over the past two decades highlighting the use of discretion as a coping mechanism in managing workload by social workers, teachers, and nurses (Ellis et al.. 1999; Riccucci 2005; Maynard-Moody and Musheno 2000; Taylor and Kelly 2006; Walker and Gilson 2004), and the impact on service delivery in school counselors, nursing and welfare (Weissert 1994; Brodtkin 1997; Bergen and While 2005; Meyers et al.. 1998) support the present researcher's use of Lipsky's theory of street-level bureaucracy to explore the experiences of environmental health officers in

their work practice in order to add to the current knowledge of work practice in front line workers.

2.8 Summary

In summary, Australia, and New Zealand are in the process of setting regulations for nutrition and health claims on food labels. One reason for this is an increasing demand from consumers, who want more nutritional information to be on food labels to aid them in making informed decisions about food purchases. The food industry understands the benefit of using health claims on food labels to promote their products as having health benefits. Making appropriate dietary choices can lead to positive individual health outcomes, and conceivably better public health in the long run, but there are impediments to overcome.

Without sufficient education, consumers are liable to misinterpret what they read on the labels, possibly even attribute health benefits to foods where they are not warranted.

Time constraints may mean consumers choose foods because of a particular claim made on the label, without verifying the claim by reading the nutrition information panel, and if nutritional information panels are not standardized, comparison to other products may not be easily done. Other complex factors also come into play, such as in whom consumers place their trust, and attitude toward health claims.

The monitoring of claims by enforcement officers is, as yet, untested. The factors influencing the enforcement officers' decisions about claims are many. Time constraints, perception of relative importance in comparison to food safety issues, lack

of training, prior beliefs and attitudes toward health claims, may affect enforcement officers as they do consumers.

The officers' perception of their role as bureaucrat, or as the intermediary between government and the general public, is an area worthy of study, as the enforcement officers carry the responsibility (consciously or not) of protecting consumers' right to accurate information on food labels, as well as preserving consumers' trust in the labels and thus in the organizations that place the claims on labels. Without consumers' continued belief and trust in the information provided on labels, there is the very possible risk that the valuable information available to consumers will go unheeded, misinterpreted, or misused, leading to detrimental outcomes.

2.9 Conclusion

Exploration of the many factors that influence enforcement officers' practice of their role as monitors of compliance with the regulatory system of nutrition, health and related claims is warranted, as they may have a significant impact on the potential benefit these claims offer consumers. This exploration may also provide insight into the process of policy implementation at the interface of public and government.

The enforcement officers can be thought of as "street-level bureaucrats" (Lipsky 1980), public service employees who act as intermediaries between the public and government agencies. In their role monitoring compliance with proposed health claim regulations, the enforcement officers will, in effect, deliver the policy regarding new claims to the public. The enforcement officers' perception of their role in policy delivery and

compliance may influence how they perform their duties. In this role, officers are accountable to both their superiors (employers) and their clients (consumers) within the context of values, morals, and expectations (Vinzant and Crothers 1996).

Chapter 3 Methods

3.1 Introduction

This chapter will describe the methods used to examine and explore how environmental health officers prioritize their workloads. The study design, the way in which potential participants were identified, recruited and how the sample of participants was selected is also described. Following that, the method of data analysis is outlined.

3.2 Conceptual Framework

A combination of qualitative and quantitative methods was chosen for this exploratory study. Statistical data was collected and analyzed quantitatively; however, a qualitative approach was utilized to obtain and analyze participants' interview responses. Ezzy (2006) describes the qualitative approach to research as asking questions in order to find out *why* rather than *how many*. Examination of the meaning given to actions can lead to a better understanding of why people do what they do; the interviews and thematic analysis employed in qualitative methods generally concentrates on the experiences of individuals, or those of a small group (Ezzy 2006). Van Maanen (1982) encapsulated the purpose of qualitative research as being based on the assumption that the researcher does not have a good understanding of the meaning of a particular behaviour until a description of the context in which the behaviour occurs is obtained from the perspective of the person performing the behaviour. This assumption is reflected in the conceptual framework for this study, using the workplace as the context which shapes the behaviour of environmental health officers.

This study aimed to investigate the work practices of environmental health officers, specifically how they prioritized their work duties. It was first necessary to understand the workplace, for example working conditions and constraints, and the possible effects on the environmental health officers and consequently their work practices. A qualitative research method allowed important information about the situational effects of workplace and internal and external impacting factors to be captured that would otherwise escape analysis.

Thus the focus of the study was on environmental health officer's descriptions of their everyday work practice with exploration of the discrepancy between ideal practice (stated Food Standard Code objectives) and actual practice of food regulation enforcement. The officers' descriptions were obtained through semi-structured interviews which allowed participants to convey their opinions. This process of open-ended questions removes the limits imposed by provision of a range of response options. The descriptions were analyzed within the broader policy context of the Food Standards Code. Lipsky's (1980) theory of street-level bureaucracy was used as a framework for data analysis.

Two quantitative instruments, Karasek's Job Decision Latitude Scale (Karasek 1998), and Ganster's Control Scale (Dwyer and Ganster 1991), were administered to participants as validated standardized measures which could be analysed to identify the degree of consistency between participants responses to the interview questions regarding autonomy in the workplace. These scales were provided to the participants to be completed before the interview took place.

3.3 Sampling

A non-probability purposive sample was selected to capture a sample most likely to bring to light the work practices of interest. The study sought individuals employed as environmental health officers in New South Wales, Australian Capital Territory, and Queensland. In addition, officers with varying degrees of experience in these positions and employed by both the State and local governments were sought. The number of participants interviewed was determined by two constraining factors, time and anticipated data saturation, the point when no new information is obtained from participant's responses to question (Strauss and Corbin 1998). It was anticipated that 30 interviews would accommodate both factors, and interviews were scheduled with the first 39 environmental health officers to respond. One participant was not interviewed due to scheduling difficulties, and one interview was not recorded due to technical difficulties. In total 37 interviews were used for analysis.

Qualitative research does not require that samples be chosen to adhere to random probability. Qualitative research attempts instead to gain a deep understanding of a particular phenomenon, often focusing on the practices of people in a specified context and the meaning attached to those practices (Ezzy 2006). However, results from qualitative research may not always be generalisable to the population from which they were taken.

3.4 Procedure

A total of 309 councils in NSW and Queensland were sent letters requesting permission to recruit environmental health officers for this study (Appendix 1). Letters were addressed to the Manager of Environmental Health. Similar letters were sent to the appropriate contacts at the NSW Food Authority, Safe Food Queensland, and the ACT Health Protection Service.

A total of 71 responses was received from local councils and state authorities. Of these, 55 local councils from NSW and QLD granted approval for the study, 13 said no, and all three state authorities granted approval. The reasons stated for not granting approval included: “we currently have no environmental health officers on staff”; “currently have not trained staff”; “do not wish to participate at this time”.

Affirmative responses were followed up by telephone or email, in order of receipt of approval, and contact details of the environmental health officers responsible for food safety were sought. Contact details of potential study participants were provided by the manager, or appropriate team leader. Depending on the number of environmental health officers employed at each council, an attempt was made to contact officers with varying years of experience, for example one senior and one junior officer.

Information about the study, along with a consent form, was provided to the nominated officers through email, and interested officers were invited to contact the investigator via email or telephone to confirm their willingness to participate in the study. Upon receipt of the signed consent form, interviews were arranged at a time convenient for

the officer. Samples of the information letter (Appendix 2) and consent forms (Appendix 3) are included.

3.5 Sample description

In total, 51 signed consent forms were received. A sample of 23 males and 14 female environmental health officers were interviewed. 22 were senior environmental health officers, 15 junior: 28 were employed by local council, 9 by the State, 21 were from NSW, 12 from QLD, four from ACT. 22 worked for rural councils, 15 for urban councils. As described earlier, the number of participants selected for inclusion in the study was determined by time restrictions and the anticipated saturation point for the qualitative data. The consenting officers who were not included in the study were thanked for their interest, and their details were stored for possible future studies with their consent.

3.6 Interviews

One-on-one semi-structured interviews were conducted by the researcher either at the environmental health officer's workplace, if feasible, or over the telephone. One-on-one interviewing, as opposed to a mail-out survey, offered the advantage of ensuring the officers gave full and accurate answers to question, any clarification of the meaning of questions could be dealt with immediately, thus improving the quality of responses, and therefore, the data produced. The interaction between the investigator and the interviewee in the one-on-one interview setting allowed for responses, especially those that were unexpected, to be pursued in depth, thereby decreasing the occurrence of

misinterpretation of responses, and increasing the ‘richness’ of the interview data. Respondent interviews are particularly useful when gathering information about processes that cannot be observed effectively by other means (Lindlof and Taylor 2002).

All participants were reminded before commencement that the interview was being audio-taped, as they had been informed previously during the recruitment process. Interviews varied in length from 25-60 minutes with the average being 40 minutes. Telephone interviews were conducted from a private office at the University of Wollongong, to the environmental health officers’ offices. A Digital (Olympus DS-2200) recorder along with a back-up cassette recorder (Sony TCM-939) were used to audio-tape all interviews.

3.6.1 Interview Structure

Information regarding sex, years of experience and other demographic information was standardized. A free-flow approach using pre-determined questions was used to gather responses from officers. These responses were explored and further questions probed responses to gather a rich set of data. The free flow process allowed the pre-determined questions to be asked in varying order to adapt to the flow of information from interviewees. Unanticipated answers provided the interviewer with areas to ‘probe’ in subsequent interviews with other participants (Glesne and Peshkin 1992). The use of a pre-determined schedule of questions meant that while the questions could be asked in varying order, in relation to the progression of each interview, responses could be directly compared across the entire sample (Lindlof and Taylor 2002).

Questions included in the interview schedule were open-ended, providing the environmental health officers with the latitude to answer freely, using their own interpretation of the question, without being led by the interviewer in their response. The questions related to three topic areas. The broad topic areas included a description of current duties, the officer's perception of the value of their role in the community and a description of their daily work practice. A copy of the interview schedule is included in Appendix 4.

3.7 Measures

Environmental health officers responded to questions regarding the amount of freedom they had in carrying out their work duties. In addition to this qualitative data, Karasek's (1998) Job Decision Latitude scale (Appendix 5) and Dwyer and Ganster's (1991) Work Control Scale (Appendix 6) were employed to standardize interviewees' reported levels of decision making latitude, or autonomy within their work practice. The participants were electronically provided the questionnaires to be completed before their interviews were held. The questionnaires were returned electronically or by fax. These self-administered instruments have been designed to assess social and psychological characteristics of jobs. In this study these two scales were used to measure the interviewees' perceived control over their work practice. Both instruments use Likert scales; participants answer each question on a scale anchored with "very little" through to "very much", or "strongly disagree" through to "strongly agree".

3.8 Data Analysis

3.8.1 Qualitative Data

All interviews were transcribed from the audio-tapes by the researcher as part of the on-going process of data collection. Transcripts were then coded and analysed. Coding, by one coder only, and data analysis took place in conjunction with the interview process. In so doing, responses from early interviews in some cases, led to areas of interest being probed in later interviews with other participants.

Analysing the interview data gathered in this study involved repeated reading and thematic coding of interview transcripts as described by Strauss and Corbin (1998). The thematic coding was performed using QSR NVivo 7 software package which allowed the storage, coding and retrieval of data. The conceptual development of themes emerging from the data was achieved through analysing, coding and categorization of repeated ideas or phrases expressed by interviewees. Coding was performed by a sole researcher.

3.8.2 Quantitative data

The quantitative data obtained using the Job Decision Latitude Scale and the Work Control Scale were collated using SPSS 15 for Windows.

3.9 Rigour

Qualitative research methods are often used to provide more in-depth and contextual understanding than quantitative surveys. Qualitative studies, in consequence, often use small sample sizes with very detailed data in order to explore participants' perspectives (Seale 2001). Given that qualitative studies often are based on small samples, and are strongly grounded in the experiences of the participants, demonstration of rigour, or trustworthiness of findings, is especially important. The validity and reliability of research findings are critical in establishing the rigour, or trustworthiness of the findings. The trustworthiness of the findings of this qualitative study is demonstrated in the detailed description of sampling, data collection and data analysis. Comparison with findings of previous studies examining similar professions also contributes to demonstrating reliability.

The study sample, for example, comprised field and senior environmental health officers from three states, at state and local government level, included participants with a wide range of experience. This study succeeded in gathering data from both management and field officers, and provided a cross-section of the perspectives from all levels of the work force.

Data analysis involved one researcher repeatedly reading the interview transcripts, removing any variations in interpretation of the data. The participant responses were coded with the aid of a qualitative software package, NVivo, which enabled more rigorous analysis of the emerging themes in the data to be undertaken. The systematic coding of the data allowed the dominant themes to be exposed.

While the findings from this study may not be generalized to the whole of Australia, the consistency of these findings with previous studies examining the work practices of similar professionals adds to the trustworthiness of the results.

3.10 Ethical Considerations

Approval to conduct this study was gained from the University of Wollongong's Human Research Ethics Committee. In order for research to comply with ethical standards, participants consenting to participate in a research study must do so freely, being fully informed of what is being asked of them. The University of Wollongong Human Research Ethics Committee Application and additional telephone interviewing Policy required the researcher to address the following:

- Choice of using telephone interviews (intrusive) over another method of data collection
- Provide appropriate referral protocol for people who experience emotional distress as a result of the interview, or the request for the interview to minimize potential for psychological harm

To ensure informed consent, all potential participants were given:

- Written information regarding the interview process including reasons for the study and inclusion criteria
- Nature of the proposed question, length and number in interviews
- Detailed information on what was expected of participants in study
- The option to refuse to participate
- The option of withdrawing from the study at any time without prejudice

These steps sufficiently met the criteria for approval of the HREC application. An interim feedback report, in the form of a presentation of the study's preliminary results, was presented to the New South Wales Food Authority in December 2006.

Chapter 4 Results

4.1 Introduction

This chapter describes how environmental health officers prioritized different components of food regulation enforcement in the context of their overall workload. The specific objectives were to determine what is included in the environmental health officers' duties, how environmental health officers prioritized their duties on a daily basis, whether priority was related to their organization's expectations, whether training or background influences priority making, and lastly, whether the value that environmental health officers place on the contribution they make to the community influenced their work practice. This chapter commences with a description of environmental health officers' duties, and then reports on how environmental health officers prioritized their workload. Also outlined and discussed is the way that organisational expectations, training and background influence priority setting, and work practice. The value that environmental health officers place on their contributions to the community and industry is also considered.

4.2 Environmental health officers highest level of training

Table 1 shows the education of the officers by seniority.

Table 1 Environmental health officer training and background

Education	Field Officers/new officers (n = 15)	Senior Officers (n = 22)
University degree	12	11
Diploma or other	3	11

The training undertaken by environmental health officers varied a great deal, with senior officers having the greatest diversity. Due to the evolution of environmental health officer training, senior officers, regardless of jurisdiction, were more likely to have trained as health and building surveyors, health inspectors, or completed certificates or diplomas in Environmental Health and Building.

As illustrated, a larger proportion of senior officers did not hold a university level qualification. Senior officers who were generally older and started their career earlier, often beginning as tradesmen before formalising their accumulated experience by completing the TAFE level Certificate or Diploma in Environmental Health and Building. These qualifications have now been replaced by the more common Bachelor of Applied Science in Environmental Health, which the majority of younger officers had completed.

The study was designed to capture a sample population of environmental health officers with a range of experience. The results can be seen in the following table, which illustrates the total years of experience of field and senior officers in their current role.

(Table 2)

Table 2 Environmental health officers' years of experience

Years experience	Field Officers/new officers (n=15)	Senior Officers (n= 22)
Less than 2 years	4	2
2-5 years	1	3
5-10 years	6	1
More than 10 years	1	6
More than 20 years	3	10

As shown, 73% of the senior officers had more than 10 years experience in the job, as compared to the field officers, where 73% had less than 10 years experience. These results would suggest that seniority is determined by number of years of experience, rather than level of education.

4.3 Environmental health officers' portfolio of work

This section explores the range of environmental health officer activities and the factors that impact on them.

The sizeable work load shouldered by environmental health officers encompassed their role as protectors and promoters of good health, hygiene and environmental practices through monitoring, regulating and enforcing the standing laws and regulations governing public health. Environmental health officers in all regions reported a work programme seemingly designed to be holistic in its approach, comprised of three main areas of activity: food safety, protection of environmental and public health, and education. Within these three areas there was a broad range of activities that differed in relation to jurisdiction, locality, or seniority.

Officers worked proactively through their routine inspections of those premises posing a risk to the community's health, in their role in enforcing compliance with building codes, and by educating food handlers in proper hygiene. In addition, they worked reactively to investigate complaints arising from the community, for example with regard to possible food contamination or poisoning, or environmental hazards such as noise or air pollution. Decisions regarding the priority of daily activities were based on a mixture of risk assessment, complaints from the public, crisis management, and enforcement of regulations. A summary of the work load of environmental health officers can be seen in the following table (Table 3).

Table 3 Environmental Health Officers' duties

Food Safety	Environment and Public Health	Education & Information Dissemination
Investigation of food complaints: how food is prepared, stored or served	Monitor/control water, air and noise pollution, water sampling for chemical/microbiological analysis	Food hygiene education seminars
Inspection of food processing factories, dairies, shops & cafes	Risk assessment for anything impacting on community health	Prepare policy documents, guidelines brochures relating to environmental health
Food sampling for chemical /microbiological analysis	Investigate and manage significant incidents concerning public health (outbreaks of infection & communicable disease)	Immunization campaigns targeting infants, children and adults
	Audit/license public entertainment areas for fire safety, seating capacity and sanitary facilities	Health promotion programs for students, community and industry
	Assess building development applications for compliance with environmental and health standards	Provide advice, reports and expertise re: environmental health and well being to community
	Monitor houses, caravan parks & other public buildings for hygiene, overcrowding, ventilation, lighting, ablution facilities, waste disposal	Initiate and conduct environmental health impact assessments
	License and inspect skin penetration premises, beauty/hair salons	Maintain records, statistics, write reports, give evidence in court cases where health or environmental regulations have been violated
	Supervise exhumation of bodies, inspect mortuaries	Public information for print, radio& TV campaigns

4.3.1 Jurisdiction

NSW and Queensland State officers' reported that their duties were focused on food safety or hygiene complaints originating from the public or industry, audits of food and skin penetration premises i.e. body piercing and tattoo parlours, and food recalls when necessary. The State officers also reported that they advised the government on food safety issues by preparing ministerial briefs as requested. In addition, State officers liaise with other government organizations including the Environmental Protection Agency (EPA) and Australian Quarantine and Inspection Service (AQIS).

Local government officers reported a more community oriented role. As described earlier, the ACT is unique in having no local government therefore the only point of difference between officers is that of seniority or field title. Senior officers in ACT provided advice to government ministers on public health and environmental policy, whereas field officers in ACT have a similar role to local government officers in NSW and QLD, performing a wide range of duties, **not including providing ministerial advice.**

The magnitude and value of the duties included in the environmental health officers' workload can be illustrated by the following excerpt from a senior officer regarding the typical daily workload of a field officer:

"Huge, definitely huge. They are the first contact between the community and public health, their role is very important in providing advice to the community in relation to food safety, whatever..... (this) part of their role is very important, and they've got a very, very difficult job and tasks to perform in a single day." EHOS34 senior, lines 124-133

4.3.2 Locality

A number of factors affected field officers work load and the range of responsibilities, including the degree of urbanization, demographics and density of population, council strategic plan, and experience and seniority. Responses indicate that the specific environmental, structural, and physical health conditions and circumstances present in rural and urban communities significantly shaped workloads and responsibilities.

Environmental health officers in different settings provided a different range of services to address different needs, depending on the situational factors, for instance the degree of urbanization, population and other factors specific to their area. Officers in areas undergoing rapid growth reported that development applications and building inspections comprised a high proportion of their workload. Similarly, areas with a high tourist trade reported that health-related inspections of premises that carry a high risk to public health, for example food outlets or caravan park ablution blocks, made up a high proportion of their work day. The demographics of an area also affected an officer's workload. For example, higher numbers of young people or a higher population of elderly will be reflected in the number of child care facilities and nursing homes, both of which require stringent food safety and health inspections.

Rural and remote settings are often staffed by fewer officers, requiring those officers to develop and maintain a wide range of skills to deal with the variety of activities and emergencies that may arise within a large geographical area. Conversely, the increased population, trade and industry in urban areas often resulted in environmental health officers taking a specialized role, for example building inspection, environmentally relevant activities or food safety.

While working in rural/remote area may not be attractive to all environmental health officers, it was reported to have advantages. In more remote areas it was reported that the population and industry/commercial needs did not warrant a full-time environmental health officer. It was not uncommon for several remote area councils to contract one environmental health officer to carry out inspections and any other public health related or community complaint duties on a consultancy basis. An observation made by officers who had gained early experience in rural/remote localities was that novice officers who start their career in an urban area with the resources to employ a full staff of environmental health officers may suffer in the long term. If officers become specialized in one area only, for example new building applications, and do not have the opportunity to maintain a level of experience in other areas, such as food safety, the potential exists for their expertise, and their overall competence to become limited.

4.3.3 Level – Field vs Senior

Personal interaction with members of the community had an impact on the officers. Responses from local government field officers indicated that attending to counter enquiries, for example enquiries regarding building permits or local laws, was a major part of their work. There was general agreement among many of the local government officers that, due to their proximity to the community, that they were a ‘first stop’ for community enquiries, concerns, and complaints:

“.....we see ourselves as being a jack of all trades, master of none, we have quite a large responsibility of different things”

EHOS27 local field, lines 60-62

When asked “What takes most of your time?” local government field officers most often reported ‘complaint investigation’ and ‘routine inspections’. The types of complaints from the community included those categorized as nuisance, such as neighbourhood disputes regarding barking dogs and other noise complaints generally considered minor. Environmental concerns about fumes, odours, dust, sewerage or storm water and complaints about food premises or food handling were regarded as more serious and received priority. Thus, local government field officers’ duties were related to community driven issues.

Along with complaint resolution and routine inspections of premises that present risk to public health, building consents/approvals and customer enquiries in regard to them were also reported as requiring a great deal of local government field officer’s time, especially in localities of tourism and growth.

In contrast, local government senior officers reported more involvement with management, interaction with outside organizations and political influence.

Beyond those shared with field officers, State officers’ duties typically included liaising with the necessary elected members of council, talking to industry or schools regarding food safety and handling or environmental issues, and managing council projects in the community. The senior officer’s duties were reported as more organization driven and politically focused:

“....the focus is on key result areas, targets, always in the background, like that high risk issue is for the benefit of all, but as far as my day to day planning... to achieve the organizational goals would be the first priority...”
EHOS38local senior, lines 358-363

In summary, the participants indicated that the majority of the work activities of local government field officers were oriented toward responding to community initiated issues, with more direct contact with the local community through counter enquiries and phone calls. Local government senior officers reported more organizational and political duties, involved with strategic planning and management.

4.4 Environmental health officers' autonomy in setting work priorities

Officers at all levels indicated they had a great deal of autonomy in how they went about their work. Officers reported that they were rarely given direction by a superior as to how to perform their job. When asked if a supervisor or similar team leader directed their daily activities, typical responses were “we’re expected pretty much to run our own workload”, and often “No, we’re free to manage our own time depending on what’s required each day”. A more explicit reply:

“I guess it’s fairly open...our manager here repeats himself by saying we’re professionals, we can organize our own time... it’s up to us to meet the deadlines that we’ve been given, and if we have ability to take on more work we do that” *EHOS11 local field, lines 128-133*

Although many senior officers worked alongside field officers and performed the same duties, there were some that did have clear supervisory roles. Responses from these senior officers supported the assertion by field officers that they had autonomy to organize their work, as illustrated by the following excerpt:

“I don’t interfere with how the staff manage their work, but I may alert them to something that needs to be done sooner rather than later.”
EHOS36 state senior, lines 381-384

Although it was reported by field officers that they were responsible for setting their own daily activities, the last excerpt suggests that while officers have autonomy in general, senior officers may have some influence in how field officers set their daily priorities.

4.4.1 Autonomy as measured by survey instruments

The officer's verbal reports of perception of autonomy were confirmed by the results obtained from the two survey instruments, Karasek's Decision Latitude (Karasek 1998) and Ganster's Control Scale (Dwyer and Ganster 1991).

Table 4 presents the results from the Karasek Decision Latitude survey. A mean score for decision latitude items above 4 (scale of 1-5) indicates a high degree of autonomy in decision making, as can be seen in the average of 4.11 for the first question. The low mean score of 2.13 for the reverse question, "I have very little freedom to decide how I work", further indicates a degree of autonomy.

Table 4 Decision latitude

Items	N	Min	Max	Mean	Std. Dev
make decisions on my own	38	1	5	4.11	1.00
have very little freedom to decide how I work	38	1	5	2.13	.91
a lot of say about what happens on my job	37	1	5	3.70	.94

Table 5 presents the results of the Ganster work control scale. The mean score above 3.6 obtained for all work control measures indicated that the participants in this study had a high degree of control over their work practices.

Table 5 Work control

Items	n	Min	Max	Mean	Std. Dev.
Control over amount of work completed	38	2	5	3.68	.96
Control over speed of work	38	2	5	3.71	.87
Control over scheduling and duration of breaks	38	1	5	3.82	1.09
Control over how work is done	38	2	5	4.05	.77
General control over work and work related matters	37	1	5	3.68	.78

The mean scores for decision latitude and work control confirmed the environmental health officers' verbal reports of having autonomy over the organization of their work load. The benefit of autonomy was that it allowed the officers freedom to plan their activities. However, a high level of autonomy required the participants to make daily decisions about how to prioritize their work load duties. The factors reported by environmental health officers as influencing their decision making regarding priority are discussed in the following section.

4.5 Influences on environmental health officers' decisions in prioritizing their everyday workload

Participants reported that environmental health officers made daily decisions regarding the priority of the complaints and routine work coming across their desk. Risk analysis, or judging the consequence to public health due to lack of action, was reported as the overriding factor influencing all environmental health officers in prioritizing their work

load. The principal responses to the question “How do you prioritize your work load?” were related to public health risk, illustrated by the following excerpt:

“The assessment of risk of if we didn’t do it, which would have the greatest negative consequence?..... the septic tanks if people have failing effluent systems then it’s a high risk, high public health risk....same with food shops.” EHOS27 local field, lines 192-197

While legislation required the regular inspection of food and other premises monitored by environmental health officers, risk analysis was used to set the frequency of their inspections. High risk premises, such as nursing homes or child care centres, were inspected at least twice yearly, due to the high risk of spread of infection. Premises ranked as low or medium risk were inspected on a yearly basis. Officers reported using discretion when ranking the risk level ascribed to premises, raising the risk level if the particular premises had been problematic in the past. Through experience, officers made decisions about which premises needed more regular inspections.

It also was apparent from the interview data that local government officers rated complaints relative to the danger posed to the public. Events posing an immediate threat to public health were given highest priority. Environmental health officers cited events that required immediate action as sewerage spills, notifiable disease outbreaks, and foreign matter or bacteria identified in food necessitating investigation and possibly food recall.

The interview responses indicated that all officers, regardless of State or local government position, identified that the most important factor impacting on their work practice was the assessment of risk to public health and that they would respond first to incidents posing the highest danger in all areas of their work. The current regulations

pertaining to matters under the control of environmental health officers also dictated priority setting to an extent. For example, complaints pointing to infringements of State legislation, instituted to protect public health such as food handling, received higher priority than those concerning local government laws, which are more often of a “nuisance” nature such as barking dogs. However, officers reported that within the legal guidelines there were often times when it was necessary to use discretion, and to prioritize activities according to the risk posed. Working in this manner, environmental health officers appeared to be acting in response to a belief that their role was to protect the community’s health.

At the same time, the State officers’ responses offered a few exceptions to the persistent response that risk has the most influence on how environmental health officers prioritized their work load. One State officer’s response alluded to the sway that management and budget could have over work practice:

“Audits, because more audits brings in money. We charge for audits, but we don’t charge for complaint investigation, like ordinary inspections. So, I was told by the management, audits come first, then complaints.” EHOS37 state field, lines 131-136

This was echoed in the response of one State senior officer charged with directing the work load of field officers:

".....but one of the things they have to face on a daily basis is prioritizing their work.... you have audits which bring in an income, which you are paid with, on the other hand.... the customer service if you want to call it that, to deal with these complaints,... if you don’t do enough audits then we go broke and you don’t have a job,... balanced

against ... you've got all these complaints that the consumer's ringing up and saying why haven't you done my complaint?"

EHOS36 state senior, lines 272-283

The expectation that officers must generate income as a necessary component of running and providing services illustrates the influence that internal organizational expectations may play in officers' organization of their work load as illustrated in the following excerpt:

"I've had staff say to me "is the priority still the same this week?" We do this, this and this?... something else will crop up and we'll say we need to concentrate on this, and they say, so that goes ahead of this? They're constantly asking because management may change their priority, but they don't realize how it affects the staff to meet those priorities"

EHOS36 local senior, lines 285-292

Another notable departure from the principal theme of risk analysis suggests that organizational expectations were also influenced by external pressures, such as the media or from elected officials:

"Yes, that (risk analysis) comes into it a lot, but for State government it's more (the) consequences of what the media will do if we don't respond rather than what health effects it will have if we don't respond, or ministerial requests, things like that get priority because they usually have got very short time frames."

EHOS39 state field, lines 363-368

4.6 Environmental health officers' contribution to communities

Environmental health officers were unanimous in relating that their foremost contribution to the community was protecting public health. Their concept of public health primarily included food safety and the prevention of food borne illness, but it also encompassed prevention of the spread of illness, protection from environmental hazards and maintaining an environment in which the community can enjoy a healthy lifestyle. There was a consistent thread through the interview data of officers aspiring to contribute to the creation of a community where people not only felt confident that the food they bought was safe but their overall health was being guarded.

Officers regarded themselves as an invisible safety net preventing outbreaks of illness, achieved as a result of vigilance in inspection of food and other premises, educating food handlers on the correct methods of hygiene and storage and implementing health promotion programs in the community.

“...ensuring that the food that people buy, the consumers, is safe, and to the highest standard possible and also that premises are maintained in a satisfactory condition to prevent the outbreak of disease or food poisoning....cleanliness and hygiene is up to a decent standard....”

EHOS20 local field, lines 146-151

Officers felt they were independent watchdogs for the community's general well being. Second to their role in protecting the community from illness, officers reported contributing to their community's well being by resolving neighbourhood disputes and other complaints swiftly through their daily work practice.

“...we aim to protect the community’s health where we can, make their lives more satisfying...”

EHOS22 local field, lines 150-152

“...contact point for the community if they’re unable to resolve their issues with their neighbours as far as smoke, noise, dust, whatever in an environmental sense...”

EHOS27 local field, lines 305-309

While environmental health officers reported responding to the community needs on a risk basis, they also expressed the view that the community had a limited understanding of their role. State officers more frequently responded that the public had some understanding of the environmental health officer role, albeit perhaps incorrect and incomplete. The most senior State officers credited the public with a greater understanding than less senior State officers, and in turn, local government officers were least likely to credit the public with an understanding the environmental health officer’s role.

Whether the officers’ efforts to preserve the community’s health were driven by community demand was, therefore, not clear. The local government environmental health officers’ general experience with the community’s perception of what environmental health officers actually do was that there was little knowledge in the community beyond knowing that local government was there to handle all nature of queries and complaints. The low level of community knowledge about the environmental health officers’ work, as perceived by both the local government officers and the State officers, did not appear linked with the argument that officers’ prioritize their work according to community demand. Such demands were likely to be directed to the local government generically rather than to environmental health officers

specifically. Officers did, however, acknowledge that as they themselves were living and working as part of the broader community, and while they may not work in the same community in which they lived, they and their families benefited from the role performed by environmental health officers.

4.7 Environmental health officers views on their contribution to Industry

All officers stated that their role was of benefit to industry. A low incidence rate of food poisoning and food related illness was maintained, the officers' argued, by educating food handlers in best practice for hygiene, and keeping the food industry, as well as food vendors, aware of all current legislation and standards for food production and sales. Other ways in which officers reported making a contribution to industry were by assisting small businesses in getting started and demonstrating ways of remaining sustainable. In this way they felt they supported local employment and tourism, adding to the economic growth of their region.

However, they expressed concern that, in their efforts to promote industry or tourism, or through political pressure to do the same, some councils were in danger of neglecting the needs of the disadvantaged subpopulations in their community:

"...it's becoming more user pays, and those that pay, the big business owners..... probably get the services and the attention....a lot of the more warm and fuzzy type health promotion type things or looking for helping the socially disadvantaged which I believe the public health ethos is, is being overlooked."

EHOS06 local senior, lines 189-198

4.8 Environmental health officers' perception of obstacles

The description of a typical officer's workload prompted probing to determine if there was ever any worry about being able to complete all the required tasks. The responses indicated that there were several main obstacles identified by officers that could potentially lead to some duties "falling off the plate." Especially of concern to them was the threat to duties around food safety, illustrated by the following passage:

"...to think that there was... how little about food safety that's going on, probably in [State] across the board or probably in regional [State], I think if they (the community) knew, they'd be horrified..."

EHOS08 local senior, lines 396-399

The following excerpt is typical of many officers' statements:

"Local governments find it extremely difficult...budget limitations of course, and limitations in getting staff ... you do the best you can, you deal with the highest, most urgent things that you can deal with at the time, and at the end of the day there's always something that falls off the end...."

EHOS22 local field, lines 314-317

The obstacles noted by officers included organizational constraints, lack of adequate management, political pressure, "buck-passing" by the State and the complexity of legislation.

4.8.1 Organizational constraints

The size of the workload was an obvious challenge, but officers reported other obstacles, both internal and external in origin. From the officers' perspective, the unpredictable nature of their work, having to respond to complaints or handle arising crises that were never "scheduled", was the chief hindrance to getting work done.

"... one phone call in the morning of major consequence could change the events of the whole day, so you know, we can only direct the time to a certain degree..."
EHOS10 local senior, lines 102-106

Minor daily external interruptions typically occurring within local government came from often agitated members of the public, seeking information or lodging complaints.

"The community ringing up or coming into the office without making an appointment...[they] have a concern at that moment in time, so they're wanting to speak to someone straight away, rather than make an appointment ..."
EHOS15 local senior, lines 142-147

External events categorized as more serious by officers and requiring a substantial amount of time included cases of suspected food poisoning and environmental hazards such as chemical or sewerage spills. Emergencies such as these demanded immediate action, as described below:

" On that basis I will have virtually set up a team, organize a team with my managers and we'll then get to the field together and do the investigation, or take action..."
EHOS32 State field, lines 88-91

The internal organizational obstacle cited most often by local government officers as hindering them in performing their duties was working with reduced resources. This was reflected in a variety of responses. A lack of administrative resources, lack of qualified staff, and the geographical size of areas covered by an individual officer were commonly described as hindrances, yet apparently accepted as part and parcel of the job:

“...nobody’s going to give me a full time secretary but if I had one, I would be able to deal with a lot more of the sort of thing that I should be working on...” EHOS 01 local field, lines 323-327

Environmental health officers reported that an additional organizational constraint was the size of the environmental health teams within the councils in which they worked, and this affected their autonomy and priorities. Some officers reported they were located in stand alone units with several environmental health officers, while others indicated that they were sole officers, or that they were sole officers sharing their services amongst a number of councils. Where they were the sole officer, or worked across more than one council, the environmental health officers reported that they were located in a combined unit, sometimes in an unrelated department, under a manager with an agenda different from environmental and public health. Officers reported that this made it difficult to be effective in their role.

“...particularly if the environmental health officer is the only one in a council, you’re not just doing the EHO things, you’re doing everything else that doesn’t fall into the engineer, or the accountant. So there’s a perception there that sometimes can hold you back from doing some of the work that you should be doing...” EHOS30 senior consultant, lines 149-155

In larger teams, environmental health officers reported that emphasis was often directed to increased number of building permits, café licenses, and other trade requirements, hindering the amount of time environmental health officers used for public health tasks.

“...you’re being flooded with 300 development applications a year and you’ve only got 2 staff to handle them,... building work and that sort of thing... inspections, you can’t put that off, whereat a standard food shop inspection, that’s pretty easy to defer, and then all of a sudden, it gets down the list, and all of a sudden it’s not a priority anymore... I don’t agree with that philosophy, but it’s the reality in a lot of councils...”

EHOS08 local senior, lines 236-246

4.8.2 Lack of adequate management

As unanimously reported, officers had the autonomy to organize their work day with little input from team leaders. Officers were expected to manage their activities, and meet required targets, while containing the crises that occurred. While this freedom to control their workload was largely accepted and enjoyed by the officers, there were reports of difficulties that accompanied this autonomy.

Approximately one third of participants, in equal numbers of senior and field officers, reported that inadequate management, including a reported lack of guidance, variations in guidance (when provided), and variations in priorities set by supervisors was a more serious impediment than a lack of resources,.

“The things that hinder...not having a suitable qualified person to supervise us...”

EHOS06 local field, lines 136-138

“Variations in guidance, so one day you’re told to do it one way, and the next you’re told to do it another way, so you end up not sure of what exactly you’re supposed to do” EHOS22 local field, lines 114-117

Officers stated that directives from council varied often, depending on councilors’ priorities, council strategy, or available funding.

“...what’s a priority today might not be a priority tomorrow....makes it difficult to keep on top of everything..” EHOS22 local field, lines 121-124

4.8.3 Political Pressure

Slightly less than one third of the environmental health officers, in equal numbers of field and senior officers, reported political impediments to getting the job done.

Problems reported in this area included council or political interference and varying organizational goals. Further questioning shed light on the interfering nature of some elected local government councillors, demonstrated by an overly zealous interest in the daily practice of officers, or attempts to interfere in operational issues. This was more common in smaller organizations where environmental health responsibilities were positioned under the umbrella of a town planner, or other personnel with different objectives to environmental health officers.

“environmental health officers, in those smaller organizations, sometimes put under the management structure of an engineer, or a town planner, and occasionally the CEO,....don’t see the same level of urgency that we do” EHOS12 local field, lines 570-575

In addition, local government officers described local politicians pushing their own agendas, perhaps pressuring officers for a favour for a prominent businessman or a disgruntled member of the public.

“...where you were really pushed into policies, or decisions that were politically satisfying at the time for..... the political party that’s involved, so that can be a big hurdle ” EHOS11 local field, lines 577-580

The most extreme pressure was described as bordering on a veiled threat to an officer’s job if they did not follow through with the councillor’s wishes. Steps that have been taken to halt such inappropriate actions from council were noted, for instance the development of a code of conduct for councillors, workshops on bullying and intimidating behaviour, and where possible, locating council and environmental health officers in separate buildings.

4.8.4 Relationship between State level and Local level

Nearly half of local government officers interviewed expressed concern about the State’s capacity for “passing on” responsibilities to local government, adding to their workload, without providing support in the way of resources. Officers acknowledged feeling that their ability to take on duties that do not fit anywhere else, and their adaptability and willingness to take responsibility for ‘extras’, made it easier for the State or other local government departments to pass work on to environmental health officers. The term “jack of all trades” was used to describe this ability to adapt and find ways to get things done. The following excerpts from local senior and field officers exemplify this concern.

“...continually, the state government offloads things to local government through the environmental protection authority...food authorities, you know for the bigger food premises, the [State agency] ... more and more are offloading things to local government... the weight is becoming harder and harder to bear”

EHOS19 local senior, lines 260-268

“.. environmental health is a jack of all trades...any questions...or anybody doesn't want to do anything the buck gets shoved to environmental health....we seem to quite adaptive....work does get dumped....”

EHOS11 local field, lines 219-224

The counter-argument was offered that local government had the capacity to deal with added responsibilities passed on from the State. One option was to attach user fees to cover the cost of new services. It was suggested that councils were unwilling to anger the community by passing on extra costs.

“...the local government has scope to actually charge the fee for service to recover the cost of implementing a lot of these services (passed on from State)...they don't because they don't have the political will to do..”

EHOS09 local senior, lines 216-219

It was reported that some councils work in isolation from, rather in collaboration with, the State as a consequence of the team leader disregarding the importance of collaboration with State. The sometimes poor relationship between State and local government concerned some local government officers.

“..at this particular point in time we don't have a strong relationship because our team leader doesn't see any relevance or benefit in working together with..... local government seems to be working in isolation....the inter-relationship is not as good as it could be and it should be...”

EHOS06 local senior, lines 398-408

4.8.5 Complexity of legislation

State and local government level officers agreed that the complexity and amount of legislation was an obstacle for them. Officers described the difficulties they faced in trying to maintain a working knowledge of a large amount of legislation and applying it in different situations:

“..difficult to hold all the legislation in your head all the time..”

EHOS 01local field, lines 297-298

The problems with the legislation included: ‘ambiguous wording’; ‘open to interpretation’; ‘too complex’; and ‘makes it difficult to take immediate action when necessary’. Interestingly, conflicting comments were made about the procedures and policies. It was reported that difficulties arose due to legislation being restrictive regarding enforcement. They were described as black and white, thereby limiting the scope of action, and impeding the speed of the process of enforcement. The observation was made that legislation did not fit into daily situations and could be tricky to apply. This observation was consistent at the highest level where it was acknowledged that policy is written by people who did not do the field work. Consequently they did not understand the application of it, leading to incongruity in some areas. A need for greater communication between the people writing policy and the people actually doing the work was expressed.

Officers commented that for these reasons it was at times difficult to make the legislation clear to proprietors, which invited argument from the public:

“... food safety standards... I find people have difficulties understanding it... professionals can understand.., but the local shopkeeper will have a very poor understanding of it due to the interpretations, it doesn't sort of say exactly what they want....”

EHOS07 local senior, lines 315-321

“... how the legislation's worded, it's hard to clearly enforce or clearly provide businesses with advice because the legislation is so ambiguous that you really don't know how to interpret it ..”

EHOS39 State field, lines 247-250

Conversely, it was also reported that the openness of the legislation allowed for proprietors to “think outside the square”, and in partnership with environmental health officers' ideas, to come up with creative, yet less costly ways to meet standards and requirements. Excerpts illustrating the two apparently conflicting opinions follow:

“..it's come a long way (food safety standards)... allowed people to think outside the square, I think it's now an effective tool for more of the entrepreneurial industry...I've been able to work with (name withheld) on a food safety plan that is going to be allowing (name withheld) to expand business...previous legislation wouldn't have allowed that..”

EHOS11 local field, lines 473-526

In summary, the obstacles to officers' ability to get their work done fell into three categories, those related to work load, those related to organizational pressures, and those relating to perceived communication difficulties between Local and State government. In general, the more minor obstacles related to the unpredictable nature of the work and the limited resources available to officers. The more serious obstacles included the degree and variations in guidance available to officers, shifting organizational priorities, and political pressure from council or community. Difficulties

with communication between Local and State agencies involved the transferring of duties from the State level to local government with perceived lack of collaboration, lack of resources and variable interpretation of the legislation.

These results add to our understanding of existing perceived obstacles in the current daily practice of environmental health officers. The following section describes how officers viewed future legislation changes, their thoughts on possible difficulties in this area, and the implications for prioritization of work load.

4.9 Health and Related Claims

The interview responses regarding the problems and advantages officers perceived with current legislation in general led to a series of probing questions relating specifically to an exploration of a range of perceived difficulties that environmental health officers would face in the enforcement of regulations around the use of such claims.

At the time of interviewing, the only health claim allowed on labels, as listed in the Food Standards Code, (Standard 1.1A.2), related to folate in food:

“ that increased maternal folate consumption in at least the month before and 3 months following conception may reduce the risk of fetal neural tube defects” (Food Standards Australia New Zealand 2007).

The questions, therefore, were framed in a future context. Officers were asked to think ahead to the time when general- and high-level health claims would appear on food

labels. General-level claims do not make reference to a serious disease, but may state the presence and or positive effect of a component of the food on the maintenance of good health, such as: “*contains calcium, good for bones and teeth*”. High-level claims make reference to a diet-disease relationship i.e.: “*this food is high in X which may reduce your risk of osteoporosis*” (FSANZ 2004).

Officers also were asked to consider the implications for their work of the monitoring of the veracity of health-related claims on food labels. The responses of environmental health officers about the difficulties that might arise in monitoring and regulating such health claims are described and analysed in the next sections.

4.9.1 Ambiguity of role

When questioned about their practice in the area of inspecting food labelling, local government officers predominantly stated that their role was limited to taking samples to check minimum weight, checking use-by-dates, observing quality of food products as a more expensive variety. About one third of local government officers reported that monitoring health claims on food labels was under the umbrella of the State. However, five local government officers stated that they were responsible for limited monitoring of health claims, but were uncomfortable with their ability in this area:

“.. that’s one area where I really think my skills aren’t 100% up to scratch...we have a couple of people of the food authority that we’ll contact and run the stuff by if we’re concerned...”

EHOS03 local senior, lines 294-297

State officers responsible for monitoring health and related claims reported that while inspection of health claims on food labels was under their jurisdiction, it was done in

response to complaints rather than as a routine practice. Their role was described as being more reactive than proactive, due to the high workload and limited resources.

As stated earlier, local government officers believed that the monitoring of health and related claims would not be their responsibility, as they expected the State would take this on. However, given that officers had previously reported incidents of the State passing on duties to the local government, there was further probing into whether local government officers believed the role of monitoring health and related claims might get handed over to them. The question was asked “Do you think monitoring of health claims will find its way to your lap?” Officers’ comments illustrated a concern that this was a real possibility.

“..unfortunately I do, the State has a horrible habit of passing on to local government many of these requirements...”

EHOS 15 local senior, lines 329-331

“..in future, (health claims monitoring) it’s a possibility....they’ve tried everything else...State seems to love legislating for these things... local government often ends up having to try and administer it...it gets pushed down to our level...”

EHOS 17 local senior, lines 708-714

It was acknowledged that, at both State and local governments, if it were a requirement that officers were to monitor claims, more officers would be needed.

“..if there’s adequate officers to look at that specific issue (health claims) then yes I think it will be taken seriously, and will be a fairly high priority...if it’s left to existing staff, who I understand are fairly overworked already (at state agency), if it comes to a decision between inspecting and assuring compliance of a major food producer and looking at a label

claiming fat free, I just don't think that the risk posed by that particular issue is going to take precedence"

EHOS24 local field, lines 546-555

In response to questioning about the coordination of food surveillance roles between State and local government, there was doubt expressed about the willingness of the State to integrate with local government:

" it remains to be seen how fair dinkum they are... they've indicated to local government personnel that they'd like to see us as a resource, in the past they haven't seen us as a resource... I can understand how the State bureaucracy would think that they just don't have the numbers on the ground... so they've got to involve local government whether they like it or not... so the first signs are encouraging, but it remains to be seen what happens now..."

EHOS23 local field, lines 252-269

Local government officers believed the State did not have sufficient resources to make monitoring and assessment of health and related claims happen at State level and related incidents in the past which indicated that the State would likely encounter similar problems should they take on the monitoring and assessment role. These incidents will not be presented to protect the officers' identities.

4.9.2 Interpretation of legislation

Further exploration of the impediments field environmental health officers expected to encounter regarding monitoring health claims revealed two main sources of difficulty: concerns about guidance and the capacity to interpret and implement that guidance. Historically the language used in standards, policies, and legislation was reported by officers as not always being clear, thereby leaving the officers unsure of the intent.

Secondly, the training in how to interpret and implement policy available to officers was often late in coming or insufficient.

“..there’s a higher level of the writers of the food standards code not being clear and decisive on what they want....and the officers not having the information...”

EHOS31 senior state, lines 498-502

4.9.3 Lack of skills and training

Local government officers reported concern that understanding the difference between general and high-level claims, and judging when substantiation should be checked was going to be difficult:

“ ..I always check use-by-dates and those sort of things,...but if it’s going to be advantageous to cardiovascular improvement or anything like that, that goes back to the professionals who know that. I’m not a doctor...”

EHOS29 local senior, lines 474-480

The concern expressed by local government officers regarding their confidence and skill was supported by this comment from a senior State officer:

“...health claims are very complex...I’m certain that an average field officer won’t be able to deal with such complaint(s), no way...”

EHOS34 senior state, lines 329-331

4.9.4 Adjusting current prioritizing practice

Having heard that all officers prioritize their workload to do their job effectively, the question was raised “where would, or where do health claims fall on your priority list?” Monitoring health claims was reported as being low on the priority list of local government officers.

When asked to place monitoring health and related claims on a scale of 1-10, one being the lowest priority and 10 being the highest, local government officers placed monitoring health claims, on average, below four. Officers reported they most highly prioritized matters of public health risk, such as poor food handling and storage, sewerage spills, and food borne illness outbreaks.

Other reasons stated by local government officers for the monitoring of health and related claims being given low priority were inadequate resourcing, lack of community expectation or political will, and a belief that health claims were not a public or environmental health risk, but rather a marketing or fair trading issue. The influence of community demands, reported earlier as influencing officers in prioritizing their workload, was again mentioned in relation to health and related claims:

“...if it was a complaint, we’d certainly be dealing with it as a 10, on a routine inspection it’s probably around 5..”

EHOS03 local senior, lines 305-306

“..I would suggest that it would be based on the political will and the public will to manipulate the politicians to activate themselves..”

EHOS12 local senior, lines 547-549

State level officers, conversely, placed monitoring health claims, on average, above 7. Possible explanations for the differing priority ascribed to the monitoring of nutrition and health related claims between State and local government officers will be explored in the discussion chapter.

4.10 Summary

In summary the results highlight the diverse and weighty work load of environmental health officers, and the variation in work load of local government and State officers in different areas (rural/urban; rapid development; high tourism; etc). While all officers largely self-determine their daily activities, the majority of local government officers' duties were oriented toward protecting the health of the community, whereas senior officers reported more involvement with management, external organizations and political dealings.

Officers were able to self-determine their daily activities with little input from managers. The major obstacles in getting work done were related to size of work load, organizational constraints, political interference and difficulties with legislation. Local government officers prioritized their daily activities according to risk to public health and ascribed low priority to nutrition and health related claims, below their other activities such as routine inspections, whereas State officers ascribed higher priority to health claims.

Looking forward to the potential addition of monitoring nutritional, health and related claims to the environmental health officers current work load, concerns were expressed

regarding a continued challenge of interpreting current legislation, with implications that without sufficient training and increased resources, officers will not be prepared to carry out the monitoring of nutrition health and related claims on food labels with confidence and competence.

Chapter 5 Discussion

5.1 Introduction

The aims of this study were to investigate how environmental health officers prioritize the different components of their food regulation duties within the context of their overall work load, and the possible implications of this for food regulation policy implementation. The specific objectives of this study were to understand what comprises the environmental health officers work load, and ascertain those factors that influence environmental health officers in their decisions around prioritizing daily duties. Qualitative interviews with environmental health officers and the results of the scales were analysed within the framework of Lipsky's theory of street-level bureaucracy to gain insight into the work practices of environmental health officers. The results contribute to our existing knowledge of the factors guiding the behaviour of front line service providers. This is the first study using Lipsky's theory to investigate the work practice of environmental health officers, as previous work has focused on other front line workers including social work, nursing, and the police force.

This chapter commences with a discussion of the major findings regarding the key factors influencing environmental health officers work practice. Comparisons are made with previous studies which have focused on the work conditions and practices of workers in similar helping professions.

The environmental health officers' perception of their role, and how this influences the way they undertake their responsibilities, will be discussed. The major differences in

responses between senior and field officers are highlighted and positioned in relation to Lipsky's theory of street-level bureaucracy, outlining the ways in which they are consistent with or vary from this theory.

In addition, new insights will be noted, such as the altruistic nature of those drawn to this career. Results from this study add to the depth to our understanding of the factors that shape professionals' attitudes to their work and how they undertake their duties.

In particular, the responses of environmental health officers to the proposed introduction of nutrition and health claims are discussed, especially the officers' interpretation of their responsibilities and likely action in relation to a new policy area, one that is less precise and slightly at a tangent to the current perceptions of their role.

5.2 Key influences on work practice

This section discusses the reported major influences on environmental health officers' work practice. These influences broadly comprised personal and internal factors, and factors external to the organization. Lipsky theorized that street-level bureaucrats' work practice is negatively impacted by many factors. The result of such negative impacts is seen in policy intentions being altered through inconsistent or ineffective policy implementation. The consistency of these findings with Lipsky's theory adds to our understanding of how work behaviour, and ultimately policy implementation, may be influenced by these factors.

5.2.1 Personal/Internal factors influencing work practice

Officers reported many internal factors influenced work practice, including the officers' own perception of their role and personal motivation, work load and work setting. Other internal factors include organizational expectations and constraints, lack of guidance and devolution of responsibilities to local government. Internal factors affected individual officer's perception of their role. These factors and their impact on officer's behaviour and especially on policy implementation are therefore important to consider in relation to Lipsky's concerns regarding street-level bureaucrat's work practice.

5.2.1.1 Environmental health officers' perception of role

In this study, environmental health officers' perceptions of the value of their role in the community were shaped significantly by the community they served. Respondents described their role in the community as being a protector of their community's health and well-being.

There were two major factors that appeared to contribute to this perception of their role. These were the amount of contact with the community, and training and previous experience. These two factors will be discussed in this section and used to understand the differences that were seen between senior and field officers in the way they structure their everyday work activities.

The results suggested that field officers who worked closely with the community felt a responsibility to that community. At the same time many environmental health officers

reported the belief that community members do not have a good understanding or appreciation of what officers do for them. A possible explanation for this is that while officers report that handling complaints arising from the community accounts for much of their work day, they are not prioritizing their workload in response to community *demands* as much as in response to the officers' own perceptions of community *needs*. Officers perceived issues of safety, as in water quality or food outlet inspections as a need; barking dog complaints were a demand.

The combination of close contact with community and the commonality of their university training are the most likely explanations for why field officers appeared more responsive to community needs, relative to senior officers. Senior officers spent less time in direct contact with the community and thus were less likely to have a day-to-day understanding of current community concerns. They also had more diverse, skills based training backgrounds compared to the field officers, who predominantly held the university degree, Bachelor of Applied Science in Environmental Health. There was no evidence that a senior title was related to education, but rather, seniority was an indicator of years of experience. Recently employed officers appeared to have entered the work force with a more focused set of skills, matched with in-depth knowledge of what was required to protect public health, such as needing to respond to community needs. New graduates were generally hired in non-senior positions, except in cases where staff shortages compelled councils to hire new graduates to senior positions. As a result, it was speculated that non-senior officers, with university degrees that included a specific set of skills and knowledge in relation to environmental and public health, more often occupied the positions closest to the community.

While the field officers' responses suggested that training and proximity to community played the most significant role in their perception of the needs of the community, the officers' attention to community needs over demands may also be explained, in part, by the fact that field officers acknowledged themselves as members of the community at large. Officers' enhanced understanding of what risks were present in the community, together with the awareness of the consequences to their own families if the job was not performed adequately, appeared to have played a role in officers' perception of community needs.

Officers' personal beliefs about the significance of their role were one influence on how officers cope with their work load. However, this study's findings indicated that the public's perception of the role of environmental health officer also influenced how officers prioritize their work activities.

5.2.1.2 Public perception

The public's view of the role of the environmental health officer emerged as an important factor influencing environmental health officer work practice. In this section the community's power over environmental health officers' priority-setting is discussed, addressing one of the aims of this study, to determine how environmental health officers prioritize their daily activities. The results suggest that it may be possible to influence environmental health officers' behaviour regarding the implementation of regulations indirectly, through altering the community's understanding of the environmental health officer's role. State and local government officers' perceptions of the community's understanding of their role differed, and possible reasons for this will be presented.

The results regarding the public perception of the environmental health officer's role revealed that field environmental health officers believed the public displayed little knowledge or understanding of the role of the environmental health officers. In contrast, State officers believed the community had a better understanding of the role of the environmental health officers. The difference between State and local government officers' perception of the public's knowledge of their role may in part be derived from the names of the organizations within which the officers worked. The names 'NSW Food Authority' and 'Queensland Safe Food' defined the organizations' roles, as opposed to local governments where the title "council", is more ambiguous and less defined. Some of the difference may also be explained by the work load of local government environmental health officers being wider in scope than that of the State level food agencies, where the focus is purely on food related activities.

As Lipsky (1980 p.9) suggested, street-level bureaucrats deal directly with their clients, and face clients' reactions to the street-level bureaucrats' actions. It was apparent that through contact with the person on the street, the field officers at both local government and State sites were more aware than senior officers of the general public's perceptions of environmental health officer's actions. It is most likely that field officers at local government sites, through their wide-ranging activities carried out through close contact and interactions with the community, have the more accurate picture of the public's perception, and are more aware of the discrepancy between the reality of the contribution environmental health officer's make in their job and the level of acknowledgement from the community.

The reported lack of community understanding of what environmental health officers did for them is reflected in the statement that environmental health officers would benefit from raising their profile in the community. The observation was made that environmental health officers should be more proactive in raising the profile in the community, “*making their profession be seen by the greater community as...worthwhile...*” (EHOS11 local field, lines 586-591), but that there was lack of either motivation or strategy to do so.

5.2.1.3 Attitude to change

The more recently employed officers commented on an apparent lack of drive in the more senior officers to try to improve the profile of their profession in the community. Perhaps this is not difficult to understand if we consider what Lipsky describes as ‘tensions between capabilities and objectives’ that can arise when work capabilities do not meet objectives, most often due to stress caused by working with insufficient resources (1980 p 142). This phenomenon is apparent in the data from this study.

There was reported speculation by field officers that those with more years on the job had lost interest after having encountered barriers when trying to improve this situation, although this was not confirmed by senior officers. In light of the previously described tensions between capabilities and objectives, it is reasonable to suggest that more recently employed officers had more energy, along with a fresh set of ideas for how to improve the profile and public perception of environmental health officers.

It is also plausible that each year on the job, working with insufficient resources and a surfeit of duties can reduce the drive to participate in change. The observation was made by newly employed environmental health officer's that some officers with longevity appeared unwilling to consider change and exhibited unwillingness to attend training workshops or to look for a better way of doing things. These factors are consistent with the observation that there is a decrease in energy for actively promoting the profile of environmental health officers and the profession with increasing years on the job.

5.2.2 Intra-organizational factors

The officers in this study reported that factors internal to the organization including the work load, work setting and organizational constraints impacted on their ability to carry out their duties. In response to these impacting factors officers demonstrated the use of coping mechanisms through their work practice. Identification of the factors that impacted on work practice adds to our understanding of how environmental health officers managed their work load. The major factors internal to the organization are discussed here.

5.2.2.1 Workload and priority setting

This section discusses the reported work load of environmental health officers, differences in reported duties between officers in different jurisdictions, and the consistencies with Lipsky's work and later studies. The findings indicate that in the

environmental health officer's work place, the potential exists for policy intentions to be altered through work practices designed to cope with the high demands of their role.

This study's results indicate that the heavy work load of environmental officers was typical of the street-level bureaucrats as described by Lipsky and as such is an important influence on the officers' work practice. Field officers at local government and State level reported a multitude of responsibilities related to the protection of public and environmental health. Such complexity of roles is consistent with Lipsky's description of the street-level bureaucrat as being responsible for many duties often with limited resources (1980 p 29). This has also been identified in later studies examining the realities of the work place faced by school psychologists and social workers, (Ellis et al., 1999; Summers and Semrud-Clikeman 2000). Such complexity of roles, according to Lipsky, potentially creates a situation where workers must find ways to cope with the demands on them.

The complex interaction between environmental health officers' perception of their role and the public's perception of their role may be the starting point for the officers' approach to prioritizing their work load. In this study, the officers' collective responses were consistent with the dilemma of the street-level-bureaucrat, described by Lipsky as the conflict experienced by street-level bureaucrats in trying to meet clients' needs while simultaneously meeting organizational goals (1980 p 44). Officers were required on a daily basis to interpret the priority of activities quickly and correctly to maintain the community's health. At the same time, they were required to meet the short and long term targets set by their organization.

Environmental health officers expressed a strong sense of obligation to uphold their role as protector and be the “watchdogs” over community health despite their belief that the community was largely unaware of their role. At the same time they acknowledged the expectation to meet organizational goals, strategic plans, and targets set by the council or authority that employed them. This was consistent with previous research on the nursing profession where nurses balanced their commitment to community needs and organization objectives (Walker and Gilson 2004).

The position of environmental health officers within the hierarchy of their organization thus was a significant explanation for the difference between the field and senior officers’ responses regarding work load. While the workload of environmental health officer’s was large and diverse, field officers at both local government and State level reported that the majority of their work day was driven by community demands, for example dealing with complaint investigation and routine inspection. The senior officers indicated that their work load was more influenced by their organization, consistent with Lipsky’s observation that managers are more concerned with meeting agency goals (1980 p. 18). The work setting and its impact on work practices of environmental health officers is discussed in the following section.

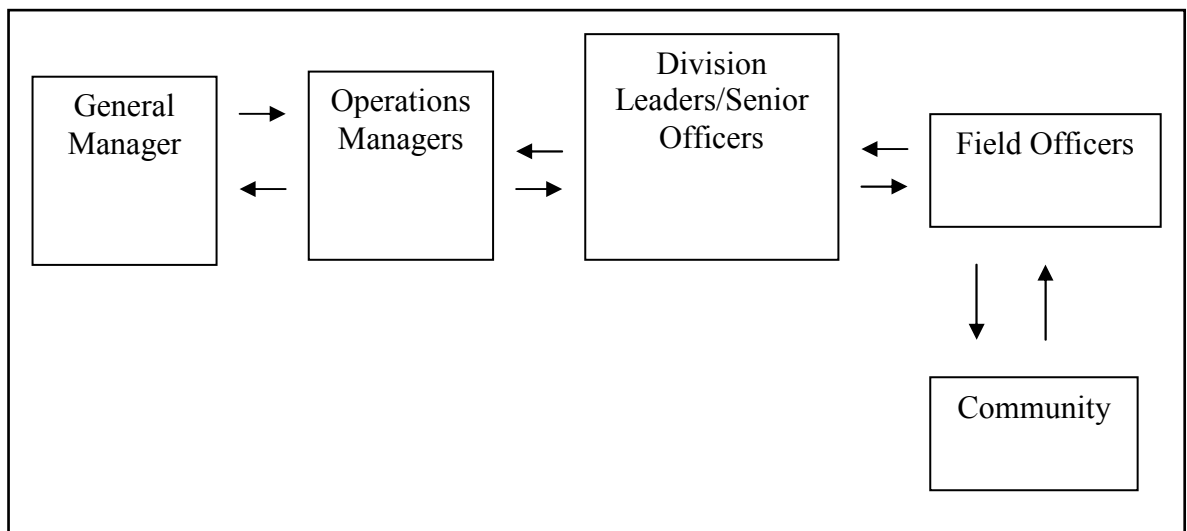
5.2.2.2 Work setting

This section discusses this study’s findings regarding the impact of work setting on officers’ work practice. Lipsky personified the street-level bureaucrat as someone who came into direct contact with the community through their work actions (1980 p 3), and described the difficulties experienced in this position. This section draws on Lipsky’s

theory to explore the impact that working in this position has on how officers perform their duties. In addition, the differences between how State and local government officers spent most of their work day are partly explained in terms of where the officers were positioned relative to the community, and the duties in their work load.

As discussed previously, the local government officer, more so than her/his State counterpart was positioned at the interface of council and community. The following diagram (figure 1) illustrates the general structure of a typical environmental health department within government. The field officer is positioned at the interface of council and community, and each layer of management is progressively more removed from the community.

Figure 1 Hierarchy of government environmental health department



As a result of this hierarchical position, the local government officer was faced with daily demands from both the organization and the community. That a majority of local government officers reportedly devoted the majority of their time to those jobs directly related to investigating and decreasing the risks to public health suggested that those

officers working closely with the community felt a responsibility to that community. As suggested by Lipsky (1980 p18), officers in State authorities, who were removed from direct community interactions, appeared to be more influenced by the organization and government demands.

The differences between State and local officers' replies were mimicked within the hierarchy of local government. It is reasonable to argue that the differences between local government senior and field officers' replies were due to the hierarchical structure of council. As previously illustrated, the 'top-down' chain of command placed senior officers between upper management and field officers. Their responses indicated that in this position the senior officers' actions were more directly influenced by council strategic plans or directives. This finding confirms Lipsky's argument (1980 p18) that managers respond to organizational goals while street-level bureaucrats respond to the community. Senior officers reported being included in the planning and goal setting, whereas field officers, who were situated between senior officers and the public, were directly influenced by community demands.

It is important to note that while senior officers in local government were less involved in direct contact with the community as compared to field officers, their activities in management, planning, and politics were reported to be directly related to maintaining a high standard of public health. This would indicate that, despite having fewer encounters than field officers with the community, senior officers experienced the same motivation to improve conditions for the community through their role even though they have different duties, e.g. *"if you do something for the organization, there is a flow on benefit to the community"* EHOS2 local senior, lines 206-217

The responses from State environmental health officers, as regulatory inspectors, implied that they were not driven by excessive community demands, and therefore had the potential to be more proactive than reactive in their work. This finding supports Neilsen (2006) who concluded that because not all street-level bureaucrats were overloaded with client demands, they were not compelled to employ the same coping behaviours. This also indicates that not all environmental health officers can be classified as street-level bureaucrats. Therefore, there is a need to exercise care in applying this classification when the profession may work in different settings, not all of which are in direct and/or regular contact with the community.

The presence of internal influences on the officers and the surroundings within which environmental health officers work can be seen to affect how officers determine their priorities and actions. While officers may have some influence over certain factors impacting on their role, for example personal motivation, or choice of where they work, other factors reported to significantly impact on them are out of their control. The next section explores the external factors reported to impact on work practice.

5.2.3 External and internal influences on the internal environmental health officer role

Organizations, like street-level bureaucrats, also must balance a range of external influences with their internal strategic goals and operations. The outcome of the organization's responses to such influences, in turn, impacts on the role of the environmental health officers. External influences include factors related to the nature and size of the community for which the organization is responsible, political pressure and devolution of responsibilities between agencies. This section explores the ways in

which such external influences impacted on the roles of the environmental health officer via the organization and discusses how this factor adds a new dimension to Lipsky's theory regarding street-level bureaucrats.

The interview data indicated that three external factors particularly impacted on the strategic goals and direction provided to environmental health officers from council: the size of council or local government, political pressure and devolution to local government of responsibilities previously held by the State authority.

5.2.3.1 Size of Environmental Health Team in council

Environmental health officers reported that the size of environmental health teams within councils varied greatly in size from stand alone units to sole officers sharing their services amongst a number of councils. This influenced the role of environmental health officers in different ways. It appeared that in smaller reported teams it was not always feasible for environmental health officers to operate independently, but they may have been combined with another, possibly unrelated, department under the control of a manager with an agenda different to environmental and public health. The objectives set by the manager may not have been focused on promoting public health, making it difficult for environmental health officers to be effective in their role. In larger reported teams, particularly in times of strong business or residential growth, emphasis was often directed to managing the increased numbers of building permits, cafe licenses, and other requirements of the trades, hindering the amount of time environmental health officers used for routine public health tasks.

5.2.3.2 Political pressure

Political pressure on the role of environmental health officers arose from both within and external to the organization. Within local government, environmental health officers' tasks directly related to environmental and public health. Political pressure exerted within the organization to shift priorities, for example, pressure toward a greater emphasis on road improvement, or toward another area of local government responsibility, influenced the resources and funding available for environment health. Other research (Smith and Donovan 2003; Jewell and Glaser 2006) similarly demonstrated that the practices of social caseworkers and other street-level bureaucrats were influenced by organizational pressures, organizational resource limitations and time pressures.

External to local government, political interference was apparent in the findings of this study. Pressure from local and higher levels of government as well as from the community was identified. For example instances were reported of councillors, lacking trust in the professional expertise of staff, trying to interfere with operational matters. The expectations of the community were often at odds with the legislation, and at times the community became disgruntled with the length of time involved in processes, for example, where a prominent community member with influence exerted sway over council to fast track a building permit or license. Similarly, Keiser (1999) argued that street-level bureaucrats were influenced by political pressure in the form of changing preferences and goals resulting from change of government.

Environmental health officers do not work in a vacuum. They are part of the fabric that governs the society they live in. Therefore they must find ways to operate in that system. The way in which outside scrutiny is handled by leaders in public organizations can be a critical factor in their outcomes. Bureaucratic agencies appear to operate most successfully when outside networks are considered in the politics of daily decision making (Nutt 2005). Accordingly, local council and state organizations involved in the protection of public health and safety, cannot discount the impact of outside influences, but must find ways to accommodate these pressures in their operations without hampering staff, such as environmental health officers in their daily activities.

5.2.3.3 Perceived devolvement of responsibilities

Field officers perceived that there was a transfer of responsibilities from higher State level government or agencies to lower levels such as local government. The assimilation of these responsibilities was repeatedly identified by respondents as an influence on their work and ability to meet strategic goals and directions from Council. It was reported that the transfer of responsibilities to the local council domain was expected to continue to occur. Local government officers prided themselves on having the time management and organizational skills to be able to handle the resulting increase to work load thus far, but expressed concern that there was a limit to what they could incorporate and implement without compromising food safety.

The context within which environmental health officers work was perceived as constantly changing. It was dynamic and responsive to the needs of the community it serves. The organization responsible for providing environmental and health services to

the community was itself dynamic and responsive to political, financial and other factors. Street-level bureaucrats applied a range of strategies to cope with this flux of work conditions.

The presence of external influences on the organization/bureaucracy, and hence the changing organizational environment within which environmental health officers work, clearly added to the complexity of how environmental health officers determine their priorities and actions. Within such a dynamic situation, clear strategic direction and even day-to-day guidance from the organization may be considered important to assist environmental health officers to undertake their role. The next section explores the extent to which environmental health officers had such direction or if they managed this situation in an autonomous manner.

5.2.3.4 Professional autonomy

All officers in this study reported their degree of autonomy to be high, consistent with the broad expectation of such a profession. These personal reports were consistent with the objective measures used to determine the level of professional autonomy. In exploring this issue with the officers, two negative factors were identified. Lack of strategic direction from the organization itself was reported, as was an absence of qualified, experienced and effective professional leaders.

Officers reported using discretion or professional autonomy in structuring their daily activities, unanimously reporting that they were trusted as professionals by their manager or team leader to make these appropriate autonomous decisions. There was

consistency in this finding between managers and field officers. This was reportedly due to the necessity to respond immediately to unexpected events on any given day, regardless of the targets and routine work that was expected.

The interview data regarding autonomy were confirmed by the Job Decision Latitude Scale (Karasek 1998), and Work Control Scale (Dwyer and Ganster 1991), as described earlier. The quantitative results indicated that officers experienced a high degree of autonomy in structuring their activities. While it was generally perceived as advantageous for officers to self-determine their daily work load, there was a complaint that guidance was lacking. Strong leadership was considered to enhance the officers' confidence in their ability to meet expectations in light of changes in legislation, shifting goals and direction of council and other impediments faced by officers.

The two major explanations for the lack of guidance appeared to be poorly communicated strategic direction from their organization and lack of qualified people. Both of these two factors impacted on officers' work practice, and ultimately on policy implementation.

The officers in this study reported that the goalposts set by their organization often were 'moved', frustrating the efforts of officers to be always on top of their workload. This result was consistent with Lipsky's theory that organizations assemble multiple goals which are often ambiguous (1980 p. 164).

Along with a lack in strategic direction, officers reported that a lack of qualified staff to provide guidance and strong leadership reduced their confidence in their ability to meet

targets and organizational expectations. Had this concern regarding guidance/leadership been put forth only by novice officers, the need for more supervision and support could be explained and accepted as a consequence of their lack of work experience. However, experienced officers also reported a lack of qualified, experienced and effective leaders. The two most likely reasons for this gap were financial constraints in council and difficulty filling positions in some rural areas. The reasons for the latter are not clear. It may be related to an overall lack of suitably qualified staff to fill vacant positions, as expressed by some respondents. Alternatively, it may reflect poor career structures that have a focus on meeting the practical aspects of the environmental health officer role but not the professional development and strategic leadership roles usually found in a mature profession.

Due to the combined effects of their own perception of their role in the community, the public's demands, their training and their organizations' expectations, officers carefully considered the prioritization of work activities to best protect public health. In this study, this practice enabled participating officers to perform their duties in such a way that they were able to deliver the full intentions of the policies they implemented.

5.2.3.5 Complexity of legislation

In this study officers reported having experienced difficulty in the past implementing new and complex legislation. This section will discuss the officers' concern that the situation would continue with future changes in legislation, and how the officers approached complex legislation.

Officers at State and local government level expressed the difficulties they had experienced with current legislation as well as the hurdles they had faced in maintaining a working knowledge of evolving legislation. The results showed that officers found more positive ways of handling frustration than those described by Lipsky. For example, officers frustrated by a lack of guidance in how to implement the legislative changes, reported trying to interpret legislation in such a way that would help rather than hinder the community. Approaching their work in this way, officers decreased the potential result of negative impacts on policy implementation.

While some officers felt the current situation, which required open-interpretation of the food standards legislation, enabled them to help small businesses to create or improve their trade, others felt this was a hindrance and preferred a more prescriptive approach. This was the case prior to the recent review of the Food Standards Code in 2001 (Paterson et al., 2002).

However, officers were hopeful of receiving more help in the form of guidelines or training in ways of interpreting and implementing legislation. This difficulty of variable interpretation of legislation by individual officers has been acknowledged in two states, New South Wales and Victoria. In Victoria a standard of practice for environmental health officers was being developed (Jim Smith, national president AIEH, 10 December 2007). In NSW, stronger links between NSW State authorities and local governments were being developed at the time of this research (NSWFA 2007). It was anticipated that these steps would improve the communication between State and local governments regarding consistent interpretation of legislation.

5.2.3.6 Media

The following section explores the impact of media as an external factor on environmental health officers work practice. The findings from this study are surprising given their inconsistency with previous research. Possible reasons for this inconsistency are suggested.

A result surprising for its singularity in this study was that only one officer reported the media as a contributing influence on their work practice. Previous research may help us understand why. Smith and Donovan (2003) found that the working environment, including organizational pressures, public opinion and the media, all influenced the practices of case workers in child welfare. The authors argued that work practice may be shaped in response to what workers learn is expected of them by their organization, the public and the media.

The following excerpt illustrated the surprise experienced by an officer after a story appeared in the local paper revealing that a reduction in council staff had taken place. There was “...*no public response...*” to the reported impact on the number of food shop inspections and other food safety tasks that this particular council was able to conduct “...*it really caused no stir at all...*” (EHOS24 local field, lines 352-359). As discussed earlier, officers reported that a large part of their work entailed responding to community complaints. Officers, however, also reported that the public had a low level of knowledge about their role. The public thus may not have made the connection between a reduction in staff and the potential negative impact on public health. Accordingly, a consistent lack of community response to negative media reports

regarding environmental or public health issues may result in officers discounting the media as a contributing factor in their work practice.

The sole officer who reported the media as impacting on work practice may have felt obliged to protect the organization from the disclosure of re-direction of resources from coming to light. The highlighting or the insinuation through media coverage of improper food regulation enforcement, such as publicizing an outbreak of food poisoning, alleging poor water quality or fish substitution, casts a negative light on local government and State authorities. Political directives in response to a spate of “bad news” items may result, for example, in resources being directed toward the issues attracting “bad press”, at the expense of work that would protect the community from greater health threats.

It can be speculated that the work practice of environmental health officers, especially novice officers or those new to State responsibilities, may be influenced by internal and external pressures, and the spotlight in which they may be placed.

5.2.3.7 Summary

In summary, results from this study indicated that the environmental health officers who participated in this study were responsible for a large and diverse work load, were focused on public service, reportedly working closely with the community. The officers in this study reported a high degree of professional autonomy in making decisions regarding prioritization of activities within their work practice. Work practices were significantly impacted by factors that broadly can be described as internal or personal,

intra-organizational, and external to the organization. Field officers, working closely with the community and employing discretion in work practice, can be described as street-level bureaucrats, consistent with Lipsky's theory of street-level bureaucracy (1980 p.3), and for this reason, this theory is useful in analyzing their work practices.

5.3 Consistencies with Lipsky's theory

The results from this study were consistent with much of Lipsky's theory. These consistencies broadly include the workload, organizational constraints and the officer's use of coping mechanisms to manage their work load, given the constraints of the work place. Environmental health officers experienced similar work conditions to other public servants, social workers, educators and others described by Lipsky as street-level bureaucrats.

The current study data supported Lipsky's argument that street-level bureaucrats used their professional expertise to address the needs of their clients, to enforce sometimes vague policy which was open to interpretation and enjoyed a high degree of discretion in decision making. The field officers' responses regarding complexity and imprecise legislation, shifting goal posts and lack of guidance confirmed that, as described by Lipsky, environmental health officers struggle to enforce imprecise policy with insufficient resources.

Results from this study indicated there was a perceived lack of motivation to change exhibited by officers with long service. This is consistent with Lipsky's depiction of the personal conflict that arose within street-level bureaucrats when work capabilities

did not meet objectives, most often due to stress caused by working with insufficient resources (1980 p142).

There was a strong sense that officers regarded themselves as “watchdogs” over the community’s public health, also consistent with Lipsky’s description of the people attracted to public service as idealistic and dedicated to their helping profession. Such traits, said Lipsky, often lead to disillusionment when faced with the reality of not being able to make improvements in the lives of their clients. Consequently, Lipsky argued, workers who were the most dedicated quit, or they may psychologically remove themselves from the work (1980 p 143).

Field officers’ responses indicated that within their work practice they were given minimal guidance but were expected to exercise discretion in performing their routine public health and environmentally relevant activities. While the duties of social workers and other street level bureaucrats differed from environmental health officers in that they advocate for individual clients, environmental health officers are working for one client, the community as a whole, and ‘dispense’ services in a similar fashion. For this reason, results from this study are compared to studies of social workers and other street-level bureaucrats, as to date, there has been no research into the work practice of environmental health officers.

High levels of professional autonomy, as reported by officers in this study, have been identified by Lipsky as encouraging professionals to take short cuts in their activities.

According to Lipsky, street-level bureaucrats “*have considerable discretion in determining the nature, amount, and quality of benefits and sanctions provided by their*

agencies” (1980 p13). Lipsky maintained that discretion was key to working within dynamic, unpredictable circumstances, or the unpredictable needs of clients, as is often seen in other government agencies providing a service directly with the public, such as schools, social work or health care providers.

This study found that environmental health officers were managing to meet operational guidelines without taking the shortcuts described, despite an acknowledgement by some officers that there was a lack of guidance. This finding is contrary to Lipsky’s theory and other studies where the level of guidance had a significant impact on the degree to which policy was able to be implemented. Other research in the area of social work support Lipsky in this regard. It was found that policy was altered through the coping mechanisms employed to provide services to more clients (Meyers et al.. 1998; Summers and Semrud-Clikeman 2000).

Lipsky argues that a lack of clarity of goals, and insufficient resources to meet all goals, results in short-cuts being implemented by street-level bureaucrats to cope with the demands on them. The use of such a coping mechanism, described by Lipsky as “creaming”, may result in the alteration of the intent of the policy. In reports on the work of nurses (Bergen 2005), and in the area of social work (Meyers et al.. 1998) , policy was not fully implemented due to workers’ inability to cope with increasing demands. Supporting evidence of this can be seen in Ellis et al.. (1999), where social workers, who at times were found to manage their heavy client load by selecting clients to fit administrated *classifications* of need, rather make the classifications fit the *clients’* needs. The authors found that, when intended outcomes and goals were communicated by management, workers reported being able to meet operational expectations without

altering the operational policy. However, results from the present study do not support this.

The method of prioritizing used by environmental health officers was reported to be employed because the officers believed it was the most successful way to ensure the protection of the community's health. This is consistent with findings from previous studies (Ellis et al.. 1999; Summers et al.. 2000) where social workers and school psychologists were seen to utilise professional discretion to find a way to maintain a high “throughput” of workload by responding to their clients' immediate needs rather than adhering stringently to operational guidelines.

Results from the present study diverge from Lipsky's argument that street-level bureaucrats ration services as a coping technique to manage the constraints and minimize the frustrations experienced in the workplace. This rationing, says Lipsky, is used to decrease the frustration experienced when trying to meet excessive demands from their organization and the public. Creaming, choosing to do those jobs that have greater potential to have a positive outcome over the more difficult ones, is one such rationing strategy described by Lipsky (1980 p107). These ‘rationing’ techniques carry a negative connotation as they ultimately may decrease the benefits to the community.

Contrary to Lipsky's reasoning that street level bureaucrats use coping strategies to decrease the frustrations of work stresses, the environmental health officers' responses in the present study depict a motivation to increase job satisfaction, and a “*desire and wish to provide public service*”, ultimately to benefit their community.

The notion of ‘altruism’ appeared as a consistent thread in the description given by both State and local government officers regarding the duties they perform, reflecting the value officers placed on the contribution they felt their actions made to the community. For example, the way the officers described their actions was not limited to “routine inspections of hygiene”, but as “protecting consumers’ health”, and “reassuring the public that the food they purchased from or ate (in a café) was safe and was not going to make them sick”. Other phrases such as “watch dog” of well being, and “protector of community health and well-being” also illustrate the altruistic character of officers. Results from the present study suggest that field officers, by prioritizing the jobs (complaints) by degree of risk to environmental or public health, were ‘rationing’ benefits to best protect public health, a positive outcome. Such ‘rationing’ of services had a focus on maximising benefit to the community, differing from Lipsky’s ‘rationing’ of services, which focused on decreasing personal frustration in response to work overload.

Similarly, previous studies suggest that the work practices of street level bureaucrats in comparable ‘helping’ professions (therapists, social workers), are focused on the client, using operational policy to fit clients’ needs, rather than compromising clients’ needs to fit policy (Maynard-Moody 2000; Summers and Semrud-Clikeman 2000; Riccucci 2005). This motivation to maximise job satisfaction and positive outcomes for clients was also seen in previous research into the behaviour of police, teachers and rehabilitation therapists working closely with the community (Maynard-Moody 2000; Nielsen 2006).

Consistent with this study, results from an examination of the provision of social disability benefits in differing economic environments showed that street level bureaucrats were responsive to the level of need after controlling for income in the community (Keiser 1999). This contrast to Lipsky's reasoning provides new insight into the behaviour of street-level bureaucrats. Nevertheless, there are many consistencies between the results from this study and Lipsky's theory, as illustrated in Table 6.

Table 6 Consistencies with Lipsky's theory

Lipsky	EHOs Data consistent with Lipsky	EHOs Data inconsistent with Lipsky
Work Load <ul style="list-style-type: none"> • Heavy Workload • Demand for services sometimes unpredictable • Direct interaction with clients Considerable discretion	<ul style="list-style-type: none"> • Many and varied duties • Unpredictable nature of work • Field officers high degree of interaction with clients High degree of discretion	
Organizational Constraints <ul style="list-style-type: none"> • Resources limited • SLBs encounter conflict between client needs and organization goals • Managers concerned with organizational goals • Ambiguous, vague or conflicting goals Tension between capability/objectives	<ul style="list-style-type: none"> • Resources often insufficient • Balance community demands and organization targets • Managers and field officers report different duties • “shifting goalposts”, “legislation difficult” “lack of guidance” Lack of energy for change in long-term workers	
Coping Mechanisms SLBs develop mechanisms to lessen frustrations		<ul style="list-style-type: none"> • EHOs prioritize to optimize benefit to clients

5.4 Anticipation of monitoring nutrition, health and related claims

In light of the identified influences and suggested motivations that affect environmental health officers' current work practice and specifically the ways in which officers prioritize their food safety related duties, the next objective of this study was to ascertain where environmental health officers would position the monitoring of nutrition, health and related claims in their priority continuum, should they become responsible for monitoring such claims on food labels.

5.4.1 Priority given to nutrition, health and related claims

As reported, officers prioritize their daily activities by ranking according to potential risk posed to public health, but there was not consistency in the way in which officers' ranked risk in relation to monitoring of health claims, either at the same or different levels within the hierarchy. Local government officers placed a lower priority on monitoring health claims, ranking this duty at less than four out of ten. State officers ranked this duty at greater than seven out of ten. The difference in priority can be explained in part by the distribution of responsibilities between State and local government. State Authorities currently have responsibility for limited monitoring of information on labels, for example the presence and accuracy of nutrition information panels, use-by dates, accuracy of weight and country of origin. The difference in the orientation of goals seen between field and senior officers also partly explains this difference in priority, as does the difference in perception of community needs.

What is not obvious is why some local government officers reported that they looked at some information on labels and others reported that they did not undertake any monitoring of labelling. The inconsistency in responses may correspond with the lack of guidance experienced by some local government officers, the apparent lack of communication reported between State and local governments, and a general sense of confusion regarding monitoring of food labelling.

The views of local government officers in this study were the same concerns reported previously by Paterson and colleagues (2002) for ANZFA (Australia New Zealand Food Authority, the precursor to FSANZ), regarding stakeholder views on changes to food labelling. Labelling issues were of low importance relative to other duties, current work

load would not allow monitoring of food labels to occur, consumer education was needed, and they did not possess the degree of expertise that would be required to discern the veracity of claims. The latter concern was echoed by State officers; “*an average field officer won’t be able to deal with such complaint(s)*”. The results of this study indicate that little has been done to address these concerns. At the time of writing, no other examination of environmental health officers’ attitude to labeling had been published from within Australia.

5.5 Concluding Statements

The aim of this study was to investigate the ways in which environmental health officers prioritize the different components of their food regulation duties within the context of their overall work load, and the possible implications of this for food regulation policy implementation.

Results from this study showed that environmental health officers can be considered to be street-level bureaucrats as described by Lipsky (1980). They share similar work load, work context, and difficulties in performing their duties effectively with other workers in daily contact with communities.

The objectives of this study were to understand the environmental health officers work load, and ascertain those factors that influence environmental health officers in their decisions around prioritizing daily duties. Results from the present study were analysed using Lipsky’s theory of street-level bureaucracy to gain insight into the possible explanations for the work practices of environmental health officers. This analysis has

strengthened our existing knowledge of the factors guiding the behaviour of front line service providers. In addition, new insight was gained, including the altruistic nature of those drawn to this career.

Results highlighted that the environmental health officers' perception of their role and their contribution to the community played a significant part in determining their work practice, as did intra-organizational and external factors. These results have informed our understanding of the officers' likely interpretation of their responsibilities and action in response to the proposed introduction of nutrition and health claims.

Chapter Six Conclusions and Recommendations

6.1 Introduction

The aims of this study were to explore and describe how environmental health officers prioritize the different components of their food regulation duties within the context of their overall work load, and to explore the possible implications for policy implementation; applying the framework of Lipsky's theory of street-level bureaucracy.

6.2 Comparisons with previous research

While a number of studies have used Lipsky's theory of street-level bureaucracy, such as in the areas of social work, nursing and education, as cited in the discussion chapter, at the time the present study was conducted, there was no literature specific to the role of environmental health officers. The analysis confirms that environmental health officers experience similar working conditions as other street-level bureaucrats and exercise discretion in making decisions regarding the services they provide their clients. Public service professionals such as environmental health officers provide services to their clients, the community, in much the same way as the aforementioned workers, making it possible to compare the results from this study to existing literature.

The results from this study are largely consistent with Lipsky's theory. Field environmental health officers appear equivalent to street-level bureaucrats in work load, work conditions, degree of interaction with the community and capacity to use discretion in the provision of services to that community. This study clarifies and

extends existing knowledge about the motivations behind the work practice of street-level bureaucrats. Contrary to previous studies that indicate street-level bureaucrats use coping mechanisms to decrease frustration caused by work conditions (Maynard-Moody 2000; Summers and Semrud-Clikeman 2000; Riccucci 2005; Nielsen 2006). , results from this study indicated that officers were motivated by a desire to create positive outcomes for the community, with the secondary benefit of increasing work satisfaction.

Similar to other street-level bureaucrats, environmental health officers were encouraged, to a large extent, to self-manage their daily activities (Maynard-Moody 2000; Summers and Semrud-Clikeman 2000). In this way they were comparable to other street-level bureaucrats in helping professions. The environmental health officers prioritized their activities as a coping strategy to manage their substantial workload. The environmental health officers saw themselves as “watchdogs” for the community, placing highest priority on food safety issues and other risks to public and environmental health. The environmental health officers in the field placed low priority on monitoring nutrition, health and related claims, and believed the community agreed with this prioritisation.

The difficulties that officers anticipated in enforcing the regulation of the new standards were the same as previously reported when initial feedback on the standard was sought. Key issues were lack of understanding of the policy, improper or inadequate training in how to interpret the regulations, and inadequate provision of resources to implement the enforcement.

Thus, considerable effort and resources have been directed to the development of the standard, but insufficient resources and attention has been given to the officers

responsible for the monitoring and enforcement. Hence, the intent of providing clear and substantiated information to the public to encourage them to make healthy food choices is unlikely to be achieved.

6.3 Workforce impact on Policy Implementation

The results from this study indicate that in their role as enforcers of food regulations, environmental health officers do have the capacity to optimize or lessen the benefits of nutrition and health related claims on food labels to consumers through their work practice. Analysis of the data using Lipsky's framework allows predictions to be made about how environmental health officers will cope with the added role of monitoring such proposed changes in the future. The theory of street-level bureaucracy identifies the capacity of street-level bureaucrats to shape policy through their work practice.

There are implications here in regard to the future enforcement of regulations relating to nutrition, health and related claims. The first relates to environmental health officers' individual behaviour, the second to organizational constraints. If, for example, environmental health officers consistently choose to overlook the monitoring of health claims and perform those duties they feel present more risk to public health, food manufacturers will not be monitored in relation to their labelling practices and may overstep the boundaries resulting in reduced benefits for the public.

It was clear that protection of public health was viewed as the number one priority by environmental health officers. Therefore, it is likely that if they strongly believed that deficient monitoring of health claims on food labels created high risk to public health,

they would endeavour to ensure the monitoring was done. As environmental health officers have a duty to respond to their clients' demands, they prioritise complaints from the community. This suggests there is potential to indirectly raise the priority that environmental health officers give to the policing of such claims through the generation of community demands in this area. Raising consumer awareness of the messages on food labels via education initiatives and the use of the media is likely to result in public complaints in this area and hence a higher level of surveillance by environmental health officers.

6.4 Limitations

There are several limitations in this methodology that should be noted. Perhaps most obvious of these is that the results from the three states used in this study may not be generalizable to the entire population of environmental health officers in Australia. However, with the appropriate caution, the findings from this exploratory study provide important insights into the work practice of environmental health officers and further, into the implications for future policy implementation within bureaucratic systems.

The sample taken may not be representative due to the method of sampling. Permission to invite participants was obtained through the appropriate managers, therefore was limited by the degree of willingness of local governments to allow employees to participate, as well as the degree of individual willingness of environmental health officers to participate. As a result, there may be an unknown and uncontrolled bias of the sample.

6.5 Recommendations

The following recommendations are put forward to increase the likelihood that environmental health officers will prioritize the duty of monitoring the proposed nutrition, health and related claims on food labels. The recommendations reflect the need for changes at the organizational and community level, and include training, support, and community education.

At the organizational level, additional resources, together with sufficient support and training should be made available to officers in order to prevent this component of their work load “falling off the plate”, resulting in decreased benefits to the public. Sufficient resources in the form of dedicated officers must be employed to cope with the added responsibility of monitoring nutrition, health and related claims. Trained and dedicated officers specializing in this role will enhance the likelihood that correct, consistent and vigorous monitoring of claims will occur.

Sufficient training in the interpretation of legislation changes generally, and specifically in the assessment of the veracity of nutrition, health and related claims should be provided for those environmental health officers made responsible for this role. The training should be delivered in a timely fashion, and be accompanied by clear protocols for seeking substantiation of questionable claims where required.

Communication between State and local government authorities must continue to be improved and maintained, so that adequate support in the form of appropriate guidance from team leaders is consistently available. Examples of early efforts to increase the communication include the liaison officer (NSW) linking the State and local

government officers, the development of a standard of practice for environmental health officers (Victoria) and the food regulation partnership in NSW.

Lastly, increased public education about how to understand and use nutrition, health and related claims as a tool to make healthier food purchases is needed. As reported by officers, they are duty-bound to respond to community complaints. Therefore, if consumers raise concerns about labelling, officers will likely monitor these claims more closely.

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Appendix 1 Letter requesting permission to recruit

Dear (Appropriate person),

I am currently working toward my Master of Science Degree in Public Health at the University of Wollongong. My research thesis involves exploring the daily work of the Food Safety Officer.

I understand that as the Manager of Environmental Health, your permission to contact Food Safety Officers in (appropriate state) is necessary. I would like to invite Food Safety Officers to participate in my study either via your internal email or personal letter. My research proposal has been reviewed by an academic examination committee in the School of Health Sciences and by the Human Ethics Committee of the University.

This research aims to gain understanding of the work of the Food Safety Officer, how he/she sets daily priorities, and the factors which influence their day to day work practice. The outcomes will be helpful in finding ways to support Officers in dealing with influences on their roles, and new expectations as they arise. I attach an information letter and consent form that I will send to officers, inviting them to participate in the study. I would then make a time to interview them, either via telephone or in person. The interviews will be transcribed and all identifying information will be deleted.

I would like to begin recruiting participants in April, in order to be able to complete my thesis in 2006. Your prompt consideration of this research, and permission to invite participants from New South Wales would be greatly appreciated. If you have any questions, please do not hesitate to contact me (02 4221 4274; email: lizg@uow.edu.au) or my supervisor, Associate Professor Heather Yeatman, Head, School of Health Sciences (02 4221 4161).

Regards,

Liz Grigonis-Deane
Candidate for Master of Science
School of Health Sciences
University of Wollongong

Appendix 2 Information Sheet

University of Wollongong

Information Sheet

The Changing Role of the Environmental Health Officer

Liz Grigonis-Deane

My name is Liz Grigonis-Deane and I am undertaking research for a Master of Science: Research in Public Health at the University of Wollongong. I have an interest in the changing role of environmental health officers.

This research aims to gain understanding of the work of the EHO, how he/she sets daily priorities, and the factors which influence their day to day work practice. The outcomes will be helpful in finding ways to support EHO's in dealing with influences on their roles, and new expectations as they arise.

Giving your consent means that you will allow me to audiotape an interview with you and transcribe it. I will ask you questions about your daily activities, and factors which influence your day to day work practice. The interview is expected to take up to one hour of your time. It is possible that I may contact you for a brief follow-up interview in the event that I feel any of your responses need clarification. The information from our interview(s) will be reported anonymously, and as part of a collection of such information gathered from all the officers taking part in this study. Individual comments made by any participant will not be identifiable and will only be made available to organizations as part of collated information. Collated interview data will be used for student report publication, and professional journal or conference papers.

Your participation in this research is voluntary and you are free to withdraw from the research at any time. You will be given a copy of the transcript of the interview audiotape.

If you have any inquiries about the research you can contact me directly: 0422 069 430, or either of my supervisors at the university Heather Yeatman: 02 4221 3463, or Deanne Condon-Paoloni 02 4221 4597. If you have any complaints about the way the research is or has been conducted, you can contact the Ethics Officer, Human Research Ethics Committee, University of Wollongong, 02 4221 4457.

Thank you for your consideration of this project.

Kind regards,

Elizabeth Grigonis-Deane
Graduate School of Public Health
School of Health Sciences
University of Wollongong
Northfields Avenue
Wollongong NSW 2500

Appendix 3 Consent Form

UNIVERSITY OF WOLLONGONG

CONSENT FORM

The Changing Role of the Environmental Health Officer

LIZ GRIGONIS-DEANE

I have been given information about “The Changing Role of the Environmental Health Officer” and discussed the research project with Liz Grigonis-Deane who is conducting this research as part of a Master of Science degree supervised by Dr. Heather Yeatman and Dr. Deanne Condon- Paoloni in the department of Graduate School of Public Health at the University of Wollongong.

I understand that, if I consent to participate, I will participate in an audio-taped interview about my experience as an Environment Health Officer. I understand that I may be contacted for a brief follow-up interview.

I have had an opportunity to ask Liz Grigonis-Deane any questions I have about the research and my participation.

I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research at any time. My refusal to participate or withdrawal of consent will not affect my employment, or possible participation in any future projects at the University of Wollongong.

If I have any enquiries about the research, I can contact Liz Grigonis-Deane, Dr. Heather Yeatman, or Dr. Deanne Condon-Paoloni at the University Of Wollongong, or if I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Complaints Officer, Human Research Ethics Committee, Research Services Office, University of Wollongong on 4221 4457.

By signing below I am indicating my consent to participate in the research entitled “The Changing Role of the Environmental Health Officer”, conducted by Liz Grigonis-Deane as it has been described to me in the information sheet and in conversation with Liz Grigonis-Deane. I understand that the data collected from my participation will be used for this research project, and I consent for it to be used in that manner.

Signed

Date

.....

...../...../.....

Name (please print)

.....

Appendix 4: Proposed Interview Schedule

Topic 1. Current duties

Can you please tell me about your day as an environmental health officer?

Prompts:

- What does your workload entail?
- How long have you been in this job?
- Have you been doing the same duties all that time? If not, how have they changed over time?
- Previous experience/training?
- Describe time allotment for duties?
- How does your head of unit direct your time allotment?
- What requires the most time?
- What conditions/event may help you to perform these duties effectively?
- What conditions/events may hinder your ability to effectively complete these duties?

Topic 2. Qualitative comment re: significance of role

What do you think is the EHOs/food safety officer's contribution to the community?

- How do you think your role in the food regulation enforcement contributes to the community of industry/consumers?
- What skills do you think make a good EHO?
- What training best prepares and EHO
- How do you rate your own experience/training re: those skills mentioned?

Topic 3. Daily Practice re: Food Standards Code

The Food Standards Code has many sections for you to monitor. How do you make decisions about prioritizing your daily workload to cover all areas?

- How do you prioritize your daily duties/how do you organize your workload to handle all sections in your daily practice?
- What decisions do you make to prioritize your workload?
- How do you think you will fit monitoring claims into your workload?
- Where do you think it will fall on your priority list compared to other duties?
- What do you think will help you to perform these monitoring duties effectively?
- What do you think might hinder you in performing these monitoring duties effectively?

Appendix 5 Job Decision Latitude Scale

Response scale for items:

“1” strongly disagree

“2” disagree

“3” neither

“4” agree

“5” strongly agree

___ My job requires that I learn new things

___ My job involves a lot of repetitive work

___ My job requires me to be creative

___ My job allows me to make a lot of decisions on my own

___ My job requires a high level of skill

___ On my job, I have very little freedom to decide how I work

___ I get to do a variety of different things on my job

___ I have a lot of say about what happens on my job

___ I have an opportunity to develop my own special abilities

Appendix 6 Control Scale

Below are listed a number of statements which could be used to describe a job. Please read each statement carefully and indicate the extent to which each is an accurate or an inaccurate description of your job by writing a number in front of each statement.

1	2	3	4	5
Very little	Little	A moderate amount	Much	Very much

- ___ 1. How much control do you have over the variety of methods you use in completing your work?
- ___ 2. How much can you choose among a variety of tasks or projects to do?
- ___ 3. How much control do you have personally over the quality of your work?
- ___ 4. How much can you generally predict the amount of work you will have to do on any given day?
- ___ 5. How much control do you have personally over how much work you get done?
- ___ 6. How much control do you have over how quickly or slowly you have to work?
- ___ 7. How much control do you have over the scheduling and duration of your rest breaks?
- ___ 8. How much control do you have over when you come to work and leave?
- ___ 9. How much control do you have over when you take vacations or days off?
- ___ 10. How much are you able to predict what the results of decisions you make on the job will be?
- ___ 11. How much are you able to decorate, rearrange, or personalize your work area?
- ___ 12. How much can you control the physical conditions of your work station (lighting, temperature)?
- ___ 13. How much control do you have over how you do your work?
- ___ 14. How much can you control when and how much you interact with others at work?
- ___ 15. How much influence do you have over the policies and procedures in your work unit?
- ___ 16. How much control do you have over the sources of information you need to do your job?
- ___ 17. How much are things that affect you at work predictable, even if you can't directly control them?
- ___ 18. How much control do you have over the amount of resources (tools, material) you get?
- ___ 19. How much can you control the number of times you are interrupted while you work?
- ___ 20. How much control do you have over the amount you earn at your job?
- ___ 21. How much control do you have over how your work is evaluated?
- ___ 22. In general, how much overall control do you have over work and work-related matters?