

**THE CHALLENGES OF FOOD LAW
ENFORCEMENT:
PERCEPTIONS OF ENVIRONMENTAL
HEALTH PRACTITIONERS IN THE
NORTHWEST OF ENGLAND**

By

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Declaration

This is to certify that this thesis is a result of my own work, and that no portion of it contained herein has been submitted for another degree or qualification in this or any other university, to the best of my knowledge, and that the original work is mine except where due references are made.

List of Abbreviations

BRE	Better Regulation Executive
BRTF	Better Regulation Task Force
CIEH	Chartered Institute of Environmental Health
EHP	Environmental Health Practitioner
FHRS	Food Hygiene Rating Scheme
FMP	Fixed Monetary Penalty
FSA	Food Standards Agency
HACCP	Hazard Analysis Critical Control Point
HEPN	Hygiene Emergency Prohibition Notice
HIN	Hygiene Improvement Notice
LA	Local Authority
MP	Member of Parliament
NACCHO	National Association of County & City Health Officials
OECD	The Organisation for Economic Co-operation and Development
RAN	Remedial Action Notice
RESA	Regulatory Enforcement and Sanctions Act
SFBB	Safer Food Better Business
WTO	World Trade Organisation
UK	United Kingdom

Abstract

In the United Kingdom (UK) food law and its enforcement are currently governed by European and domestic law through a regulatory framework that seeks to provide a high level of public health protection to ensure food is safe for human consumption. Government reports recommend the need for alternative enforcement tools for those responsible for enforcing food law so that they can properly address any failures within a food business thus preventing foodborne incidents from recurring. It is important to know whether there are challenges enforcers face when dealing with breaches of the law that may be difficult to identify hidden problems. This study aims to analyse the views reflected by Environmental Health Practitioners (EHPs) currently working in food law enforcement in Local Authorities (LAs) across the North West of England. The study focuses on food inspections and current enforcement strategies. This study builds on existing literature to examine EHP perceptions of the effectiveness of tools available to them in the area of food inspections and enforcement. This study fills the gap in the literature by conducting a qualitative methodology of the perceptions and views of EHPs to gain knowledge about the successes and failures of inspection practices including the practicality of the food hygiene rating scheme and how other forms of enforcement measures would affect enforcement practices in England. In lieu of the current economic climate, it was also important to gauge the opinions of enforcement officers on the future of environmental health and more specifically food law enforcement.

Twenty-one Environmental Health Practitioners (EHPs) from seventeen Local Authorities in the North West of England took part in this study. All the participants were either directly involved in the enforcement of food law or managed a team of enforcement officers. Data was collected using semi-structured interviews via Skype. All participants were asked the same questions.

A number of important findings were obtained from the data. The results showed that there is gender and race disparity when it comes to the use of certain regulatory interventions and enforcement tools. In addition, an EHPs level of experience and if they had previously worked in other areas of environmental health are also significant factors of perceptions towards food law enforcement. This has implications as to whether the demographics of a local authority has a bearing on enforcement decisions and perceptions of how the law is interpreted. This is an essential insight which the literature does not discuss. The study also reinforced support for mandatory disclosure of the inspection results of food businesses but revealed that the use of the FHRS may not be the best way to assess food business compliance since it does not provide the desired accuracy to assess compliance. The implications of such findings make it essential to provide a sound framework for enforcement so that high standards of food safety are maintained.

Appendix 1: List of Local Authorities in the North West of England

- Allerdale
- Borough of Barrow-in-Furness
- Blackburn with Darwen
- Blackpool
- Metropolitan Borough of Bolton
- Borough of Burnley
- Metropolitan Borough of Bury
- City of Carlisle
- Cheshire East
- Cheshire West and Chester
- Borough of Chorley
- Borough of Copeland
- Eden District
- Borough of Fylde
- Borough of Halton
- Hyndburn
- Metropolitan Borough of Knowsley
- City of Lancaster
- Liverpool
- Manchester
- Metropolitan Borough of Oldham
- Pendle
- City of Preston, Lancashire
- Ribble Valley
- Metropolitan Borough of Rochdale
- Rossendale
- City of Salford
- Metropolitan Borough of Sefton
- South Lakeland
- South Ribble
- Metropolitan Borough of St Helens
- Metropolitan Borough of Stockport
- Tameside
- Trafford
- Warrington
- West Lancashire
- Metropolitan Borough of Wigan
- Metropolitan Borough of Wirral
- Wyre

Appendix 2. Consent Form



Consent Form

Research Project Title: THE CHALLENGES OF FOOD LAW ENFORCEMENT: PERCEPTIONS OF ENVIRONMENTAL HEALTH PRACTITIONERS IN THE NORTHWEST OF ENGLAND

Name of the researcher:

Nicola Assan

Name of the supervisor:

Julie Adshead

Please tick the appropriate boxes

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. I have read and understood the project information sheet dated DD/MM/YYYY. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. I have been given the opportunity to ask questions regarding the above research project. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. I agree to take part in the project. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Taking part in the project will include being interviewed and audio recorded. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I agree to the use of my statements as anonymous quotes in publication | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. I understand that my taking part is voluntary; I can withdraw from the study at any time and I do not have to give any reasons for why I no longer want to take part. | <input type="checkbox"/> | <input type="checkbox"/> |

Name of participant [printed]

Signature

Date

Researcher [printed]

Signature

Date

E-mail address: n.assan@edu.salford.ac.uk

Appendix 3: The Main Study Letter

The Main Study Letter To whom it may concern,

Research Title: THE CHALLENGES OF FOOD LAW ENFORCEMENT: PERCEPTIONS OF ENVIRONMENTAL HEALTH PRACTITIONERS IN THE NORTHWEST OF ENGLAND

Researcher: Nicola Assan

PhD student

University of Salford

Dear Sir/Madam,

I am an Environmental Health Officer with Liverpool City Council and also a part-time PhD student at the University of Salford. As part of my course I am undertaking research study titled: The challenges of food law enforcement: perceptions of environmental health practitioners in the North West of England. The purpose of the study is to investigate the practices of environmental health practitioners (EHPs) and how they operate within the current legislative framework. The study will also attempt to raise the debate on the quality and content of food safety legislation and recommend possible modifications that could be made to facilitate the enforcement of food law in England.

Prior to undertaking the study I need your agreement and consent to approach officers that are responsible for enforcing food safety legislation so that they can complete a telephone interview that will assist me in my study.

I can assure you that the data collected will remain confidential. I have received ethical approval for the study from the University of Salford, College of Arts and Social Sciences. The research is being supervised by Julie Adshead, Associate Dean of the College.

Please Note:

- 1) The questionnaire is for Local Authorities in the North West of England only (i.e. Cheshire, Cumbria, Greater Manchester, Lancashire and Merseyside – see attached).
- 2) Only the Team Leaders/Managers of all food teams please respond to this email rather than individual officers.
- 3) It is hoped that the interviews take place at a time convenient to the enforcement officers

Many thanks,

Nicola Assan

Environmental Health Officer/PhD student

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Confidentiality and data protection: The consent of the interviewee will be sought and obtained before the interview will be conducted. In addition, their consent will be obtained before the interview is recorded. At the outset, interviewees will be made to understand that they have right to withdraw from the interview at any point and any recording relating to the interview will be deleted. The recorded interview will be handled with confidentiality; only the researcher will have access to it. If any confidential information is inadvertently revealed by the interviewees, it will be deleted from the recording. All data obtained from the study will be used strictly for the study and securely stored so that no unauthorised person will have access to it.

Appendix 4

Semi-Structured Interview Schedule

Section One: Personal Details

1. **Gender:** Male () Female ()
2. **Age range:** 21-30yrs () 31-40yrs () 41-50yrs () 51-60yrs () 61yrs+ ()
3. **What is the name of your Local Authority (LA)?**
4. **How long have you worked for this LA?**
5. **How many years have you been fully qualified as an Environmental Health Practitioner?**
6. **How many years have you been enforcing food law?**
7. **How many food officers (including yourself) are in the team?**

[Make a note of ethnicity]

Section Two: Regulatory Interventions

- What are your views on the current regulatory interventions? (Official controls: inspections; monitoring; surveillance; verification; audit; sampling. Non-official controls: education/advice; information and intelligence gathering; sampling). Answer how often you use these controls: always, sometimes or never.
- Are they effective in improving and sustaining compliance and in dealing with repeated breaches of the legislation?
- Practicability – do they work in practice? Why or why not?
- Pros and cons of each regulatory intervention.

Section Three: Enforcement

(A) Food Hygiene Inspections

- Do you think food hygiene inspections are effective in capturing food hygiene contraventions?
- On average, how long does it take you to conduct a food hygiene inspection? (less than half an hour; 30-45 mins; 45mins – 1 hour; 1 - 1½ hours; 1½-2 hours; more than 2 hours)
- What do you consider sufficient time to conduct a food hygiene inspection?
- Do you think there are areas on food hygiene inspections that could be modified to improve its effectiveness?

- In your opinion, do you consider announced inspections better at achieving compliance than unannounced inspections?
- What do you consider the optimum inspection frequency for food businesses?
- Does your local authority use inspection reports to record details of the food hygiene inspection? If not, how is information about the inspection recorded?
- Do you think the inspection reports are useful?
- Do you leave a copy of the inspection report at the food business?
- Are there any challenges you encounter during an inspection?

(B) Food Hygiene Rating Scheme

- How do you assess the overall impact of the Food Hygiene Rating Scheme (FHRS) in assisting EHPs with their work - do you think the FHRS has a positive or negative effect?
- Have you encountered any challenges with the FHRS during the course of your inspection duties?
- Do you think the components (criteria) of the FHRS (i.e. type of food/handling; method of processing; consumers at risk; vulnerable groups; compliance with food hygiene, confidence in management) and their corresponding scores capture the food safety and hygiene performance within food businesses?
- Do you have anything else to add? Are there any components/elements that should be excluded or included in the FHRS?
- Can you offer any suggestions?
- Do you feel mandatory display of inspection scores at food businesses is a good approach to food businesses improving and sustaining compliance with food legislation?
- Do you think the six point rating scale adequately indicates/communicates the level of compliance of food businesses?
- Do you know of any other rating systems in other countries? If yes, which countries? And do you feel that system better assesses food hygiene performance of food businesses compared to that used in England?

(C) Enforcement Toolkit

What are your views on the current enforcement toolkit provided under the Food Code of Practice?

- Warning Letters
- Hygiene Improvement Notices
- Emergency Prohibition Notices
- Cautions
- Prosecution
- Seizure and Detention

- Remedial Action Notices
- How many times have you taken a case to court in the last 5 years (2006 to date)?
None () 1-5 () 6-10 () 1-15 () >15 ()
- What is your opinion on the fines imposed by the courts (from your experience and in general)? For example, do you think the fines provide an effective deterrence to businesses? Do you think the fines provide a way of improving compliance with regulations? Do the penalties reflect the severity of the offence?
- In your opinion are magistrates in your area fully appreciative of the seriousness of the food safety offences?
- Do you think a specialised court, investigatory board or administrative tribunal should be set up to handle environmental health cases in place of the criminal court?
- What would help to improve the effectiveness of enforcement activity? Why do you say that? What needs to take place for this to happen?

(D) Alternative Enforcement Toolkit

How do you think these civil penalties will work for food offences?

Section Four:

- What is your highest level of academic achievement/qualification?
- What other training have you acquired?
- Is the current economic climate affecting your environmental health department and the work of EHPs as a whole?
- How do you see the future of environmental health?

Appendix 5: Example of a transcript from EHP11 LA4

Salford Law School, University of Salford

LOCAL AUTHORITY INTERVIEW QUESTIONS

I = interviewer

EHP = respondent Environmental Health Practitioner

Section One: Personal Details

Good afternoon and thank you for willing to take part in this research. I am going to ask you a series of questions relating to the way in which you enforce food law. The questions are divided into 3 sections. The first section asks for personal details. The questions in sections 2 and 3 relate to regulatory interventions and enforcement respectively.

I: So to begin, can you give me your name, gender and age.

EHP: My name is XXXX, female, and age 45

I: What is the name of your Local Authority and how long have you worked for this local authority?

EHP: XXXX and I have worked for this local authority for 14 years

I: How many years have you been fully qualified as an Environmental Health Practitioner which I will shorten to EHP during the course of our conversation?

EHP: I have been fully qualified for about erm, 14 years and been on the food unit for 12 years.

I: Right. That was my next question about the number of years you have been enforcing food law, so that's great! By the way did you work on other units of environmental health?

EHP: Yes. I spent about 2 years or so on other units – housing then health and safety unit.

I: OK. I will ask you a bit more about that later on.

I: How many food officers (including yourself) are in the team?

EHP: There are now 7 food officers. There used to be a lot more but with budget cuts and everything, many officers have left. They had worked for the local authority for ages anyway but decided to leave because the council were offering a redundancy/early retirement package which worked in their favour so.....It's very difficult to keep up with the workload.

Section Two: Regulatory Interventions

What are your views on the current regulatory interventions?

Effectiveness in improving and sustaining compliance and in dealing with repeated breaches of the legislation

Practicability – do they work in practice? Why?

Pros and cons

Section Three: Enforcement

(E) Food Hygiene Inspections

On average, how long does it take you to conduct a food hygiene inspection?

What do you consider the challenges and burdens caused by inspections?

Do you think food hygiene inspections are effective in identifying foodborne illness risk factors?

What do you consider the optimum inspection frequency for food businesses?

Does your local authority use inspection reports to record details of the food hygiene inspection?

Do you think there are areas on food hygiene inspections that could be modified to improve its effectiveness?

(F) Food Hygiene Rating Scheme

How do you assess the overall impact of the Food Hygiene Rating Scheme (FHRS) in assisting EHPs with their work - do you think the FHRS has a positive or negative effect? Please explain your answer.

Have you encountered any challenges with the FHRS during the course of your inspection duties?

Do you think the components of the FHRS identifies all the possible risks within a food business?

Is there any other components that should be included in the FHRS?

Do you think the scoring system of the FHRS represents the risks associated with the food businesses that you inspect?

Do you feel mandatory display of inspection scores at food businesses is effective in improving food safety and increasing compliance?

Do you know of any other rating systems in other countries? What are your thoughts?

Would you suggest alternative(s) to the FHRS?
If yes what would you suggest?

(G) Enforcement Toolkit

What are your views on the current enforcement toolkit provided under the Food Code of Practice?

- Warning Letters
- Hygiene Improvement Notices
- Emergency Prohibition Notices
- Cautions
- Prosecution

How many times have you taken a case to court in the last 5 years (2006 to date)?

None () 1-5 () 6-10 () 11-15 () >15 ()

What is your opinion on the fines imposed by the courts (from your experience and in general)? For example, do you think the fines provide an effective deterrence to businesses? Do you think the fines provide a way of improving compliance with regulations? Do the penalties reflect the severity of the offence?

In your opinion are magistrates in your area fully appreciative of the seriousness of the food safety offences?

Do you think a specialised court, investigatory board or administrative tribunal should be set up to handle environmental health cases in place of the criminal court?

- Seizure and Detention
- Remedial Action Notices
- Detention Notices

What would help to improve the effectiveness of enforcement activity? Why do you say that? What needs to take place for this to happen?

(H) Alternative Enforcement Toolkit

How do you think these civil penalties will work for food offences?

Section Two: Regulatory Interventions

1. What are your views on the current regulatory interventions? You can make comments about its effectiveness in improving and sustaining compliance and in dealing with repeated breaches of the legislation; practicability; pros and cons. How effective are the current range of interventions in securing compliance and tackling repeated compliance breaches?

Official Controls: Inspection (full/partial); Monitoring; Surveillance; Verification; Audit; Sampling; Advice

Non-Official Controls: Advice; Education/Training; Intelligence Gathering; Sampling

I: So first of all, what do you think about inspection (full and partial) as an intervention in securing compliance?

EHP: Erm. I think that's the best way to find out whether or not a food business is breaking the law. Full inspection I mean. I don't think I've ever done a partial inspection. I can't see how you can partially inspect a food business!! I'm not sure why it is included as an intervention really.

I: What about the other official controls – monitoring, surveillance, verification, audit, sampling and advice? Let's start with monitoring.

EHP: Well, I would group monitoring, surveillance and verification together because I don't really see their purpose. I mean, when I am carrying out an inspection, I kind of do all these things, audit included so again I'm not sure why all these controls are treated as separate categories since they are all part of a full inspection!

I: But are there times when you do not carry out a full inspection so that these other controls are utilised?

EHP: Erm, no not really. I mean, I always do a full inspection unless I'm revisiting a place to make sure they have done all the work I asked them to. If that's what you mean?

I: Yes, I understand. Thanks. So what are your views about sampling and advice as official controls?

EHP: Both are interventions that I use; advice more than sampling though. I don't understand why sampling is classed as an official and non-official control. I think it should be one or the other.

I: Can you elaborate on what you mean by that?

EHP: I mean, I think sampling is a very important intervention and should be an official control. Having it also as a non-official control makes it sound less important. I know sampling is expensive which is why I think there should be a larger budget for it.

I: Thanks for that. What about advice?

EHP: Well the same again. It's being considered as an official AND non-official control, I'm not sure why? Businesses need to know that we are there to help them and this can be achieved through advice and by educating food handlers. We can achieve a lot by building a good relationship with

food businesses. However, food businesses need to understand that we do not have the time to give the same level of advice on every visit.

I: It's interesting to hear you mention about time. We will discuss that later in the interview.

What about the other non-official controls? Advice; Education/Training; Intelligence Gathering; Sampling?

EHP: With regards to education and training, businesses need to know that we are there to help them and this can be achieved through advice and by educating food handlers. We can achieve a lot by building a good relationship with food businesses. However, food businesses need to understand that we do not have the time to give the same level of advice on every visit.

Intelligence gathering is not something I'm involved in. It tends to be the Technical Officers or students that send out questionnaires to very low risk businesses to find out if they are still trading and whether or not their operations have changed.

Sampling. We have a sampling officer who does all the sampling.

I: Would you like to comment further on anything we have discussed so far:

EHP: Like I said before, I don't think there should be a distinction between official and non-official controls – they should be called just regulatory intervention controls or something like that. As I said it makes one group sound less important than the other, when any intervention is important if it involves the safety of the public!!

I: Thanks for that. Let's move on to the next section about enforcement.

Section Three: Enforcement

(A) Food Hygiene Inspections

I: Do you think food hygiene inspections are effective in capturing food hygiene contraventions?

EHP: No I don't think food hygiene inspections are effective because there is so much non-compliance! Some businesses don't learn from their offences. I'm not sure what the solution should be other than regular inspections which seems highly unlikely since most environmental health departments are experiencing staff shortages and budget cuts etc.

I: On average, how long does it take you to conduct a food hygiene inspection?

EHP: It depends. A food businesses where there is a lot of things wrong could take me about half an hour. Places where everything is fine doesn't take me that long, maybe around 15 minutes in reality if there is not much to look at. But I stay longer to chat with the staff/FBO if they are friendly enough because I have to record the time spent on the inspection form!! Otherwise I just sit in my car outside the premises and write up my notes.

I: What do you consider sufficient time to conduct a food hygiene inspection?

EHP: It's difficult to say because it depends on the size of the business and I suppose the size of the problems!! What I mean by that is, if there a loads of contraventions within the business and the person managing it does not have a clue!! In my opinion, I don't think you can particularly say how much time is sufficient. The problem we have is that we have to meet targets so it means not spending as much time as we would like because we have to inspect a certain number of premises every financial year.

I: That's fine. Thank you for your answer. But if you had to pin point a particular time, what would it be?

EHP: Erm. I would say about an hour to an hour and a half.

I: Right.

I: In your opinion, do you consider announced inspections better at achieving compliance than unannounced inspections?

EHP: To be honest with you I don't think it makes a difference. We mainly carry out unannounced inspections. The only time I make an announced inspection is for the likes of day nurseries, nursing homes or large supermarkets where I need to speak to a manager or whoever is in charge. The likes of nurseries and nursing homes accommodate vulnerable people so it is important to call beforehand for security purposes.

I: But if you had to choose?

EHP: That element of surprise is always better so I would say unannounced, although as I said I don't think compliance is better achieved.

I: Why do you say that?

EHP: Because I still find non-compliance in any case, whether I make an appointment with the business or not.

I: What do you consider the optimum inspection frequency for food businesses?

EHP: The food hygiene rating scheme takes care of this although I don't think the frequency outlined in this scheme is sufficient in reality. But we don't have enough staff to increase the frequency of inspections to say 3 or 4 times a year for high risk premises.

I: Does your local authority use inspection reports to record details of the food hygiene inspection? If not, how is information about the inspection recorded?

EHP: We use inspection reports at XXXX to record food hygiene inspections.

I: Do you think the inspection reports are useful?

EHP: Yes I think it is useful to write down details of the inspection so everything is recorded. But I don't think the form is designed properly though cos there is never enough space to write everything. It's also can be a lot of writing if there is a lot of things wrong so an inspection can take a long time. And we have targets to meet! It would be less time consuming to video record

our inspection although it would be just as time consuming to look at the video recording and write up in the office.

I: Do you leave a copy of the inspection report at the food business?

EHP: Yes

I: Are there any challenges you encounter during an inspection?

EHP: No not really. I mean apart from time. I sometimes feel I have to rush through an inspection because of the targets I have to meet.

(B) Food Hygiene Rating Scheme

I: Right, thanks. The next set of questions is about the food hygiene rating scheme.

How do you assess the overall impact of the Food Hygiene Rating Scheme (FHRS) in assisting EHPs with their work - do you think the FHRS has a positive or negative effect?

EHP: Generally positive! Food businesses always want to be rated high so most of them make sure they comply with the law. On the other hand, despite having such a scheme in place, there are a lot of places that are still awful. I've always thought that food businesses should be licensed before they are allowed to trade and if they break the law then their licence is revoked. Simple as that!

I: Have you encountered any challenges with the FHRS during the course of your inspection duties?

EHP: Not really. Other than some food business operators may not be happy with the rating that I give them.

I: Do you think the components (elements) of the FHRS (i.e. type of food/handling; method of processing; consumers at risk; vulnerable groups; compliance with food hygiene, confidence in management) and their corresponding scores capture the food safety and hygiene performance within food businesses?

EHP: Mmm. Erm. I'm not really sure. Not really. I mean, I don't know how the scores were worked out in the first place. I think the components are ok but a bit vague.

I: What do you mean? Can you please explain?

EHP: Well, for example, consumers at risk. The business gets a score based on the number of consumers per day. In my opinion I don't see how this matters, whether a business caters for one person or one hundred people, if they are not preparing/selling safe food then.....

I: Do you have anything else to add? Are there any components/elements that should be excluded or included in the FHRS?

EHP: As I mentioned just now I don't think the consumers at risk is necessary since I don't think it makes a difference on how many customers are being served etc. And as I said before as well I'm not sure how the scoring system came about but it doesn't seem right to me.

I: Can you offer any suggestions?

EHP: Not off head. Maybe check in with what other countries do?

I: OK. Thanks for that. Moving on. We will come back to that point in a minute.

Do you feel mandatory display of inspection scores at food businesses is a good approach to food businesses improving and sustaining compliance with food legislation?

EHP: Yes I suppose it is really if the majority of food businesses are striving to get a higher score so people will patronise their business. Businesses should have to display their ratings so it will keep them on their toes with regards to complying with the law.

I: Do you think the six point rating scale adequately indicates/communicates the level of compliance of food businesses?

EHP: Yes, I think its ok. Although the number score was misleading at first. I mean, you would have thought that a score of 1 would be excellent. It was fine when the star rating was used because 1 star is obviously not a good score compared to say 5 star.

I: Do you know of any other rating systems in other countries?

EHP: No, not really.

(C) Enforcement Toolkit

I. What are your views on the current enforcement toolkit provided under the Food Code of Practice? Let's start with warning letters. Do you think they are effective in improving and sustaining compliance and in dealing with repeated breaches of the legislation?

EHP: Erm, yes for those food businesses that strive to comply but not for those who couldn't be bothered.

I: How often do you use this type of enforcement tool?

EHP: quite often since the food business I have in my district are generally ok.

I: Do you have anything else to add?

EHP: No

I: What about Hygiene Improvement Notices? Do you think they are effective?

EHP: I haven't served that many but the two I did serve was effective because the FBOs complied within the week of the notice being issued! I think the notices look more legal looking so those that try to comply with the law do so immediately. So yes they are effective.

I: What about Emergency Prohibition Notices?

EHP: I've never served any. Erm. Mmm. I think they are effective though because the next step is prosecution.

I: What about cautions and prosecutions? How many times have you taken a case to court in the last 5 years (2006 to date)? None () 1-5 () 6-10 () 11-15 () >15 ()

EHP: None. We only have one officer who works in the same office as us and oversees our legal issues but she does not have a legal background so cannot represent us in court. The LA solicitor works in another office and does not really get what we do. In an ideal world the LA would train/employ an environmental health officer with a legal background that would understand food law and be able to represent us in court as well as having an awareness of food law issues. Some of our officers have been on the legal training course organised by the Food Standards Agency which was good but not really enough in my opinion. If we had a dedicated person who understood the issues and prepared the files maybe officers wouldn't shy away from prosecutions.

I: What is your opinion on the fines imposed by the courts (from your experience and in general)? For example, do you think the fines provide an effective deterrence to businesses? Do you think the fines provide a way of improving compliance with regulations? Do the penalties reflect the severity of the offence?

EHP: Although I have no experience in this area it's disappointing there isn't a more rigorous investigation of the defendants' financial means. It seems to me the point of attaching a fine to a criminal act is to act as a deterrent. If a food business is barely making a profit and receives a fine of say £5000 it could be financially detrimental for the business. If a larger company gets the same punishment would make little difference to them financially. The thing is, a fine should be relative to wealth or income. If that business manages to pay the fine he will obviously try to recoup the costs by increasing the prices of his products. Penalties available fall far short of what might be expected to make any real impact, particularly on the larger firms.

I: In your opinion are magistrates in your area fully appreciative of the seriousness of the food safety offences?

EHP: Well having not taken a prosecution, I can't speak from experience. But just looking at the fines given to FBOs, there are some cases where the fine is quite high and others not so much.

I: What do you mean? Can you please elaborate?

EHP: I mean I've read there are times when the same offence is given a different punishment, depending on the local authority or even the magistrate. For example, an EHO in XXX prosecuting a food business and the FBO was given a fine of £2,500 plus costs. In XXX the same offence was given half of that fine. So I'm not sure what's going on. That's why I think if we could have fixed penalties then there wouldn't be that much of a problem. Just need to look up the fine and find the associated penalty. Quite simple really... I think!!!

I: OK thanks. Next question: Do you think a specialised court, investigatory board or administrative tribunal should be set up to handle environmental health cases in place of the criminal court?

EHP: Absolutely. That's a great idea. That would mean having EHOs overseeing food law offences which can't be a bad thing. They should be experienced enough to do that.

I: Have you been involved in seizing or detaining food?

EHP: No.

I: What about remedial action notices?

EHP: No, I haven't issued remedial action notices either. But they are only used for approved premises and I don't have any on my district. However, the way whole protocol goes regarding these notices, I think they should also be extended to include premises that don't require approval.

I: Why do you say that?

EHP: Because they require the FBO to take immediate action to rectify whatever contravention so it's easier to implement punishment.

I: OK thanks. What would help to improve the effectiveness of enforcement activity? What would you like to see incorporated into food legislation?

EHP: There are some instances where the penalty does not reflect the offence which is why food offences are not taken seriously. We need some strong and powerful deterrent. I'm not sure what! What I can say is that registration of food businesses is a waste of time. Any food business should not be allowed to operate until the LA is satisfied that the FBO is competent to run one. So I advocate for licences prior to trading.

(D) Alternative Enforcement Toolkit

I: How do you think these civil penalties will work for food offences? These are fixed penalty notices, variable monetary penalties, enforcement undertakings and stop notices. So first of all fixed monetary penalties which are for minor offences.

EHP: Anything that involves a business parting with money due to non-compliance will work. No business wants to cut into their profits so hitting them hard with a monetary fine and/or charging for enforcement, for example, if an officer were to serve a warning letter, a business would be charged for this. The service of an improvement notice or an emergency prohibition notice would constitute a higher charge. I think this would solve the repeated offence problem.

I: So you don't think that the others will work? Variable monetary penalties (for more serious offences but where prosecution may not be in the public interest); enforcement undertakings (agreements made between the regulator and the business to carry out specific actions to remedy offences and achieve regulatory compliance); stop notices to stop businesses from carrying out an activity that is causing/ or has the potential to cause harm

EHP: maybe the variable monetary penalties for more serious offences. Anything monetary will hurt businesses so they will be more willing to comply with the legislation. They wouldn't want to lose money. I would like to see them introduced into food legislation.

I: OK right thanks for that.

Section Four:

Now the final section about academic qualifications, professional career development and training, the current economic climate and the future of environmental health

I: What qualifications do you have?

EHP: I have degrees in biology and environmental health.

I: Do you have a postgraduate qualification?

EHP: No

I: Where did you study your environmental health degree and what did you think of the course?

EHP: I studied at XXXX University. It was a four year course. Fortunately I was employed as a student EHO at my local authority so I didn't have to worry about getting practical experience. The course was ok. I thought we could have had guest speakers. I also thought the course could have been more practical, I mean organising visits to food manufactures etc. particularly for those students who were not connected to any local authority. Also just as I was finishing my degree the CIEH decided to change the goalposts regarding being able to register as an EHO. Students now had to sit and pass exams as well as having an oral interview and complete a portfolio. Fortunately I only had to participate in an oral exam and complete the portfolio but students who were to graduate the following year had to do everything. It was terrible. I don't think it was organised properly at the time, not sure about now because our local authority does not have any students.

I: So how do you think this could be improved?

EHP: As I said I don't know whether any improvements have been made. But during my time the portfolio was a mess! It was confusing to complete. So I think improvements to the portfolio.

I: So now you are qualified, do you have any thoughts on professional career development and training?

EHP: Many of us are reluctant to take on a prosecution because you're pretty much left on your own and if you don't have everything in order you could end up looking foolish. I would advocate for more practical training in legal issues and probably go as far as an academic course in law to make it worthwhile, just something that would give me confidence to prepare a case for court and how to conduct myself in a court room.

I: How has the current economic climate affected food law enforcement?

EHP: When our unit experienced an inability to achieve our targets, we had to employ EHPs from an employment agency to help with the backlog of inspections. It worked but costs us a lot of money. I think it would've been cheaper to pay us all overtime and/or request exemption from having to attain the specified targets.

I: How do you perceive the future of environmental health?

EHP: There are times when I do not need to go into the office so I work from home. My home computer is linked to the database so I can view my emails as well as inputting data from my inspections. This is great for me because it fits into my family life plus I do not have to pay for parking since our offices are based in the city centre and we do not have free parking like we used to when our offices were based in the suburbs.

I: Do you have anything else to add regarding anything we have talked about?

EHP: No not really. Thanks.

I: Thank you for your time. I will end the interview now.

Appendix 6: Examples of inspection forms from LA4, LA7 and LA12

Food Hygiene Proforma

Premises name and address

Date of inspection

Officer

1. SIZE / SCOPE OF BUSINESS/FOOD ACTIVITY –A description of size and scale of business, the customer base or intended market, outside catering, high-risk dishes- e.g. chicken liver parfait, raw egg used etc

Officer observations/comments:

Cleaning and disinfection methods -detergents/sanitisers used –regard to e coli guidance/temp clean areas:

Trade waste contract -company/docs checked:

Pest control contract/in house measures:

Imported foods checks:

2. SUMMARY OF ARTICLE 5 / HACCP COMPLIANCE

Documented systems based on HACCP prepared and implemented? SFBB in use/ other documented system?
Hazards /CCP's identified, controls, monitoring/ review?

:

(a)Purchase/delivery: details of suppliers of high risk foods /delivery checks traceability/approval numbers.

:

(b)Chilled/frozen/ambient - stock rotation/ date marking/ temp control

(c) Defrosting- safe methods followed ? e.g. Defrost in refrigerator overnight.

(d) Preparation/ cross contamination-management/handling/separation/equipment used

(e) Cooking-tried and tested recipes/ probe checks core 75C for 30 secs or equivalent time/temp/visual?

(f) Cooling/post cook handling- How is food cooled/handling practices.

Food Safety Section – Checklist A

Inspection/Observation

Wash hand basins		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Toilet facilities		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>(accessible, h/c water, soap, towels, disposable towels, conformance with BS</i>			<i>(intervening space, drainage, ventilation)</i>	
Changing facilities		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Food waste	Name of company: Frequency of Collection <i>Kitchen bin lidded/open/waste oil/ABP</i>	Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>(necessary, adequacy, separate)</i>				
Water supply		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Drainage		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>(adequacy, potable, tank disinfection)</i>			<i>(adequacy, repair, grease traps, grilles)</i>	
Washing food		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Washing equipment		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>Peeled vegetables, salad, raw meat (cross contamination)</i>			<i>(corrosion resistant, easily cleaned, cross contamination equipment used raw/cooked (butchers/deli counters)</i>	
Lighting		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Sickness policy		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>(Windows, bulbs, fluorescent tubes) (adequate natural/artificial, diffusers)</i>			<i>(procedures, responsibilities, 48 Hr rule)</i>	
Complaint procedures		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Sampling		Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>(procedures, responsibilities, recent cases)</i>			<i>(necessary, recent results)</i>	
Ventilation					Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>(suitable & sufficient, no flow dirty to clean, access for cleaning)</i>				
Personal hygiene					Compliance Y M P N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	<i>(hand washing (raw/ready to eat foods), jewellery, suitable, clean & where appropriate protective clothing & separate clothing for butchery activities)</i>				
Training					Compliance Y M P N

	(In house training or formal training Level 2/similar)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
--	--	---

<i>Step</i>	<i>Purchase and receipt</i>						
Controls and monitoring in place		Y	M	P	N	Records	Notes
	Reputable suppliers used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Suppliers audited	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Delivery temperature checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Separation raw/cooked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Management supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
List of suppliers							
<i>Step</i>	<i>Storage (excluding chilled display)</i>						
Controls and monitoring in place		Y	M	P	N	Records	Notes
	Storage temperatures checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Separation raw/cooked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Unwrapped food protected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Adequate stock rotation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Day dots <input type="checkbox"/>	Number of days given to high risk foods
Management supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dated labels <input type="checkbox"/>		
Additional notes – high risk food storage	Refrigerator/freezer details/ location					Temperature readings	
	Number of fridges:					Probe/IR	
	Number of freezers:						
Monitoring equipment: Gauge, Probe, IR, none.							
<i>Step</i>	<i>Preparation</i>						
Controls and		Y	M	P	N	Notes	
	Appropriate prep time/temp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

monitoring in place	Adequate work space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Separate areas for raw & cooked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Physically <input type="checkbox"/> By time <input type="checkbox"/>
	Separate equipment for raw & cooked (eg meat slicers/vac packers etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Physically <input type="checkbox"/> By time <input type="checkbox"/>
	Equipment colour coded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Cleaning & disinfection of work surfaces & equipment, & correct cleaning chemicals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Repair & condition of equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Sufficient sinks – Food prep and wash up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Management supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Step	<i>Cooking and reheating</i>				
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Controls and monitoring in place		Y	M	P	N	Records	Notes
	Time/temperatures checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Equipment used: Pie warmer, microwave, oven, hot plate.
	Validated cooking procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Core temperature:
	Handling procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Management supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Step	<i>Cooling</i>				
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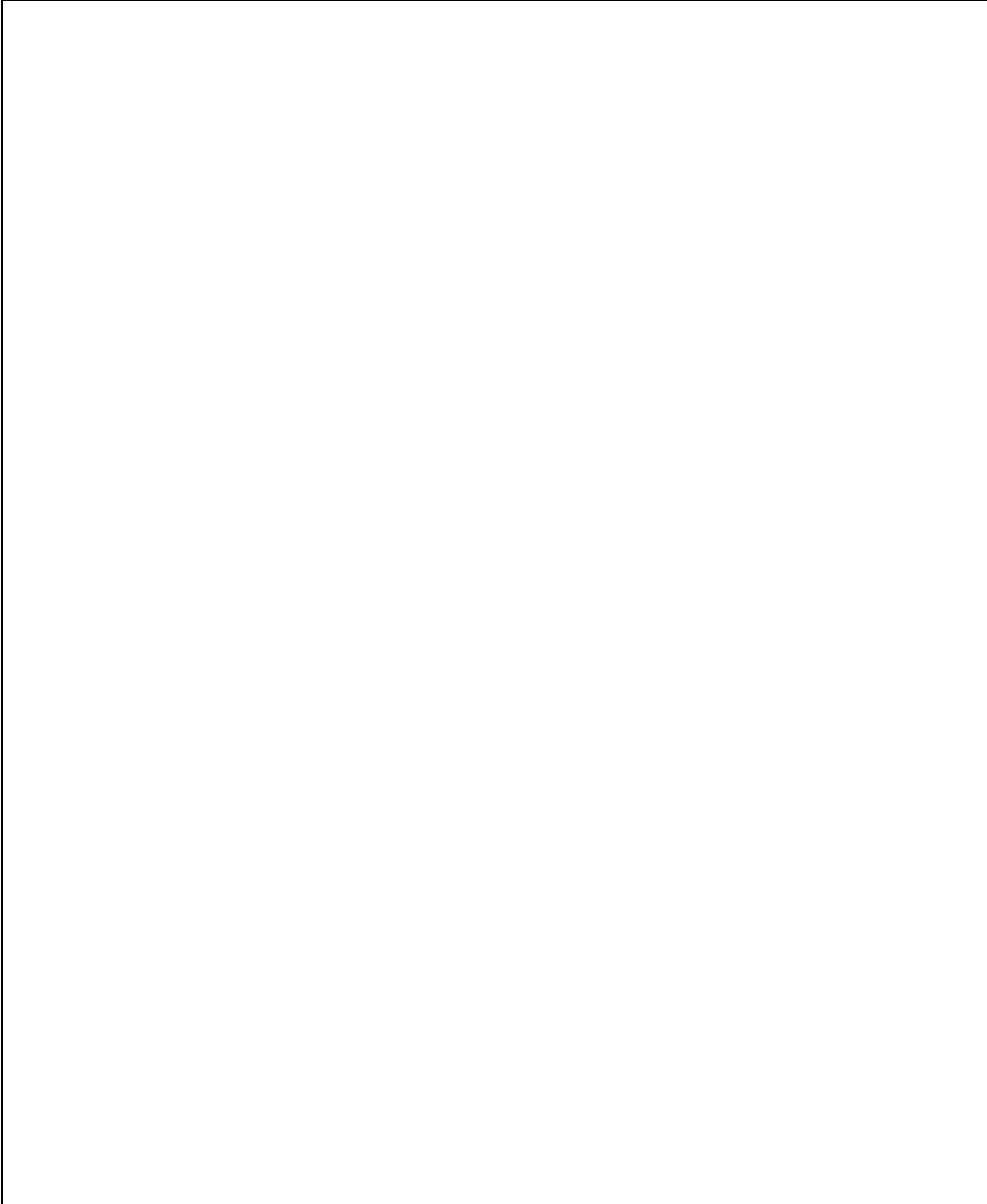
Controls and monitoring in place		Y	M	P	N	Records	Notes
	Time/temperatures checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Blast chiller <input type="checkbox"/> Shallow tray <input type="checkbox"/>
	Adequate protection/separation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Iced water <input type="checkbox"/> Other <input type="checkbox"/>
	Management supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Step	<i>Display, sale, hot and cold holding</i>				
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Additional notes – high risk food details	Baine maries hot/cold displays		Temperature readings	Monitoring equipment/calibration
	Hot cupboard			
	Pie warmer			
	Bain marie			
	Chilled bed			<i>(Probe/IR/read out) (2 hrs hot hold, 4 hrs cold)</i>

General Structure	
Layout/design/ construction/size	<i>(Cross contamination, accumulation of dirt)</i>
Suitability	<i>(appropriate, permits cleaning & disinfection)</i>
Maintenance	<i>(cleanliness, repair, condition)</i>

Open food rooms:	
Floors	<i>(Altro, lino, quarry tile, stone tile etc) (condition, ease of cleaning, washable, drainage)</i>
Walls	<i>(Painted plaster, ceramic tile, splash back, plastic clad) (condition, ease of cleaning, washable)</i>
Ceilings	<i>(Painted plaster, suspended ceiling) (prevent accumulations, reduce condensation)</i>
Windows	<i>(prevent accumulations, insect screens)</i>
Doors	<i>(ease of cleaning, washable, insect screens)</i>
Equipment surfaces	<i>(melamine, stainless steel) (condition, ease of cleaning, washable)</i>



Food Safety Section – Checklist B

Documentation/Systems

Food safety management system		Y	M	P	N	Notes
	Documented system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SFBB caterer/retail/Chinese/Indian/Other
Cross contamination		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Notes
Cleaning		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chilling		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooking		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Management		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Opening checks		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Closing checks		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Suppliers list (purchase and receipt)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Training		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cleaning schedule		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Types of chemicals used		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outside catering		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Distribution from premises		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Traceability		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Prove it records		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Diary completed		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Alternative record keeping file	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Pest Control	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

(Proofing, signs of activity, on-going treatment, In-house or contractor - name

Ref No:

Name:

Address

.....

.....Postcode

.....

Registration Form: Imported Food

Date of Visit/Report: Time:

Name & Position of Person Seen:

.....

Areas Inspected :

.....

First Language:

Type of Business:

Intervention type:

Documents examined / samples taken:

.....

Scope.....Primary Authority

.....

ATP Result

.....

Priority actions/improvements necessary

Score

Hygiene Compliance

Structural Compliance

Confidence in Management

Food Hygiene Rating

<p>Food Business Operator:</p> <p>.....</p> <p>Registered Address (if Different)</p> <p>.....</p>

Note for food business operator

A weblink to information on the Food Hygiene Rating Scheme including template forms for requesting a “revisit for re-rating”, “right to reply” or for lodging an appeal is available at food.gov.uk/ratings

Summary of action to be taken by Authority Verbal Advice Letter Formal Action

Key Points discussed during the visit:.....

.....
.....
.....
.....
.....

Signature of Inspecting Office

Signature of Recipient:.....

Name in CapitalsContact Details:

Contact details of Senior Officer in case of dispute

Academic Audit and Governance Committee

Research Ethics Panel
(REP)



To Nicola Assan
cc: Ms J Adshead, Prof A Alcock
From Tim Clements, Contracts Administrator
Date 10th September 2010

MEMORANDUM

Subject: Approval of your Project by REP
Project Title: The enforcement of food safety legislation in England: a study of environmental health practitioners in the North West of England
RGEC Reference: REP10/099

Following your responses to the Panel's queries, based on the information you provided, I can confirm that they have no objections on ethical grounds to your project.

The Panel have also asked me to pass on the following advice:

- The researcher should consider the protection of the participants' identity in the thesis - especially if 25 are all from one area. Bad practice from food businesses may not be revealed in the collection of this data but unless it is already in the public domain then there is a privacy issue here also.
- It would be more suitable not to destroy the information on submission of the thesis, but to wait until the PhD is awarded.
- There is a split infinitive in the questionnaire's introduction.

If there are any changes to the project and/or its methodology, please inform the Panel as soon as possible.

Regards,

Tim Clements
Contracts Administrator
TC/JH

For enquiries please contact
Tim Clements
Contracts Administrator
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CHAPTER ONE: INTRODUCTION

1.1 Introduction

Law is an interest not only to lawyers but also to scholars of other disciplines as they seek to explore and find answers to a particular problem. The reason for doing legal research is to acquire an understanding of the legal subject while arguing for a better way of doing things by critiquing and commenting on legal doctrine and practices (Singhal and Malik 2012). The focus of this research is in determining the current status of the law relating to the enforcement of food safety legislation in England. This study seeks to determine the impact of food law on Environmental Health Practitioners (EHPs) enforcement responsibilities and aims to highlight any gaps that exist between what is written in the legislation and what actually happens in practice. In other words are there any factors that prevent the operation of the food law enforcement in terms of its implementation. The empirical research in this case will assess how legal processes have shaped the enforcement practices of EHPs based on gaps in the literature review. Any perceived problems currently affecting the enforcement of food law will be identified. This study will also highlight any flaws in the policies underpinning such enforcement and propose recommendations on alternative legal and practical approaches to the enforcement of food law.

This chapter aims to provide an introductory background to the study in addition to the following sections: aim and objectives; research questions; methodology; purpose for the study and contribution to knowledge; limitations of the study; ethics and structure of the thesis.

1.2 Background to the Study

Food safety has become an important issue both from a political and consumer perspective. From a political standpoint, food safety is an area of political sensitivity because any decisions relating to it have an impact on many issues such as the income of farmers, food price and international food trade for the free movement of food. From a consumer perspective, governments have a duty of care towards their citizens in protecting them from food that is unfit for human consumption and thus prevent foodborne illness (Oosterveer 2007; Oosterveer and Sonnenfeld 2012). According to Buckley and Reid (2010) food safety issues are an important challenge to the public health sector. They point out that the emergence of new pathogens or antibiotic resistance in pathogens has contributed to food safety risks. In addition, the increase in the number of foodborne illness in the UK can be attributed to the changing eating habits of the population because of people

travelling overseas regularly, and also the influx of migrants resulting in new foods being introduced into the country (Havinga and Verbruggen 2017). Negri (2009) also suggests that this globalisation of the food trade has created possible problems with storage, preservation, transport and distribution of food thus placing a strain on the food safety system and the threat of widespread contamination of food especially from countries that do not have strict food safety and hygiene rules and regulations in place.

The need for laws regulating food has been established for centuries and such laws were designed to protect consumers from fraudulent practices in the sale of food (Fortin 2017). Laws and standards established at this time were mainly designed to prevent adulteration and to protect consumers against fraud. However, these legal statutes were concerned with specific food and drink, for example, bread, beer, tea and coffee (Griffiths 2014). The demand for legislation became apparent due to pressure from consumers and law-abiding food manufacturers concerned about the safety of food produced by dishonest businesses. It was not until the second half of the 19th century that the first general food laws were developed resulting in a number of statutes: for example the Sale of Food and Drugs Act 1875, Food and Drugs (Adulteration) Act 1928, Food and Drugs Act of 1938 and 1955 and the Food Act 1984. Such Acts marked the beginning of structured food control systems and was later incorporated into the primary legislation that is used in England: Food Safety Act 1990 (Griffiths 2014).

The Food Safety Act 1990 is the main framework for food legislation in the UK and consists of offences that relate to safety, quality and labelling. In the United Kingdom (UK) food law and its enforcement are governed by European and domestic legislation through a regulatory framework that seeks to provide a high level of public health protection to ensure food is safe for human consumption (Amodu and Hutter 2008; FSA 2017). The main legislative provisions relating to food safety used by EHPs: The European Union Regulation (EC) No. 178/2002 (The General Food Law) outlines the general principles and requirements of food law. Regulation (EC) No. 853/2004 (The Hygiene of Foodstuffs) which contains the general requirements that food businesses have to follow falls under the General Food Law (van der Meulen 2014, Middleton 2017; FSA 2017). Food hygiene regulations are developed and implemented from these European regulations make amendments to the Food Safety Act 1990 to bring it in line with the European legislation (Mortimore and Wallace 2013, 2016).

New regulations are continuously being drafted and implemented and any food safety crises heightens the need for revisions to food law with the aim of providing better public health protection (Fortin 2017; Middleton 2017). For example, the Food Safety and Hygiene (England) Regulations 2013 which came into force in January 2014 includes enforcement provisions for sprouts and seeds intended for sprouting following E.coli outbreaks in 2011 in Germany and France where sprouts and seeds intended for sprouting were identified as the most likely source (FSA 2017). The 2013 regulations consolidated the General Food Regulations 2004 (the national law for food safety) and the Food Hygiene (England) Regulations 2006 (the national law for food hygiene) into one piece of legislation for England only (Wales, Scotland and Northern Ireland have their own regulations) (FSA 2017). Furthermore, at the time of writing up this thesis, The Food Hygiene (England) (Amendment) Regulations 2016 is the current piece of legislation which was introduced to account for minor changes to the specific rules on official controls for *Trichinella* in meat (FSA 2017).

Food is essential for health and well-being and is a physical need for the body to function. Assuring its safety is therefore necessary to prevent consumer illness (da Cunha *et al* 2016; Moreb *et al* 2017; Marriott *et al* 2018). The main hazard with food processes is contamination with bacteria that cause disease (pathogenic bacteria) such as *Campylobacter*, *Salmonella*, *Escherichia coli* (*E. coli*), *Listeria monocytogenes* and *Clostridium perfringens* (Mortimore and Wallace 2013, 2016; Lund 2015; da Cunha *et al* 2016). There have been several high profile cases both nationally and globally relating to the adverse effects resulting from food that has not been handled, prepared or stored correctly thus causing harm to the consumer. Examples in the UK include the BSE crisis and salmonella in eggs in the 1980's and, *E. coli* outbreaks in which two large outbreaks occurred in 1996 and 2005 (Abels *et al* 2010; Pennington 2014). The UK's largest outbreak of *E.coli* in Scotland in 1996 resulted in 17 deaths (Pennington 2014). Another outbreak of the same pathogen in Wales in 2005 led to the death of a young child (Pennington 2009). The implications of these outbreaks has resulted in the mandatory implementation of food safety management systems such as Hazard Analysis Critical Control Point (HACCP) as a way of ensuring safe food and thus protecting the consumer (Taylor 2008; Wallace and Mortimore 2014; Green and Kane 2014; Wallace *et al* 2018). HACCP focuses on the identification of potential hazards within a food business operation and the introduction of controls to eliminate any food safety hazards. It specifies that food businesses must identify any step in their activities which is critical to ensuring food

safety and ensure that adequate procedures are identified, implemented, maintained and reviewed (Green and Kane 2014; Mortimore and Wallace 2016; Wallace *et al* 2018;).

The Food Standards Agency (FSA), the government department responsible for policy issues relating to food safety and food hygiene in the UK, introduced a food safety management pack called safer food better business (SFBB). This was designed to assist small businesses fulfil the mandatory HACCP requirement of the food legislation and comply with food hygiene regulations (Battersby 2017; FSA 2017). Although it is not directly a food safety issue, the 2013 horsemeat scandal in the UK caused concern. Horsemeat is not harmful to health and is eaten in many countries (although not commonly eaten in the UK), but foods advertised as containing beef were found to contain undeclared or improperly declared horsemeat (Eliot 2014). This resulted in exposing flaws in European control systems on food safety and thus created concerns because the meat industry is mainly self-regulated and less funding in this area means fewer government inspections (Eliot 2014; Tse *et al* 2016). Hygiene standards and procedures within the legislation have the primary purpose to protect the public from foodborne illness which can come from contaminated food or water (da Cunha *et al* 2016; Moreb *et al* 2017; Marriott *et al* 2018). In terms of the implications for food law enforcement, the importance of a food safety management system is now vital. EHPs need to audit this system and ensure what is being documented is being carried out in practice (Mortimore and Wallace 2013, 2016; Green and Kane 2014).

The role of EHPs has evolved over the years as the importance of food safety becomes fundamental to public health. The majority of environmental health services are provided directly by local authorities. The application of regulatory tools are important in the enforcement of food legislation (Mensah and Julien 2011). The overall objective of this study is to contribute towards the development of a broader theoretical and practical understanding of food law enforcement from the perspective of those who are actually involved in enforcing the law.

1.3 Rationale for the Research

It is perceived that the enforcement tools currently available to Environmental Health Practitioners (EHPs) do not attain the best results in compliance with food regulations (Macrory 2006; Pennington 2009). It is also thought that food hygiene inspections are ineffective to assess and monitor food safety especially in identifying hidden problems (Pennington 2009). According to

Pennington (2009), the E.coli outbreak in South Wales occurred not only because of food hygiene failures on the part of the food business implicated in the outbreak, but also because of the poor overall enforcement in relation to the regulations. The report that followed the investigation into this outbreak criticised “*light touch regulation, inspection and enforcement*” and stated that “*enforcement needs to be under constant review and a comprehensive assessment of the entire food law enforcement*” (Pennington 2009 p328). Pennington (2009) recommended the need for alternative enforcement tools for those responsible for enforcing food law so that they can properly address any failures within a food business thus preventing such incidents from recurring (Pennington 2009). An earlier government report by Macrory (2006) also reported that an enforcement toolkit should provide suitable options in order to deal with a variety of businesses in terms of their level of compliance with the law.

However, there has been no empirical evidence on whether these recommendations have had an impact on the enforcement of food legislation in England. It is important to know whether there are challenges enforcers face when dealing with breaches of the law that may be difficult to identify hidden problems. For example, in the 2005 E.coli outbreak in Wales the source of the outbreak was traced to a butcher who had falsified records that were an important part of food safety practice as well as misleading EHPs who had allowed the butcher to continue trading despite these failures (Pennington 2009, 2014). This therefore raises important questions relating to food safety and hygiene in terms of its enforcement and providing a toolkit that will assist EHPs to make the most appropriate course of action. This study will investigate whether improvements need to be made to the current inspection and enforcement protocols of the food safety legislation. In addition, whether anything needs to be done in terms of assisting EHPs in their enforcement duties in order for them to accurately detect food hygiene contraventions so that such outbreaks do not occur. The focus of this thesis is to present empirical evidence to validate these assumptions and provide insight into the current status of food hygiene inspection and enforcement in England through the eyes of EHPs.

1.3.1 Study Area

At the time of this study there are currently over four hundred (419) Local Authorities (LAs) in the UK which vary in size (Office of National Statistics 2016). The research population of this study was aimed at the LAs in the North West of England, namely those in Cheshire, Cumbria,

Greater Manchester, Lancashire and Merseyside. The North West is the third most populated region in the UK (after the South East and Greater London) and so offers diversity in terms of being able to select participants for the study (Office of National Statistics 2016). The population of the North West of England accounts for about 13% of the overall population of England. Over one third (37.86%) of this population resides in the Greater Manchester region, almost one quarter reside in each of Lancashire and Merseyside (21.39% and 20.30% respectively). A smaller proportion reside in Cheshire and Cumbria, 14.76% and 7.41% respectively (Office of National Statistics 2016). In addition, the LAs in this part of England consists of a wide range of areas ranging from deprived to affluent neighbourhoods and so provide this study a diverse population. Moreover, Tombs (2016) states that Merseyside is one of the most deprived regions in the UK and areas like Cheshire are considered affluent. See Appendix 1 for list of LAs in the North West of England.

Each LA has a wide variety of food businesses in its area, although statistics from LA food enforcement plans show that some LAs have more food businesses than others ranging from around 1,000 to over 4,500. At the time of this study 2,105 EHPs are responsible for enforcing the law in 634,584 food establishments (FSA 2015). The types of food businesses (in varying proportions) include restaurants, takeaways, schools, nursing homes and mobile units. Some LAs will have additional responsibilities such as food manufacturing and the enforcement of imported food at airports or shipping ports.

1.3.2 Gap in knowledge

The intention of this study is contribute to the body of knowledge on the challenges EHPs face when enforcing food legislation. The study was conducted with EHPs that are employed in LAs across the North West of England which will offer a new perspective into the perceptions of EHPs enforcing food law in this part of the UK. Whilst there has been much research interest in the area of food law enforcement, much of the attention has been towards food businesses with respect to compliance, food hygiene training and incidence of food poisoning (Yapp and Fairman 2005a; Burke *et al* 2011; Jin and Lee 2012; Moreb 2017). Furthermore, other studies have focussed on food hygiene training and inspection scores and the impact of inspection scores on consumer behaviour (Harris and Murphy 2015; McIntyre *et al* 2013; Da Cunha *et al* 2016). There has been

less interest in the perceptions of EHPs with regards to food law enforcement (Bukowski *et al* 2012). The aim of food law enforcement is to bring about long-term compliance and reduce the incidence of foodborne illness (da Cunha *et al* 2016; Moreb *et al* 2017; Marriott *et al* 2018). Hence this study aims to explore whether the EHPs perceive that the inspection regime is capable of capturing food hygiene contraventions with particular focus on the food hygiene rating scheme. The study will contribute to the existing body of knowledge by offering strategies to improve the inspection regime and the food hygiene rating scheme in order to make them more effective for food law enforcement. In addition, the study will investigate whether EHPs are of the opinion that alternative enforcement tools such as civil sanctions will be beneficial in supplementing the current food law enforcement toolkit. This thesis also examines the role of professional training and the work environment in which EHPs operate in the context of the current economic climate. The study will contribute to the existing body of knowledge by offering suggestions from its empirical study to enhance the current food law enforcement toolkit.

1.3.3 Summary of research relating to food law enforcement

Much of the research in the arena of food safety and hygiene law has focused on the impact of food safety regulation on small and medium sized food businesses, their attitudes towards food safety legislation and what motivates them to comply (or not) (Yapp and Fairman 2004, 2006; Griffith *et al* 2010). Earlier studies such as those undertaken by Braithwaite *et al* (1994), May and Winter (2000) and Yapp and Fairman (2005b) focused on the attitudes and behaviour of food businesses and provided detailed analysis of enforcement styles and behaviour of officials in order to get these businesses to comply with the law.

More recent studies by Bukowski *et al* (2012), for example, explored the decision-making of food enforcement officers in terms of how they select regulatory interventions and make enforcement decisions in order to gain compliance of food businesses. Although this study will be investigating the perceptions of EHPs with respect to the different regulatory interventions, the analysis of the responses will take into account the level of experience of the participant as well as other factors such as gender; level of experience and whether the sampled EHPs had previously been employed in other regulatory areas of environmental health such as health and safety, environmental protection and housing. It will also include their views regarding alternative enforcement tools such as civil sanctions. This investigation has not been covered in current enforcement studies.

Other studies relating to food law enforcement have looked at consistency. A quantitative study by Lee-Woolf *et al* (2015) analysed the enforcement data of LAs to determine whether inconsistencies exist between LAs and to ascertain the nature and level of such inconsistencies. Shah (2015) also embarked on a similar study although qualitative in nature, to gain insight into inconsistencies between LAs in England with regards to the ‘confidence in management’ score of the food hygiene rating scheme.

Vegaris (2015) sought to investigate the impact of the food hygiene rating schemes in the UK and their effect on LAs, food businesses and consumers. On an international level, studies conducted in Canada, the United States (US) and Finland have also examined the efficacy of the food hygiene rating scheme. These studies were in relation to their impact on food business compliance, consumer behaviour, food hygiene training/knowledge of food handlers and food poisoning outbreaks (Burke *et al* 2011; Murphy *et al* 2011; Choi *et al* 2011, 2013; Pizzino and Rupp 2013; Morrison and Wong 2014; Laikko-Roto *et al* 2015; da Cunha *et al* 2016). However, this study will provide in-depth analysis of the experiences and views of EHPs with respect to the food hygiene rating scheme looking at the factors used for assessment and whether they capture all the risks within a food business. This is not mentioned in previous research and will therefore contribute to a body of knowledge on whether the food hygiene rating scheme is an effective risk strategy method for food law enforcement. The study will also offer the thoughts of the EHPs with regards to whether magistrates are appreciative of food law offences with respect to fines given. A similar study was conducted by Moran (2005) but his study looked at environmental legislation. A different perspective will therefore be offered by this study. In addition, there has been no research carried out exploring the role of civil sanctions in food law enforcement.

1.4 Aim & Objectives

Aim

To critically examine Environmental Health Practitioners (EHPs) perceptions of the relevancy and effectiveness of current policies, practices and legislative frameworks as they relate to the enforcement of food legislation.

Objectives

1. To investigate EHPs perceptions of food hygiene inspections as a regulatory intervention for food safety in capturing contraventions of the law.
2. To investigate EHP perceptions on the impact of the food hygiene rating scheme as a risk strategy tool for enforcement.
3. To critically examine the enforcement sanctions currently available to EHPs and whether (in their opinion) alternative enforcement tools would be more appropriate.
4. To investigate EHPs perception of whether a specialist court would be required to deal with food law offences.
5. To investigate EHP views regarding their level of training and general working environment in relation to the current economic climate.

1.5 Research Questions

The study developed five research questions.

1. Are food hygiene inspections an effective strategy in food law enforcement: views from the environmental health practitioners?

With the government striving to improve the effectiveness and efficiency of regulations in general, it is imperative to identify and expose any weaknesses in regulatory interventions, more specifically food hygiene inspections. There is a need to examine the strategies used by EHPs during food hygiene inspections and determine whether the inspection regime is effective in identifying food hygiene contraventions. This research question will fulfil the aim of the study and research objective 1 by evaluating the perceptions of EHPs with regards to their current inspection

activities and other regulatory interventions. Factors such as gender and level of experience will be analysed to establish any similarities or differences since this has not been discussed in the literature.

2. Do EHPs believe that the Food Hygiene Rating Scheme (FHRS) is a reliable risk based method to assess food businesses' compliance with the law?

The success of the FHRS scheme is to provide consumers with more information about the hygiene standards in food premises as well as improving the hygiene practices among food businesses. The study will seek to investigate whether the FHRS is a valuable asset and benefit to EHPs for which there is limited qualitative data. This research question will fulfil the aim of the study and research objective 2 by evaluating the perceptions of EHPs with regards to the FHRS and provide suggestions to improve the format of the FHRS which has not been discussed in previous literature.

3. Is there a perception that the enforcement role of EHPs will be improved if alternative food law enforcement tools were introduced?

According to Macrory (2006) little has been done to change the enforcement tools of regulatory bodies in general. With the revision of food law in 2006 and 2013 this research will establish the EHPs perception of whether their enforcement tools are adequate and if alternative options would be more suitable, thus fulfilling the aim and research objective 3 of this study. The introduction of the Regulatory Enforcement and Sanctions Act (RESA) 2008 has primarily been used in other regulatory areas such as environmental protection. However, there is no data on how EHPs perceive this new legislation and the options of enforcement tools as an alternative regulatory enforcement option for EHPs outlined therein has not been discussed in literature.

4. Is a specialist court required to deal with food hygiene offences?

There is no special procedure for regulatory criminal cases involving food offences and ordinary criminal courts may not be equipped to deal with food cases especially when dealing with complex scientific issues and complex legislation (Macrory 2006). This research will investigate the views of EHPs on whether food hygiene offences are dealt with fairly in magistrate's courts or if they think there should be designated experts and courts to deal solely with food hygiene offences. This

will fulfil the aim and research objective 4 of this study. The findings of this study will add to the debate on dealing with regulatory offences.

5. What are the views and needs of EHPs regarding their level of training and the general working environment with respect to carrying out their enforcement duties?

The current economic climate has meant cut backs across several LAs. The study will provide an insight into the issues EHPs face in carrying out their enforcement duties in view of budget cuts thus fulfilling the aim and research objective 5 of this study. There are no previous studies which provides qualitative data on how EHPs in the North West of England view their training regime and how this impacts their enforcement activities.

1.6 Methodology

The North West of England was selected for its accessibility as it was not practical or feasible to carry out a nationwide study and therefore considered as the best practicable approach for getting results. In addition, it is the third most populated region in the UK (after the South East and Greater London) and so offers diversity in terms of being able to select participants for the study (Office of National Statistics 2016). The study was conducted in an area where there have been limited research that explores the enforcement of food legislation and so will offer a new perspective to this important area.

The study employed an inductive approach using an interpretivist, critical realist design based on qualitative methods (semi-structured interviews via Skype) to carry out the investigation. A total of twenty-one Environmental Health Practitioners (EHPs) from seventeen LAs participated in the study. The participants were selected on the basis of their willingness to participate and included EHPs with diverse experiences in food law enforcement and environmental health in general. Data collected from the interviews were analysed. The methodology will be discussed in more detail in chapter 5 of the thesis.

1.7 Contribution to Knowledge: academic and practical

This project provided an important opportunity to advance the study of food law enforcement and offers some important insights into EHPs in terms of gender, level of experience, and whether the

respondents had previously been employed in other units of environmental health departments, for example, housing, health and safety, significant contributions to knowledge since this has not been discussed in the current literature. An additional contribution is the framework for developing an inspection and FHRS plan suitable for communicating to businesses and consumers.

Some of the practical contributions include: recommending food hygiene and safety inspection processes EHPs could adopt when enforcing food law; recommending alternative or additional food law enforcement tools that will assist EHPs in their enforcement duties. The study has contributed to knowledge by discussing the civil sanctions as an alternative food law enforcement tool and how it would impact on food law enforcement. Therefore, this study makes a major contribution to research on food law enforcement so that policymakers such as the Food Standards Agency (FSA) can be informed of the issues that affect food law enforcement so they can develop appropriate enforcement strategies in line with such issues.

1.8 Limitations

There will be, as with any research, limitations on the fieldwork, data and analysis. Apart from the usual limitation of resources and time constraints, the data will only capture those EHPs that are employed within LAs and will exclude EHPs working in the private sector or self-employed and will cover the North West of England only. It is hoped that this will capture the overall perception/views of EHPs in general.

The limitations of the sample size still made it possible to meet the intended objectives for the study. However, a similar study could be undertaken in other regions of England or a larger comparative legal research study on a global scale to obtain empirical data and understanding of how the law works in different countries.

Another evident limitation of the study will be researcher bias leading to unreliable and inaccurate data. To prevent this from occurring, the sample were informed that the study was strictly an academic exercise, aimed at informing policy and practice and therefore EHPs were encouraged to participate willingly and honestly without any undue force or coaxing. However, it was assumed that participants will answer truthfully and accurately to the interview questions based on their personal experience.

1.9 Ethical Approval

The University of Salford requires that postgraduate students apply for ethical approval prior to carrying out research. The researcher applied for ethical approval (see Appendix 1) prior to conducting the field study. All participants were given an information letter detailing the nature and purpose of the study (Appendix 2). They were also given a consent form stating their understanding and rights as participants and were assured by the researcher that their identity and responses would remain confidential at all times (Appendix 2).

1.9 Structure of the Thesis

To make the contribution of the study clear, the content of the other chapters of the thesis are briefly outlined as follows:

Chapter Two: Regulation

Chapter Two reviews existing literature on regulation and attempts to open the debate on regulation theories and approaches to regulation as a way of explaining policy interventions implemented by government. This chapter also presents an overview of the legislative development and framework that underpin food law in England and how it dovetails with EU and international law.

Chapter Three: Enforcement

Chapter Three contains a comprehensive review of the literature relating to the legislative framework for food law enforcement, enforcement strategies, current enforcement toolkit and options for alternative enforcement tools.

Chapter Four: Empirical Framework

Chapter Four is a bridging chapter between the literature and the methodology. A summary of the research objectives, interview themes depicted from literature and gaps in the literature is presented in tables in this section of the thesis. It provides a justification of how the primary data will build on secondary data.

Chapter Five: Research Methodology

This chapter discusses, evaluates and justifies the research design and methodology. It includes the chosen research paradigm and philosophy of this study, research approach, research strategy, and data collection methods. It also justifies the process of the methodology and the methods of data analysis.

Chapter Six: Findings and Analysis

This chapter presents the research findings and the data collected from the Skype interviews with twenty-one EHPs from seventeen LAs in the North West of England. The findings are analysed to discover themes and patterns relevant to the research questions.

Chapter Seven: Discussion

This chapter presents an in-depth analysis and discussion of the results. The results are compared, where relevant, with the literature, in order to investigate and establish similarities or differences with existing theoretical propositions as well as implications for the study.

Chapter Eight: Conclusions and Recommendations

This chapter covers the conclusions derived from the findings linking them to the research aim and objectives of the study. It also provides recommendations for practitioners, and recommendations for further research and research limitations.

CHAPTER TWO: REGULATION

2.1 Introduction

Regulation exists for most human activities and society is becoming increasingly dependent on regulation (Vohs and Baumeister 2016; Carrigan and Coglianese 2016). It applies to industrial activities (those relating to, for example, environmental pollution, health and safety) and non-industrial activities (for example, equal opportunities laws) (den Hertog 2010, 2012). The introduction of regulations is one of the strategies that governments use to change behaviour in society. Regulations are introduced to discourage unsafe and unhealthy behaviour in organisations and therefore has a critical role to play in protecting consumers from dishonest businesses and preventing them from doing what they want to (Parker and Nielsen 2011). For example, employment laws to protect certain sections of the population, and the regulation of the manufacture of certain products to ensure the health and well-being of consumers (Pettinger 2012).

However, Baldwin *et al* (2012) argue that businesses should think of regulation as a way of enhancing their business in terms of developing and improving their performance in order to gain consumer confidence, rather than as a means to restrict their behaviour. Consequently, regulation should not necessarily be thought of as a restriction because the intention is to improve quality of life (Baldwin *et al* 2012). Stiglitz (2010) point to some of the ways in which regulations should be seen in a positive light. For example, environmental regulations ensure that there is clean air and water; food regulations safeguard against food becoming contaminated; health and safety regulations protect workers from unsafe working environments (Stiglitz 2010).

This chapter critically reviews the literature on regulation. It also discusses and evaluates different definitions of regulation and addresses the theories of regulation in terms of why governments regulate, which according to Walshe *et al* (2014), an understanding of the theories of regulation is an important consideration in recognising whether regulation is necessary. It also gives an overview of the types of regulation with specific focus on the legislative framework of food safety regulation in England. The chapter finishes with a chapter summary. It must be noted that the study of regulation has been around for some time, therefore some of the references used are relatively old although care was taken to ensure the majority of the consulted literature was current.

2.2 Definitions of Regulation

Regulation has become a part of human activity and it is therefore essential to understand what is meant by the term ‘regulation’. The following section will provide various definitions relating to the common perceptions of what regulation means.

According to Adler (2009) and den Hertog (2010) there is no fixed definition of regulation as it can mean different things to different people. Levi-Faur (2010) agrees that regulation is difficult to define. He states that regulation can be viewed either as burdensome rules made by government as a way of hindering freedom, or as a tool necessary to control behaviour of businesses and society. Tombs (2016) also suggests that regulation is often associated with being burdensome, one of the reasons why a report by Hampton (2005) was initiated to propose ways to reduce regulatory burdens on businesses (this will be further discussed in Chapter 3).

Regulation is not a term with a single agreed meaning and definitions. Indeed, Jordana and Levi-Faur (2004 p3) caution that *“it would be futile and somewhat nonsensical to offer one authoritative definition of the notion of regulation that holds across all divides”*. This is because the term regulation is used in many different contexts in fields such as law, economics, politics and sociology. For example, Baldwin *et al* (2012 p3) provide a politico-economic definition. They present a definition of regulation as *“the use of any tool by government to intervene in the economy”*. This definition implies that government intervention is necessary to promote economic fairness and prevent inequalities of, for example, income and wealth. This definition of regulation also refers to government intervening to minimise the severe impact of recession and inflation (Sinopoli 2011). In sociology and criminology discourses regulation implies behavioural (social) control and mechanisms such as fines and penalties are put in place to control the behaviour of businesses so that they are compliant with the law (Kagan *et al* 2011; Black 2014). Early work by Black (2002) refers to this as *definitional chaos* due to the different disciplinary backgrounds and the fact that regulation is seen as a multi-way process involving different groups of people.

Christensen (2010) asserts that regulation is a way of governments setting boundaries of operation. In this instance, regulation is mainly considered as a legal instrument for shaping social behaviour using sanctions for breaches of the law to deter adverse behaviour (Morgan and Yeung 2007; Moosa and Ramiah 2014). Baldwin *et al* (2012) state that government develops rules to control

industry or social behaviour and measures are in place to deal with non-compliance. Baldwin *et al* (2012) also point out that regulation is developed by governments in order to change not only the behaviour of industry but also the general public to improve the welfare of the society as a whole. They further claim that, although regulation is often thought of as means of restricting behaviour, it also prevents undesirable behaviour and ensures things are done so as not to cause chaos. For example, if there were no regulation relating to traffic control there could be chaos on the roads. Government therefore intervenes and develops regulation in order to bring about a positive change in the behaviour of industry or the general public (Stiglitz 2010; Baldwin *et al* 2012). Regulations therefore seek to improve society by changing individual or organisational behaviour in ways that generate positive impacts in terms of solving societal and economic problems (Coglianese 2012).

Hood *et al* (2001) uses three primary functions of regulation to give a general definition that would apply to all regulatory fields. The first function is standard setting where standards are identified and goals or targets are set. The second function is information gathering to determine whether or not those being regulated are achieving the standards being set, in other words, ways of detecting deviation from the standards. More commonly regulations are enforced through inspections and monitoring (enforcement) is designed to assess whether behaviour is in accordance with rules. The third function is behaviour modification which is the capacity to modify behaviour in cases where there is a deviation from the set standards. Mechanisms for correcting such deviations are introduced for those who do not comply with the regulations (Hood *et al* 2001). In the example of food safety and hygiene regulations, food businesses are subject to regular food hygiene inspections to ensure compliance with the legal requirements. If the inspection reveal contraventions there are a number of enforcement mechanisms to deal with any deviations from the regulations, for example, enforcement notices and prosecution (May and Winter 2011). The definition offered by Black (2002 p26) summarises the general definition given by Hood *et al* (2001): *“Regulation is a process involving the sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes which may involve mechanisms of standard setting, information gathering and behaviour modification”*.

This study offers two definitions from the regulatory literature. The first definition views regulation as a legal instrument, referred to as secondary, delegated or subordinate legislation

which is legally binding in the same way as Acts (primary legislation) (Carr 2016). Secondary legislation is made by an executive authority (or government minister) appointed and authorised by government and sets out in detail how an Act of Parliament (primary legislation) is to be implemented (Carr 2016). Regulation can add more detail to and support the main (primary) piece of legislation without the need for Parliament to pass a new Act (Easton 2012). For example, the Food Safety Act 1990 provides law on food safety and statutory obligations that food intended for human consumption should be safe to eat (Middleton 2017). The Food Safety and Hygiene (England) Regulations 2013, made under the 1990 Act details the requirements (basic hygiene principles) that food businesses must follow in order to produce safe food.

The main difference between primary and secondary legislation is the time in which they come into force. Secondary legislation is normally passed more quickly than primary legislation and is not subject to full parliamentary scrutiny since the laws are made by civil servants (delegated authority) (Syrpis 2015). This is the main reason why delegated legislation is criticised. It is argued by Porter (2009) that the delegated authority is given a ‘blank cheque’ to draft secondary legislation since any changes to the law are being made by unelected members of society and the members of parliament (MPs) that have been elected by the nation are not reviewing legislation properly and may result in incomplete or imperfect laws being implemented (Carr 2016). However, implementing delegated legislation allows some flexibility in the regulatory process in that it permits modification of the law to meet any changing circumstances since it would be impossible for parliament to scrutinise vast amount of regulations (Fox and Blackwell 2014; Carr 2016). It was initially Ganz (1997) and has been supported by Harlow and Rawlings (2009) that coined the phrase “*secondary legislation is a necessary evil*” because it is always going to be necessary to have some form of secondary regulation to provide the details of the law for which there is no time to debate and it would be totally unrealistic to abolish secondary legislation because of the criticism it receives. Carr (2016) also supports this view and advocates that secondary legislation should not be seen as a necessary evil but as legislation that has positive attributes.

The second definition is based on the assumption that government intervention is necessary to control and monitor behaviour of business activity in order to protect the public (Murphy 2017). Government sets up regulatory bodies to enforce the law and check compliance through a process of inspection, and failure to comply with these rules are punished using sanctions outlined in a

regulatory framework (Coglianese 2012, Carrigan and Coglianese 2016). Regulation is therefore generally thought of in the legal context to imply government intervention as a way of controlling or restricting certain activities in order to comply with specific rules and thus produce a change in behaviour which it is assumed would not occur without such intervention (Parker and Nielsen 2011; Lemaire 2017). There needs to be some form of regulation in society (and industry) because people cannot just do what they like and businesses in particular need to be held accountable so that, for example, their activities do not pose a risk to human health and welfare. In this way the public needs to be assured that government is able to intervene to remedy a particular problem (McAllister 2010; Gunningham 2015a). However, poorly designed regulation can impose excessive burdens on businesses and therefore inhibit productivity (Tombs 2016). It is essential that governments develop and implement regulations that are effective. For example, with respect to food hygiene and safety regulations, there have been several high profile food poisoning outbreaks which have caused government to intervene and create rules that will prevent these incidences from occurring (Griffiths *et al* 2017). Environmental Health Practitioners (EHPs) are employed to enforce these rules and the purpose of this study is to investigate whether or not EHPs are equip with an effective and suitable enforcement toolkit so as to implement these regulations.

Nevertheless, there is a need to find out the reasons why it is necessary for government to intervene to address a particular problem or issue, whether in society (community) or industry. Theoretical approaches seek to explain the justification for regulation and their underlying rationale and this will be discussed in the following section.

2.3 Why Governments Regulate

Theories of regulation have been developed by pioneering economists such as Stigler (1971), Posner (1974), Becker (1968, 1974) and Peltzman (1976) to try and explain why and how regulation is adopted. According to Ogus (2004 p32) these economic theorists suggest that the purpose of regulation is to *“identify the failure of the market which justifies intervention and select the method of intervention which will correct that failure at least cost”*. Two distinct theories of regulation have been identified to explain why regulation occurs, these are public interest theory and private interest theory (Becker 1968; Posner 1974). These theoretical frameworks seek to explore the relationship between regulatory laws and those affected by the regulatory process. The theories differ with respect to who benefits from the regulation. Public interest theory is presumed

to serve the interests of the public by correcting the inefficiencies of market failures (Stiglitz 2017). This is when markets underperform and policies are made to correct these imperfections to make the economy work more efficiently again (Baldwin *et al* 2012). The public interest model of government has been applied in many settings such as education, health and safety, environmental pollution and food hygiene and safety. Conversely, private interest theory is thought to meet the interests of those who are subject to the regulation, namely businesses (Ogus 2004; Moosa and Ramiah 2014). Examples include, the Association of British Insurers and the Federation of Small Businesses.

2.3.1 Public Interest Theory

This theory of regulation is based on the assumption that regulation is introduced mainly for the public interest in order to protect the public from the risk of poor practices by fraudulent and dishonest organisations (Baldwin *et al* 2012). Economic theorists such as Stigler (1971), Posner (1974), Becker (1974) and Peltzman (1976) assumed that markets are inclined to fail if left to their own devices and the government is capable of correcting this failure so that these markets start operating more efficiently and effectively and produce the desired behaviour that the public want to see. From a cynical point of view this can be especially true during an election campaign, for example, when policymakers introduce regulation to receive favour from the public. Baldwin *et al* (2012) agree that one of the motives behind government regulation is a means of re-election when regulation is directed towards private activities and its implementation appears to be conducive to the public interest.

As mentioned earlier, public interest theory regards market failure as one of the main reasons for governments to introduce regulation so that regulation will correct failure in the interests of the public (Posner 2011). Ogus (2009 p333) defines market failure “*where the market does not operate or behave in a way that is efficient and effective*” and because of this, Ogus (2009 p333) states that “*obligations are imposed by public law designed to induce individuals and firms to outcomes which they would not voluntarily reach*”. This is based on the assumption that markets would fail significantly if government did not intervene to make markets function effectively again and so protect the public from any harm that may arise from this market failure. There are a range of government interventions to correct such market failures. For example, in July 2007, the UK

government introduced legislation to ban smoking in public places. Cigarette smoking is considered an ‘externality’. Externalities are “*a cost (benefit) that a transaction imposes on economic agents without the receiver of the externality being compensated (charged)*” (Guhl and Hughes 2006 p3). Cigarette consumption can be seen as imposing externalities due to the increased costs of treating people due to illnesses related to smoking and the effects of second hand smoke. Individuals who smoke, create second hand smoke that pollutes the environment and cause health problems. If there was no government regulation then those people not directly involved in smoking would incur such costs generated by this activity (Ekpu and Brown 2015; Yang and Zucchelli 2018).

Furthermore, the regulation of food safety is no exception and which, according to Yasuda (2010), the government can remedy this failure. She says that market failure in terms of food safety regulation is a result of the increased incidence of foodborne illnesses which can incur costs to the health care system as well as worker productivity in relation to days lost due to illness. Government intervention in 2006 meant that it became mandatory for food businesses to implement a food safety management system to ensure that the food they prepare and sell is fit for human consumption. Furthermore the food hygiene rating scheme was introduced in 2010 by the Food Standards Agency (FSA) as a way of improving compliance among food businesses and also as a means for consumers to make informed choices about the food they buy and consume (Vegarís 2015; Nayak and Waterson 2017; Nayak and Taylor 2018). The food hygiene rating scheme is used by EHPs to assess compliance and this study will explore whether it is a beneficial enforcement strategy for EHPs. These market failures make regulation critical if the public interest is to be protected from the adverse negative impacts of such market failures and other harmful business behaviours.

However, the public interest theory of regulation has been subjected to a number of criticisms. The first criticism supposes that organisations can correct most market failures without any government intervention of regulation, just as neighbours resolve disputes among themselves, without any government intervention, because they need to get along with each other (Hutton and Schneider 2008). Hutton and Schneider (2008) propose that even if there is no regulation markets would work efficiently and it is preferable for organisations to solve its own problems rather than rely on government intervention. This view is supported by Sinopoli (2011) who questions whether

government intervention is necessary when markets fail and that government intervention may not be the right answer. They are of the opinion that the economy will continue to grow even if government does not intervene because organisations are capable of addressing their own problems. For example, a project implemented by the European Union tested the theory that if there was no government involvement in the form of regulations, people will adapt and will become responsible for their own behaviour. In 2008, a town in Germany removed all traffic lights and road signs throughout the town in order to look at the behaviour of drivers if they were not told what to. Within a four week period there was no accidents compared with at least one serious accident every week when there were traffic lights and road signs. The town also saved around £5000 a month because they did not have to replace or repair signs due to normal wear and tear or vandalism. The experiment showed that government regulations are not essential in order for society to run smoothly with people taking responsibility for themselves and naturally doing what they think is right rather than having rules and regulations imposed on them (www.dailymail.co.uk). In the UK, the government plans to remove the white markings on roads in an effort to make drivers more responsible for the safety of themselves and others (www.theguardian.com). Research by Dutch engineer Hans Monderman found that traffic was safest when there was an element of self-policing as opposed to a system of control (The Guardian 4/2/16). This 'self-policing' can also apply to the food industry in the form of self-regulation where businesses form an association to set their own standards. The association would discipline itself and probably set higher standards because their reputations are at stake since they cannot afford to produce unfit food (Baldwin *et al* 2010). However, Posner (2011) points out, the public interest theory of regulation was based on the assumption that markets are fragile and will operate very inefficiently if they are left alone. He also also argues that regulation is a necessary feature of a market economy and it is a myth that market economies can function effectively without it. This implies that government regulation is indeed effective in dealing with market failure. However, Black (2014) asserts that regulation is a *problem based activity* in that society decides that there is a problem or a risk of a problem in the future and policy makers and regulators devise ways to address that problem.

Nevertheless, according to Moosa and Ramiah (2014), Hyde (2014) and Lakhani (2017), governments introduce regulations without first determining whether the intervention is really necessary. Therefore it is often very difficult to identify the exact reasoning which motivate the

intervention. Yasuda (2010) also agrees that policymakers often introduce government regulations hastily without careful examination of their likely consequences. She questions whether government regulations are really helping. For example, when there is an injury or fatality, legislation is usually introduced to prevent the incident from happening again but the incident may often be repeated. It appears that new regulations may be implemented as a *knee-jerk reaction* to such incidents as government wants to be seen as acting in the public interest (Yasuda 2010). Hyde (2014) says that regulation regarding banks lending money to customers for a mortgage is a knee-jerk reaction to the financial crisis of 2008. Under these new regulations lenders need to carry out an in-depth interview with customers before they can issue a new mortgage. It is thought that many borrowers with good credit history will not qualify and the reliance on computers to filter out risky applicants will be detrimental as a solution to prevent a repeat of the financial crisis (Hyde 2014). Bleasdale and Dickinson (2016) cite The Dangerous Dogs Act 2014 as a knee-jerk (panic reaction to disasters or tragedies) 14 as a prime example due to the fact that well behaved and well trained dogs could fall foul of this legislation accidentally. For example, if a dog becomes overexcited, jumps up and knocks someone down.

Finally, den Hertog (2010 p21) also argues that public interest theory of regulation “*fails to prove how the views of public interest can translate into effective and efficient legislative actions*” since it appears difficult to translate the views of the public into policies and incorporated into legislation. The theory does not indicate how a given view on the public interest translates into legislative actions that maximise economic welfare (Moosa and Ramiah 2014). Public participation in the regulatory process is rare although not unheard of but this will probably only take place when there is a political election when politicians are rallying for votes. It is therefore questionable whether regulation serves the public interest or self-interests of private actors (Christensen 2010). From a cynical point of view self-interests are usually linked with the need to strengthen political gains and support from interest groups whose wealth is affected by the regulatory decisions (Stigler, 1971; Becker, 1983; Peltzman, 1976; Dür 2018). Conversely, it may be because regulatory agencies fail to protect the public because of lack of adequate financial and staff resources so that they are not able to perform their regulatory responsibilities (den Hertog 2010). This study will explore whether EHPs have adequate and suitable resources in order to carry out their enforcement duties.

Despite its appeal however, the public interest theory has been theoretically and practically discredited for its inability and its failure to explain why regulation often fails to deliver public interest outcomes (Baldwin *et al* 2012). Private interest theory emerged as an alternative to explain government intervention.

2.3.2 Private Interest Theory

In contrast to the public interest theory of regulation the private interest theory of regulation emerged as a response to the perception that regulatory agencies were ineffective in meeting public interest goals and is aimed at protecting the producer rather than the consumer (den Hertog 2010, 2012). Private interest theory is often referred to as: public choice theory; economic theory, Chicago theory of regulation; special interest and capture theory. The theory was initially proposed by Stigler (1971) in his article *'Theory of Economic Regulation'* and attempts to explain what happens when organisations try to influence the political process to their advantage. He claimed that *"regulation is acquired by the industry and designed and operated primarily for its benefit"* (Stigler 1971 p3). In his empirical work he stated that the main beneficiaries of regulation were not consumers but the regulated businesses. Posner (1974) also agreed and wrote *"regulation is not about the public interest at all, but a process by which interest groups seek to promote their own private interest....over time, regulatory agencies come to be dominated by the industries that are being regulated"* (Posner 1974 p341). It is therefore suggested that politicians and regulators end up being "captured" by those being regulated and as a result, laws and regulations do not serve the public interest. Regulation exists not because citizens need it, but because the regulated industry wants it and therefore do not regard government regulation as a restriction (Carpenter and Moss 2013).

Carpenter and Moss (2013) pointed out that in the case of regulatory capture not only does the industry benefit from the regulation but the government also benefits from greater political support and favour with these large and wealthy organisations. The capture theory asserts that these organisations will use the political process to their private advantage. Regulated organisations can be so powerful that they can influence politicians and the regulatory agencies because they (the regulated groups) are wealthy enough to donate monies through campaign contributions and votes - politicians want public votes but large organisations have the money to aid their campaigns

(Schneier 2012; Borges 2017; Browne 2018). The politicians are able to put pressure on the regulated agencies to act sympathetically towards these regulated organisations and so aid their chances of re-election. For regulatory agents, the benefits are the prospect of moving on to more lucrative careers outside government within the regulated industry (Schneier 2012; Browne 2018). An example can be seen in the United States of America (USA) where car dealerships in some states prevented an electric car company from selling directly to customers and campaigned for government to legislate to protect their profits. This is because the electric car company is able to cut out the costs of having dealer networks as well as repairs since electric cars do not have spark plugs, belts, oil filters, and air filters that need constant replacement, thus many problems can be diagnosed remotely. Legislation was implemented so that all cars must be sold via car dealerships thereby protecting these large car dealerships from competition (Crane 2016). Another prime example is that of the financial industry which received large amounts of money when the financial crisis happened thus saving them from total collapse (Carpenter and Moss 2014).

Since regulation has a direct impact on the profits of the regulated companies, such organisations have a powerful incentive to influence regulation so that it favours their business in a way that it would enhance profits. Equally, regulators have an incentive as their actions will typically result in greater political support (Baldwin *et al* 2012). Schneier (2012 p204) states *“There’s one competing interest that’s unique to enforcing institutions, and that’s the interest of the group the institution is supposed to watch over. If a government agency exists only because of the industry, then it is in its self-preservation interest to keep that industry flourishing. And unless there’s some other career path, pretty much everyone with the expertise necessary to become a regulator will be either a former or future employee of the industry with the obvious implicit and explicit conflicts. As a result, there is a tendency for institutions delegated with regulating a particular industry to start advocating the commercial and special interests of that industry. This is known as regulatory capture”*.

As a result, regulation is implemented on private interest grounds. On this basis, capture theory sees the regulatory process as a political market, where, at one extreme, the industry demands regulation as if it was an economic good, and on the other side, regulators implement regulation as an exchange for votes. This has been also termed the conspiracy theory which suggests the

existence of regulatory capture in the form of a conspiracy between regulators and regulatees against customers (Borges 2017; Browne 2018).

Croley (2011) suggests that in Bernstein's (1955) life cycle model regulatory agencies become sympathetic to the problems of organisations and also become lenient in enforcement. Bernstein's 1955 lifecycle model suggests that regulatory agencies are dominated over time by the industries they regulate even if at first they were driven by the pursuit of the public interest. Bernstein's Model of the regulatory cycle and suggests that regulatory agencies have a natural life cycle (Life Cycle Theory) that consists of 4 phases, that is, gestation, youth, maturity and old age (Table 2.1). In the beginning (gestation and youth phase) the regulatory agency implements and enforces new policies and procedures for the benefit of the public (public interest theory) and do not feel threatened by the organisations that it has to regulate even though they may resist the regulation. However, the final stages (maturity and old age) the private organisations unite and begin to confront the agency who eventually become captured by those they are supposed to regulate. The life-cycle theory proposes that although regulators might start to use their discretionary regulatory powers independently, they would gradually be captured (Millstone and Lang 2008; Howlett and Newman 2013).

Table 2.1: Bernstein's genealogical model of regulatory regimes (1955)

Stage	Summary of Activity
Gestation	Problems are discovered or perceived by specific stakeholders in a particular area. Advocacy groups organise and petition government for a public solution.
<i>Regulatory agency created by government</i>	
Youth	Boundaries of regulation and legal jurisdiction are not clear; regulation is probably ineffective.
Maturity	Controversies are over. Regulation becomes institutionalised.
<i>Regulatory capture occurs</i>	
Old Age	Industry has fully captured regime. Regulatory agency exclusively fights for the status quo.

Source: Howlett and Newman (2013)

Howlett and Newman (2013) criticise Bernstein's model in that it does not explain the steps towards the different stages and it does not provide sufficient information at each stage. They proposed an alternative life cycle model of the regulatory regime by including additional stages/activities prior to the youth phase: infancy and childhood (Table 2.2). Such models are proposed to assist policymakers identify the different steps in the regulatory process.

Table 2.2: Revised model of the early stages of a regulatory regime life cycle

Life Cycle Stage	Regulatory Activity
Gestation	<ul style="list-style-type: none"> ▪ Emergence of a problem on the agenda as a threat, hazard or risk ▪ Public acknowledgment of issue
Infancy	<ul style="list-style-type: none"> ▪ Poor knowledge base ▪ Efforts at issue suppression ▪ Attempt to adapt existing statutes and rules to current problems ▪ Exhortation to encourage voluntary activity
Childhood	<ul style="list-style-type: none"> ▪ Desire to create new rules but no clear knowledge of what these rules/standards should be ▪ Large scale research programs for hazard characterisation and initial quantitative risk assessments ▪ Responding to lobbying ▪ Venue shopping
Youth	<ul style="list-style-type: none"> ▪ Smaller scale maintenance research ▪ Emergence of more direct, authoritative state regulation ▪ Development of standards ▪ Frozen issue frames ▪ Litigation

Source: Howlett and Newman 2013

However, Becker (1983) held a slightly different view and argues that regulation will not only benefit industry because some consumer groups will also be able to put pressure on government, although he acknowledges that industry has much to gain from regulation and are in a better position than consumers to ensure that regulation is made in their favour. He also extends his assumptions to point out that there will be opposing consumer pressure groups all competing to exert the most pressure on government to develop regulation in their favour. Stigler (1971)

believed that all the regulated groups are united in their mission and do not have conflicting interests. Jenkins (2011) agrees and states that the general public hear the word ‘regulation’ and envision government defending the consumer. Although, he concludes, the truth is that government introduces regulation to those who ask for it which usually means organised interests seeking to block a competitive threat. This is consistent with den Hertog’s (2010) definition of regulation in that regulators act in the interests of both public and private interests (den Hertog 2010). Den Hertog (2010 p3) states that regulation is “*the employment of legal instruments for the implementation of social-economic policy objectives*” and “*the employment of legal instruments by public actors to pursue public and private interests*”. This definition recognises regulation as both a public and private activity.

A criticism of private interest theory tends to stress the ease with which regulatory capture can occur. Industry groups tend to be successful in capturing the regulatory process mainly because they have the economic resources in doing so. The underlying principle of Stigler’s theory which states that “*the political process is captured by those it is meant to regulate*” (Stigler 1971 p4) is that industry uses its ‘power’ to establish and enforce rules in their favour and therefore regulation becomes ineffective in meeting public interest goals because the interests of private organisations are considered. However, Croley (2011) disagrees with Stigler’s assumptions. In his view, while regulatory capture is possible it is not inevitable, primarily because the regulatory process is governed by a legal framework that provides some protection from political influence in the form of transparency and electoral credibility. Carpenter and Moss (2013) agree and argue that it should not be assumed that a regulatory agency has been ‘captured’ if it sometimes supports those it is regulating. Zingales (2013) also adds that regulatory capture does not necessarily imply that regulators are corrupt and dishonest but are persuasive in offering additional assistance to businesses so that they comply with the law. In other words, regulators being educators and advisors and so such social bonds are not undesirable but rather regulators show understanding to the regulated if they genuinely need help in understanding the regulations and how to comply with it. Regulatory literature shows that enforcers mainly adopt a co-operative approach to enforcement and this may be mistaken for regulatory capture (Hutter and Amodu 2008; Farnheart and Glicksman 2015; Holley and Sinclair 2017).

2.4 Food Legislation in England

Van der Meulen (2010) states that food is one of the most regulated areas in the world. He also points out that government intervention and the establishment of food laws and regulations ensure the safety of food that is imported or exported. This is so that the regulatory requirements of importing/exporting countries are met and procedures are in place so that food is not spoiled or unsafe by the time it reaches the consumer (Van der Meulen 2010).

The Food Safety Act 1990 (as amended) (The Act) is the primary piece of legislation in the UK. It differs from the previous statutes in that ‘safety’ is added to the title and is a key word so consumers think that their concerns are being addressed (Wilson *et al* 2015). Under this legislation food businesses are responsible for ensuring that food they prepare and serve is safe to eat (Food Standards Agency). Prior to the 1980s food was considered safe unless proved otherwise, using scientific analysis in the form of microbiological testing of random batches of food products. This end-product testing was criticised as being unsuitable because by the time the results of the tests were ready the product was already on the market for sale (Zwietering *et al* 2016).

The majority of food law is in the form of regulations and directives that come from Europe and seek to harmonise the free movement of food and feed in the EU with the aim of “*modernising EU food legislation to make it more coherent, understandable, flexible and promote better enforcement of legislation and provide greater transparency for consumers*” (Vapnek and Spreij 2005 p60). The regulation of food generally takes place at national level although international legislation has had a strong impact on food safety policies at national levels. National regulatory frameworks have to be adjusted to meet international obligations due to the exchange of food across international borders with an emphasis on preventing barriers to trade (WTO 2015). Food safety legislation has progressed mainly due to the increase in international trade and foreign travel. Such globalisation of the food industry has introduced new challenges for food safety because it can be difficult to ensure food safety over long distances (Fukuda 2015). Buckley and Reid (2010 p26) conclude that “*the global trade of food items, especially those originating from developing countries has resulted in some significant food safety problems*” such as new emerging pathogens and food fraud. It has become necessary to improve regulatory activities on a national and international scale because of the incidences in food poisoning outbreaks and the increase in

global trade (Vapnek and Spreij 2005; Mensah and Julien 2011). Alomirah *et al* (2010) highlights the need for international food standards to protect the health of consumers from new emerging pathogens and to ensure fair practices in food trade.

In January 2006, the food industry became subject to new legislative requirements, the Food Hygiene (England) Regulations 2006, after the EU Regulations (Regulation (EC) no. 852/2004) were introduced (there is similar legislation in Scotland, Wales and Northern Ireland who have been given certain powers to establish their own legislation). However, as mentioned earlier, new regulations came into force in January 2014: Food Hygiene (England) Regulations 2013 (these have since been amended: Food Hygiene (England) (Amended) Regulations 2016) (FSA 2017). The main purpose of any legislative revisions is to eliminate any inconsistencies and duplication making it easier to interpret and enforce. There were originally 17 food directives emanating from Europe but they have now been consolidated into 3 regulations termed 'The Hygiene Package' which fall under the umbrella of the General Food Law Regulation (EC) 178/2002 (the framework of European law). These regulations are Regulation (EC) 852/2004 (the hygiene of foodstuffs); Regulation (EC) 853/2004 (refers to food businesses that deal with food of animal origin) and Regulation (EC) 854/2004 (which relates to the organisation of official controls on products of animal origin intended for human consumption (www.food.gov.uk)). The Food Standards Agency (FSA) an independent UK government department focusing on the protection of consumers in relation to food safety issues states that the general overhaul of EU legislation is designed to restore consumer confidence in the wake of food related incidences and consumer pressure on government (Middleton 2017). Additional government regulation has been developed and implemented due to these food safety incidents. For example, it is now mandatory for food businesses to implement a food safety management system that conforms to the principles of HACCP. Previous research has sought to determine the effects of government legislation on, for example, food businesses (Fairman and Yapp 2005; Green and Kane 2014). However, this study seeks to explore whether such legislation has assisted enforcement officials (namely EHPs) in their duties to enforce the law.

2.5 Regulatory approaches

Porket (2003 p49) described government regulation to be on a scale “*ranging from highly restrictive to highly permissive with respect to the degree of freedom that the regulation allows*”. Highly restrictive regulation gives the organisation little or no freedom to find alternative options to comply with the regulation and is often referred to as command and control regulation. Conversely, regulation that is highly permissive increases the freedom of those being regulated and alternative forms from traditional regulation are implemented, for example, self-regulation (Sharma *et al* 2010). This study identified two common approaches to food safety regulation, namely command and control and risk based regulation.

2.5.1 Command and Control Regulation

Command and control regulation is the traditional regulatory approach when a government develops regulation for controlling the activities of industry telling them what to do and how to do it (Gunningham 2015). The command and control approach is characterised by ‘commands’ which outlines standards and rules to be followed and ‘controls’ in the form of legal sanctions to monitor and enforce these rules if organisations do not comply (Baldwin *et al* 2012). The general focus is on remedial policies rather than more comprehensive prevention techniques. This means that corrective action to remedy offences is required as opposed to systematic approaches designed to prevent the offence occurring in the first place (Bocher 2011; Baldwin *et al* 2012). Consequently, command and control regulation has been criticised because it lacks flexibility, has complicated rules and can result in over-regulation. This may place a high economic burden on some businesses particularly micro, small and medium sized enterprises because they will have to follow the law in the same way as larger organisations that will have far greater resources and expertise (Hutter and Amodu 2008). This can result in non-compliance by encouraging businesses to intentionally avoid compliance because of the hostile relationship between the regulators and those being regulated (Murphy 2017). Bardach and Kagan (2017) in their fieldwork on environmental and occupational safety and health regulation found that legalistic regulation can lead to a resistance in the willingness to comply. When businesses felt that regulators were being too legalistic in the application of rules and imposition of fines, they would tend to respond by only doing what is minimal to comply with the law because there is no incentive to go beyond the minimum standard

set by the regulations. Bardach and Kagan (2017) suggest that if government policies are perceived to be unreasonable, resistance can occur even from those who are normally willing to comply with the law. Blanket rules are set without due consideration of the different characteristics of the organisations that have to comply making the regulations too authoritarian and a burden on businesses (Hampton 2005; Tombs 2016).

A report by Hampton (2005) outlined proposals to reduce such administrative burdens on businesses. Hampton stated in his government report that unreasonable regulations and inconsistent enforcement practices impose unnecessary burdens on regulated businesses. Such burdens can include the costs involved in adapting operational procedures to align with the new legislation, training employees and the purchase of equipment and materials (Hale *et al* 2011). In addition, new regulations can be burdensome for small business who fail to understand the complex rules and regulations and are therefore at a disadvantage (Fairman and Yapp 2005; Hale *et al* 2011). This in turn will stifle innovation and competition.

Hampton (2005) proposed that regulators adopt a risk based approach to regulation which means resources are concentrated in the areas where it is most needed. Hampton recommended that risk assessment should underpin all regulatory interventions and there should be no intervention or enforcement without a risk based justification. This was also advocated by the Better Regulation Executive (BRE) who proposed that regulations should not result in businesses having to incur costs in order to comply with regulations, which can act as a barrier to competition and reduce productivity (BRE 2018). The BRTF offers five principles that regulators need to take into account when devising, implementing, enforcing and reviewing regulations: proportionality, accountability, consistency, transparency and targeting (Table 2.3) (BRTF 2005). Black (2014) states that regulation, or regulatory governance, is the organised attempt to manage risks or behaviour in order to achieve a publicly stated objective or set of objectives. Black (2014) also states that regulatory disasters are partly due to poorly designed and/or implemented regulations which have an adverse effect on the health and wellbeing of people or the environment. Tombs (2016) buttresses this argument by stating that around 80,000 deaths a year are due to lack of effective regulation in environmental pollution, food poisoning and health and safety (and needless to say lack of effective enforcement).

EHPs may be indirectly affected by the regulatory process (Battersby 2017). However, the fact that society continues to experience some foodborne illnesses makes it plausible to assume that the food industry is not producing an efficient level of safety thereby resulting in government intervention to legislate for safe food (Sharma *et al* 2010; Fortin 2017). The question is whether government legislation being effectively translated (enforced) on the ground? Most studies have used environmental health records and base their conclusions on analysis of these records to determine the effectiveness of government legislation (Lee *et al* 2012; Murphy *et al* 2013; DaCunha *et al* 2016). This study provides more insight into core critical issues of food hygiene legislation and how they affect the enforcement duties of EHPs.

Table 2.3: The five principles of good regulation by the Better Regulation Task Force which was introduced in 2005 and is still followed by government officials.

Proportionality	Regulators should only intervene when necessary. Remedies should be appropriate to the risk posed, and costs identified and minimised. • Policy solutions must be proportionate to the perceived problem or risk and justify the compliance costs imposed – don’t use a sledgehammer to crack a nut. • All the options for achieving policy objectives must be considered – not just prescriptive regulation. Alternatives may be more effective and cheaper to apply. • “Think small first”. Regulation can have a disproportionate impact on small businesses, which account for 99.8% of UK businesses. • EC Directives should be transposed without gold plating. • Enforcement regimes should be proportionate to the risk posed. • Enforcers should consider an educational, rather than a punitive approach where possible.
Accountability	Regulators must be able to justify decisions, and be subject to public scrutiny. • Proposals should be published and all those affected consulted before decisions are taken. • Regulators should clearly explain how and why final decisions have been reached. • Regulators and enforcers should establish clear standards and criteria against which they can be judged. • There should be well-publicised,

	<p>accessible, fair and effective complaints and appeals procedures. • Regulators and enforcers should have clear lines of accountability to Ministers; Parliaments and assemblies; and the public.</p>
Consistency	<p>Government rules and standards must be joined up and implemented fairly. • Regulators should be consistent with each other, and work together in a joined-up way. • New regulations should take account of other existing or proposed regulations, whether of domestic, EU or international origin. • Regulation should be predictable in order to give stability and certainty to those being regulated. • Enforcement agencies should apply regulations consistently across the country.</p>
Transparency	<p>Regulators should be open, and keep regulations simple and user-friendly. • Policy objectives, including the need for regulation, should be clearly defined and effectively communicated to all interested parties. • Effective consultation must take place before proposals are developed, to ensure that stakeholders' views and expertise are taken into account. • Stakeholders should be given at least 12 weeks, and sufficient information, to respond to consultation documents. • Regulations should be clear and simple, and guidance, in plain language, should be issued 12 weeks before the regulations take effect. • Those being regulated should be made aware of their obligations, with law and best practice clearly distinguished. • Those being regulated should be given the time and support to comply. It may be helpful to supply examples of methods of compliance. • The consequences of noncompliance should be made clear.</p>
Targeting	<p>Regulation should be focused on the problem, and minimise side effects. • Regulations should focus on the problem, and avoid a scattergun approach. • Where appropriate, regulators should adopt a "goals-based" approach, with enforcers and those being regulated given flexibility in deciding how to meet clear, unambiguous targets. •</p>

	<p>Guidance and support should be adapted to the needs of different groups. • Enforcers should focus primarily on those whose activities give rise to the most serious risks. • Regulations should be systematically reviewed to test whether they are still necessary and effective. If not, they should be modified or eliminated.</p>
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Source: BRTF (2005)

The criticisms of command and control regulation have therefore led to the use of alternative approaches to regulation with risk based approaches such as self-regulation and enforced self-regulation becoming more widely used.

2.5.2 Risk Based Legislation

Risk based regulation (RBR) is now emerging in a variety of areas, for example, food safety, occupational health and safety and environmental pollution. It is the preferred regulatory approach since it is meant to minimise the regulatory burden on business because it is the business that assesses its own risks and how to tackle them (Black 2014; Hutter and Bostock 2017). The importance of RBR was underlined in the UK by the Hampton Report (2005) as mentioned earlier. Hampton stressed the importance of adopting risk based approaches across all regulatory areas and that risk assessment is an essential element of regulation. It is an assessment of risks to ensure that the highest risks are targeted first (Hampton 2005). It is thought that the Food Hygiene (England) Regulations 2006 (which have since been revised) were introduced so that governments become more proactive in their regulation of the food industry by making businesses more responsible for the food that they prepare and sell by the adoption of a risk based food safety management systems, a self-regulatory mechanism to ensure food safety (Taylor 2008; Green and Kane 2014).

Risk based approaches hold a number of potential advantages over traditional regulation in that they allow organisations to make their own decisions which can result in greater compliance than with government-imposed rules like command and control (Black 2014; Hutter and Bostock 2017). In addition, this approach to regulation is seen as a way of saving valuable resources in terms of time and money. This is because the focus should be those risks within a business that are

considered critical which must be managed as a matter of priority (Black and Baldwin 2012; Black 2014).

Two examples of RBR that are prevalent in the food industry are self-regulation and enforced self-regulation.

(A) Self-regulation

The perceived deficiencies of command and control regulation resulted in the development of alternative strategies such as self-regulation. Self-regulation (sometimes called industry self-regulation) can be defined as “*a process whereby an organised group regulates the behaviour of its members*” (Baldwin and Cave 1999 p39). This is when industry formulates its own rules (which are voluntary) for its members to adhere to. Self-regulation can offer significant advantages over traditional command and control regulation including greater flexibility and adaptability and the ability to address industry-specific issues directly and more quickly (Ojo 2010). Self-regulating organisations have the knowledge and expertise about their businesses which will result in more practicable rules and regulations that are flexible and tailored to the conditions within an organisation making it more likely to comply with the rules (Ojo 2010; Sharma *et al* 2010; Ogus and Carbonara 2011).

Braithwaite (2011) states that organisations prefer to act on their own initiative rather than being told what to do by government or regulating authorities and so the burdens of regulation upon businesses are reduced resulting in high commitment to compliance as it generates a sense of ‘ownership’. Baldwin *et al* (2012) state that this makes self-regulation more cost-effective because any issues can be addressed more quickly because there is in-house expertise. They further mention that standards are generally developed by those who are technical experts or skilled personnel in the industry and therefore are aware of what works well. Self-regulation is considered to have the potential to contribute to a higher level of compliance with rules. The flexibility of self-regulation enables it to adapt more easily and rapidly to changing market conditions and technological innovations and it is often better for individuals to act on their own initiative rather than to be forced into a particular course of action (OECD 2015).

Despite its benefits self-regulation has attracted criticism. First of all, the self-regulation approach may not be appealing in a sense that it may be difficult to see how effective a professional body will be in enforcing rules on its own members with the possibility of conflicts of interest and question the accountability of the self-regulators (Bartle and Vass 2007). Secondly, there will be some scepticism about whether the sanctions/punishment will be adequate in dealing with non-compliance. In this sense, the self-interests of the self-regulators are brought into question so that industry will be the beneficiaries of the regulation and the public interest ignored. The third criticism is the enforcement of such standards and principles against those who breach the rules. Again, unless the self-regulatory body is backed by the government, it is difficult to see how, and to what extent a regulatory body can ensure compliance which can create distrust and a loss of public confidence in self-regulation as a regulatory mechanism (Castro 2011).

Gaffikin (2005) raises questions about the openness, transparency and accountability of the process and suggests that self-regulation is contrary to the principles outlined in the Hampton Report (2005) and the Better Regulation Task Force (2005). Braithwaite (2011) states that self-regulation is frequently an attempt to deceive the public into believing in the responsibility of an irresponsible industry and is a strategy to give the government an excuse for not doing its job. The government must therefore rely on the goodwill and cooperation of organisations for their compliance (Coglianese 2017; Gunningham 2017). Sharma *et al* (2010) suggest that any self-regulatory scheme must implement accountability mechanisms that are transparent and reviewable as per the principles proposed by the BRTF.

(B) Enforced self-regulation

The use of enforced self-regulation (ESR) in environmental health and other regulations such as health and safety is widespread and is increasingly the favoured approach according to Braithwaite (2011). It differs from self-regulation in that the standards to be achieved are determined by the regulator and not from within the industry. These are enforced by regulatory agencies established by government and it is not industry that develops and enforces the rules (Hutter and Amodu 2008; Ojo 2009). ESR therefore avoids the major pitfalls of command and control regulation and self-regulation in that regulation is not left entirely to the willingness of companies to regulate nor is it heavily dependent on government control (Hutter and Bostock 2017). Business has the flexibility to devise their own rules which meet the standards demanded by legislation but are adapted to their

particular circumstances and risks associated with their particular business. Subsequently, businesses will be more committed to rules and systems which they have devised themselves (Hutter and Amodu 2008; Hutter and Bostock 2017).

In considering food law there have been significant changes to the regulatory framework following several high profile food safety related scares such as BSE and the E.coli outbreaks. Food safety regulation is becoming acknowledged as an important issue and government reports such as Hampton (2005), Macrory (2006) and Pennington (2009) have highlighted the need for effective regulation. For example the application of HACCP (Hazard Analysis Critical Control Point) which replaced end product testing, is considered an example of enforced self-regulation.

Proponents of the HACCP system perceive it to be the most cost-effective approach to ensure food safety and is used nationally and internationally to ensure harmonisation, particularly with respect to global food trade (Kafetzopoulos *et al* 2013; Wallace and Mortimore 2014; Wallace *et al* 2018). HACCP is considered an effective and efficient approach to food safety because it allows food businesses to put systems in place to ensure potential risks within the business are controlled. It is therefore seen as a preventative method as opposed to a reactive method and so it is meant to prevent foodborne illness by identifying risks through preventative controls (Fortin 2017). Food businesses have to identify the hazards present within their operations, implement and monitor controls, and document this process (Taylor 2008; Vegaris 2015; Wallace *et al* 2018).

A considerable amount of literature has been published on HACCP and despite its benefits and mandatory requirement in UK law, many studies have reported barriers to its implementation particularly in small and medium enterprises (SMEs) (Domenech *et al* 2011; Ramalho *et al* 2015; Nayak and Waterson 2017; Wallace *et al* 2018). Fairman and Yapp (2006) found that the application of enforced self-regulation in food businesses is problematic in SMEs because of their specific characteristics and generally do not understand the risks associated with their activities. They also argue that SMEs in particular may have problems in self-regulating in any form. However the introduction of a new method of HACCP for SMEs was introduced in 2008 to make it easier for SMEs to comply with the food safety management system element of the legislation (Taylor 2008). Safer Food Better Business (SFBB) was introduced as a food safety management tool to assist SMEs to comply with the requirements for documented HACCP-based procedures (Taylor 2008). The SFBB pack has been adapted to the range of food businesses such as

restaurants, Indian and Chinese cuisine and also residential care homes. A survey carried out by the Better Regulation Delivery Office (UK) in 2012 to gauge the usefulness of SFBB found that businesses mentioned that SFBB enabled them to be compliant with food hygiene legislation. The report also revealed that 87% of SMEs reported that this food safety management system helped them manage their businesses, with 45% commenting that it actually made their businesses more profitable (Warren and Samuel 2012).

2.5 Chapter Summary

The term regulation has a wide range of definitions and is primarily considered as a policy instrument to promote economic and social wellbeing (Baldwin *et al* 2012). Regulation involves the intervention of government with the purpose of influencing or correcting the behaviour of individuals or industry. It is designed to solve a particular problem or produce a particular outcome which requires ongoing monitoring (Braithwaite 2011; Hutter and Bostock 2017).

Economic theorists (Stigler 1971; Posner 1974; Peltzman 1976; Becker 1983) believe that there is an important place for theories of regulation which can be used to explain how and why governments regulate. Regulation is designed to either protect the public interest from adverse private activity or in the interests of private organisations protecting them against competition and consumers (den Hertog 2010, 2012). Government has a responsibility to develop regulation without unnecessary constraints but at the same time ensuring the safety and protection of society as publicised in reports by Hampton (2005), Better Regulation (2005) and Macrory (2006).

In addition, two main approaches to regulation have been identified. The traditional command and control regulation tending toward legalism and seen as a rigid application of regulations. The more flexible risk based regulation (in the form of self-regulation and enforced self-regulation) is tailored towards the particular circumstances of individual organisations. The challenge for regulatory authorities is to develop regulatory approaches that address barriers that would not only prevent organisations from complying with the regulation but also assist enforcement agencies in their enforcement duties. There have been few empirical investigations on how regulation has impacted upon the statutory enforcement duties of EHPs and this study explores these issues in relation to inspection and the use of enforcement tools. Enforcement and compliance are therefore major elements of regulation and will be discussed in the next chapter.

CHAPTER THREE: REGULATORY ENFORCEMENT

3.1 Introduction

This chapter analyses literature relating to regulatory enforcement of regulated organisations. It also addresses compliance, an important aspect of enforcement, outlining the reasons for compliance and non-compliance with examples being specific to the food industry. This chapter of the thesis also explores the enforcement tools available to EHPs and alternative options that could be included in a food law enforcement toolkit, namely civil sanctions. The chapter concludes with

3.2 Regulatory Compliance

According to Hutter (2011) compliance is an essential component of any piece of legislation with governments employing inspectors who make decisions to ensure organisations comply with the law. Regulatory compliance is seen as a process that organisations follow to ensure that they are conforming to a particular piece of legislation so that they will not be liable to sanctions (usually in the form of fines or imprisonment) for failure to comply (Black 2014; Gunningham 2015b; Bardach and Kagan 2017).

3.2.1 Definitions of Compliance

Scholarly literature on regulation defines compliance by focusing on the degree to which businesses or individuals obey the law (Parker and Nielsen 2011; Murphy 2017). Individuals/businesses need to operate within established parameters of the legislation so that they will not be punished (Parker and Nielsen 2011). In their empirical studies of small and medium sized enterprises (SMEs) Yapp and Fairman (2004) suggest that compliance has a different meaning to businesses and enforcement agencies with respect to food safety compliance. The authors noted that businesses thought they complied with legislation if they were *“doing all they were told to at an inspection or advisory visit or other intervention”*. They felt that the enforcement officer was responsible for compliance and they argued that the reason for this way of thinking is that enforcement officers are supposed to identify any contraventions in the legislation and notify the business of how they can take action to remedy the situation. Conversely, enforcement officials viewed compliance as a proactive and continual process and businesses should take responsibility

in complying with the law by being proactive rather than reactive, that is, not waiting for harm to be done before taking action (Braithwaite 2011; Black 2014; Hutter and Bostock 2017).

Much of the literature explains compliance in terms of behaviour and attitude towards obedience to regulations.

3.2.2 Compliance behaviour

Parker and Nielsen (2011) noted that compliance refers to the behaviour and attitude of individuals and businesses towards regulation. They distinguish between objectivist and interpretivist approaches to compliance. Objectivist approaches to compliance “*identify and explain how, why and in what circumstances individuals and firms comply with regulation, and when and why they do not*” (Parker and Nielsen 2011 p3) and so this approach explains attitudes towards compliance. Interpretivists’ approaches to compliance explain how regulation is interpreted and understood. In this instance, compliance can refer to “*meanings and interpretations, social habits and practices and interactions and communications between different actors in the implementation process*” (Parker and Nielsen 2011 p3).

Other researchers mainly conclude that businesses fall into one of three groups depending on their attitude toward compliance with legislation. Businesses are either amoral calculators, political citizens or organisationally incompetent (Kagan *et al* 2011; Murphy 2016). Economic/amoral actors are businesses that only comply with rules if it benefits them and are therefore motivated by profit (Kagan *et al* 2011). This economic perspective was first hypothesised by Becker (1968) who claimed that “*firms will comply with the law only if the expected cost to them of the violation exceeds the benefit they derive from the violation*” (Becker 1968 p172). In other words, such businesses will be discouraged from committing an offence if there is a likelihood of them being caught and punished with a severe penalty. Ogus and Abbot (2002) assert that such organisations know they are committing an offence but do it anyway if it will benefit them. This view is also supported by other scholars including Faure *et al* (2009 p163) who propose that “*individuals and firms can be induced to comply with the law if their (expected) costs of contravening the law exceeds the benefits to them*”. Parker and Neilsen (2011) also state that the use of formal or informal sanctions to punish non-compliance are not effective if businesses think they will greatly gain from their non-compliance. However, Tombs (2016) argue that since all organisations are in business to make profit anyway then they will always be amoral calculators who only comply with

regulatory requirements when they know the penalties are very harsh. One of the first such studies on compliance by Makkai and Braithwaite (1991) alluded to the fact that the perceived risk of getting caught leads to compliant behaviour. A later study by Ko *et al* (2010) found a reduction in health and safety offences in those organisations that previously been punished.

The second group, political citizens, are businesses that are inclined to comply with legislation but will violate the law if they do not agree with it because they consider the law to be unreasonable (too legalistic) or a burden (Bardach and Kagan 2017). Bardach and Kagan (2017) conducted interviews with businesses to get their views on environmental and occupational health and safety regulation. They drew attention to the fact that when the businesses perceived that the regulation was legalistic, the businesses would only make the effort to achieve the minimum level of compliance and not be bothered to put in more effort to ‘over comply’.

Finally, the third group are incompetent organisations. These are businesses that are willing to comply but are not equipped to do so primarily due to ignorance, inadequate knowledge and awareness of how to comply with legislative requirements (Yapp and Fairman 2005a). Empirical research by Yapp and Fairman (2006) found that small-medium enterprises (SMEs) within the food industry were vulnerable to several factors that prevented non-compliance with food legislation, one of which was lack of knowledge and understanding. Cartwright (2012 p9) calls this incompetence “*organisational failure rather than calculated wrongdoing*”. This means that because people are ignorant or oblivious to the laws they break the rules without realising it (Parker and Nielsen 2011). In other contexts, commentators have sought to divide businesses into similar categories. For example, Baldwin (2014) separated businesses into the categories of: well-intentioned and well informed; well-intentioned and ill-informed; ill-intentioned and ill-informed, and problematic with respect to compliance with health and safety law.

Enforcement officials need to correctly identify amoral calculation, incompetent management and political citizenship. If they mistake an incompetent manager for an amoral calculator, their efforts to improve compliance may result in frustration (Kagan *et al* 2011). This means that enforcement officials need to make the appropriate decision in order to deal with non-compliance based on the offence but also the attitude of the business. This study builds on the existing literature to determine whether EHPs are provided with suitable and efficient enforcement tools to handle the wide range of food business with different attitudes and behaviour towards the law.

Furthermore, Kagan *et al* (2011) proposes that regulated businesses are motivated to comply based on three basic fears. These fears proposed by Kagan *et al* (2011) are documented in the literature as motivations of compliance (namely calculated, normative and social) and are somewhat aligned with the type of attitude a business has towards compliance. The first type of fear is the fear of being caught and punished. This could be regarded as calculated motivation when organisations believe they can benefit from non-compliance with the law if they can avoid being caught and fined and is therefore similar to those businesses regarded as amoral calculators. Calculated motivation is based on three related theories: the likelihood of detection, the likelihood of a fine and the cost of compliance. There is an increase in compliance if it is thought that contraventions would be detected (Van Wingerde 2011). However, the empirical research on regulatory compliance is contradictory. Ko *et al* (2010) found a reduction in health and safety offences in those organisations that previously been punished. They concluded that severe punishment increases fear among businesses and so increases the likelihood of them investing in ways to comply with the law. On the other hand, Parker and Neilsen (2011) in their study of businesses in Australia found no evidence that increasing fear of penalties will significantly increase compliance. Nevertheless, some research studies have demonstrated that the size of the penalty has little impact on whether businesses comply or not (Thornton *et al* 2005; Gray and Shimshack 2011; Simpson *et al* 2013).

Secondly, the fear of gaining a bad reputation. This has been labelled as social motivation in that those being regulated desire approval and respect from those people they associate with, for example, other regulated entities, the general public and inspectors (Cartwright 2012). Kagan *et al* (2011) suggest that such businesses are unaffected by threats of severe penalties but rather negative publicity is considered more terrifying to these businesses because it affects their reputation. Supporting this assumption, the Office of Fair Trading (OFT) carried out a study in 2010 and concluded that both large and small businesses are affected by adverse publicity which can result in alienation of customers and therefore loss of business (OFT 2010). Similarly, Mensah and Juliene (2011) revealed that 85% of the respondents enjoyed the benefit of increased customer satisfaction due to compliance with food safety regulations.

Finally, fear of a bad conscience, that is, a sense of duty to comply and beliefs about what businesses consider to be right and wrong. This is also called normative motivation (Tyler 2006;

Murphy *et al* 2016). Murphy (2017) describes such people as moral actors because they are motivated to comply with the law because they want to do the right thing rather than the fear of being caught and punished. Using data from 113 paper and pulp mills, an earlier study by Gray and Shadbegian (2005, Gray *et al* 2014) observed that each facility was inspected for pollution offences once a year on average. Their results showed that only 16 per cent of these businesses were found to be non-compliant with the regulations showing that most businesses are compliant even in lieu of infrequent inspections and very harsh legal penalties (Gray and Shadbegian 2005, Gray *et al* 2014). A later study conducted by Borck and Coglianese (2011) reported that some businesses go beyond compliance even though they are not required to do so. Kaine *et al* (2010) state that regulations are meant to encourage a change in behaviour and is used as an indication that governments have achieved their policy objectives. They also assert that if regulations are to be a success then compliance with the regulations is crucial.

An alternative perspective to understand why people comply with the law has been recognised as procedural justice (Murphy *et al* 2009). Murphy (2014) suggests that such a theory explains compliance with the law even if there is little chance of being caught. Several authors have concluded that this theory is based on the fact that if those responsible for enforcing the law operate in a fair, respectful and dignified manner, then they will be seen as morally upright and deserving to be obeyed (Murphy *et al* 2009; Jackson *et al* 2012). An early study by Makkai and Braithwaite (1994) revealed that nursing home managers were more likely to comply with regulatory standards if they felt nursing home inspectors had previously treated them with procedural justice. Those managers who felt that inspectors had used heavy-handed deterrence threats were less compliant in a follow-up inspection. Murphy (2017) also agrees that the treatment individuals receive from an enforcing authority has some bearing on compliance. She states that the criteria used to define procedural justice include respect (respectful towards individuals when enforcing the law), neutrality (being fair and not biased but treating everybody the same), trustworthiness (the enforcement official shows genuine care and is sensitive to the needs of individuals) and voice (the enforcing authority gives individuals the opportunity to express their views and concerns in relation to any enforcement decision).

3.3 Regulatory Enforcement

Regulatory enforcement refers to the way in which regulators relate with regulated entities in order to get them to comply with the law (McAllister 2010; Gunningham 2015a). A regulatory framework needs to be developed in a way that makes enforcement effective to enable businesses and individuals to comply (OECD 2010). Therefore, enforcement and compliance are important elements of any regulatory framework and failure to enforce laws can lead to a lack of credibility regarding these laws. This is because even minor legal activity needs to be controlled otherwise businesses or individuals could become immune to the law making it ineffective in achieving its purpose (Gunningham 2015a).

Much of the regulatory literature reports that enforcement officials can generally choose between two different enforcement strategies: deterrence, and advice and persuade (often referred to as compliance strategy) (Gunningham 2015b). These strategies often translate into the enforcement style used by enforcement officers. May and Winter (2000 p145) define enforcement style as the “*character of the day-to-day interactions of inspectors when dealing with regulated entities*”. Thus, with regards to enforcement strategies, EHPs will either adopt a legalistic (the use of punishment for non-compliance) or conciliatory (using education and advice or persuasion and negotiation) style (McAllister 2010).

3.3.1 Deterrence Strategies

This enforcement strategy emphasises the use of harsh punishment for contraventions of the law in order to deter offenders from further rule-breaking behaviour (Tyler 2011). The penalty/punishment must be such that it is not economically feasible to defy the law (Braithwaite 2018). Literature makes a distinction between general deterrence and specific deterrence. General deterrence is based on the belief that businesses will be discouraged from breaking the law if they are aware that other businesses have been harshly dealt with (Parker and Nielsen 2011). Gunningham (2015b) revealed that sanctions against other businesses serves as a reminder to businesses that they must review their own compliance status. It also has a reassurance function to voluntary compliant businesses in that those other businesses who try to deceive enforcement officers will not get away with it. With regards to specific deterrence, it is thought that a business which has previously been punished will make an effort to avoid further punishment due to non-

compliance, that is, they will not break the law in order to avoid future penalties (Braithwaite 2018).

The literature has highlighted various problems that deterrence strategy can present with respect to enforcement policy and practice. One such problem is that regular inspections are required so that those being regulated know they are under constant scrutiny and so will not be able to hide their non-compliance. Another challenge for regulators is ensuring that punishment for non-compliance will be a deterrent feared by regulated businesses. Effective penalties are an essential last resort mechanism to ensure compliance and therefore consumer confidence in the food supply chain (Braithwaite 2011, 2018). However, Kagan *et al* (2011 p41) point out that “*an overzealous use of deterrent approaches can foster resentment and retaliation leading regulated groups to refuse cooperation or apply political pressure to reduce enforcement*”. Such resentment can also be caused by an unfair punishment given and so the businesses will become uncooperative in the future.

Punitive measures are meant to deter illegal behaviour by sending a strong signal to others who want to break the law. This style of enforcement secures against regulatory capture so that enforcement officials are not manipulated by the organisations they are regulating (Oded 2010; Rechtschaffen 2011). Moreover, according to Braithwaite (2011), it makes sense to resort to a more punitive enforcement style when a persuasive style of enforcement has already been tried. By punishing non-compliance in a severe way, such punishment is intended to discourage prospective offenders from contravening the law, thus making compliance with the regulations becoming the norm (Hutter and Bostock 2017). Enforcement policy and practice must send a signal to those being regulated that the regulator is fair but tough. Ineffective enforcement will encourage non-compliance (Parker and Nielsen 2011). In other words, enforcement authorities should prevent non-compliance by ensuring the benefits to be obtained through noncompliance are much lower than those obtained through compliance. This can be probably be achieved by frequent inspections to regularly detect non-compliance and harsher penalties (Gunningham *et al* 2017).

3.3.2 Compliance Strategies

Compliance strategies are more lenient in nature compared with deterrence strategies. These strategies are concerned with advising and persuading businesses to comply rather than confrontation and conflict (Parker and Nielsen 2011). According to Gunningham (2015b) bargaining and negotiation are the characteristics of a compliance strategy. With this type of compliance strategy, the enforcement official will adopt a co-operative/accommodative style of enforcement.

The co-operative/accommodative style of enforcement aims to prevent contraventions and secure long term compliance by persuasion, negotiation, bargaining and education (Amodu and Hutter 2008). Jacobs and Cordova (2005) argue that no regulatory system can operate through fear and coercion and the enforcing officer can improve compliance through building a relationship with businesses. A study carried out by Yapp and Fairman (2005b) describes this style of enforcement as informal in that enforcement officials do not use formal legal methods to secure compliance. Instead they use education, negotiation and persuasion as opposed to threat or coercion. It has been reported by Braithwaite *et al* (2011) that inspectors use this style of enforcement for incompetent organisations as they sympathise with the difficulties such businesses may be facing in an attempt to comply with regulations and so offer advice and are less willing to issue threats of prosecution. Enforcers work closely with those they regulate and act more as educators and consultants as opposed to issuing threats and intimidation (Bukowski *et al* 2012). A growing body of literature has investigated this topic and claim cooperative enforcement strategies are more effective than strategies that rely solely on deterrence or threats of prosecution (Bardach and Kagan 2017). Braithwaite (2002, 2018) also observed that if there is not a threat of formal enforcement there will be a reduction in compliance. Advocates of the conciliatory approach also argue that prosecution of every trivial offence is counterproductive because it puts the business on the defensive and destroys any possibilities of co-operation or open communication about compliance problems between the business and the inspector (Bardach and Kagan 2017). A flexible enforcement style may signal a more business friendly regulatory climate. They further contend that the cost of prosecuting every offence which inspectors find would be a waste of scarce resources and enforcement agencies should conserve its limited resources to prosecute the most serious offenders. In addition, there is evidence to suggest that cooperative enforcement approaches

increase compliance (Earnhart and Glicksman 2015). Murphy (2014, 2017) and Braithwaite (2018) further argue that how people are treated by regulatory authorities can change their motivational postures in either a positive or negative manner. This has been referred to as procedural justice which was discussed in the previous section.

However, Gunningham (2015b) points out that adopting only a compliance based strategy to enforcement can lead to permissiveness on the part of the enforcement officer with serious offences going unpunished. He suggests that more compliant businesses will consider their time and effort and resources into complying with the law a waste of time when other businesses are getting away with regulatory offences. Furthermore, while this approach can be highly beneficial, it raises an important concern regarding 'regulatory capture' in that inspectors may be more compassionate towards such businesses and be willing to overlook offences (Carpenter and Moss 2013). Regulatory capture can therefore weaken any subsequent enforcement actions of the enforcing officer (Carpenter and Moss 2013). This view is also shared by May and Winter (2000) who claim inspectors can exhibit retreatist enforcement behaviour in that they prefer to avoid conflict with regulated entities and work out problems through informal means. Enforcement officials can become intimidated by political authorities sympathetic to the regulated industry and so fail to punish practices that are a risk to the public (McAllister 2010). McAllister (2010) suggests that this could be because they lack leadership or legal power. In addition, they may be corrupt or have been captured by those they are regulating in that these enforcement officials are sympathetic to the regulated industry. It also could also be that enforcement officials themselves have a negative view of the law they enforce.

According to Baldwin *et al* (2012) and Gunningham (2015b) neither compliance nor deterrence has proved effective or efficient enforcement strategies and there has been some debate in literature about which strategy achieves the best results in terms of compliance with legislation. The evidence suggests that a compliance strategy, whilst valuable in encouraging and facilitating those willing to comply with the law to do so, may prove disastrous for those unwilling to comply with the law. Deterrence on the other hand, is important to remind businesses that they will be punished for non-compliance, but its impact varies (Murphy *et al* 2016; Braithwaite 2018). For example, Parker and Neilsen (2011, 2017) suggests that deterrence is more effective against small organisations than large organisations and better at influencing knowledgeable businesses than

incompetent organisations. Unfortunately, it can actually prove counterproductive and regulatory resistance may develop in that the business will become unwillingly to work with the enforcer, withholding information for fear that this information will be used against them in a court of law (Braithwaite 2017). However, compliance and deterrence strategies have limitations when used by themselves. Some regulatory scholars argue that a mix of the two strategies is likely to be the optimal regulatory strategy as regulators need to deter persistent offenders, encourage honest businesses to comply and reward those who go beyond compliance (Gunningham 2015b; Knox *et al* 2016; Murphy and Neilsen 2017).

It becomes apparent for this study to understand how EHPs view the legislation they enforce in order to recommend ways to enhance its implementation. Early literature did not engage with EHPs with respect to their enforcement style and there are few studies in current literature that investigates the enforcement style EHPs adopt in their selection of regulatory interventions and enforcement action and how this impacts on compliance levels of food businesses (Yapp and Fairman 2005b, 2006; Bukowski *et al* 2012). This study provides an opportunity to advance the knowledge of the enforcement style of EHPs with respect to the enforcement tools that are currently available to them. The findings make an important contribution to the field of food law enforcement in that it explores aspects such as gender identity, race and level of experience that have not been discussed in the literature.

A spectrum of enforcement styles was conceived by Kagan in 1994 and summarised in Figure 1 below.

Figure 3.1: Enforcement Styles from Retreatism to Legalism.

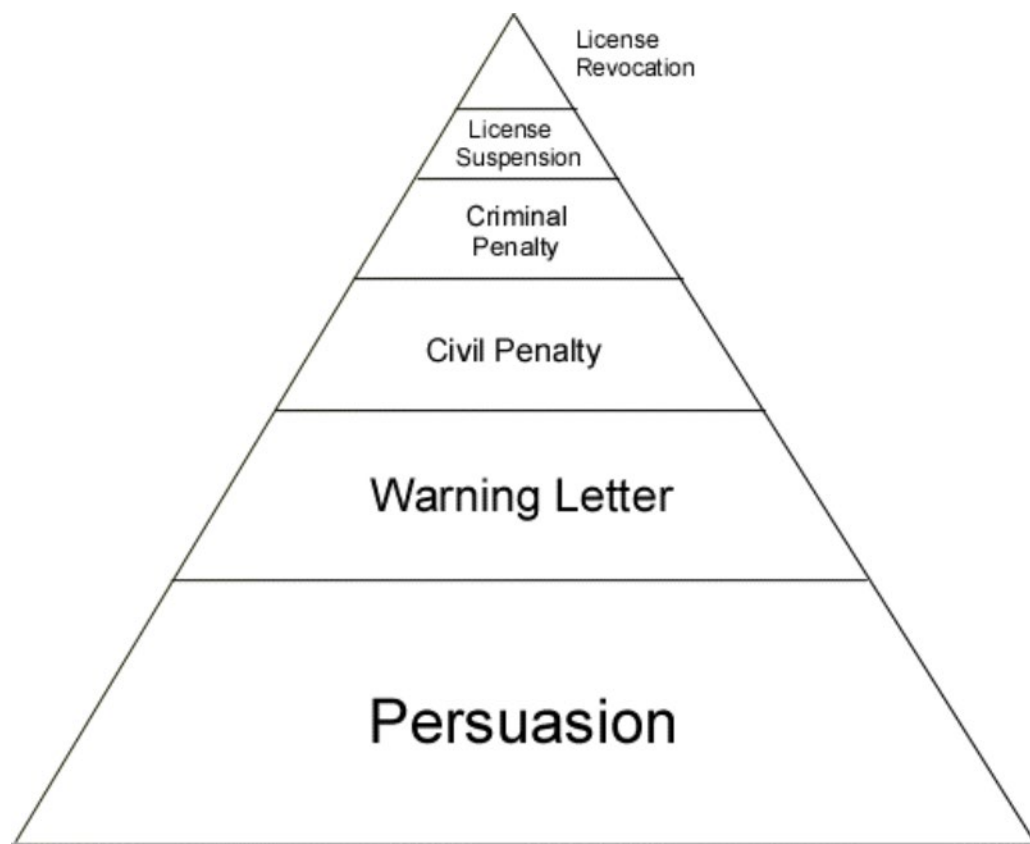
Retreatist → Conciliatory → Flexible → Perfunctory → Legalistic

An enforcement official that portrays a conciliatory style of enforcement uses education and advice as an enforcement tool. The flexible style of enforcement refers to situations where officials do not adopt threatening behaviour when enforcing regulations. Officials that exhibit a perfunctory style of enforcement carry out their duties rather mechanically. Legalistic officials enforce regulations in an authoritarian (rigid) manner and are quick to punish offenders for non-compliance (Bardach and Kagan 2017).

Buckley (2015) is of the opinion that regulatory outcomes are shaped by the approach taken by the of the enforcement official to implement the legislation in question. Such approaches can bring about different outcomes depending on the situation or it could be that the same approach can be used in the same situation but bring about different outcomes. For example, inspectors might interpret legislative requirements flexibly by providing information that assists businesses, or more rigidly by being authoritative in their manner (Gunningham 2015a,b; Murphy 2017; Braithwaite 2017, 2018) reported that when there is a co-operative approach between enforcement officials and those they are regulating, there is an improvement in compliance. Furthermore, Gray and Silbey (2014) provide evidence to suggest that organisations identify enforcement officials as a threat, an ally or as an obstacle. They believe that organisations view the enforcement official as a threat when they (the organisation) are opposed to government regulation and are of the opinion that the enforcement official is only looking for evidence of non-compliance and disinterested in the operation of the organisation. Furthermore, enforcement officials as an ally to the organisation means that both parties are willing to work together in order for the organisation to achieve compliance with the legislation. Organisations regard the enforcement official as an obstacle when they have insufficient knowledge about the operational procedures within the organisation. Enforcement officers therefore have to adopt different responsive enforcement strategies depending on the type of business they are dealing with and their response to compliance (Black 2014; Braithwaite 2017). Early work by Ayres and Braithwaite (1992) adopted an enforcement pyramid as a way of resolving the challenge of dealing with varied compliance.

3.3.3 Enforcement Pyramid

An enforcement pyramid (Figure 2) was developed by Ayres and Braithwaite (1992) based on the assumption that food law enforcement operates a graduated approach. The different levels in the pyramid represent the different enforcement actions (graduated enforcement response). The enforcement actions increases in severity with harsher (punitive, coercive, legalistic, sanctioning or deterrence) tools at the top of the pyramid and the more lenient strategies (co-operative or accommodative, flexible or conciliatory) at the base of the pyramid. Ayres & Braithwaite (1992, 2017) argue that pyramidal enforcement strategies work best when the measures at the top of the pyramid are truly feared.

Figure 3.2: The Enforcement Pyramid

Source: Ayres and Braithwaite 1992

The enforcement pyramid offers a solution to the problem of how to choose between a persuasive and a punitive enforcement style (Mascini 2013; Braithwaite 2017). The theory behind the enforcement pyramid is that enforcement officials start with persuasive style of enforcement such as advice and education. This is considered a low cost activity and less intervention as the business attempts to stop problems cheaply and voluntarily, taking responsibility for their actions of non-compliance. This is mainly used for businesses that genuinely want to comply with the law (Braithwaite 2017). If this does not work because either the business does not co-operate and/or the contravention will cause harm, then the enforcement officer moves to the next level on the pyramid (Braithwaite 2017). Prosecution is the highest sanction and considered a high cost activity. When those being regulated become willing to cooperate, regulators should, according to Ayres and Braithwaite, “*be able to forgive a history of wrongdoing and de-escalate down the pyramid to less harsh enforcement*” (Ayres & Braithwaite 1992 p33). Mild administrative sanctions are positioned in the middle of the pyramid. The enforcement pyramid is one of the ways

in which responsive regulation is applied, that is, for example, the enforcement authority being responsive to the businesses they are regulating.

Braithwaite (2011 p484) attributes responsive regulation's influence directly to the enforcement pyramid: "*responsive regulation has been an influential policy idea because it formulated a way of reconciling the clear empirical evidence that sometimes punishment works and sometimes it backfires, and likewise with persuasion*". Braithwaite (2011, 2017) assumes that the enforcement pyramid has been effective because it has offered a theoretically sound practical means for choosing between both enforcement styles. However, Mascini (2013) argues that it is doubtful whether the enforcement pyramid has solved all practical and theoretical problems with regards to the choice of enforcement style in that the enforcement pyramid has significant limitations. For example, some enforcement officers may only use enforcement tools at the bottom of the pyramid, whilst some will make regular use of those tools at the top and will not use the tools in the middle of the pyramid. As a result, there is no gradual escalation and enforcement inspectors therefore use their discretion in order to adapt their enforcement style to the willingness and capacity of businesses to comply (Gunningham 2011, 2015a). In addition, adverse publicity is excluded from the pyramid as it is considered a more effective deterrent than prosecution (Murphy 2017).

3.3.4 Food law enforcement (enforcement options available to EHPs)

Food law enforcement is essentially at local level, with environmental health departments of Local Authorities (LAs) being the enforcement body (Middleton 2017). LA's employ Environmental Health Officers and Food Safety Officers/Technicians, collectively known as Environmental Health Practitioners (EHPs) as the key professionals responsible for monitoring the hygienic operation of food businesses and assessing compliance with food safety legislation (Mortimore and Wallace 2013; Wallace *et al* 2018). EHPs have discretion with the type of enforcement they can choose in order to get food businesses to comply.

Regulatory agencies such as Environmental Health Departments are equipped with a range of enforcement tools (toolkit) to deal with non-compliance and inhibit unacceptable and inappropriate behaviour (Middleton 2017; FSA 2017). The majority of non-compliance is identified during the inspection (other ways for identifying non-compliance is via complaints or food poisoning outbreak). There are different enforcement strategies that EHPs use to encourage food businesses to comply with food legislation, for example, informal warning letters (if compliance is achieved,

no further enforcement action needs to be taken) and more formal actions such as the service of statutory notices and as a last resort, prosecution. Table 3.1 provides an illustration of the enforcement options available to EHPs:

Table 3.1 Enforcement Options available to EHPs

Statutory Provision	Enforcement Tool	Details
Food Hygiene (England) Regulations 2013 Regulation 6 Food Safety Act 1990 Section 10	Hygiene Improvement Notice	Hygiene Improvement Notice Inspectors can also issue improvement notices when non-compliance is detected but does not necessarily impose an immediate risk to health and safety. These notices usually include actions the business must take in order to rectify the workplace situation and within a specified time.
Food Hygiene (England) Regulations 2013 Regulation 7 Food Safety Act 1990 Section 11	Hygiene Prohibition Notice	Hygiene Prohibition Notice. This is issued by inspectors when an immediate risk to health and safety is detected in a workplace and a cessation of an activity is deemed necessary. The notice may include directions on how the business can remedy the risk and that activity can resume once that action has occurred.
Food Hygiene (England) Regulations 2013 Regulation 8 Food Safety Act 1990 Section 12	Hygiene Emergency Prohibition Notice	Hygiene Emergency Prohibition Notice Issued when there is an imminent risk of injury to health. The effect of the notice is to close the business immediately or prevent the use of equipment or process.
Food Hygiene (England) Regulations 2013 Regulation 10	Detention Notices	Detention

Food Safety Act 1990 Section 9		Food which does not satisfy the legal requirements is seized and detained pending further investigation.
Food Hygiene (England) Regulations 2013 Regulation 9	Remedial Action Notices	<p>A RAN initially applied only to premises approved under EC Regulation 853/2004 which include premises handling products of animal origin (POAO). However, in 2012, amendments to the domestic hygiene legislation in Scotland, Wales and Northern Ireland extended the scope of RANs into premises that are registered under Regulation 852/2004 which are premises that do not require approval. There is no such scope in England.</p> <p>A RAN may be served to:</p> <ul style="list-style-type: none"> - prohibit the use of any equipment or any part of the establishment - impose conditions upon or prohibit the carrying out of any process; or - require the rate of operation to be reduced or to be stopped completely.
Code for Crown Prosecutors Local Authority Enforcement Policy	Prosecution	A business can be prosecuted when a serious alleged breach has occurred. The outcome of these court proceedings could be monetary fines and/imprisonment

Source: Food Law Code of Practice 2017

The Food Law Code of Practice (2017) states that LAs should ensure that any enforcement action taken be aligned with the principles outlined in the Hampton Report (2005). The range of enforcement options available to EHPs when enforcing food law include:

- Educating food business operators;
- Giving advice;
- Informal action;
- Sampling;
- Detaining and seizing food;
- Serving Hygiene Improvement Notices/Improvement Notices;
- Hygiene Prohibition Procedures/Prohibition Procedures and
- Prosecution procedures.

(Food Law Code of Practice 2017)

The enforcement action taken depends on the type of contravention, the compliance history of the business/food business operator and the behaviour/attitude of the food business operator with regards to compliance with the legislation (Food Law Code of Practice 2017). Successful enforcement of the regulations depends on the ability of regulated businesses to comply and obey the law. Within the context of food law enforcement, inspections are crucial because they are a form of control in order to implement and enforce regulations and this will be discussed in the next section (Filion and Powell 2009, 2011; Lääkkö-Roto *et al* 2015; Buckley 2016; Nayak and Taylor 2018).

3.3.5 Regulatory Inspections

According to the OECD (2015) inspections are one of the most important ways to enforce regulations and improve the effectiveness of enforcement practices and therefore ensure regulatory compliance. Jacobs and Cordova (2005 p6) define an inspection “*as a method of intervention that is used when regulations are implemented in order to bring about compliance and reduce non-compliance*”. Mouchtouri *et al* (2010 p122) also state that “*inspections are applied in various fields of human activity, where standards and rules have been set, such as health and safety, engineering and environmental health. An inspection is a procedure conducted in order to examine establishments, processes, products, systems and records. Overall, it aims at assessing conditions and operations in relation to specific standards*”.

An inspection is therefore considered the primary method for identifying and correcting unsafe food handling procedures and practices in food businesses (Reske *et al* 2007; Powell *et al* 2013).

It is thought to be a fundamental aspect of public health service since it is necessary to ensure the safety of food in order to prevent foodborne illnesses among consumers (Hoag *et al* 2007; Reske *et al* 2007). A food hygiene inspection therefore verifies if minimum standards in relation to general food handling, employee hygiene, temperature control, cross contamination of food items, cleaning and disinfection, pest control and removal of waste, are being maintained (Yeager *et al* 2013). Powell *et al* (2013) state that food safety audits and inspections are one activity used to verify that a food producer or individual is following specific guidelines, requirements or rules.

Despite its prominence as a primary tool to monitor good hygiene and food preparation practices within food businesses, some studies have shown that inspections are ineffective in identifying food businesses that are likely to cause food poisoning, although such research has been inconclusive (Jin and Leslie 2003, 2009; Reske *et al* 2007; Filion and Powell 2009; Salis *et al* 2015; Nayak and Waterson 2016). Burke *et al* (2011) argue that such conflicting outcomes imply inspections alone appear to be inadequate to prevent food poisoning outbreaks to occur in food businesses. Waters *et al* (2013) also argue that inspections must not be effective because foodborne illness outbreaks continue to occur and government inspectors have failed to prevent foodborne illness outbreaks. Following the E.coli outbreak in Wales, a number of mistakes and shortcomings by environmental health officers were identified (Pennington 2009, 2014).

Inspections can be announced or unannounced. Both announced and unannounced inspections are a form of monitoring and evaluation. However, announced inspections require prior scheduling, whereas unannounced inspections do not (Klerks *et al* 2013). According to Klerks *et al* (2013) the announcing of inspections is derived from the relationship between the enforcing official and the organisation which is based on co-operation and trust. Unannounced inspections, on the other hand, suggests that there is little trust between the enforcing official and the organisation in which the enforcing official wants to expose regulatory deficiencies within an organisation. There are mixed views as to which approach is more effective. An early study by Reske *et al* (2007) concluded that announced inspections are more effective in improving food safety in restaurants. Waters *et al* (2013) also supports the idea that announced inspections result in fewer contraventions in food safety practices compared to when inspections are unannounced. However, Dechenaux and Samuel (2014) claim that unannounced inspections can be more effective than

announced inspections enabling regulators (and enforcement officers) to make a better assessment/judgment of food hygiene and safety operations within that food business.

Environmental Health Practitioners (EHPs) in England have other regulatory interventions besides inspections, available to them. These are official controls (monitoring, surveillance, verification, audit, sampling for analysis) and non-official controls (advice, education/training, intelligence gathering and sampling). Inspection is classed as an official control and also includes partial inspection which only covers certain elements of an inspection (Food Law COP 2017).

The Food Law COP defines interventions as “*activities that are designed to monitor, support and increase food law compliance within a food establishment*” (Food Law COP 2017 p69). Interventions used to improve compliance within food businesses and according to the Food Law COP (2017 p69) “*should be applied in a risk based manner*”.

- Audit: EHPs examine the food safety management system of a business to ensure that they are operating in the way they should.
- Monitoring: EHPs observe the way in which a food business complies with the law.
- Surveillance: EHPs observe food businesses and their activities.
- Verification: EHPs check to see if requirements have been fulfilled.
- Sampling: EHPs can take food, equipment etc. for microbiological analysis.
- Advice, education/training: EHPs provide food businesses with the information that they need in order to comply with the legislation.
- Intelligence gathering: EHPs gather information to find out more about a food business via questionnaires for example.

(Bukowski *et al* 2012; Food Law COP 2017)

Building on the research by Bukowski *et al* (2012) who investigated how enforcement officers select regulatory interventions and enforcement action and how this impacts on the compliance levels of food businesses, this study provides more insight into the demographic characteristics of the enforcement officers and their use of regulatory interventions and enforcement tools.

3.3.6 Regulatory Risk Assessment /Food Hygiene Rating Scheme

The Hampton Report (2005) stated the importance of a risk assessment as a way of focussing resources so that enforcement authorities do not carry out unnecessary inspections, devoting their time and energy into prioritising inspections in businesses that are considered high risk. The Food Hygiene Ratings Scheme is an example of regulatory risk assessment and is an initiative of the Food Standards Agency. It is a national scheme operating in the UK and provides consumers with information about the hygiene standards within food businesses (Vegarís 2015; Spencer and Young 2015; Draper 2016; Nayak and Taylor 2018; FSA 2017). The rating score given reflects the findings of an inspection carried out by EHPs (Vegarís 2015). EHPs use a risk based approach to plan inspections. Premises that pose a highest risk are inspected most frequently, while those businesses that do not pose such high risks are inspected less frequently. The frequency of Local Authority (LA) inspections is driven by the use of a risk assessment model which is set out by the FSA in the Food Law Code of Practice (COP) 2017.

The risk factors of the FHRS used to calculate the rating score are: level of (current) compliance with food hygiene and safety procedures (including food handling practices and procedures, and temperature control and the measures taken to prevent food from becoming contaminated with food poisoning bacteria); level of (current) compliance with structural requirements (including cleanliness, layout, condition of structure, lighting, ventilation, facilities etc.); serving vulnerable clientele; and confidence in management/control procedures which is how the business manages and records what is being done to ensure food that is being prepared and sold is safe for human consumption. Each risk factor is given a score depending on the risk level of the business. The total of these scores determine the frequency of inspection which can be between 6 months and 5 years. In addition there are six different food hygiene rating scores from a score of 0 (lowest score) up to a score of 5 (highest score) (Food Law COP 2017). Food businesses receive a score based on the degree of compliance with the food safety regulations (Da Cunha *et al* 2016). The FHRS was adopted to ensure better allocation of resources in that higher risk businesses are inspected more frequently. However, visiting high risk businesses more frequently must not be at the expense of the quality and consistency of inspection according to Vegeris (2015). This national scheme currently operates on a voluntary disclosure system in England and Northern Ireland although businesses are encouraged to display these stickers/certificates. In Scotland and Wales it is a

statutory requirement for businesses to display a sticker with their rating at their premises (Vegarís 2015; Draper 2016; Jones 2018).

The purpose of the FHRS is twofold: firstly, consumers can make choices about where they eat and secondly, it encourage businesses to improve their hygiene standards which can subsequently reduce the incidence of food poisoning illness and outbreaks (Filion and Powell 2011; Vegarís 2015; Draper 2016; Nayak and Taylor 2018; FSA 2017). The FHRS can be considered an incentive for compliance for food businesses since consumers will be patronising them based on their inspection score (Nayak and Waterson 2017; Nayak and Taylor 2018). An early study by Jin and Leslie (2003) show that customers are directed towards establishments with higher hygiene scores compared to lower scoring premises. Furthermore studies by Lee (2013) and Choi *et al* (2013), consumers rely heavily on the publication of risk rating results when choosing where to eat. It is reported by Ho (2012), Choi and Scharff (2017), Harris *et al* (2017) and Dai *et al* (2019) infer that consumers will not dine at an establishment with a poor inspection rating. Subsequently, according to Fleetwood *et al* (2019) a high food rating score (and therefore improved hygiene practices) also serves as an economic incentive for food establishments.

However, previous studies surrounding the impact of the food hygiene rating score on food poisoning remain inconclusive. A study Ho (2012) examined data from over 700,000 inspections in San Diego and New York, primarily focusing on the inspection grades. He concluded that there is a lack of consistency and a high score does not necessarily equate to future high hygiene standards. In addition, the implementation of such disclosure systems have not cause a reduction in food poisoning outbreaks in New York. Similarly, a study by Vegarís (2015) to assess the incidence of foodborne illness in local authorities that were operating the FHRS compared to local authorities that were not operating the scheme also revealed that there was no evidence to link the operation of the FHRS and a reduction in reported food poisoning cases in England and Wales. Similarly, it emerged from findings by Jones *et al* (2017) that a poor food hygiene inspection score does not predict a foodborne outbreak. However, da Cunha *et al* (2016), Fleetwood *et al* (2019), Alvseike *et al* (2019) convey contradictory results where they conclude that there is a link between outbreaks of foodborne illness and low food hygiene inspection scores.

The FHRS also acts as a reputational tool intended to reassure consumers of that the hygienic practices of food businesses are being monitored (Vegarís 2015; da Cunha *et al* 2016; Jones *et al*

2017). Cartwright (2012) states that the loss of reputation of a business is important. There is a fear that if this reputation is lost then it will have a detrimental effect on a business in terms of business profits. Thornton *et al* (2011), Seo *et al* (2015) and Harris *et al* (2017) believe that bad publicity is feared over monetary penalties and is therefore seen as an important reason for businesses to comply. Cartwright (2012) also agrees that the size of the sanction or penalty for non-compliance has limited impact upon compliance rates. Hutter and Amodu (2008) assert that the use of informal sanctioning such as embarrassment and shame can be strong motivators for compliance. Research by Ipsos MORI in 2010 found the threat of adverse publicity to be crucial in motivating compliance, noting that that 89% of respondents agreed that the threat of adverse publicity is just as important as any financial penalty. Cartwright (2012) also uses the argument that adverse publicity can be an effective regulatory sanction as well as playing a crucial role in assisting consumers to make choices about where they eat. Negative publicity is taken more seriously and has a considerable impact on the way in which consumers make decisions about patronising a particular food business (Seo *et al* 2015; Choi and Scharff 2017; Dai *et al* 2019).

Conversely, Coffee (2007) contests the claim that adverse publicity is an important enforcement tool. He states that *“adverse publicity may operate disproportionately as a penalty because it is difficult to controlbecause.... its exact impact cannot be reliably estimated nor is it controllable so that only the guilty are affected”* (Coffee 2007 p5). Whitman (2011) also agrees with this assumption and claims that *“too much enforcement power is being unleashed on a fickle and uncontrolled general populace”* (Whitman 2010 p21). The Better Regulation Task Force (BRTF) also raised concerns about the potential for adverse publicity to operate unfairly. They raise concern about the use of the internet which they say be used to spread rumours which could damage to the reputation of a business and state that businesses can be subjected to a form of *“brand assassination”* (BRTF 2010).

Another point of concern is the use of scoring systems as a mechanism to provide food safety related information is controversial. Jones *et al* (2008) and da Cunha *et al* (2016) suggest risk assessment methods adopted by EHPs may be ineffective because the assessment is subjective and it is reliant on the inspector’s ability to determine the presence of hazards. This is because the assessment of risk is based on the correct identification of hazards and the correct appraisal of their significance (Green and Kane 2014; Nayak and Taylor 2018). Potential inconsistencies may arise

from the subjectivity between different officers as well as between different local authorities (Almanza 2012). Baldwin and Black (2010) note that these scoring systems are qualitative in their assessment but given a numeric score which is essentially quantitative since many systems exist to quantify results during inspection (Filion and Powell 2009). There is therefore a perception that enforcement of food law is inconsistent due to this flexible system (Hutter and Amodu 2008; Lee *et al* 2012). The irony is that it was introduced to prevent inconsistency.

This study seeks to critically evaluate how EHPs perceive the FHRS in providing accurate and reliable inspection results both to the food business and the general public. Previous research has focused on assessing the effectiveness of such inspection disclosure systems with respect to food business compliance, the incidence of foodborne illness and level of training of food handlers (Ho 2012; Da Cunha *et al* 2016; Choi and Scharff 2017; Harris *et al* 2017; Dai *et al* 2019; Fleetwood *et al* 2019). However, the current literature does not adequately address EHP perceptions of the scheme in terms of its practicality, that is, whether the risk factors and the associated scores of the FHRS adequately assesses the compliance of a food business.

Different countries use different inspection systems and formats for reporting inspection results such as scores, grades, symbols, colours or description of violations. Examples of the different food disclosure systems used in different countries to evaluate and classify food establishments: In Brazil food establishments are graded using letters A, B, C and pending, where A is classified as low risk (Da Cunha *et al* 2016). In Los Angeles, USA, food establishments are given a score ranging from 0 to 100, where 100 points equates to good standards of hygiene. The grade designations are colour coded with green indicating good; yellow (acceptable) and red (poor/closure) (Ho 2012). In Newton, Massachusetts (USA), points are deducted depending on level of risk, using numbers and words to describe the inspection grade. A zero to 400 points scale is used, where 400 equates to no contraventions. There are also five grade designations: superior, excellent, fair, unacceptable, and failing (Sullivan 2017).

Reports by Hampton (2005) and Macrory (2006) recommend that the enforcement toolkit of UK regulators needs to be extended. They suggested a more flexible system of civil sanctions be incorporated into any regulatory framework and these will be discussed in the next section.

3.4 Alternative Enforcement Toolkit: Civil Sanctions

The Macrory report (2006) called for a range of civil sanctions, including financial penalties which can be imposed by a regulator without the need to go to court. Administrative/civil penalties are “*penalties imposed by a regulator without the intervention of a court, although usually a right to appeal to court or similar independent tribunal*” (Macrory 2006 p41). In the criminal process prosecution can be disproportionate with fines often small compared with the economic benefits of non-compliance. In addition, prosecution can be costly and time consuming for the LA. According to Hampton (2005) and Macrory (2006) the current sanctioning regimes have to rely on criminal prosecution when this may not be necessary in some cases. For example, minor repeated breaches such as a kitchen in a food business not having antibacterial soap for food handlers to wash their hands. They also suggested that regulatory powers are ineffective particularly in targeting persistent offenders. The Hampton Report (2005 p38) concluded that: “*...the penalty regime at present does not provide effective deterrence because the penalties handed down by courts often do not reflect either the severity of offences*”.

There has been widespread recognition that prosecution for regulatory offences is not the most effective form of sanction. Hampton (2005) and Macrory (2006) suggested that more flexible, targeted and responsive options are required in an enforcement toolkit. Enforcement sanctions are an important part of any regulatory system to provide a deterrent and thus ensure compliance with regulations. Rouviere and Caswell (2012) identify three types of sanctions in connection with inspection practices. The first are repressive sanctions mainly used for “*stubborn offenders*” who disobey the law. Sanctions for non-compliance may include the closure of premises, seizure and detention of food. The second type of sanction, informative sanctions, are for less severe offences and are dealt with by means of advice, notices and warning letters which are used to motivate food businesses to comply. The third type of sanction are negative information provided to consumers. This includes the display the results of food hygiene inspections, for example, the food hygiene rating scheme as discussed in section 3.3.6. The Hampton and Macrory reports recommended that a comprehensive review of regulators’ penalty regimes be undertaken and recommended the incorporation of civil sanctions into any regulatory regime and this is discussed in the following section (Hampton 2005; Macrory 2006). Administrative penalties, which are quicker and simpler than court proceedings, could reduce the burden of time and worry placed on businesses under

threat of prosecution, while allowing regulators to restrict prosecution to the most serious cases, where the stigma of a criminal prosecution is required.

This led to the introduction of the Regulatory Enforcement and Sanctions Act (RESA) 2008 designed to provide consistent enforcement of regulations between and within LAs. The sanctions available under RESA 2008 are: fixed monetary penalty notices; discretionary requirements (which include variable monetary penalties, compliance notices and restoration notices); Stop notices and Enforcement Undertakings. Fixed Monetary Penalties have been used in the UK for some time in areas such as fly-tipping and parking tickets. They are used for minor regulatory offences and involve the imposition of a monetary penalty for a fixed amount. Discretionary requirements address more serious offences using variable monetary penalties (although not those that will be subject to criminal prosecution), a compliance notice is similar to the current statutory improvement notice in that the business has to comply with the issues stated in the notice within a specific period of time otherwise be liable to prosecution or a monetary penalty. Restoration notices are similar to compliance notices but there must be some harm caused by the business not complying with the law. Stop notices are issued when there is a significant risk causing serious harm to human health or the environment thus immediately stopping an activity that can cause harm. Finally, Enforcement Undertakings are agreements made between the regulator and the business/offender to make corrective action(s) to remedy a situation. This will allow businesses to put things right quickly without further sanctioning/punishment (RESA 2008; Adshead and Andrew 2009).

According to Woods and Macrory (2010) civil sanctions are seen as an alternative designed for minor non-compliance and involves the imposition of penalty without intervention of court. Therefore it may be more effective to deal with regulatory offences (Macrory 2006; Woods and Macrory 2010). Woods and Macrory (2010) report that criminal law will not accommodate all regulatory breaches within a piece of legislation and so need a cost effective and efficient enforcement mechanism. Regulators are therefore provided with flexible sanctioning powers to deal with minor breaches of the law, that is, cases where there is non-compliance but this does not warrant criminal prosecution. Macrory's concept was generated from the enforcement pyramid as an intermediary between lenient and severe enforcement strategies. The aim was to reduce the

financial incentive for non-compliant behaviour and thus prevent individuals from benefitting financially from non-compliance (Macrory 2006).

It can also be expensive for LAs to undertake a prosecution so the proposal to incorporate civil sanction into the regulatory enforcement toolkit means that LAs do not need to waste their time and resources preparing for court proceedings (Macrory 2006). The Law Commission estimates state that savings could be achieved if the regulators in areas such as farming, food safety, banking and retail sales take action under civil law rather than taking a criminal prosecution thus allowing the regulator to target their resources better. *“Relying on the criminal law to deter and punish risky behaviour in regulatory contexts may be an expensive, uncertain and ineffective strategy”* (Law Commission 2010 p3). Faure and Svatikova (2012) also agree that because administrative proceedings are more informal than criminal proceedings the imposition of civil sanctions is a relatively cheaper alternative as a criminal prosecution can be difficult and time consuming. Secondly, civil sanctions reflect the severity/magnitude of offence or the economic benefit gained through non-compliance to ensure that offenders are deprived of the economic benefit that they has gained from their non-compliance. The nature of the system allows a distinction to be made between serious breaches of the law that are intentional or reckless and those offences that are not necessarily serious but still need to be punished (Macrory 2006; Macrory and Woods 2010).

However, Ogus (2009) points out two major limitations to civil sanctions. First of all, the public may not like civil sanctions because they lack the stigma of criminal conviction (although an advantage to businesses) as they may fail to teach those breaking the law a lesson. Secondly, he states that there is a limit to the severity of the administrative charge. If sanctions are not going to be high enough (that is, to hinder businesses from gaining an economic benefit through not complying with the law), then the deterrent effect would be lost (Nehme 2008). Other reasons have been put forward in literature as to why criminal law is favourable over civil sanctions. One reason that has been put forward by Faure and Visser (2003) is that civil law does not really deter but fixes a price for behaviour in the form of a sanction.

Administrative penalties are used widely in other countries and can also allow regulators to eliminate the economic benefit of illegal activity more easily. In Germany, for example, most regulatory offences are punished as Ordnungswidrigkeiten (administrative offences). Fines can be set up to €500,000, and businesses can appeal to a special tribunal if they feel the penalty is

undeserved or disproportionate. The system has been described as the most coherent and comprehensive system of regulatory enforcement (OECD 2010; Faure and Weber 2017). According to Ogus and Abbot (2001), Germany has a coherent and comprehensive regulatory enforcement system and relies upon the use of administrative and civil sanctions and considers them to be as effective as criminal sanctions. The concept of administrative offences was introduced as far back as 1949 and even before this date, it was recognised that dealing with non-compliance with regulation should be separate from the criminal process. Like the UK the German system has adopted a similar enforcement pyramid identifying the administrative fine at the centre of the pyramid (Ogus *et al* 2010).

Another country where civil sanctions have been developed is in the US. Punishment in America has radically changed over the past 30 years with its increasing reliance on criminal prosecution (just like in the UK), imprisoning more people (at a rate of five to seven times) compared with other industrial countries such as France, Germany and Sweden (Barker 2009). This has led to the development of civil sanctions to reduce penal sanctioning such as imprisonment (Barker 2009). The sanctioning system in the US recaptures the economic benefit that the offender has gained from non-compliance. This has had a major impact in the area of environmental protection for example, where the use of computer modelling has helped to calculate the proposed penalty figure to be imposed on a business.

The UK government established a review of the sanctioning regimes of regulators to identify adequate deterrents to regulatory non-compliance. Not all regulatory agencies use civil sanctions in the UK even though they have been in place for some time. Environment Agency who was the leading regulatory agency to adopt civil sanctions in the UK but the current use of civil sanctions in environmental legislation in the UK has been limited (Woods and Macrory 2010). In addition, the Housing and Planning Act 2016 has recently introduced civil penalties as an alternative to prosecution. It allows financial penalties of up to £30,000 for certain housing offences such as overcrowding, failure to comply with an improvement notice and offences relating houses in multiple occupation (www.gov.uk).

However, the Health and Safety Executive (HSE) is of the opinion that HSE enforcement officers and those working in local authority have sufficient powers to assist them in their enforcement duties to ensure regulatory (HELA 2009). The HSE seem to think that civil sanctions are totally

replacing prosecution and raise concerns in relation to the fact that enforcement officers may overlook serious offences and substitute prosecution with a fine. In addition, they also question whether civil penalties will change the behaviour of the regulated and point out that the role of the enforcer to advise and assist businesses in their compliance will be diminished (www.hse.gov.uk). This study makes a significant contribution to the literature by providing empirical data to explore the perceptions of EHPs on whether civil sanctions will be an alternative and additional enforcement tool that will assist them in their food law enforcement duties as well as providing an effective deterrence to food businesses.

3.5 Chapter Summary

Enforcement, often in the form of an inspection, refers to a system in which society is meant to act in a certain way to comply with the law (Hutter 2011). Anyone who contravenes and disobeys the law are punished (Parker and Nielsen 2011; Braithwaite 2011; Bardach and Kagan 2017). Regulatory compliance is a process that organisations follow to ensure that they are conforming to a particular piece of legislation so that they will not be liable to sanctions (usually in the form of fines or imprisonment) for failure to comply (Black 2014; Gunningham 2015b; Bardach and Kagan 2017). Enforcers have a range of enforcement tools to deter non-compliance and so their behaviour in terms of how they interpret the law (communicating the meaning of a given policy) is critical (Black 2014).

There has been much research into what motivates businesses to comply with or evade regulations and also how organisations respond to different enforcement styles. This study seeks to explore the opinions of EHPs with regards to the practicality of the current enforcement tools that may improve the way regulations are implemented and enforced, for which the scholarly literature is silent. The next chapter acts as a bridging chapter to discuss the gaps in the literature and provide a link between the primary and secondary data and a justification for the primary data study.

CHAPTER FOUR: EMPIRICAL FRAMEWORK

4.1 Introduction

The aims of the chapter are to provide a link between primary and secondary data and to provide a justification for the primary study. The chapter will focus on identifying gaps that will provide the coherent investigation resulting in new knowledge, theory and practice.

4.2 Narrative discussion of the literature review

Table 4.1 highlights the gap in the literature and the implications for this study. The interview themes for the study are shown in Table 4.2 below.

A review of the literature enabled gaps to be identified within the area of food law enforcement. Whilst gaps were identified, they were grouped into themes to form a coherent base for the primary data section. The main conclusions from the literature review were used to establish the parameters of the data collection.

Table 4.1 Gaps in literature

Literature Source	Gap in the Literature	Implications for this study
Reske <i>et al</i> (2007)	The empirical research was conducted in Minneapolis, USA. It used a quantitative study to investigate the benefits of implementing an announced restaurant inspection program from the perspective of food businesses. Obvious direction for future research would be to explore the views of enforcement practitioners in the UK through a qualitative methodology.	This highlights a gap in the use of qualitative methodology to investigate the views of EHPs in England whether adopting announced or unannounced food hygiene inspections lead to more or less food hygiene contraventions.
Klerks <i>et al</i> (2013)	This study carried out quantitative and qualitative research regarding the differences between announced and unannounced inspections. The study took place in nursing homes and related to health care and used existing data to draw conclusions.	
Etienne <i>et al</i> (2015)	This was a post-implementation study of the introduction of remedial action notices (RANs) for non-approved premises in Scotland, Wales and Northern Ireland.	This highlights the gap in literature of how RANs in non-approved premises would affect enforcement practices in England. This study investigates the perceptions of EHPs in relation to RANs and how they will affect their enforcement toolkit.

Kettunen <i>et al</i> (2015)	Evaluates the effectiveness and uniformity of the use of food enforcement measures in Finland. Investigate how rapidly the use of enforcement measures leads to compliance with food safety regulations.	This study filled the gap by conducting a qualitative study of the perceptions and views of EHPs in England. Narratives from sampled EHPs (taking into account factors such as gender, race and level of experience in food law enforcement) on how they perceive current enforcement measures.
daCunha <i>et al</i> (2016)	Evaluate the results of the food safety strategy deployed during the 2014 FIFA World Cup in Brazil. The participants were consumers, food business operators, health surveillance auditors and co-ordinators who completed a survey about the inspection scoring system.	The main gap here is the manner in which data is collected – quantitatively. This is a qualitative study for an already established scoring system. Gap = Practicality of the FHRS for food law enforcement; suggestions for improvement.
Bukowski <i>et al</i> (2012)	Qualitative research with LAs on how EHPs choose regulatory interventions and enforcement actions in order to get food businesses to comply with the legislation. Decision-making process regarding enforcement action. Assessing which interventions are most effective at improving and sustaining compliance. No information regarding future research but the study did not provide the views of EHPs regarding alternative enforcement tools such as civil sanctions.	The study filled the gap by providing in-depth interviews of the perceptions of EHPs regarding current regulatory interventions looking at factors such as gender, race and level of experience in food law enforcement as well as their views regarding civil sanctions.

Source: Based on the Literature Review

Table 4.2 Summary of research objectives and interview themes depicted from literature

The themes identified from the literature can be summarised in Table 4.2. Based on the gaps in literature, the following themes were established as the basis for the primary data.

Aim	Research Objectives	Interview Themes	Literature Citations
	To investigate EHPs perceptions of food hygiene inspections as a regulatory intervention for food safety in capturing contraventions of the law.	Inspection frequency	Worsfold (2007); Newbold <i>et al</i> (2008); Holley (2010); Pizzino & Rupp (2013)
		Variations and practical use of the inspection form	Isaacs <i>et al</i> (1999); Lee <i>et al</i> (2010); Choi & Almanza (2012)
		Announced inspections vs Unannounced inspections	Reske <i>et al</i> (2007); Waters <i>et al</i> (2013)
		Challenges with conducting food hygiene inspections and strategies needed to overcome such challenges.	Green-Brown & Selman (2005); Neal <i>et al</i> (2011); Harris and Murphy (2015); Laikko-Roto (2015)

To critically examine Environmental Health Practitioners (EHPs) perceptions of the relevancy and effectiveness of current policies, practices and legislative frameworks as they relate to enforcing food legislation.	To investigate EHP perceptions on the impact of the food hygiene rating scheme as a risk strategy tool for enforcement.	The practicality of the FHR scale to score food businesses.	Lee <i>et al</i> (2010); Morrison and Wong (2014); Brar (2016); da Cunha <i>et al</i> (2016)
		The best format to communicate food hygiene inspection results.	Lee <i>et al</i> (2010); Morrison and Wong (2014); Brar (2016); da Cunha <i>et al</i> (2016)
		Voluntary vs mandatory display.	Lee <i>et al</i> (2010); Morrison and Wong (2014); Brar (2016); da Cunha <i>et al</i> (2016)
To critically examine the enforcement sanctions currently available to EHPs and whether (in their opinion) alternative enforcement tools would be more appropriate.		Validity of the enforcement system – which enforcement measures are more effective way to achieve compliance	Bukowski <i>et al</i> (2012); Nieober <i>et al</i> (2015); Kettunen <i>et al</i> (2015)
		Civil sanctions as an alternative tool to aid food law enforcement	Hampton (2005); Macrory (2006); Macrory and Woods (2010); Faure and Svatikova (2012)
To investigate EHPs perception of whether a specialist court would be required to deal with food law offences.		Specialist court to deal with food hygiene offences	Adshead and Andrew (2009); Macrory (2014)
		Attitude of magistrates with respect to food offences.	Dhami (2013); Tombs and White (2013); Macrory (2014)
To investigate EHP views regarding their level of training and general working environment in relation to the current economic climate.			

Source: Based on the Literature Review

A qualitative study of the perceptions and views of EHPs in England was conducted and narratives from the sampled EHPs were compiled. The next chapter will outline the methodology adopted by this study in achieving the aim and objectives of this research.

CHAPTER FIVE: RESEARCH METHODOLOGY

5.1 Introduction

The chapter evaluates and justifies the methods that were used for this study including the research philosophies and methodological approaches that will elicit information to answer the study's research questions. The chapter also discusses and justifies the sample selection, data collection and analysis to provide credibility of the research in relation to validity and reliability. The chapter ends with a discussion on ethical considerations, limitations of the fieldwork and concluding remarks.

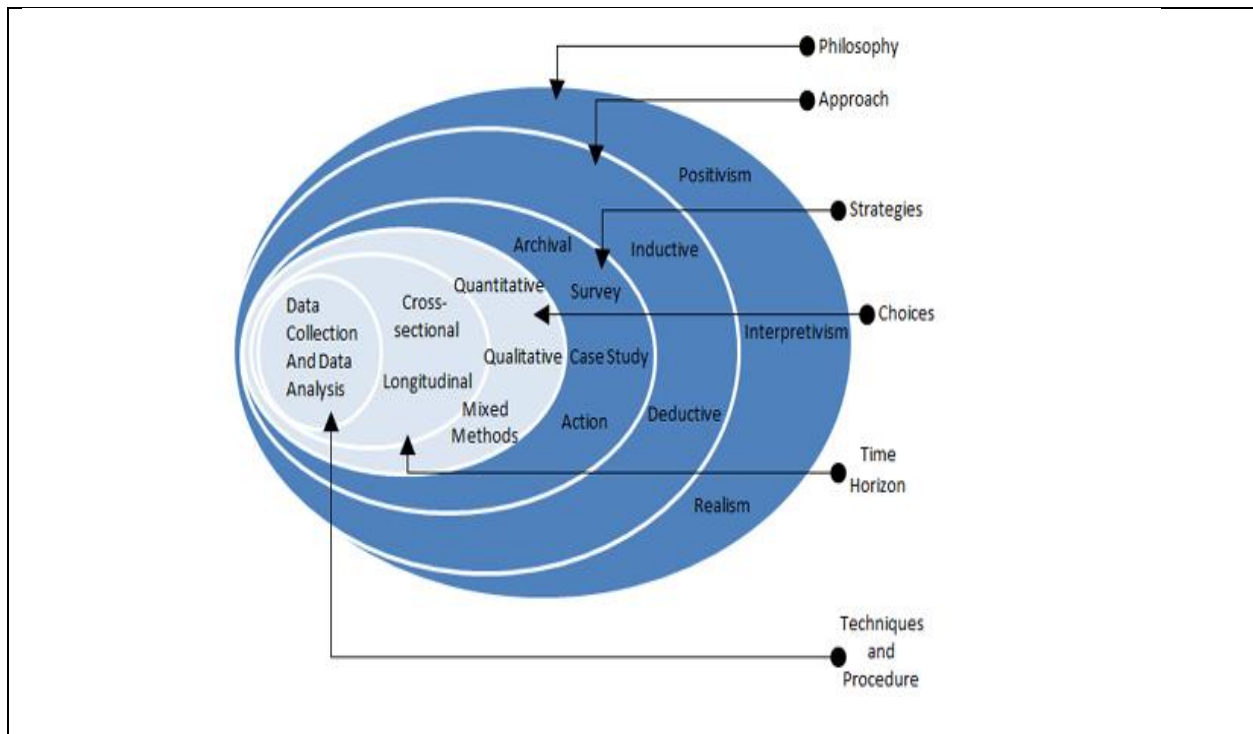
5.2 Research Framework

This research is based around the research onion (Figure 5.1) by Saunders *et al* (2011) who stated that this framework is used to explain the research philosophy, research approaches, research strategy, choices and time horizons, as well as data collection techniques and analysis procedures, which are important aspects of any research process. The research onion helped the researcher understand the process and different variables of the research and ensured all aspects of the research process were comprehensively covered by this study. The approach in using the research onion framework is to go from the outer layer to the inner layer.

The first layer of the research onion is the philosophical stances associated with philosophies. It refers to a set of beliefs concerning the nature of the reality being investigated (Bryman 2012). Identifying the research philosophy also provides justification of how the research will be undertaken (Flick 2015).

The second layer is the research approach which is a plan and procedure that consists of the steps of broad assumptions to detailed method of data collection, analysis and interpretation. It is therefore, based on the nature of the research problem being addressed. Saunders *et al* (2011) propose two main research approaches: deductive and inductive.

The third layer of the research onion refers to research strategies. The choices outlined in the fourth layer of the research onion are qualitative, quantitative and mixed methods (use of both qualitative and quantitative methods). Time horizons make up the fifth layer and refers to the time limit/target for the completion of the research study.

Figure 5.1: The Research Onion

Source: Saunders *et al* (2011)

Finally, the sixth layer of the research onion, techniques and procedures, outlines the practicalities of data collection and analysis. When data is systematically collected and properly analysed it enables the researcher to answer the research questions.

The following sections will discuss and provide a justification for, the research methods used for this study using the research onion framework as a guide.

5.3 Research Philosophy

This section presents a discussion of the research philosophy adopted by this study. Research philosophy is connected to the nature and development of a research, which consists of the main assumptions of how the researcher perceives the world (Collis and Hussey 2014; Saunders *et al* 2011). The clarification and successful implementation of the research design is only achievable when the philosophical issues are well understood (Easterby-Smith *et al* 2012). This is to ensure that all aspects of the research are appropriately informed by the underpinning philosophy.

Research philosophy incorporates several research paradigms (or assumptions) which influence the way in which the research is conducted (Pernecky and Jamal 2010). According to Crotty (2015) and Bryman and Bell (2015), research philosophy helps develop the research study in question so that a better understanding of the research methods based on such philosophies can be acquired. Hakansson (2013) also points out that research philosophy is the starting point for any research by articulating that research philosophy “*constitutes assumptions about valid research and appropriate research methods and is the stand-point, which becomes the point of view for the project*” (Hakansson 2013 p69).

Hasan (2014) states that there are three main paradigms positivism, interpretivism (also called constructivism) and realism. Saunders *et al* (2011) provides ten philosophies: Interpretivism; Positivism; Objectivism; Pragmatism; Functionalist; Realism; Radical structuralist; Radical humanist; and Interpretive. Rossman and Rallis (2017) identify four different paradigms: positivism, interpretivism, critical humanism (a subtype of interpretivist view) and critical realism (a subtype of the positivist view). However, they suggest that the two primary paradigms are positivism and interpretivism. Similarly, Easterby-Smith *et al* (2012) also cite that the two commonly used paradigms are positivism and interpretivism.

This research study adopted a philosophy centred around critical realism. Realism is a philosophic belief, according to which the reality exists independently of observers (Grant 2018). In addition, interpretivism as a theoretical foundation is a useful and appropriate approach for this research context as it allows for a discussion with EHPs regarding the perceptions of food law and its enforcement. Rakić and Chambers (2011) stated that research which adopts an interpretivist philosophical assumption is more reliable in capturing human perceptions and experiences. This aligns with the aim of this research which is concerned with capturing the perceptions of the EHPs and their experience of food law enforcement. This study also adopted an epistemological position due to the subjective nature of the study in that the researcher interacted with the respondent EHPs. In epistemological research, the researcher endeavours to build a relationship with the participants (Easterby-Smith *et al* 2009; Myers 2013). The information obtained from the participants is based on their experiences and is therefore considered subjective evidence (Bryman and Bell 2015).

A positivist philosophy was rejected because it is generally associated with experiments to collect numerical data from large samples and a deductive approach is undertaken (Gray 2018). This type

of research is designed around hypotheses and examine relationships between several variables (Blackstone 2012; Collis and Hussey 2014; Hakansson 2013). According to Cooper and Schindler (2011), the concept of positivism is associated with the idea of *objectivism* in which researcher's own beliefs are not able to influence the research study. Thus this type of philosophy generates quantitative data and includes questionnaires and surveys. Interpretivism (or constructivism) contrasts positivism in that it looks at perceptions and experiences as opposed to experiments (Creswell 2013; Gray 2014). This process is therefore subjective rather than objective since it produces an insight into behaviour and includes interviews and focus groups (Rakić and Chambers 2011). These methods usually generate qualitative data (Scotland 2012; Denscombe 2014).

5.4 Research Approaches

Research methods are often associated with two theoretical approaches namely deductive and inductive approach (Hakansson 2013). The deductive reasoning is mainly associated with scientific research in which hypothesis is defined and research is carried out to explain any relationships between variables in order to provide evidence about whether or not the hypothesis is true (Blackstone 2012; Hakansson 2013; Bryman and Bell 2016). Creswell and Plano Clark (2007 p23) say that the deductive researcher “*works from the ‘top down’, from a theory to hypotheses to data to add to or contradict the theory*”. According to Blackstone (2012), this means that such research progresses from a general level (look at existing theories) to a more specific one (test the hypothesis by analysing data that emerge from these theories).

Conversely, the inductive approach progresses from specific observations from the data to broader general statements about these observations/experiences (Gray 2014). This is sometimes called bottom-up approach because according to Creswell and Plano Clark (2007 p23) “*it starts with specific cases, using the participants’ views to build broader themes and generate a theory interconnecting the themes*” and finally develop some general conclusions or theories.

In the case of this study, an inductive reasoning was applied since a deductive approach is often considered particularly suited to the positivist approach, which permits the formulation of hypotheses and the statistical testing of expected results to an accepted level of probability (Snieder and Larner 2009). Inductive methods are often qualitative in nature and this research employed qualitative techniques in order to carry out an in-depth investigation and obtain a deeper

understanding of the experiences of environmental health practitioners (EHPs) responsible for food law enforcement within local authorities (LAs). Therefore, the choice of an inductive approach is appropriate for this study because of its qualitative nature and being concerned with the generation of new theory emerging from the data (Hakansson 2013). In addition, induction reasoning moves from specific observations to broader generalisations and theories in detecting themes and patterns in the data (Creswell and Plano Clark 2011; Barbour 2014). A deductive approach was also not used based on objectivity in the assessment of the observations. This is in contrast to the use of an inductive research approach which relies on subjectivity in the evaluation of the observations to support the results of the research.

5.5 Research Strategies

The research strategy is how the researcher intends to carry out the work (Saunders *et al* 2011). Saunders *et al* (2011) state that there are seven main research strategies, emphasising that there is no strategy, which can be considered to be the best one for all kinds of researches. Saunders *et al* (2011) identifies the following strategies: experiment, survey, case study, action research, grounded theory, ethnography and archival research. Gray (2014) asserts that the type of research strategy/design chosen depends on whether, for example, a positivist or interpretivist stance is taken.

Exploratory research was one of the strategies used in this study. This is because exploratory research is conducted to examine a problem or issue when the research is unique or there are few studies which can be referred to for information on it. In this case the enforcement challenges of EHPs has not been adequately researched. Denscombe (2014) holds the view that exploratory samples are often used in small scale research as a way of investigating issues or theories that are relatively new and provide the researcher with data from '*unchartered waters*'. For example, when a policy change is being considered.

This research adopts an ethnographic exploratory study which aims to establish and review the perceptions that EHPs have towards regulatory interventions and enforcement options currently available to them. Ethnography engage directly with participants, gathering their views through interviews (Ritchie *et al* (2014). It also describes cultural practices and traditions and interprets social interaction within a culture (Denscombe 2014).

Other strategies were not considered because, for example, in the case of experimental research this refers to the strategy of creating a research process that examines the results of an experiment against the expected results (Saunders *et al* 2011). Experimental research looks at the relationships between variables in which one variable can be manipulated to see if and how it influences the results (Hakansson 2013). Similarly, surveys which tend to be used in quantitative research projects and involve sampling a representative proportion of the population (Bryman and Bell 2015) was rejected as a suitable strategy for this particular study. Surveys produce quantitative data that can be analysed empirically. Survey strategy of the research onion is often linked with the deductive approach (Silverman 2014).

5.6 Research Choices

The fourth layer of the research onion is the research choice which refers to whether the study adopts qualitative or quantitative approach or a combination of the two (mixed methods). According to Hakansson (2013) and Silverman (2014, 2017) a quantitative research method uses large data, usually represented by graphs and charts and statistics test whether the hypotheses (the starting point of the research in which an idea or theory) are true or false. Quantitative research tends to use close-ended questions (questions which can be answered with a yes or no) to test specific variables derived from the hypotheses and comparisons or relationships between the statistical data (variables) can be analysed using statistical methods. (Soiferman 2010; May 2011). A quantitative report uses frequencies and percentages. Furthermore, the quantitative methods adopts an objective approach and is aimed at generalisation of the results (Easterby-Smith *et al* 2011). The quantitative research is consistent with the deductive research approach and informed by a positivist philosophy (Bryman 2016).

On the other hand, qualitative research methods are not usually concerned whether the sample is statistically representative because the objective is to reach conclusions that are not necessarily applicable to the entire population (Bryman 2016). Instead, in-depth studies are carried out (participants are asked open-ended questions which require more thorough answers) using a small number of participants and investigates personal experiences and opinions of the participants with regards to a particular subject (Webly 2010; Bryman 2012; Choy 2014). Cresswell (2013p4) defines qualitative research as: “*The use of interpretive/theoretical frameworks that inform the*

study of research problems addressing the meaning individual or groups ascribe to a social or human problem qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is both inductive and deductive and establishes patterns or themes”.

A qualitative design was used for this study as it involved exploring the perceptions of Environmental Health Practitioners (EHPs). This meant questioning them about their experiences and opinions in relation to the enforcement of food legislation. Denzin and Lincoln (2011 p3) describe qualitative research *as a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, recordings and memos to self.....qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them.* Cresswell (2013) and Myers (2013) point out that qualitative research is designed to help researchers understand the experiences of people in their own environment in order to address a particular social or human problem. Soiferman (2010) also asserts that the objective of qualitative research is to gather information from participants so as to form ideas about their perspectives on a particular subject. It can be argued that since the main focus of this study is to explore the perceptions of EHPs then it is appropriate to engage in a qualitative study, asking open-ended questions in order to obtain as much information as possible. Furthermore, the relationship between the researcher and the participants has been cited as a significant aspect of qualitative research (Cresswell 2009; Soiferman 2010; Myers 2013). Silverman (2014) states that quantitative research often involves little contact with the participants and statistical tables do not provide much information compared with descriptive narratives that are able to identify, for example, body language. The researcher and the respondents operate in the same profession and so provides an opportunity for the researcher to obtain detailed accounts of their experiences (Barbour 2014). Merriam (2016) agrees that qualitative research reports are typically rich with details and insights into participants' experiences and where quantitative measures cannot adequately describe or interpret a situation (Richie *et al* 2014 and Yin 2014). Qualitative research embraces a more profound understanding of social behaviour in a way that may not be obtained from a purely quantitative study (Blackstone 2012). Examples of qualitative data generation methods include focus groups and interviews (Riche *et al* 2014).

The research used the words of the participants to obtain their personal experiences rather than statistical procedures. A small sample size was used compared to a large data set. Hakansson (2013) states that reliable results can still be achieved using smaller samples. In addition, more than one research method can be used to complement each other, this is called triangulation (Hakansson 2013). In this study, only one qualitative method was used. The researcher initially conducted questionnaires but the response rate was very poor and so sought to conduct interviews only so that a rich quality of data could be obtained. In addition, there is a belief that in quantitative research, the researcher separates themselves from the participants (Soiferman 2010). Silverman (2014) also agrees that quantitative research often involves little contact with people, a disadvantage of this method. This is further addressed by Choy (2014) who states that quantitative research does not deal with human perceptions and beliefs. Therefore a quantitative method is unsuitable for this study.

The qualitative approach is drawn from the constructivist paradigm (Bryman and Allen 2011). This approach requires the researcher to avoid imposing their own perception of the meaning of social phenomena upon the respondent (Banister *et al* 2011). The aim is to investigate how the respondent interprets their own reality (Bryman and Allen 2011). An effective means by which to do this is through interviews, or texts, where the response to a question can be open (Feilzer 2010).

Furthermore, the researcher can develop the questions throughout the process in order to ensure that the respondent further expands upon the information provided. Qualitative research is usually used for examining the meaning of social phenomena, rather than seeking a causative relationship between established variables (Feilzer, 2010). In qualitative Approach the data is collected mainly to describe factors rather than reaching to a statistical inference. It is an unstructured exploratory research method. Here the important factors of character, behaviour, attitude, opinion etc are subjectively assessed. (Myers 2013) Usually qualitative studies are used for explanatory purposes (Kothari 2008). This research study is a qualitative research with an inductive approach.

However, criticises qualitative methods because of its association with subjectivity and the belief that interpreting information in a qualitative manner is open to potential pitfalls such as misunderstanding what a respondent has said. Therefore there is the problem of adequate validity or reliability because it focuses on a smaller sample compared with a quantitative study (Onwuegbuzie and Leech 2010). Another drawback is that the use of qualitative methodology can

be time consuming because it involves transcribing the narratives of the participants obtained during the interviews, observations and focus groups (Choy 2014). These drawbacks were overcome by asking the participant to expand on their answers in cases where the researcher sought further clarification. Transcribing the narratives is time consuming but allows the researcher to obtain detailed information from participants of the study (Bryman and Bell 2015).

5.7 Time Horizons

The next layer of the research onion framework is time horizons. The time horizon is the time framework within which the project is intended for completion (Saunders *et al* 2011). A time limit is usually fixed for the completion of a task or activity. This fifth layer of the research onion has two-time horizon methods: the cross sectional and the longitudinal (Bryman 2012). Cross sectional is when data is collected at a certain point and is used to conduct a short time study (Flick 2015). A longitudinal time horizon is for a long-term study. Both approaches can be used to observe the behaviour of a group of people or an aspect or events.

This research adopted the cross-sectional time horizon because the time was prefixed for the completion of the study. The time horizon for conducting the research was prefixed and planned. The longitudinal method although it can be used to study behaviour and events, is more adhered to repeated studies over a period of time to identify correlation between observations and changes among the results over different time periods. A cross-sectional approach for the time horizon means that the focus of the research is on the current situation. Behavioural studies usually conducted in longitudinal methods requires a long time period for observation (Saunders *et al* 2011, 2015). A limited period of time was allotted to the researcher to conduct the data collection for the samples selected and so longitudinal methods were not suitable.

5.8 Techniques and Procedure: Data Collection and Analysis

The final layer of the research onion is data collection and analysis and is dependent on the methodological approach used (Bryman 2012). The process used at this stage of the research contributes significantly to the study's overall reliability and validity since the most important elements in a research study are data collection and data analysis (Saunders *et al* 2011). The reliability and validity of a research is directly applied to the measurement of data (Silverman 2017). There are two types of data collected for a systematic analysis for any research: primary

data and secondary data (Kumar 2011). Primary data refers to information that is generated first time or that are generated to meet the specific requirements of the investigation at hand. Secondary research requires the use of relevant academic literature to buttress research findings. This study utilised both primary and research data.

There are various sources of primary data such as questionnaires, interviews, focus groups, observations and surveys (Saunders *et al* 2015a). The primary data chosen for this study was semi-structured interviews via a social media outlet, Skype. This is because the interview is the most commonly used method of data collection in the study of human behaviour since it is considered to be the most effective method of gaining information about a person's perceptions, beliefs, feelings, attitudes, opinions etc. An interview can be structured, unstructured or semi-structured (Hakansson 2013). A structured interview means that the interview questions are presented in the same order whilst a semi-structured and unstructured interviews are more flexible in their approach to the questions being asked based on human conversation (Kvale and Brinkman 2009; Qu and Dumay 2011). A semi-structured interview was used in this case. According to Blackstone (2012), qualitative interviews have several strengths over other forms of research methods. First of all, the researcher can obtain detailed information about the topic under investigation. Secondly, participants are able to share their experiences and the responses are not restricted. Thirdly, it is thought that a participant's body language provides additional data for the researcher.

However, Blackstone (2012) points out some negative aspects of qualitative interviews. The main one is having to rely on the respondents' ability to recall the information/experiences being asked as well as the possibility of information being withheld or distorted resulting in inaccurate information/data. Another drawback of qualitative interviews is that they are time consuming because the researcher has to transcribe and analyse several interviews which can be very laborious (Kemperaj and Chavan 2013). Study's approach: Several types of interview exist including face-to-face and email interviews. This study chose to carry out face-to-face interviews using internet technology (Skype) due to the geographical location of the researcher and the respondents. The interviews were recorded to obtain a verbatim record of the interview. Other forms of data collection such as focus groups were not used because of the researcher's geographical location and the ability to gather all the participants in a group at any one time.

In this study semi-structured interviews were conducted remotely via Skype. Interviews are used extensively by qualitative researchers examining legal phenomena, and perceptions of law and the legal profession (Singhal and Malik 2012; Epstein and Martin 2014; Dobinson and John 2017). Email questionnaires were originally used but were abandoned because of the poor response from the pilot study. In addition, some of the responses to some of the questions were not informative enough and would not generate enough data to draw substantive conclusions. Blackstone (2012) states that interviews are useful when answers to questions require lengthy explanations and the use of close-end questions on a survey would not work well especially since the interviewer may need to ask follow-up questions based on the answers given by the respondent. Semi-structured interviews allow for the ordering of questions to be employed flexibly to allow for unforeseen comments to be probed further (Barbour 2014). Qu and Dumay (2011) state that the focus of an interview guide covers the main themes/topics and issues that is being researched and the interviewer wants to learn. Bias was eliminated from the research by recording the interviews rather than relying on memory. In addition, recording the interviews allowed direct quotes from the respondents to be used as emphasis (Driscoll 2011).

A semi-structured interview procedure was used in that questions were prepared beforehand (Appendix 5). An interview guide allows the interviewer to ask the participants the same questions so as ensure the important issues are discussed (Blackstone 2012). In addition, when applicable, respondents were prompted for more information and useful probes were planned prior to the interview. This provides a valuable tool for the interviewer (Blackstone 2012). The probes were determined after the pilot study. The majority of the questions were open-ended as opposed to closed questions. Blackstone (2012) states that open-ended questions give the respondent the opportunity to answer the questions in their own words and phrases. The interviews were conducted at a time (and location) convenient to the participant and taking into account the time difference between the UK and the researcher's location in the USA. Blackstone (2012) implies that it is advantageous for the researcher to conduct interviews where the participant feels comfortable and with little or no distractions.

The way in which people communicate with each other has developed rapidly over the years and sources such as mobile phones, I-pads and emails have increased in usage (Hutcheson and Longhurst 2017). Skype in particular is used by millions of people so that they can connect with

family and friends. As with any interviewing method, it has some benefits and drawbacks (Table 5.2). According to Deakin and Wakefield (2013) skype in research contexts enables the researcher to conduct interviews in the same way as 'live' face to face interviews. Nehls *et al* (2015) agrees that Skype should be a viable option for qualitative research. Deakin and Wakefield (2013 p3) also believe that *"the online interview should be treated as a viable option to the researcher rather than just as an alternative or secondary choice when face-to-face interviews cannot be achieved"*. This study sought to explore this relatively new way of data collection since the researcher had relocated to the US and the respondents were located in the North West of England.

The use of Skype allows for free communication and offers a novel method to collect qualitative data. It reduces the time and place limitations of face to face interviews as well as conducting the interview in a convenient location/place conducive to the participant (Deakin and Wakefield 2013; Janghorban *et al* 2014). Cater (2011 p2) asserts that the traditional face to face interviews creates problems in relation to the *"geographical dispersion, and physical mobility boundaries"*. Consequently, the interviews occur in more convenient conditions for participants. The flexibility may resolve the researcher's concern to reach key informants and increase participation. Nevertheless, the selection of a disruptive environment could affect interviewee concentration and data gathering (Deakin and Wakefield, 2013).

Interviews via Skype can still be recorded and transcribed just like face to face interviews and the researcher is still able to observe the body language of the participant to some degree, although this may not be possible for Skype via audio (Deakin and Wakefield 2013). Although Cater (2011) argues that 'disembodied interviews' can be a barrier in observing body language and also building up a rapport between the researcher and the participant. Hay-Gibson (2009) also suggest that building rapport can be an obstacle with Skype interviews because, for example, there is no physical contact in exchange of pleasantries between the researcher and the participant and also the disruption of the flow of conversation due to technical problems may ensue. To overcome this, the study contacted the participants by telephone and email prior to the interview so that a relationship could be built. According to Deakin and Wakefield (2013) online rapport is only a problem when the participant is not as receptive as the researcher hoped.

Additional challenges for online interviewing, include embarrassment as the participants may feel like they are being filmed according to Hay-Gibson (2009). In addition, Deakin and Wakefield

(2013) argue that online interviews will exclude those participants who are not technologically competent and/or do not have internet connection. These challenges were not a problem for this study because all the respondents were familiar with using Skype and had internet connection in their homes. Moreover, it has been argued by Denscombe (2014) that the quality of responses gained through online research is much the same as responses produced by more traditional methods. Another challenge of online interviews is that participants can pull out at any time just by logging out of Skype. For this reason Deakin and Wakefield (2013) state that this can increase non-attendance and possible rescheduling. All the participants in this study were willing to participate and so there was no problem of absenteeism. However, because of demanding schedules, only two of the respondents had to reschedule.

Nevertheless, the online interview should be treated as a viable option to the researcher rather than as an alternative or secondary choice when face-to-face interviews cannot be achieved.

Table 5.1 Advantages and disadvantages of using Skype and implications for the study

	Benefits	Drawbacks	Implications for this study
Recruitment	Allows interviewees and interviewer flexibility in terms of organising the interview time	Potential interviewees may be put off participating if they do not know how to use Skype	All respondents were conversant with Skype and had access to a computer at home.
Logistical and technological considerations	Health and safety concerns reduced when interviewing at night Cost effective Time effective Greater flexibility of researcher and interviewee in terms of interview time In the vast majority of cases, no technological problems were encountered as researchers were appropriately trained in the use of Skype	In some cases, recording material will need to be purchased and interviews conducted in specific locations where Skype is available The distance between researcher and interviewee can make it easier for participants to drop out as they feel less commitment to the process than with face-to-face interviews Technological problems in some cases lead to issues in sound quality making recording difficult Technological or signal problems can make the building of rapport difficult	A simple recording device was used to record interviews. No respondent abstained from taking part and were committed to participate in the study. Fortunately there were no technological or sound problems during the Skype interviews.

Ethics	There is no need to obtain phone numbers from participants Interviewees can withdraw with the click of a button Anonymity can be easily ensured	Gaining informed consent verbally can make the beginning of the interview feel very formal and may not set the right tone for an interview Ethical issues may arise in taking video or audio recordings of the interview. Participants need to be made fully aware of this Participants may feel uncomfortable being filmed in their own home	Ethical approval was obtained prior to the fieldwork. Respondents were informed about the nature of the study.
Rapport	In the majority of cases, building rapport can be established just as well as in face-to-face interviews. Exchanging emails, messages or reports can facilitate this process	When interviewing a reserved interviewee, building rapport can be difficult	The researcher was already familiar with about half of the respondents prior to the study so building up a rapport was not a problem. Those respondents that the researcher was not familiar with received an introductory telephone call and regular emails prior to the Skype interview.
Audio or video	Audio and video allow interviewees to choose the level of contact they wish to engage in	Video is not possible in some cases as it can reduce sound quality	Video call was possible in all cases as none of the respondents declined to use it.
Absenteeism	Time and money have not been spent if the interviewee does not log on to complete the interview	Participants appear to be more likely to 'drop out' of the interview last minute or without notice	None of the respondents dropped out of the interview. However, two of the respondents needed to reschedule.

Source: Deakin and Wakefield (2013)

This study opted for Skype as the method for data collection primarily because of the geographical location of the researcher and the respondents. Deakin and Wakefield (2013) state that face-to-face interviews can be problematic if there are financial constraints and logistical problems where the researcher and participants are geographically dispersed. In addition, Skype still has the sound and visual function so that communication does not differ from traditional face to face interviews and therefore makes it a better option than using the telephone (Hutchenson and Longhurst 2017). Both the researcher and the participant were aware that technical problems in the form of a frozen screen or poor sound quality could ensue which could disrupt the conversation. However, it was

agreed that if this should happen then the interview would restart after reconnection. Fortunately, such problems did not occur.

There are very few studies that use video-conferencing interviews and so this study adds an alternative primary research method to the food law enforcement literature. Skype is also widely used and the software is free to download and provides flexibility for the researcher and participants (Hutchenson and Longhurst 2017).

5.8.1 Analysis of interviews

The data were analysed from the transcripts obtained from the interviews. This was a laborious task since it involved playing the recording back several times and typing the narrative. Blackstone (2012) states that a verbatim transcription is advantageous over taking notes as it records exactly what was said during the interview. She also suggests including non-verbal gestures during the transcription as well as voice tone and emphasis of certain words. Hakansson (2013) states that the most commonly used methods for analysis of qualitative data are coding, analytic induction, grounded theory, narrative analysis, hermeneutic, and semiotic. Statistics, descriptive and inferential statistics, is used to analyse data. Barbour (2014) suggests that interview data can be analysed using a variety of approaches: content analysis, thematic analysis, conversation analysis (the structure and strategies involved in constructing talk).

Coding involves the analysis of transcribed interviews using software that is able to turn qualitative data into quantitative data. Computer programs such as NVivo which are designed to organise and analyse large amounts of qualitative data (Hakansson 2013). This study adopted narrative analysis as the method for analysing the data. This type of analysis allowed the researcher to analyse attitudes and beliefs.

5.9 Sampling Method and Sampling Selection

Blackstone (2012) suggests that sampling strategies ideal for qualitative research evolve around non-probability sampling where the objective is to carry out an in-depth study. In addition the sample size is usually small in order to acquire a thorough understanding of the study area.

According to research literature there are several types of non-probability sampling available to researchers and include purposive samples where participants meet a specific criteria; snowball

samples rely on participants to recruit new people to take part in the study; quota samples whereby the participants are selected from within a chosen specific subgroup; and convenience samples in which participants are selected by means of convenience (Etikan *et al* 2016).

The sampling method used for this study was purposive sampling. The quota method was not used because subgroups were not necessarily a focus of the research. The convenience method was not used because of the risk of gathering poor quality data, resulting in poor research outcomes (Oppong 2013). According to Kemparaj and Chavan (2013) convenience sampling engages a volunteer sample which is used when researchers need participants to come forward to identify themselves (e.g., placing notices in newspaper for people with certain experience).

The respondents were selected using purposive sampling because they met specific criteria in that the study was limited to environmental health practitioners employed by Local Authorities in the Northwest of England who are responsible for food law enforcement. In this case, according to Blackstone (2012), the goal is to use participants with specific experience as opposed to those whose experiences are diverse. In addition, this is the type of strategy in which the respondents are chosen because they can best contribute to the aims objectives of the study (Elo *et al* 2014; Vasileiou *et al* 2018). Hennink *et al* (2016) states that qualitative studies commonly use purposive sampling (as opposed to probability sampling) as it seeks to obtain 'information rich' data rather than a focus on the number of participants taking part in the study.

In addition to purposive sampling, the researcher also adopted a snowballing approach as a complement as the researcher already anticipated the likelihood of not being able to reach many EHPs due to the possibility of busy schedules and vacation. Snowballing methods and convenience sampling strategy have their advantages and disadvantages. For example, they might be biased by volunteers, as well as the risk of the population not being represented by the sample (Flick, 2015). In addition, another drawback of the purposive sampling method, for example, it was difficult to get in touch with many EHPs. The researcher overcame this by reaching out to team leaders and managers of food units.

Blackstone (2012) points out that a potential concern is sampling bias which occurs when participants do not represent the wider population from which they were drawn. Oppong (2013) also mentions that some people may decline to participate in the study and so become under-

represented. It could be argued that there was sampling bias in this study since it did not get the views of those who did not participate and they may have different views from those who did participate. For example, there were some EHPs who mentioned that they could not participate in the study because they were too busy or were about to go on leave. Therefore sampling bias cannot be totally eliminated. Nevertheless, the researcher endeavoured to prevent this problem by, for example, following up with EHPs once they returned from leave.

With regards to sample size states that there are no specific rules as to what is the appropriate sample size. A sample is a representative segment of a larger population (Bryman 2012). In quantitative research, the sample size and how it is selected can be used to establish the reliability of the results of the study. In qualitative research, the sample characteristics are also important, but much smaller samples tend to be used (Malterud *et al* 2016).

Weberly (2010 p1) states that even though the sample size will be small, the findings will be representative *“in the sense of capturing the range or variation in a phenomenon, but not in the sense of allowing for the estimation of the distribution of the phenomenon in the population as a whole”*. Onwuegbuzie and Leech (2010) point out that sample sizes in qualitative research should not be too large because it may be difficult to obtain data rich findings. They also note that at the same time the sample should not be too small that insufficient data is obtained. Denscombe (2014) is of the same opinion and asserts that the sample size should be sufficient to enable the researcher to feel that enough information has been collected. In qualitative research, the size of the sample is less important, and the concept of representativeness is not as strong a guideline for the validity of the research (Flick 2015).

The study discovered that there are a total of 1,496 EHPs (full-time equivalent) employed to enforce food law in England (FSA 2018). The total number of EHPs employed in the LAs that took part in the study was fifty-eight (58). However, twenty-one participants from seventeen LAs were interviewed. The researcher believed that the saturation point of the data had been reached. According to O'Reilly and Parker (2012) and Walker (2012), data saturation is reached when there is enough information to replicate the study and the ability to obtain additional new information has been attained. Fusch and Ness (2015) state that failure to reach data saturation has an impact on the quality of the research and a negative impact on the validity of the research. They also suggest that interviews are one method by which study results reach data saturation. However,

qualitative samples must be large enough to ensure that most or all of the perceptions that might be important are disclosed, but at the same time if the sample is too large, the data becomes repetitive and redundant (Mason 2010). In other words, the concept of saturation is when the collection of new data does not shed any further light on the issue under investigation (Kerr *et al* 2010; Bryman 2012).

According to Bonde (2013) potential participants for a research study can consist of people who share similar characteristics, attitudes, experiences and behaviours. Researchers refer to groups sharing similar characteristics as 'homogenous', whereas groups with dissimilar characteristics are 'heterogeneous' (Bryman 2012; Bonde 2013). The more homogenous the target audience, the sooner data saturation will occur because individual interviews are likely to overlap considerably in content (Bryman, 2012).

As mentioned earlier the appropriate sample size is debatable but Morse (2015) states that the common guiding principle for assessing the adequacy of a purposive sample is saturation. He proposes that saturation could be reached between 16-24 interviews (Morse 2015). Other researchers have also suggested guidelines for qualitative sample sizes: Marshall *et al* (2013) suggest that qualitative studies should generally be between 20 and 30 interviews. Green and Thorogood (2018) also concur that there is very little new information generated after interviewing 20 people. Francis *et al* (2010) state that overall study saturation is reached by the seventeenth interview. However, in another study by the same authors, overall saturation was reached by the fourteenth interview. Ritchie *et al* (2014) suggest that studies employing individual interviews conduct no more than 50 interviews so that researchers are able to manage the complexity of the data analysis. Hagaman and Wutich (2017) showed that sample sizes of 20 to 40 interviews were required to achieve data saturation. Mason (2012) suggests it is still better to have a smaller number of interviews that are creatively and interpretively analysed, than to increase the sample size where the researcher may run the risk of running out of time and fail to analyse content properly. Other scholars advocate for a narrow range. For example, Guest *et al* (2006) believe data saturation typically occurs by the twelfth interview, with themes becoming identifiable after the sixth interview provided that the target audience is relatively homogenous.

In this study, it emerged that after the twelfth interview with the twelfth participant, data saturation was reached. However, to make sure the data were saturated and avoid premature closure of data

collection, the interviews continued. From the fifteenth to the twenty-first interview no new knowledge was gained and the similar comments were being heard. When the qualitative researcher determines additional interviews no longer reveal fresh insights, theoretical data saturation can be said to have occurred (Bryman 2012; Saunders *et al* 2018). It is at this stage of diminished returns that the researcher determines enough interviews have been conducted (Bonde 2013).

Table 5.3 presents an overview of the LAs from which the respondent EHPs were employed together with the number of food businesses within the LA area. It can be seen that the sample LAs include different types of LAs.

Table 5.4 presents a summary of the sample sizes used in previous food law enforcement studies. It can be seen that the sample size for this study is relatively compatible with previous food law enforcement studies.

Table 5.2 Local Authorities that participated in the study

Local Authority	Brief Overview	Total number of food businesses within the local authority area	Total number of EHPs enforcing food law	Number of EHPs that participated in the study
LA 1	Coastal resort	1798	3	2
LA 2	A diverse and vibrant town	2465	6	1
LA 3	A large town	1400	3	1
LA 4	Large mainly urban city	3502	7	2
LA 5	A large town	1809	4	2
LA 6	A small city	1169	3	2
LA 7	A medium-sized city	1247	3	1
LA10	A large town	4977	5	2
LA11	A small city	922	2	1
LA12	Coastal borough and ranked one of the most deprived nationally	1986	3	1
LA13	A medium sized city	679	2	1

LA14	A medium sized city	2363	4	1
LA15	A small rural town	1893	3	1
LA16	A large rural town	3096	6	2
LA17	A medium sized city	1856	4	1

Table 5.3 A summary of sample size used in food law enforcement studies

Author	Year	Journal	Investigated Aspects	Sample Size
Pharm <i>et al</i>	2010	BMS Public Health 10: 345	Public health inspectors' perceptions of the key food safety issues in public health, Ontario, Canada.	23 EHPs
Choi & Almanza	2012	Food Protection Trends 32(1) pp26-33	An investigation into EHP perceptions of the words used to describe contraventions of the law in Indiana, USA.	25 EHPs
Bukowski <i>et al</i>	2012	Report carried out on behalf of the Food Standards Agency	Exploring the decision making process of EHPs in relation to regulatory practice.	12 LAs /77 enforcement officers that included trading standards and heads of service
Nieboer <i>et al</i>	2015	Report carried out on behalf of the Food Standards Agency	Experimental study investigating the consistency and variation of food hygiene assessments of EHPs in the UK.	35 EHPs
Tombs	2016	Centre for Crime and Justice Briefing	Inspection and enforcement actions of environmental health staff in Merseyside.	35 EHPs across the environmental health spectrum

5.10 Validity and Reliability of the Research

Noble and Smith (2015 p7) state that “*qualitative research is frequently criticised for lacking scientific rigour with poor justification of the methods adopted, lack of transparency in the analytical procedures and the findings being merely a collection of personal opinions subject to researcher bias*”. Two important areas to ensure that qualitative research demonstrates rigor are validity and reliability (Grossoehme 2014). Validity refers to whether there is truth in the conclusions of the research and reliability describes consistency and whether the study can be repeated using the same methods (Bryman and Bell 2016). Early work by Lincoln and Guba (1985)

proposed trustworthiness as a way to assess reliability and validity in qualitative research. There are four aspects of trustworthiness: credibility, transferability, dependability and confirmability.

Kemparaj and Chavan (2013) state that credibility refers to the believability of the findings and the steps taken to demonstrate credibility. Those participating in the research were identified and described accurately Elo *et al* (2014). Kemparaj and Chavan (2013) asserts that transferability refers to whether it is possible for the findings from the research to be generalised to other groups, that is, the same conclusions can be reached. The dependability of qualitative data refers to whether the findings are likely to apply over time and under different conditions (Elo *et al* 2014). Conformability of qualitative research is concerned with the researcher has conducted the research in an objective and impartial manner (Hakansson 2013). It also refers to the potential for different people to obtain similar results (Kemparaj and Chavan 2013).

To make the research valid, it was subjected to all the various stages identified from literature in order to eliminate or reduce any weaknesses inherent in the study.

5.11 Pilot Study

According to Hazzi and Maldaon (2015) pilot studies are small scale studies involving a small sample size that is used prior to the main study. Pilot studies are thought to be important because they deal with any problems that could occur in the main research study. In other words any revisions to the main study can be made before it is carried out (Kim 2011; Brinkmann and Kvale 2018). Although pilot studies can be time consuming, they are worthwhile otherwise problems could occur in the main study. However, early work by Holloway (2008) argues that pilot studies are not necessary for qualitative research in case it is not possible to exclude those taking part in the pilot study. Conversely, Kinchin *et al* (2018) argue that piloting provides the qualitative researcher with clear aims and objectives of the study as well as ensuring its validity. Both arguments are plausible. On one hand participants will be familiar with the interview process and questions. But on the other hand, participants may become disinterested: familiarity breeds contempt!! In addition, the sample will include participants who have prior knowledge of the process and those who do not which may not make the research impartial (Kim 2011).

Nevertheless, a pilot study was conducted on three EHPs during an environmental health training workshop in order to determine the suitability of the interview questions. These EHPs did not take part in the final study since they were not employed by LAs in the northwest of England. These EHPs brought up a number of issues relating to the questions that were to be used in the actual interviews. For example, it was pointed out that the interview schedule was too long and some of the questions seemed repetitive. In addition, it helped the researcher to anticipate follow-up questions in response to some of the answers given by those that took part in the pilot study. The final interview schedule therefore required some minor adjustments. The interview schedule was revised in order to address the issues in the questions that were not easily understood or not similarly understood by the respondents. As the revised set of questions was consistently understood by the potential respondents, this was deemed to provide a reliable response across the set of questions included in the interview schedule.

5.12 Ethical Consideration

Ethical consideration is important in social sciences research and prior to conducting any research, ethical approval is required (Collis and Hussey 2014; Cresswell 2013). This is because a researcher is gathering data through interaction with individuals and such research is regulated so as to protect all those involved (Blackstone 2012). Bryman and Bell (2015) identified 10 principles of ethical practice: (1) ensuring that no harm comes to participants (2) respecting the dignity of research participants (3) ensuring a fully informed consent of research participants (4) protecting the privacy of research subjects (5) ensuring the confidentiality of research data, (6) protecting the anonymity of individual or organisations (7) avoiding deception about the nature or aims of the research (8) declaration of affiliations, funding sources and conflicts of interest (9) honesty and transparency in communicating about the research (10) avoidance of any misleading or false reporting of research findings. These ten guidelines provide useful information about ethical principles for conducting a research project.

Silverman (2017) also states that ethical consideration is a necessity and that it mainly deals with consent (informed consent), confidentiality and trust. With regards to consent, this generally means informed consent from the participants in that they have a right to be informed about the research

and they also have the right to withdraw from the study at any time (Qu and Dumay 2011). Blackstone (2012 p61) defines informed consent “*as a subject’s voluntary agreement to participate in research based on a full understanding of the research and of the possible risks and benefits involved*”. Therefore, participants should not be forced to take part in any study. Confidentiality, which is often interchanged with anonymity, refers to the protection of participants in terms of their identity so that their names or any other traits associated with them are not disclosed during the write-up (discussion) of the research (Allen and Wiles 2015). Saunders *et al* (2015b) view confidentiality as a generic term that applies to any information (verbal or written) that is concealed and not shared with anyone other than the researcher since complete anonymity can never really be achieved. Trust considers the relationship between the researcher and the participants. Kemparaj and Chavan (2013) state that ethical issues are particularly important in studies of a qualitative nature because of the more intimate nature of the relationship that typically develops between researchers and study participants. All these issues are closely linked with the ten guidelines outlined by Bryman and Bell (2015).

Prior to commencing the study, ethical approval was applied for and ethical clearance was obtained from the University of Salford Ethics Committee in order to conduct interviews with the EHPs. Each participant was sent an informed consent form (Appendix 2) stating their understanding and rights as participants. They were informed that their participation and their responses would be kept anonymous and confidential. None of the participants required formal permission from their local authority to participate in the study. Walliman (2011) states that informed or written consent should include the necessary information to fully inform participants. A similar view is offered by Blackstone (2012) who states that researchers need to provide details about the research including benefits of participation and any risks that may be involved in participating. In this study, the participants were asked to read and sign the consent form prior to interviews being carried out. The participants freely volunteered and were not compelled to take part. All interviewees were also made aware that the interview would be recorded. In face-to-face interviews, this would be clear as the interviewee could see the recording device, however, since online interviews were conducted the participants were made aware of the recording device (Deakin and Wakefield 2013).

All the data obtained from the field in the form of a manuscript/hard copy were kept in a locked drawer, while the soft copies were stored in a computer and password protected. Particular care

was taken by the researcher to ensure that all removable storage instruments such as USB sticks were kept in a protected place (researcher's home office) at all times. The name and the associated local authority of each participant was assigned pseudonyms to allow for some form of anonymity.

5.13 Fieldwork Strategy and Limitations

This study was set within the context of the principal local councils in the North West of England, namely those in Cheshire, Cumbria, Greater Manchester, Lancashire and Merseyside, representing rural and urban regions which consists of 41 Local Authorities. There will be, as with any research, limitations on the fieldwork, data and analysis. Apart from the usual limitation of resources and time constraints, the data only captured those EHPs that are employed within LAs in the North West of England. It excluded EHPs working in other parts of England and the UK, and also those working in the private sector or self-employed. It is hoped that this will capture the overall perception/views of EHPs in general and getting a sense of the applicability of the legislation as it was not be feasible to cover all local authorities within the England or the UK. However, a similar study could be undertaken in other regions of England and a larger comparative study could be undertaken on a global scale.

5.14 Chapter Summary

This chapter discusses the various schools of thought of research philosophy and an explanation of the underpinning philosophy of the research outlining the justification for the choice of such a philosophy. The chapter also evaluates different data collection methods, their advantages and disadvantages and the justification for the selected method. Issues relating to reliability, validity, ethics and analysis were also discussed. The explanation of the research onion helped the researcher to understand the process and different variables of the research. This will enable the study to answer the key research questions as well as fulfil its aims and objectives. The following chapter of the research focuses on the findings of the study.

CHAPTER SIX: RESULTS

6.1 Introduction

The aim of this chapter is to provide a review of the data analysis and results from the primary study. The structure of this chapter will be based on the research questions presented in the introductory chapter and aligning them with the themes of the empirical findings and gaps in the literature outlined in Chapter 4.

The findings were developed from interviews with twenty-one Environmental Health Practitioners (EHPs) from seventeen Local Authorities (LAs) in the Northwest of England as discussed and justified in the methodology chapter of this thesis. The interviews were developed in terms of conversations in an attempt to get the respondents to talk freely about their experiences and opinions. This included obtaining information from significant gaps in knowledge such as views and opinions of EHPs with respect to race, gender and extent of experience. The study therefore purposed to build on the existing work of the Food Standards Agency (FSA) which could help inform policy and provide food enforcement guidance to food authorities.

It is important to note that qualitative research is used to inform why people hold particular views, rather than how many people hold those views. Such research is intended to be illustrative rather than statistically reliable. With this in mind, when interpreting the findings from this research, it should be remembered that the results were not based on quantitative statistical evidence but on the views and perceptions of twenty-one food law enforcement officers. Throughout this chapter, verbatim comments have been included to illustrate particular viewpoints and the strength of feeling among respondents. The names of the respondents and the corresponding LAs are anonymised to protect individuals. Pseudonyms and numbers are used to replace the names of the respondents and their corresponding local authority so that it is not revealed which respondents are linked to a particular location. Other features from the data provided details of gender and years of food law enforcement experience and number of years qualified as an EHP, for example EHP11 LA4, female; qualified as an EHP for 14 years and enforcing food law for 12 years.

Several themes emerged from the interviews to address each research question. The summary of themes and responses emerged through analysing statements in each transcript. See Appendix 6 for an example of a transcript. The results are presented in tables which consist of themes and sub-

themes as well as a summary of key similarities and differences among respondents and a summary of the theme.

As mentioned earlier, a total of 21 EHPs (12 male and 9 female) from 17 LAs took part in the study. The majority (12) of respondent EHPs had been employed at their LA for 15 years or less and a few (2) had been employed for more than 20 years. The study also revealed that the majority (12) of the respondents had been enforcing food law for 10 years or less. In addition, there was a minority (4) EHPs who had previously been active on other units of their respective environmental health departments for some time prior to working on the food team. Almost all the respondents (19) had been qualified as an EHP for 5 years or more with a small majority (8) indicating that they had been qualified as an EHP for 11 years or more. With respect to age, half of the respondents (10) were less than 40 years old and a small minority (4) were over 51 years of age.

This information was gleaned from the questions in section one of the interview schedule:

- Gender: Male () Female ()
- Age range: 21-30yrs () 31-40yrs () 41-50yrs () 51-60yrs () 61yrs+ ()
- What is the name of your Local Authority (LA)?
- How long have you worked for this LA?
- How many years have you been fully qualified as an Environmental Health Practitioner?
- How many years have you been enforcing food law?
- How many food officers (including yourself) are in the team?

6.2 Findings from Research Question 1

RQ 1: Are food hygiene inspections effective as a strategy in food law enforcement: views from the environmental health practitioners?

This section will highlight results developed from the study as it relates to how EHPs view the effectiveness of food hygiene inspections in relation to other regulatory interventions. This research question fulfils research **Objective 1: *To investigate EHPs perceptions of food hygiene inspections as a regulatory intervention for food safety in capturing contraventions of the law.***

Themes from the interviews were developed: Regulatory Interventions (sub-themes - frequency of use; financial implications; practical solutions) and Inspection Practices (sub-themes - challenges; announced vs unannounced inspections; resource implications; strategies). Factors such as gender and level of experience was analysed to establish any similarities or differences since this has not been discussed in the literature.

The responses allowed the researcher to develop two interview themes to help achieve the objectives for this particular research question.

1. Regulatory interventions
2. Inspection practices

There are several regulatory interventions at the disposal of EHPs and inspections are one of such regulatory intervention. EHPs were asked about their views regarding all regulatory interventions. It was necessary to gather this information in order to get an idea of how EHPs view other regulatory interventions, as well as inspections, which are also used in food law enforcement. The respondent EHPs were asked to make comments about the effectiveness of each intervention with respect to improving and sustaining compliance especially when dealing with repeated breaches of the food legislation. During the interviews the EHPs were allowed to talk liberally about the practicality of each intervention.

6.2.1 Regulatory Interventions

EHPs are equipped with regulatory interventions detailed in the Food Law Code of Practice 2015. These interventions are used to attempt to reduce the risk of potential foodborne hazards that may exist within a food business. EHPs have two types of intervention at their disposal, namely official controls and non-official controls. These interventions have already been discussed in detail in Chapter 3. The responses of the sampled EHPs are highlighted in Table 6.1 below. The study identified three sub-themes from the gaps in literature to guide the investigation as well as a summary of the respondents' responses.

The information was gathered from questions in section two of the interview schedule:

- What are your views on the current regulatory interventions? (Official controls: inspections; monitoring; surveillance; verification; audit; sampling. Non-official controls: education/advice; information and intelligence gathering; sampling). Answer how often you use these controls: always, sometimes or never.
- Are they effective in improving and sustaining compliance and in dealing with repeated breaches of the legislation?
- Practicability – do they work in practice? Why or why not?
- Pros and cons of each regulatory intervention.

Table 6.1: EHP views on the regulatory interventions outlined in the Food Law Code of Practice 2015

Theme: Regulatory Interventions

Sub-Theme	Summary of Responses
Frequency of use	<ul style="list-style-type: none"> <li> <p>▪ Full inspection is the intervention that is mostly used by EHPs along with advice and education/training. One EHP highlighted his partiality towards education and training by saying:</p> <p><i>“A part of the job that I thoroughly enjoy – especially with new businesses. Many people are literally unaware of the requirements and it is satisfying to teach them new things and help them comply. Advice and training by themselves can have a greater impact than formal enforcement”</i>. EHP6 LA1, male, qualified as EHP and been enforcing food law for 4 years</p> <li> <p>▪ EHPs are reluctant to use partial inspections. EHP7 from LA5 commented on the implication of using full inspection instead of partial inspection:</p> <p><i>“I manage a team of officers and I find officers are reluctant to use the ‘partial’ inspection because if something goes wrong down the line (for example, a food poisoning outbreak), the officer could be perceived to not have done a thorough job. In the majority of cases, officers carry out a full inspection even when a ‘partial’ would have been appropriate, for example in businesses perceived as being low risk”</i>. EHP7 LA5 female qualified as an EHP for 16 years and enforcing food law for 17 years</p> <p>Another participant alluded to a similar notion:</p> <p><i>“A rolling program of full inspection is vital. It is effective and sustains compliance if it is consistent and focused. Partial inspection can be effective as a short term measure when only certain issues are addressed, e.g. projects, but we don’t really use it because something could go wrong as soon as we walk out of the door! It would be nice to cut back on full inspections and replace them with partial inspection, monitoring or verification visits but it’s just not possible”</i>. EHP13 LA9 female qualified as an EHP and enforcing food law for 15 years</p> <li> <p>▪ Some of regulatory interventions, namely audit, monitoring, verification and surveillance are part of the inspection process and should not be considered as separate/distinct components of enforcement. This is reflected in the following statements:</p> <p><i>“I don’t see the point of distinguishing between official and non-official controls. These interventions form part of the food hygiene inspection and so there isn’t a need for partial inspection, monitoring, surveillance, verification and audit. I’ve been enforcing food law for more than 20 years and I just don’t think there is a need for such interventions”</i>. EHP3</p>

	<p>LA3, female, qualified as an EHP for 32 years and been enforcing food law for 27 years.</p> <p><i>“The Food Law Code of Practice needs to be reviewed so that some of the current regulatory interventions are disregarded as they are not really necessary. When we carry out an inspection we do all of these things – monitoring, audit etc. There are some of these interventions that I never use like surveillance and monitoring. I think the regulatory interventions should just include inspection (not partial), sampling, education/advice and intelligence gathering”.</i> EHP20 LA16, male, qualified as EHP for 22 years and enforcing food law for 21 years.</p> <ul style="list-style-type: none"> ▪ Interventions such as sampling, whilst useful, are not used frequently because LAs are responsible for their own sampling budget and local government resources are being significantly reduced. ▪ Intelligence gathering is the regulatory intervention that was thought of as having little practical use. ▪ There are regulatory interventions that some EHPs define differently from that put forward by the FSA.
Financial implications	<ul style="list-style-type: none"> ▪ Insufficient resources for ongoing food sampling programme. ▪ No money for local authorities to implement their own education and training programmes to food handlers. ▪ Dwindling workforce to carry out food law enforcement. ▪ Inability for several LAs/EHPs to meet performance targets set by the Food Standards Agency due to staff shortages. ▪ Fewer food hygiene inspections.
Practical solutions	<ul style="list-style-type: none"> ▪ Eliminate performance related targets. ▪ Reduce and/or eliminate those regulatory interventions that are considered as redundant. ▪ Unnecessary to distinguish between official and non-official controls. ▪ Deliver training courses to food handlers on site or have a designated officer(s) to deliver food hygiene training. ▪ Food businesses to bear the cost of food sampling.
<p>Key similarities among participants:</p> <ul style="list-style-type: none"> ▪ Full inspection is the most effective regulatory intervention ▪ Lack of resources prevents interventions such as sampling and training from being fully executed 	
<p>Key differences among participants:</p> <ul style="list-style-type: none"> ▪ The current regulatory interventions are adequate ▪ The current food legislation facilitates consistency ▪ Revision of food legislation needed 	
<p>Summary:</p>	

The respondents regarded full inspection as the most effective regulatory intervention. Although other interventions were considered of little practical use, a few of the respondents thought that the current regulatory interventions are adequate and revision of the food legislation is unnecessary. In addition, many local authorities are experiencing budget cuts which could lead to a change in the dynamics of an environmental health department and the way in which food businesses are inspected.

6.2.2 Inspection practices amongst EHPs

The sampled EHPs were asked a series of questions about general inspection practices including: the challenges they encounter when carrying out food hygiene inspections; preference towards announced or unannounced inspections; whether and how the current economic climate has affected inspection activities and suggestions for new strategies that could assist them to effectively carry out inspection activities. Their responses are highlighted in Table 6.2 from the questions in section three (part A) of the interview schedule:

- Do you think food hygiene inspections are effective in capturing food hygiene contraventions?
- On average, how long does it take you to conduct a food hygiene inspection? (less than half an hour; 30-45 mins; 45mins – 1 hour; 1 - 1½ hours; 1½-2 hours; more than 2 hours)
- What do you consider sufficient time to conduct a food hygiene inspection?
- Do you think there are areas on food hygiene inspections that could be modified to improve its effectiveness?
- In your opinion, do you consider announced inspections better at achieving compliance than unannounced inspections?
- What do you consider the optimum inspection frequency for food businesses?

Table 6.2: The responses of the EHPs regarding their views about current inspection practices

Theme: Inspection practices

Sub-Theme	Summary of Responses
Challenges	<ul style="list-style-type: none"> ▪ There is insufficient time to carry out a detailed inspection. Some of the concerns with respect to time are reflected in the following statement from a respondent: <i>“I wish I could spend longer in some of the businesses I visit. Not because there are a lot of things wrong as such but because they don’t have a clue! They want to comply, of course, but not familiar with the legislation or what their responsibilities are. But I’m not a consultant and don’t get paid as such so I do my best to guide them in the right direction in the limited time I have. We are understaffed and got targets to meet and so can’t spend all day at one particular</i>

place. I'd say on average I spend around 45 minutes at each premises". **EHP 17 LA13, male with 17 years of food law enforcement**

- Inspections have several weaknesses. EHP4 from LA4 provided further insight on this assertion:

"One inspection may not be representative of the overall, long-term hygiene of a food business. On any given day, a particular food business may have greater or fewer offences than observed during an inspection. It is therefore up to the food business operator to ensure that the daily processes and procedures within the business are being operated in accordance with the law". **EHP4 LA4 female and enforcing food law for 8 years**

A similar view was held by an environmental health manager EHP 12 from LA8 who had spent ten years enforcing food law prior to becoming a team leader:

"I don't think that a single inspection can capture all the problems within a food business and is not always a true reflection of the actual situation. We can't spend every second at a business to witness what exactly food handlers are doing". **EHP12 LA8 female, team leader**

- There is a considerable amount of paperwork
- Performance related targets need to be met
- Revisits/re-inspections are a problem due to staff shortages
- Inconsistencies among LAs in relation to the way inspections are carried out and how EHPs interpret of the legislation. One respondent made this comment:

"There is a lack of consistency with respect to enforcement of food law between and within LAs. The interpretation of law and application of it has to be a lot more consistent. EHPs must be fully acquainted with the application and interpretation of food law, so LAs have to commit to ongoing training. Consistency courses within the food team and within local areas (I attended one in Bootle last month for Cheshire and Merseyside councils) always raise the issues of inconsistency, sometimes due to officer opinion, sometimes due to FSA advice and other times to the leanings of the food team as a whole". **EHP10 LA5 female, qualified as an EHP and enforcing food law for 17 years**

- Inconsistencies among LAs in relation to the way inspections are recorded. Some of the responses are illustrated below:

"We do not use a food inspection form and haven't done so for about 6 years due to cutbacks. As we had to send a letter out to each business with their food hygiene rating score and certificate it was decided that this was enough. Purely down to saving money. Our print room used to print them for us but they were going and as we were putting a letter together anyway for the food hygiene

	<p>rating score it was decided to put everything in the one letter. I prefer to leave something with an FBO though". EHP15 LA11, female with 15 years qualified as an EHP and 12 years food law enforcement</p> <p><i>"No we haven't used an inspection form about a year or so since it costs too much and the council is making cuts everywhere. I don't mind really because it avoids duplication of effort since I had to write in my PACE notebook as well as inspection form which doesn't give much room to write everything down. And if there is so much to write I'd use a separate notepad instead of the inspection form during the inspection. So I have the notepad, inspection form and PACE notebook!!! Although the decision was a cost-saving exercise I realise this could be a consistency issue if other LAs are using them. EHP13 LA9, female with 15 years food law enforcement</i></p>
Announced inspections vs unannounced inspections	<ul style="list-style-type: none"> ▪ Announced inspections allows food businesses to prepare for the inspection ▪ Announced inspections allow for the appropriate persons to be present ▪ Unannounced inspections allow food businesses to take a proactive approach to food safety ▪ Unannounced inspections allows for EHPs to get a true picture of the food business operation ▪ There is no difference between announced inspections and unannounced inspections <p>Some of the statements from the respondents regarding announced and unannounced inspections are articulated below:</p> <p><i>"We tend to carry out unannounced inspections. It keeps food businesses on their toes if we turn up when they are not expecting us to. We can find out what really goes on". EHP5 LA1 male, qualified as an EHP and enforcing food law for 8 years</i></p> <p><i>"I have mixed feelings about this. On one hand unannounced inspections are good because we can catch them unawares. But on the other hand there may be only one person working at the time of inspection and if they are busy they do not have time to answer my questions, which can be frustrating. Announced inspections can be good because they know we are coming so there will be someone available to answer questions. But then again because they know we are coming, they clean up the place so the inspection findings at that particular time may not represent what goes on there normally". EHP10 LA5 female, qualified as an EHP and enforcing food law for 17 years</i></p>
Resource implications	<ul style="list-style-type: none"> ▪ Budget cuts within LAs ▪ Reduction in the number of inspections due to a reduced workforce
Strategies	<ul style="list-style-type: none"> ▪ LAs should charge for re-inspections/revisits. ▪ Licensing instead of registration of food businesses ▪ A requirement for staff: premises ratio within food businesses ▪ Introduce hand held computers to assist with the inspection process

	<ul style="list-style-type: none"> ▪ New/alternative strategies needed to deal with repeat offenders and minor offences
<p>Key similarities among participants:</p> <ul style="list-style-type: none"> ▪ Insufficient time to carry out detailed inspections ▪ Large amount of paperwork ▪ Targets have to be met 	
<p>Key differences among participants:</p> <ul style="list-style-type: none"> ▪ The use of inspection forms during a food hygiene inspection ▪ Preference for announced or unannounced inspections 	
<p>Summary:</p> <p>The respondents identified that there is not enough time to carry out thorough inspections as they would like and targets have to be met. They all agreed that there is a considerable amount of paperwork that accompanies the inspection process. Not all of the EHPs mentioned that they use inspection forms to record inspection findings and there were differences in opinion concerning preferences for announced and unannounced inspections.</p>	

6.3 Findings from Research Question 2

RQ 2: Do EHPs believe that the Food Hygiene Rating Scheme (FHRS) is a reliable risk based method to assess food businesses' compliance with the law?

This research question fulfils the aim of the study and research **Objective 2: *To investigate EHPs perceptions on the impact of the FHRS as a risk tool for enforcement.*** In actualising the objective of this study, the research sought to find out from the respondents if the food hygiene rating scheme is a good indicator of compliance. The study sought to investigate whether the FHRS is a valuable asset and benefit to EHPs for which there is limited qualitative data. Theme developed from the interviews: Perception of the food hygiene rating scheme (sub-themes – risk factors/criteria to be assessed; scoring system; disclosure of inspection results; limitations; practical solutions). The participants provided suggestions to improve the format of the FHRS which has not been discussed in previous literature.

The Food Hygiene Rating Scheme (FHRS) is a means of communicating the results of a food hygiene inspection to the public and to businesses. The information is presented by means of numbers. The score is meant to assist Environmental Health Departments to determine the frequency of subsequent inspections in accordance with the Food Standards Agency's Food Law

Code of Practice. This is discussed in further detail in Chapter 3 of this thesis. Table 6.3 presents the sub-themes and a summary of the corresponding responses for EHP perception of the food hygiene rating scheme. These were gathered from the questions in section three (part B) of the interview schedule:

- How do you assess the overall impact of the Food Hygiene Rating Scheme (FHRS) in assisting EHPs with their work - do you think the FHRS has a positive or negative effect?
- Have you encountered any challenges with the FHRS during the course of your inspection duties?
- Do you think the components (criteria) of the FHRS (i.e. type of food/handling; method of processing; consumers at risk; vulnerable groups; compliance with food hygiene, confidence in management) and their corresponding scores capture the food safety and hygiene performance within food businesses?
- Do you have anything else to add? Are there any components/elements that should be excluded or included in the FHRS?
- Can you offer any suggestions?

- Do you feel mandatory display of inspection scores at food businesses is a good approach to food businesses improving and sustaining compliance with food legislation?

- Do you think the six point rating scale adequately indicates/communicates the level of compliance of food businesses?
- Do you know of any other rating systems in other countries? If yes, which countries? And do you feel that system better assesses food hygiene performance of food businesses compared to that used in England?

Theme: Perception of the food hygiene rating scheme

Table 6.3 EHP perceptions of the food hygiene rating scheme

Sub-Theme	Summary of Responses
Risk factors/criteria to be assessed	<ul style="list-style-type: none"> ▪ There should be additional risk factors to assess ▪ It would be a good idea to separate the components into critical (high risk), medium risk and non-critical (low risk) contraventions. ▪ Most of the risk factors are somewhat vague ▪ It is sometimes difficult to score the risk factors to be assessed when, for example, one or two of them is unsatisfactory and the rest are satisfactory ▪ There is no information on the form to clarify how the risk factors are assessed <p>Some of these concerns are reflected in the statements from respondents below:</p> <p><i>“I think the components don’t go into much detail. This is why I advocate to do away with target related performance and for more time carrying out an</i></p>

	<p><i>inspection. If there were more and separate risk factors we can better identify what's going on in a business". EHP6 LA1 male, qualified as an EHP and enforcing food law for 4 years</i></p> <p><i>"We have to assign scores to each of the risk factors on the rating form. I'm not sure if the risk factors take into account or represents all food safety risks. It groups them together but I think they should be separated with separate scores. Why not also separate critical (high risk), medium risk and non-critical (low risk) contraventions and score them accordingly". EHP2 LA2 male, qualified as an EHP and enforcing food law for 1 year</i></p> <p><i>"For me the part A – the type of food and method of handling needs to be revised. There are some businesses that only sell chocolate bars and can drinks so I don't know why a score of 5 is given. In addition I have been in such places where, although they are low risk in terms of food prep etc. the storage areas at the back of the premises are filthy. One of such premises I visited was over-run with cockroaches! So I think the whole rating scheme needs to be reviewed since it doesn't account for some scenarios". EHP4 LA4 female, qualified as an EHP and enforcing food law for 8 years</i></p>
Scoring system	<ul style="list-style-type: none"> ▪ The risk category supports the prioritisation of the inspection of food businesses. ▪ The inspection score reflects the risks within a business. ▪ A reasonable method for determining the frequency of inspections and compliance amongst food businesses. An EHP gave statistics to show how the food hygiene rating scheme had helped with compliance within his local authority: <p><i>"This approach has been applied in our local authority over the last 7 years, where the level of compliance has increased from 75% in 2006/7 to 93% in 20013/14". EHP9 LA7 male, enforcing food law for 18 years</i></p> <ul style="list-style-type: none"> ▪ The risk categories, score and inspection frequency needs to be reviewed. ▪ The scoring system does not adequately reflect the risk that there will be a food poisoning outbreak. ▪ There should be a list of risk factors each having separate scores. ▪ There is no explanation on the form to explain the scoring system means.
Disclosure of inspection results	<ul style="list-style-type: none"> ▪ It should be mandatory for food businesses to conspicuously display the results of the inspection. Comments from two of the respondent EHPs in this study supported this proposal: <p><i>"A further problem is that a business cannot be compelled to display its score (although you can find it on the Food Standards Agency website). Some might argue that if the business isn't displaying its score then it obviously has a score lower than 3, but this isn't always the case. When a business relocates or just starts up it won't have a score anyway, as it is awaiting a visit. Equally a business may request a revisit or may even be appealing against a score. Mandatory display of scores should apply across all counties of the United Kingdom and not</i></p>

	<p><i>just in Wales so that consumers are equally informed and protected. It seems unfair that English consumers are not allowed this benefit and additionally it does not provide a level playing field for businesses across the UK. There should also be on the spot fines for those businesses who do not display their food hygiene rating".</i> EHP3 LA3 female and enforcing food law for 27 years</p> <p><i>"Food businesses should display their inspection score – good or bad. It's mandatory in Wales and should be across the UK. We find that food businesses with high scores of say 4 or 5 will happily display their inspection results, whereas those with low scores will not. So I think it should be mandatory to display scores. It puts pressure on the poor performing businesses and probably more effective than taking them to court!!"</i> EHP5 LA1 male and enforcing food law for 8 years</p> <ul style="list-style-type: none"> ▪ Inspections results are not presented in a way that both consumers and food businesses can understand. ▪ There is no consistency of disclosure between LAs. ▪ Food businesses are not punished if they display an inspection result that is false.
Limitations	<ul style="list-style-type: none"> ▪ The FHRS is subjective and therefore may not be very accurate. A respondent who has been enforcing food law for more than 25 years mentioned that: <p><i>"The rating scheme is very subjective and there is a lack of consistency in the implementation of FHRS nationally. More guidance may be needed to increase its accuracy and in particular assist inexperienced officers so that the score reflects the hygienic status of the food business in question. I think the system should be revised by the FSA to better identify high risk practices".</i> EHP3 LA3 female and enforcing food law for 27 years</p> <ul style="list-style-type: none"> ▪ Inability to detect high risk practices. ▪ Inspections are not detailed enough so as to give a valid rating. ▪ Resources do not allow a greater frequency of inspection. An EHP relatively new to food law enforcement made the following remarks: <p><i>"The frequency of inspection is based on the food hygiene rating score. So high risk premises are meant to be inspected more frequently than low risk ones. I think premises should be inspected more frequently but this will put a strain on our already depleting financial and staff resources".</i> EHP16 LA12 male, qualified as an EHP for 5 years and enforcing food law for 2 years</p> <ul style="list-style-type: none"> ▪ There is no procedures in place to immediately change a rating score if, for example, a food business is given a 5 star rating one week then is implicated in a food poisoning/customer complaints the following week or month.
Practical Solutions	<ul style="list-style-type: none"> ▪ Local authorities should use the same databases to record inspection data.

	<ul style="list-style-type: none"> ▪ The inspection score should correspond with the enforcement action. ▪ Introduce more risk factors to be assessed, for example, healthy eating. ▪ Separate major and minor contraventions and score each accordingly. ▪ Food businesses should be charged for re-inspection. ▪ Food businesses should be punished if they display a fictitious score. ▪ Alternative methods/scoring system to assess contraventions. Two of the respondents made comments about other scoring systems to buttress their arguments: <i>“I know the US uses a points deduction approach whereby the scores of food businesses are determined by the number of contraventions and points are either added or deducted accordingly depending on the contravention. I think it’s better because everything is on one proforma although I am not sure how they work out the number of points that need to be deducted for a particular contravention???</i> <i>It may be a better system though, but it would mean a total revamp of the FHRS”.</i> EHP3 LA3 female and enforcing food law for 27 years <i>“The system in Scotland is slightly different to that used in England and Wales. It’s just a pass or improvement required, there are no levels of distinction regarding compliance. Not sure if this is a good idea because a pass result could be seen as there are no contraventions at all and the food operations are perfect when in fact there could be one or two minor things that need addressing (maybe on repeated offences). But saying that it could save a lot of paperwork if there are only two types of result”.</i> EHP10 LA5 female and enforcing food law for 17 years <ul style="list-style-type: none"> ▪ Change risk categories to low, medium or high risk. ▪ Rate food safety and hygiene practices as either full, partial or no compliance.
Key similarities among participants: <ul style="list-style-type: none"> ▪ Helps improve compliance ▪ The FHRS is subjective ▪ Mandatory display of food hygiene rating scores 	
Key differences among participants: <ul style="list-style-type: none"> ▪ The FHRS does not have the ability to fully detect high risk practices ▪ Review of the food hygiene rating scheme is required 	
Summary: The respondents agreed that a food hygiene rating scheme, although subjective, is necessary in order to prioritise inspections so that food businesses that pose a greater risk are inspected more frequently. In addition, it was believed that the FHRS helps improve compliance amongst food businesses and therefore it should be mandatory for food businesses to display their score. However, EHPs who had been enforcing food law for more than 10 years were of the opinion that the FHRS does not have the ability to detect high risk practices and so a review of the scheme is necessary.	

6.4 Findings from Research Question 3

RQ 3: Is there a perception that the enforcement role of EHPs will be improved if alternative food law enforcement tools were introduced?

This section highlights the results from the Skype interviews of the EHPs to obtain their views and perceptions relating to regulatory enforcement tools that they have at their disposal. This research question fulfils the aim and research **Objective 3** of this study. *To critically examine the enforcement sanctions currently available to EHPs and whether (in their opinion) alternative enforcement tools would be more appropriate.* EHPs perception of whether their enforcement tools are adequate and if alternative options would be more suitable or appropriate. Regulatory Enforcement and Sanctions Act (RESA) 2008 has primarily been used in other regulatory areas such as environmental protection. However, there is no data on how EHPs perceive RESA and the options of enforcement tools as an alternative regulatory enforcement option for EHPs outlined therein has not been discussed in literature. The themes developed from the interviews: Perceptions of the current enforcement toolkit (sub-themes – challenges; strategies to overcome these challenges) and perceptions of alternative enforcement toolkit, civil sanctions (sub-themes – practical limitations; practical benefits).

The responses allowed the researcher to develop two interview themes to help achieve the objective for this particular research question.

- 1) Current enforcement toolkit
- 2) Alternative enforcement toolkit

EHPs are equip with a range of enforcement tools as detailed in the Food Law Code of Practice 2015 and Enforcement Policies of LAs. This section highlights the results from the telephone interviews of the EHPs to obtain their views and perceptions relating to regulatory enforcement tools that they have at their disposal. It also provides the results regarding the perceptions of the EHPs towards alternative forms of enforcement, namely civil sanctions. Civil sanctions were introduced via the Regulatory Enforcement and Sanctions Act (2008) primarily to give the Environment Agency a new range of powers. Tables 6.4 and 6.5 illustrate the sub-themes borne from questions in the interview schedule and summary of responses from the EHPs with respect

to the current enforcement toolkit and alternative tools in the form of civil sanctions. The responses were gathered from the questions in section three (part C and D) of the interview schedule:

What are your views on the current enforcement toolkit provided under the Food Code of Practice?

- Warning Letters
- Hygiene Improvement Notices
- Emergency Prohibition Notices
- Cautions
- Prosecution
- Seizure and Detention
- Remedial Action Notices

How do you think these civil penalties will work for food offences: fixed penalty notices; discretionary requirements; stop notices; enforcement undertakings?

6.4.1 Theme: Current Enforcement Toolkit

Table 6.4 EHP perceptions of the current food law enforcement toolkit

Sub-Theme	Summary of Responses
Perceptions about current enforcement tools	<ul style="list-style-type: none"> ▪ Warning letters are not considered very useful. However, they are effective for usually compliant businesses that have minor contraventions. A female EHP who had been enforcing food law for 8 years provided further insight into this enforcement tool: <i>“As a local authority we served almost 300 warning letters this year but only about 50 percent complied with the letters, the rest did not comply. The breaches were only minor and would not warrant other forms of enforcement such as a hygiene improvement notice. If any of the officers were likely to serve a hygiene improvement notice the business could appeal and probably win so we are back to square one!!! We could visit these premises until we are blue in the face and they still wouldn’t change but they know we can’t do anything! It’s so frustrating at times. What is needed is some sort of fine for situations when a warning letter and/or advice would be ignored and it’s not appropriate to issue formal enforcement notices - something like getting a parking ticket. There’s only so many times you can give advice for minor offences not causing a risk to public health. For example not having antibacterial soap or paper towels or a dirty floor unless there are cockroaches etc. or sampling/swabbing shows evidence of bacteria can’t do anything formal. The profession needs something for these repeated often unsuccessful attempts. Allowing us to issue fixed penalty notices for such minor food hygiene offences would be ideal.” EHP4 LA4 female and enforcing food law for 8 years</i> ▪ HINs and EPNs are used frequently as a threat to prosecution. An EHP made this comment: <i>“Prohibition notices are very effective for serious contraventions but must be proportionate and justified. Very effective, but very complicated procedure with</i>

	<p><i>possibilities to make mistakes and risk financial penalties. Need to be confident that there is an imminent risk to health and that the court will agree otherwise the local authority will have to pay compensation to the food business not to mention staff time and legal costs".</i> EHP15 LA11 female, qualified as an EHP for 15 years and enforcing food law for 12 years</p> <p>Another respondent added her thoughts about HEPNs:</p> <p><i>"There is also a limited range of situations in which to enable an officer to use this notice. Can be a complex process that may put some EHPs off serving. A good tool, but quite bureaucratic in attending the Magistrates Court as it is the court that will issue a hygiene emergency prohibition order if they agree that there is an imminent risk of injury. All this has to be done within a certain time frame. We just pray that an inspection on a Friday afternoon does not result in any major problems!!!"</i> EHP7 LA5 female, qualified as an EHP for 17 years and enforcing food law for 16 years</p> <ul style="list-style-type: none"> ▪ A caution has little effect in dealing with non-compliance. ▪ Prosecutions are effective but costly and time consuming. One of the respondents who had just qualified as an EHP less than one year ago made this comment: <i>"It's an important deterrent to get food businesses to comply with the law. Prosecutions can be a highly effective deterrent allowing local authorities to set an example to food businesses in the area and a way of reassuring the public that the environmental health department is doing its job in promoting public health and preventing unsafe food to flood the market".</i> EHP1 LA1 male and enforcing food law for one year ▪ There is some apprehension about pursuing a prosecution. ▪ Male EHPs are more likely to undertake a prosecution compared with their female counterparts. ▪ No specific tool to deal with repeat offenders. ▪ Time consuming to prepare informal and formal letters/notices. ▪ Some enforcement tools are ineffective. ▪ Non-white EHPs mentioned that they rarely used formal enforcement tools. ▪ EHPs who had been employed on other units of environmental health stated that they did not use warning letters.
Challenges in sustaining compliance	<ul style="list-style-type: none"> ▪ The current enforcement toolkit cannot effectively deal with repeated breaches of the law. ▪ Food handlers are not knowledgeable in food safety and hygiene issues. ▪ Food business operators are not knowledgeable in food safety management. ▪ Poor attitudes of food business operators and food handlers
Strategies to overcome these challenges	<ul style="list-style-type: none"> ▪ The introduction of monetary fines for contraventions which should reflect risk. ▪ Introduce RANs for all types of food businesses and not just those that require approval. One of the respondents made this comment: <i>"Remedial Action Notices are currently only available for use in approved premises in England but should be extended to all types of food businesses. The remedial action notice requires the food business to take prompt corrective action without the involvement of a</i>

court. I know we have improvement notices but these don't require immediate action by the food business operator and emergency prohibition notices are only used in the most serious cases and we have to apply to the court for an emergency prohibition order. With remedial action notices all the bureaucracy is removed!" **EHP3 LA3 female, qualified as an EHP for 32 years and enforcing food law for 27 years**

- Revise procedures for taking legal action against food businesses
- Legal training of EHPs. One of the EHPs mentioned her inexperience in court procedures and her views regarding this:

"We only have one officer who works in the same office as us and oversees our legal issues but she does not have a legal background so cannot represent us in court. The LA solicitor works in another office and does not really get what we do. In an ideal world the LA would train/employ an environmental health officer to have a legal background that would understand food law and be able to represent us in court as well as having an awareness of food law issues. Some of our officers have been on the legal training course organised by the Food Standards Agency which was good but not really enough in my opinion. If we had a dedicated person who understood the issues and prepared the files maybe officers wouldn't shy away from prosecutions". **EHP11 LA4 female, qualified as an EHP for 14 years and enforcing food law for 12 years**

- Revision of enforcement tools that do not enhance compliance or assist EHPs in their enforcement duties.
- Food business operators should pay a fee commensurate with the enforcement measure to be used.
- There needs to be alternative measures and alternative penalties to assist EHPs in their enforcement duties.
- Education of food business operators and food handlers

Key similarities among participants:

- Introduction of monetary fines
- Introduction of RANs for non-approved premises

Key differences among participants:

- Current enforcement toolkit is ineffective to sustain and maintain compliance with food law.
- Non-white EHPs and those who had previously worked on other units of environmental health departments had a different outlook towards enforcement sanctions.

Summary:

The respondents identified that monetary fines and RANs would greatly enhance the enforcement toolkit of EHPs. The respondents who had been enforcing food law for less than 15 years suggested that the current enforcement tools are ineffective to sustain and maintain compliance with food law.

6.4.2 Theme: Alternative enforcement toolkit: Civil Sanctions

Table 6.5 EHP perceptions of civil sanctions as an alternative food law enforcement tool

Sub-Theme	Summary of Responses
Practical limitations	<ul style="list-style-type: none"> ▪ Uncertainty about civil sanctions in relation to food law enforcement. One EHP responded by saying: <i>“Until these sanctions are introduced for food law, I’m not sure there’s much benefit on speculating how they might work. Need to think about how the penalty will be collected and what is done with the money from these penalties”</i>. EHP9 LA7 male, qualified as an EHP and enforcing food law for 18 years ▪ There could be a problem with deciding on the level of fines to be handed out. ▪ Civil sanctions will not add to the existing toolkit as a means to increase compliance and will detract from the current enforcement options already in place. An EHP who had been employed at her current LA for more than twenty years argued that: <i>“We already have these powers in the form of warning letters, HIN’s and EPNs Although not an agreement between the two, the local authority will highlight what needs to be done and the business will need to implement these recommendations to ensure compliance.”</i> EHP20 LA16 male, qualified as an EHP for 22 years and enforcing food law for 21 years ▪ Food law offences may not be seen as a criminal act and therefore not taken seriously. ▪ It is uncertain if the fines will be sufficient enough to deter businesses from complying with the law. ▪ EHPs may become reluctant to prosecute and so more serious offenders could escape a prison sentence.
Practical benefits	<ul style="list-style-type: none"> ▪ The fines collected from food businesses could be generated into monies for the local authority environmental health department to alleviate depleting resources. ▪ Civil sanctions could act as a deterrent for committing food law offences. ▪ The introduction of civil sanctions into food law will lessen the burden of having to prepare for a court case. <p>A few respondents cited instances where fixed monetary penalties would be useful in food law enforcement: <i>“They could be used for more serious one off issues, for example, not registering the food business within the specified time, no hot water, no food safety management system or inappropriately stored food. They would enable us to punish repeat offenders and offences that are minor but need addressing”</i>. EHP4 LA4, female, 8 years qualified and enforcing food law for 8 years</p> <p>Another respondent supported this assertion:</p>

	<p><i>“Anything that involves a business parting with money due to non-compliance will work. No business wants to cut into their profits so hitting them hard with a monetary fine and/or charging for enforcement, for example, if an officer were to serve a warning letter, a business would be charged for this. The service of an improvement notice or an emergency prohibition notice would constitute a higher charge. I think this would solve the repeated offence problem”.</i> EHP11 LA4 female, qualified as an EHP for 14 years and enforcing food law for 12 years</p> <ul style="list-style-type: none"> ▪ Extension of the EHP toolkit. ▪ Civil sanctions will boost compliance.
<p>Key similarities among participants:</p> <ul style="list-style-type: none"> ▪ Uncertainty about civil sanctions as an enforcement tool. 	
<p>Key differences among participants:</p> <ul style="list-style-type: none"> ▪ Civil sanctions will not add to the food law enforcement toolkit. 	
<p>Summary: The respondents raised doubt as to whether the introduction of civil sanctions would mean downgrading food law offences. However, they appeared to agree that monetary punishment is advantageous over lengthy court preparations. Those respondents who were male and enforcing food law for more than fifteen years stated that civil sanctions would not complement the current food law enforcement toolkit.</p>	

6.5 Findings from Research Question 4

RQ4: Is a specialist court required to deal with food hygiene offences?

This research obtained primary data acquiring the views of EHPs on whether food hygiene offences are dealt with fairly in magistrate’s courts or if they think there should be designated experts and courts to deal solely with food hygiene offences. This will fulfil research **Objective 4** of this study: *To investigate EHPs perception of whether a specialist court should be required to deal with food law offences.*

The responses allowed the researcher to develop an interview theme to help achieve the objectives for this particular research question. The theme developed from the interviews: Food law cases (sub-themes – challenges; level of satisfaction with penalty; strategies to aid prosecution). There are no previous studies or literature except for those relating to environmental law and environmental offences (Adshead and Andrew 2009; Macrory 2014). The EHPs were asked whether an alternative way of dealing with food hygiene offences in the form of a specialist court would be beneficial to their enforcement. Table 6.6 presents the main theme of food law case with

sub-themes and a summary of the responses made by the EHPs from the questions in section three of the interview schedule:

- How many times have you taken a case to court in the last 5 years (2006 to date)?
None () 1-5 () 6-10 () 1-15 () >15 ()
- What is your opinion on the fines imposed by the courts (from your experience and in general)? For example, do you think the fines provide an effective deterrence to businesses? Do you think the fines provide a way of improving compliance with regulations? Do the penalties reflect the severity of the offence?
- In your opinion are magistrates in your area fully appreciative of the seriousness of the food safety offences?
- Do you think a specialised court, investigatory board or administrative tribunal should be set up to handle environmental health cases in place of the criminal court?
- What would help to improve the effectiveness of enforcement activity? Why do you say that? What needs to take place for this to happen?

Theme: Food law cases

Table 6.6: EHP perceptions of whether a specialist court is required to deal with food hygiene offences

Sub-Themes	Summary of Responses
Challenges	<ul style="list-style-type: none"> ▪ Prosecutions are time consuming. ▪ Reluctance to engage in a prosecution. ▪ No legal team to solely deal with prosecutions. ▪ The monetary fines for food offences are generally low. ▪ Food offences not taken seriously. ▪ Inadequate legal training for EHPs. ▪ Inability of lay magistrates to handle technical issues of the law. ▪ Magistrates have limited legal knowledge of food hygiene offences. One of the respondents gave this example: <i>“There are some magistrates who are relatively well versed in the law but because they do not deal with food hygiene and safety offences on a regular basis I don’t think they know how to handle them. Food law can be quite technical and some magistrates find it difficult to figure out how to proportionate fines to individual offences”</i> EHP10 LA5 female, qualified and enforcing food law for 17 years
Level of satisfaction with penalty	<ul style="list-style-type: none"> ▪ Some EHPs are generally satisfied with the penalties given to food business operators. ▪ A few EHPs were of the opinions that magistrates normally take food law offences seriously. This view is captured in the words of one of the EHPs: <i>“Yes I think magistrates are relatively appreciative. I’ve been in food law enforcement for some time so I’ve got a feel of the attitude of some of the</i>

	<p><i>magistrates. Although I haven't taken that many prosecutions, the ones I do take somehow come up before the same magistrate who I think is quite competent. I know some of my colleagues are not happy with the magistrates they often face".</i> EHP20 LA16 male, qualified as an EHP for 22 years and enforcing food law for 21 years</p> <p>However, there were some mixed comments about the attitudes of the magistrates:</p> <p><i>"Yes, they are appreciative of the seriousness of the food safety offences but they seem to quite sympathetic towards the business operators regarding the fine!"</i> EHP9 LA7 male, qualified as an EHP and enforcing food law for 18 years</p> <p><i>"They seem unsure about the legislation, but seem genuinely concerned when they see photographic evidence, and are keen to support EHPs".</i> EHP2 LA2 male, qualified as an EHP and enforcing food law for 1 year</p> <ul style="list-style-type: none"> ▪ Not enough guidance provided for magistrates.
Strategies to aid prosecution	<ul style="list-style-type: none"> ▪ Certain food law offences should be classed as criminal acts. One of them made this comment: <p><i>"I believe that the cases should be treated as they are – criminal. Hopefully serving to continue sending out a firm message that non-compliance is indeed a serious offence that can potentially carry a custodial sentence".</i> EHP10 LA5 female, qualified as an EHP and enforcing food law for 17 years</p> <ul style="list-style-type: none"> ▪ A clear distinction ought to be made between regulatory and criminal offences. ▪ More guidance required for magistrates regarding sentencing and interpretation of food law. ▪ A specialist court is required to deal solely with food law offences which are not necessarily criminal. Some respondents made the following comments: <p><i>"Having a specialist court to handle environmental health cases makes a lot more sense. I would even go a step further and advocate each specialist court deal solely with a particular aspect of environmental health, that is, solely food law or health and safety etc."</i>EHP4 LA4 female, qualified as an EHP and enforcing food law for 8 years</p> <p><i>"Why not just have one that deals with food hygiene offences only or health and safety offences only or environmental (pollution) offences only. Or if a specialist court etc. is not feasible then just train magistrates to deal only with food law offences so they become more effective".</i> EHP5 LA1 male, qualified as an EHP and enforcing food law for 8 years</p>

	<p><i>“A good idea. Not sure what the logistics will be though! I suppose if those on the board or involved in the court are EHPs then it should be ok”</i>. EHP1 LA1 male, qualified as an EHP and enforcing food law for 1 year</p> <ul style="list-style-type: none"> ▪ A legal team should be nominated to solely deal with prosecutions. ▪ A specialist court is required to deal solely with food law offences. ▪ Alternative strategies to prosecutions are necessary. ▪ There needs to be a review of the fines given to food business operators.
<p>Key similarities among participants:</p> <ul style="list-style-type: none"> ▪ EHPs need more legal training ▪ Magistrates require more guidance on how to deal with food law offences. ▪ A specialist court to only handle food law offences would be ideal. 	
<p>Key differences among participants:</p> <ul style="list-style-type: none"> ▪ Level of satisfaction with the penalties handed out by the courts. 	
<p>Summary: EHPs are reluctant to take up a prosecution and agreed that a specialist court to deal with food law offences would be a good initiative. There were differences in the responses provided by the EHPs in relation to the level of satisfaction with the penalties handed out by the courts.</p>	

6.6 Findings from Research Question 5

RQ5. What are the views and needs of EHPs regarding their level of training and the general working environment with respect to carrying out their enforcement duties?

The study provided an insight into the issues EHPs face in carrying out their enforcement duties in view of budget cuts. The study sought to obtain EHPs perceptions on whether they receive effective and sufficient training in order for them to carry out their enforcement duties thus fulfilling research **Objective 5** of this study. *To investigate EHP views regarding their level of training and general working environment in relation to the current economic climate.*

The theme developed from the interviews: Professional development (sub-themes – university courses; professional training and career development; job satisfaction; recruitment and retention; service delivery). There are no previous studies which provides qualitative data on how EHPs in the North West of England view their training regime and how this impacts their enforcement

activities. The responses allowed the researcher to develop an interview theme with reference to how EHPs view their level of training and whether it impacts their enforcement duties. The qualitative data provides new contribution to knowledge and the responses are presented in Table 6.7 from the questions outlined in section four of the interview schedule:

- What is your highest level of academic achievement/qualification?
- What other training have you acquired?
- Is the current economic climate affecting your environmental health department and the work of EHPs as a whole?
- How do you see the future of environmental health?

Theme: Professional development

Table 6.7 EHP perceptions of training in the current economic climate

Sub-Theme	Summary of Responses
University courses	<ul style="list-style-type: none"> ▪ There are only a few universities that offer the environmental health degree. ▪ Not all courses provide the same course content. ▪ If the economic climate becomes bleak there will be fewer EHPs then even fewer universities that will offer the course. ▪ Some of the university lecturers are not EHPs. ▪ It is very difficult for students to get a work placement with a LA. <p>Some of the opinions about the university courses are reflected in the statements from respondents below:</p> <p><i>“I’ve not long qualified as an EHP. The university course I did was enjoyable enough. Some of the modules involved real life case studies to prepare students to work as an EHO. However, it was not a sandwich course which meant that I had to find my own placement with a local authority in order to qualify as an EHP. I was fortunate in that I had written to the LA I am working now at the beginning of my course to enquire about a work placement and I had gone in there during the summer months to help out”.</i> EHP1 LA1 male, qualified as an EHP and enforcing food law for 1 year</p> <p><i>“I’ve been qualified as an EHP for some time so do not hold a university degree in environmental health but rather a diploma as it was back then. It was a lot easier. Now I am told that students virtually have to jump through hoops to get their qualification”.</i> EHP20 LA16 male, qualified as an EHP for 22 years and enforcing food law for 21 years</p> <p><i>“I don’t think the university courses offer a practical outlook to our job. I think it could be structured a lot better and include EHPs as guest speakers since some of the lecturers had worked as local authority EHPs”.</i> EHP2 LA2 male, qualified as an EHP and enforcing food law for 1 year</p>

	<p><i>“One of our students informed me that some universities only offer a 3 year course which means the student graduates with a degree but is not a qualified EHP. There should be opportunities in place for those unable to find a LA in which to so their placement”.</i> EHP3 LA3 female, qualified as an EHP for 32 years and enforcing food law for 27 years</p>
Professional training & career development	<ul style="list-style-type: none"> ▪ There is a staff appraisal and development system in place. ▪ Training plans are in place so that the progress of all EHPs is monitored. ▪ There is a requirement for authorised officers to complete 20hrs CPD and this needs to be reviewed. ▪ The competency aspect of EHP training could include simulated kitchens of different scenarios that EHPs come across on a daily basis. ▪ EHPs not encouraged to attain further qualifications such as MSc/MA/PhD. Only two of the respondents possessed master’s degrees.
Job satisfaction	<ul style="list-style-type: none"> ▪ No scope for EHPs to attain further academic qualifications. ▪ Reduction in staff and increase in workload. ▪ No recognition for work. ▪ No career advancement irrespective of postgraduate qualifications gained. ▪ EHPs are paid relatively well and the job is quite flexible in terms of working hours. <p>Some concerns are reflected in the statements from respondents below:</p> <p><i>“All EHPs in our local authority undergo an annual training review to identify training gaps. This is obviously a good strategy but most of the training courses are not particularly beneficial in my view. I have been on several consistency exercise courses but there is still some degree of inconsistencies even within the same local authority”.</i> EHP4 LA4 female, qualified and enforcing food law for 8 years</p> <p><i>“I did a masters in environmental health about 2 years ago. Fortunately the council paid for me to do it. However, I am not given any additional responsibilities and there is no opportunity to climb the ladder so to speak”.</i> EHP5 LA1 male, qualified and enforcing food law for 8 years</p> <p><i>“I’ve been in my current job for about 17 years and I’m still an EHP with no prospect of becoming a manager or team leader. I don’t really mind because I couldn’t be bothered with all the politics and bureaucracy that goes with the job!!”</i> EHP7 LA5 female, qualified as an EHP for 17 years and enforcing food law for 16 years</p> <p><i>“Many of us are reluctant to take on a prosecution because you’re pretty much left on your own and if you don’t have everything in order you could end up</i></p>

	<p><i>looking foolish. I would advocate for more practical training in legal issues and probably go as far as an academic course in law to make it worthwhile, just something that would give me confidence to prepare a case for court and how to conduct myself in a court room".</i> EHP11 LA4 female, qualified as an EHP for 14 years and enforcing food law for 12 years</p>
Recruitment and retention	<ul style="list-style-type: none"> ▪ Due to budget cuts some LAs are not recruiting EHPs. ▪ It is difficult for student EHPs to get a paid placement with a LA so they can complete their course. ▪ The future of environmental health looks bleak if budget cuts continue. ▪ The older and more experienced EHPs are beginning to leave local government. ▪ The younger and less experienced EHPs become disillusioned about their profession. <p><i>"The future of environmental health looks unpromising for those up and coming EHPs. It's ok for the likes of me because I'm retiring in another year and I don't think the council will fill my vacancies as it hasn't done so for about 3 years now!"</i> EHP20 LA6</p> <p><i>"I've been in my current job for almost 10 years now and I can honestly say that it has never been a more stressful time. Our unit used to have 14 EHPs now we only have half that number and still have to fulfil the same targets! I do pity young people coming into the profession unless this is the career they REALLY want to do".</i> EHP4 LA4 female, qualified as and EHP and enforcing food law for 8 years</p> <p><i>"I've been qualified as an EHP for about 2 years now. I love the job but I'm thinking of getting another qualification just in case the Council ever decides to get rid of more people. I've applied to a couple of universities to study architecture. It will mean another 5 or so years of study but it will be worth it considering the job prospects and I'm still young at 28!"</i> EHP16 LA12 male, qualified as an EHP for 5 years and enforcing food law for 2 years</p> <p><i>"The current budget cuts have resulted in low morale among the workforce with having to achieve unachievable targets".</i> EHP16 LA12</p> <p><i>"This is an important area and I consider this profession as important because someone needs to monitor these food businesses that are springing up all the time. People are always going to eat so there needs to be some sort of enforcement of food businesses so I don't think the profession will die out despite the budget cuts. We just have to come up with a better way of doing things with the little we have".</i> EHP12 LA8 team leader</p> <p><i>"Our local authority is doing pretty well in this economic climate and in comparison to other LAs. We are able to give food hygiene training to food businesses and even have a program aimed at young children teaching them</i></p>

	<p><i>the basics of food hygiene. That said, we are a relatively small LA and so do not have as many food businesses to inspect compared to a larger local authority so we are not under the stress and strain of trying to achieve our performance targets. We also haven't lost as many staff and we do have an officer that has just about to qualify as an EHP so she will automatically be employed with us".</i> EHP3 LA3 female, qualified as an EHP for 32 years and enforcing food law for 27 years</p> <p><i>"We are not as bad as some. We have 7 EHPs, one of whom is part-time. From the remainder, 3 are EHOs and each has a technical officer to work with who are responsible for inspecting lower risk premises and basically act as regulatory support officers. This is a great help to the EHO when they are called upon to prepare for a prosecution or investigate a food poisoning outbreak".</i> EHP15 LA11</p> <p><i>"Most LAs are not recruiting which is bad news for newly qualified EHPs and those looking to attain their full qualification and registration as an environmental health officer".</i> EHP4 LA4</p>
Service delivery	<ul style="list-style-type: none"> ▪ EHPs are not carrying out a sufficient number of food hygiene inspections. ▪ Education and training has become limited. ▪ LAs may soon have to charge for environmental health services such as issuing enforcement notices. ▪ There may be a more mobile workforce to reduce the costs spent on buildings. ▪ The use of private agencies may be called upon to assist LAs to achieve their performance targets. <p><i>"When our unit experienced an inability to achieve our targets, we had to employ EHPs from an employment agency to help with the backlog of inspections. It worked but costs us a lot of money. I think it would've been cheaper to pay us all overtime and/or request exemption from having to attain the specified targets".</i> EHP11 LA4 female, qualified as an EHP for 14 years and enforcing food law for 12 years</p> <p><i>"It appears that many LAs are only inspecting high risk premises. This is what we are doing here because we are low on human bodies to carry out inspections across the board".</i> EHP4 LA4 female, qualified as and EHP and enforcing food law for 8 years</p> <p>One of the respondents informed this study that this has already happened in part in her LA: <i>"There are times when I do not need to go into the office so I work from home. My home computer is linked to the database so I can view my emails as well as inputting data from my inspections. This is great for me because it fits into</i></p>

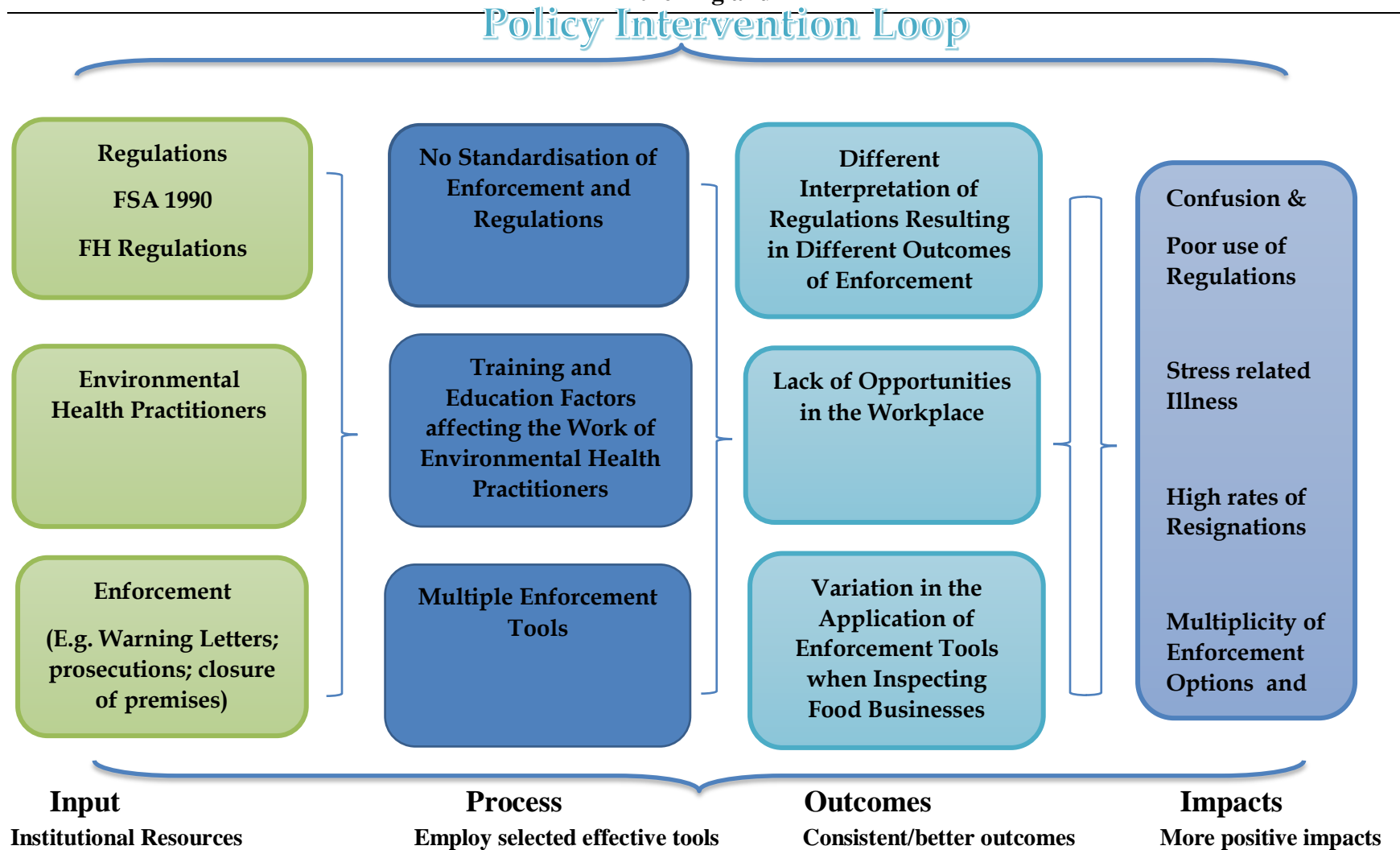
	<i>my family life plus I do not have to pay for parking since are offices are based in the city centre and we do not have free parking like we used to when our offices were based in the suburbs”.</i> EHP11 LA4 female and enforcing food law for 12 years
Key similarities among participants: <ul style="list-style-type: none"> ▪ Future of the environmental health profession looks bleak ▪ Staff shortages have resulted in stress, anxiety and unachievable targets ▪ Income generating initiatives ▪ Mobile workforce 	
Key differences among participants: <ul style="list-style-type: none"> ▪ University courses ▪ Private agencies ▪ Employment prospects 	
Summary: LAs are having to adapt to the current economic climate by implementing income generating activities that will bring relied to their depleting resources.	

6.7 Chapter Summary

In conclusion, the chapter has provided empirical evidence which revealed that the sampled EHPs are generally satisfied with the current range of enforcement tools when dealing with food hygiene and safety offences. However, the majority of the responses also imply that there is a gap in the enforcement powers toolkit that can effectively deal with certain situations when carrying out their enforcement duties. There are also underlining factors such as the economic climate that can affect the effectiveness of food law enforcement in England. Figure 6.1 visually depicts the conceptual model for the enforcement of food law as perceived by sampled EHPs in the Northwest of England. The institutional resources are those necessary to achieve effective food law enforcement. This consists of relevant, enforceable food laws and regulations executed by EHPs who are equipped with an enforcement toolkit. Through the process of qualitative analysis, the main contextual aspects that affect the effective enforcement of food laws and regulations are related to consistency (standardisation) of these laws and regulations; education and training factors affecting the work of EHPs; multiple enforcement tools. The outcomes and impact result in the laws and regulations being interpreted differently by individual EHPs especially with the availability of multiple enforcement options and lack of training/training opportunities in the workplace. This influences

how enforcement tools are applied when inspecting food establishments. These factors are also linked with increased stress in the workplace which in turn leads to EHPs leaving the profession. The next chapter moves on to discuss these results.

Figure 6.1: Conceptual Framework: Environmental Health Practitioners and the Enforcement of Food Safety Regulations in the England



Source: Author (2018)

CHAPTER SEVEN: DISCUSSION

7.1 Introduction

The previous chapter detailed the analysis and results of this study. This chapter addresses the research objectives presented in the introductory chapter by aligning and comparing the empirical findings with existing literature and offering implications for the study. The structure of the discussion chapter will therefore be based on the objectives of this study. The chapter begins by addressing whether food hygiene inspections capture contraventions of the law and it then evaluates the impact of the food hygiene rating scheme as a risk strategy tool for enforcement. The chapter develops by examining whether alternative enforcement tools will assist EHPs in their enforcement duties and whether a specialist court is required to deal with food safety and hygiene offences. The chapter also discusses the coping mechanisms of EHPs in relation to their working environment amidst the current economic climate and concludes with proposing enforcement tools which could be used by LAs in England.

7.2 Regulatory Interventions

Objective: To investigate EHPs perceptions of food hygiene inspections as a regulatory intervention and whether it captures contraventions of food law

7.2.1 Inspections

All of the respondents (21) viewed full inspection as the most effective regulatory intervention that best captures compliance with legislative requirements. The majority (19) of EHPs considered partial inspections as unnecessary. Interestingly, those participants (2) who indicated that they frequently use partial inspections as a regulatory intervention were male and had been qualified/enforcing food law for less than 5 years. Nevertheless, inspections were generally seen in a positive light by the respondents compared with the other regulatory interventions because it was mentioned that inspections allowed EHPs to engage directly with food business operators (FBOs) by offering advice, in addition to observing their food safety and hygiene practices. These results are consistent with the data from the Local Authority Enforcement Monitoring System (LAEMS) which is the system that LAs use to report their food law enforcement activity to the Food Standards Agency (FSA). LAEMS showed that inspection is the regulatory intervention that is mainly used by EHPs in England during 2014/15. It indicated that inspections account for two-

thirds of the total interventions. However, the LAEMS data groups inspections and audit together. This is a significant finding because according to some of the respondents of this study not all inspections include an audit. One example given by the respondents was the inspection of low risk premises such as newsagents that only sell can drinks, chocolates and newspapers. This is critical given that LAEMS is meant to be an accurate recording of LA activity. The implication of this is that EHPs may have a different understanding of what constitutes an inspection and what constitutes an audit and so LAs may not be documenting their enforcement activities correctly. This will therefore have future implications on how data for LAEMS is recorded.

The sampled EHPs indicated their inability to make a comprehensive risk assessment of the food establishment when carrying out a partial inspection which is probably why the majority of the respondents viewed partial inspections as ineffective. These views project the notion that the effectiveness of a partial inspection is low. These results differ from the study by Bukowski *et al* (2012) in that the food enforcement officers in their study were in favour of partial inspections because they were considered as being better use of resources for inspecting low risk premises so that full inspections are used for higher risk premises. The findings from Bukowski *et al* (2012) also suggested that EHPs are using partial inspections on a regular basis although some LAs were recording partial inspection as an inspection rather than distinguishing between ‘partial’ and ‘full’. It appears that the majority of EHPs in this study are using full inspections irrespective of the risk within food businesses. The respondents in this study indicated their preference for full inspection was mainly influenced by reports from Pennington (2009, 2014). They feared that if they did not carry out a full inspection, something could go wrong. Bukowski *et al* (2012) also reported that there was a strong fear among the EHPs that they would be held accountable should they use other official controls, instead of inspection even though it is written in the food law code of practice.

In addition, some of the respondents mentioned that they did not agree with the FSA explanation of when to conduct a partial inspection. For example, the Food Law Code of Practice (COP) 2017 suggests that a partial inspection is when EHPs can inspect a supermarket’s bakery at a different time to its restaurant. The majority of the EHPs in this study mentioned they would not really classify this as a partial inspection since a full inspection was being carried out. This implies that the EHPs in this study did not accept the idea of partial inspection and thought it to be a confusing terminology associated with a food hygiene inspection. Furthermore, the LAEMS data

does not distinguish between full and partial inspections and so there is no way of knowing how many partial inspections were carried out by every LA. Local Authorities are probably incorrectly recording statistics for LAEMS since partial inspections are being recorded as full inspections. These findings have implications for how statistics for LAEMS are recorded. A second implication is that the FSA may need to review whether partial inspections are a valuable tool for food law enforcement.

Even though a full inspection was the preferred choice of intervention, the interviews revealed concerns associated with food hygiene inspections. One such concern relates to the fact that an inspection may not be illustrative of what actually goes on within a food business but rather a 'snapshot' of that particular moment in time. Another concern was related to the time taken to carry out an inspection. Almost all (20) of the respondents agreed that there is insufficient time to carry out a detailed inspection. During the interviews, the EHPs revealed that depleted financial and staffing resources meant that officers were unable to spend as much time as they would like carrying out an inspection particularly at those premises that need the most help. A little over half of the respondent EHPs (12) were spending thirty to forty-five minutes on average at food businesses. Some (6) of the sampled EHPs were devoting between forty five minutes and an hour carrying out food hygiene inspections. The remainder were spending between one and one and a half hours. It is interesting to note that the more experienced EHPs (10 years or more of food law enforcement) were spending less time carrying out food hygiene inspections than their less experienced (less than 10 years food law enforcement) colleagues. The majority of the respondents (17) stated that they would need to spend at around 1½-2 hours to carry out a thorough food hygiene inspection at those premises who prepare and cook food (as opposed to those businesses who sell prepacked low risk foods such as can drinks and chocolate bars). Some of them did mention that this would obviously depend on the size of the business with larger businesses taking up more of their time. The remaining respondents stated that they would require 2-2½ hours. This means that they may have the propensity to be more thorough than their more experienced counterparts. This is contrary to what Laikko-Roto *et al* (2015) found in their study of food inspectors in Finland. They discovered that the more experienced officers with more than 10 years working experience in food control take more time to carry out food hygiene inspections compared with their less experienced colleagues. The Finnish study did not specifically mention the time EHPs take to conduct food hygiene inspections and their data was presented in a different way. Furthermore, there are no food

enforcement studies that provide such data. This study therefore provides a significant contribution to literature with respect to EHPs actual and preferred duration of food inspections.

In addition, the majority (15) of EHPs (irrespective of gender and experience) mentioned that an additional 2-3 hours per day is used in completing paperwork including the preparation of letters, notices and entering inspection data into the computer database which adds more time to the overall inspection process. The remainder of the respondents indicated that they spent 1-2 hours per day in completing paperwork. This finding is not currently fully addressed in literature and will help fill the gap in the literature. There are several implications from these results. First of all, if EHPs are not spending sufficient time carrying out food inspections then they may not be able to observe any hidden contraventions. Secondly, the possible lack of in-depth inspections may have implications on whether targets set by the FSA need to be abolished so that EHPs do not have to worry about carrying out superficial inspections.

By enquiring whether EHPs prefer to employ announced or unannounced inspections to aid enforcement gave an indication which method they thought maximises compliance among food businesses. The results from the empirical study revealed mixed views about preference towards announced or unannounced food hygiene inspections. The majority (17) of the respondents gave no definitive answer as to whether they preferred one type of inspection over the other and articulated pros and cons for each. The benefits of an announced inspection cited by these EHPs were being able to speak to the appropriate persons, fewer contraventions probably because the business will be better prepared and an amicable attitude of the food business operator/employees. The similarities between this study and that by Reske *et al* (2007) reiterates that announced food inspections results in fewer contraventions and cultivated better relationships between the inspector and the food business operator compared with unannounced inspections. The drawbacks mentioned by the respondents were relevant to shortcomings of an unannounced inspection and included not being able to speak to the person in charge; more contraventions found within the business; defensive and often uncooperative attitude of those working in the business; the business is not prepared for an inspection so a great deal of time is wasted looking for paperwork. These observations were not identified in the study by Reske *et al* (2007) since they were looking at the performance of the food business rather than the views of the EHPs and therefore this study builds on existing literature. Waters *et al* (2013) also concluded that announced inspections result in fewer

inadequate food safety practices compared with when inspections are unannounced. However, this study was carried out in the USA. Furthermore, in a recent study by Klerks *et al* (2013) their investigation focused on Dutch nursing homes rather than food businesses or EHPs. Hence, this becomes a significant finding which has emerged from the empirical study.

The remaining four EHPs leaned towards unannounced inspections as their preference. It is interesting to note that these four respondents had been enforcing food law for fifteen years or more. Their reasons for favouring unannounced inspections is applicable to the disadvantages of carrying out an announced inspection. The main reason was obtaining a better idea of how the business operated since the business will be unaware of an EHP coming to inspect the business. Dechenaux and Samuel (2014) support this idea that unannounced inspections can be more effective than announced inspections enabling regulators (and enforcement officers) to make a better assessment/judgment of food hygiene and safety operations within that food business. However, they offered a different perspective about the potential problem with unannounced inspections. Their findings were based on the assumption that if inspectors are corrupt then they will warn a business of an impending inspection, therefore the inspection will not be unannounced. Businesses are therefore able to hide evidence of non-compliance to avoid punishment. The EHPs in this study did not refer to corruption as a way of warning a food business of an impending inspection. Their concern was more to do with food businesses fabricating records about what really happens within day-to-day running of the business. This is also supported in a report by Pennington (2009) who argues that announced inspections allow food business operators to fabricate documented evidence about food safety and hygiene operations within the business. The implications of this is that LAs need to ensure which inspection strategy would result in better compliance.

Another important discovery from this study was the use of inspection forms to record inspection findings. About half of the respondent EHPs mentioned that their LA has stopped using them, mainly as a cost-cutting exercise. Those LAs that used inspection forms offered different presentations to capture inspection findings (see Appendix 6). The respondents that used inspection forms stated that using inspection forms allows them to recall and keep a record of their findings. They said it was also evidence that the food business has been inspected since the person in charge at the time of the inspection has to sign the form at the end of the inspection. There were

also some negative comments about the small amount of space allocated to write inspection findings and this was another reason given by some EHPs for not using an inspection form even though their LAs provided them.

One of these respondents mentioned that every EHP in her LA devises their own inspection form and are therefore recording different information resulting in possible inconsistency. Some of the EHPs that worked for LAs that did not use inspection forms also mentioned that each officer had developed their own recording system, again resulting in possible inconsistency. It was also revealed by some of the respondents that no agreement could be made amongst colleagues within the same LA regarding a standard inspection form that can be used by all EHPs. When asked about the format of an inspection form and what it should include, almost all (18) of the respondents mentioned that the form should be two pages or less. A few of them stated that the inspection form should include critical and non-critical areas of food hygiene and safety based on those identified in a food safety management system (SFBB/HACCP). Some of them said that a checklist would be simpler because they would not need to worry about small allocated space to write in. They also added that inspection forms should be detailed enough so as to capture all contraventions within the business. The remaining three respondents did not offer any specific suggestions but agreed that the form should effectively capture any contraventions. These results build on existing literature conclusions proposed by Laikko-Roto *et al* (2015) who noted that the use of inspection reports for food officers in Finland, particularly standardised inspection reports, leads to greater consistency of inspection among inspectors. The empirical findings of this study fill the gap in literature by addressing the different presentations of such reports. The implications for LAs are that there also needs to be on-going training to ensure consistency as well as the implementation of a national standardised inspection forms to be used by all LAs as an aid to promote uniformity of food hygiene inspections.

The recurrent theme throughout the responses was the economic instability experienced by the majority of LAs. Several EHPs mentioned that they were carrying out fewer inspections due to staff shortages. The implication of this is that fewer food hygiene inspections could lead to the possibility of an increase in food poisoning incidences.

Nevertheless, some of the respondents proposed strategies to improve the inspection process. This included businesses having to acquire a license prior to trading so that a food business cannot trade

unless the EHP is satisfied that the food business operator is competent in food hygiene issues. One EHP suggest a staff: premises ratio meaning that there should be a mandatory minimum requirement for the number of staff/food handlers. Others provided income generating strategies such as charging businesses when an inspector has to revisit premises. There was also a suggestion for EHPs to use an I-pad or other palm-held device instead of having to rely on paper. These findings has important implications for developing an effective inspection strategy for EHPs and raises intriguing questions regarding the nature and extent of having to work to performance targets in an economically charged environment.

7.2.2 Monitoring, surveillance, verification and audit

It emerged that other regulatory interventions audit, verification, monitoring and surveillance were deemed as unnecessary since the majority (15) of the respondents (irrespective of gender and food law enforcement experience) believed that such interventions were ineffective on their own. This is consistent with the LAEMS data which reveals that verification and surveillance make up just under one fifth of the total interventions in England for 2014/15. There is no data for monitoring and audit is grouped with inspection (as mentioned earlier). The study by Bukowski *et al* (2012) only found one example of monitoring being used as an official control among their sampled EHP participants. EHPs who had worked on other environmental health units were not mentioned in the study by Bukowski *et al* (2012) but this study found that that the EHPs who were in favour of monitoring, surveillance, verification and audit had previously worked in other units of the environmental health such as health and safety and housing of their respective or different local authorities and these activities had been part of their daily tasks. This finding has not been considered by existing literature and adds to the discussion of whether some regulatory interventions are ineffective in assisting EHPs in their enforcement duties. The implication of this is that the FSA may wish to reassess these interventions and their practicality to food law enforcement.

7.2.3 Sampling

Sampling is classed as an official and non-official control where formal or informal samples can be taken. All of the sampled EHPs in this study were in agreement that sampling is a useful tool as a way of providing scientific evidence that food safety procedures are (or are not) working

adequately. They pointed out that sampling should be an official control only and considered it to be a valuable intervention tool albeit an expense to the local authority. It transpired through the Skype interviews that sampling is not something that is done on a regular basis (unless part of the Food Standards Agency or other co-ordinated sampling programmes, for example, food surveys and projects) due to the expense since sampling is the financial responsibility of local authorities and lack of resources was cited as a reason for carrying out very little sampling activity. In addition, only a minority (5) of the sampled LAs employed a designated officer for food sampling.

These results correspond with the LAEMS data for 2014/15 which showed that the number of sampling visits have decreased by 1% from the previous year in the UK and a decrease of 9.5% for the number of official food samples reported to have been taken. There was no data exclusively for England. Consequently, there were suggestions from some of the sampled EHPs that the cost of taking and testing samples should be at the expense of the business and not the local authority. It was also proposed that there needs to be a nationally agreed guideline with respect to budgets in order to support this essential food control work. The EHPs in the study by Bukowski *et al* (2012) also cited expense as a reason for decreased sampling activity but there was no information regarding the number or calibre of officers involved in sampling nor were there suggestions on how to maximise sampling activity and so this study offers a unique contribution to the body of literature.

The implications of these findings are given that the EHPs perceived sampling as an important regulatory function and therefore an important aspect of food law enforcement and consequently it may not necessary to distinguish sampling as an official and unofficial control. A second implication is that since LAs are experiencing budget cuts, they may benefit from income generating strategies such as charging businesses for food sampling activities carried out by LAs.

7.2.4 Advice and education/training

All of the sampled EHPs found advice and education/training to be a very useful intervention. This intervention was viewed as positive by both male and female EHPs irrespective of length of service and enforcement experience. These findings are also consistent with the LAEMS data which revealed that education and advice visits in the UK have increased in 2014/15 from the previous year.

It was thought that through education and training EHPs can build good relationships with food businesses thus resulting in greater compliance with the legislation. These comments are supported by the work carried out by Amodu and Hutter (2008); Bukowski (2012); Bardach and Kagan (2017) who suggest that education and training can secure long term compliance.

The respondent EHPs perceived that this regulatory intervention may be more effective than any enforcement tool, monetary or otherwise. However, a small majority (10) of the respondents (those who had been enforcing food law for fifteen years or more), were of the opinion that advice and education by themselves are unlikely to sustain compliance in the long term and will probably only be useful for those businesses who are keen to comply.

It also emerged from the discussion that very few environmental health departments deliver training courses to food businesses due to budget cuts. A small majority of participants indicated that in an ideal world there would be a designated environmental health officer(s) solely responsible for food safety training. It was thought that such officers would not only deliver food hygiene training courses, ideally on the premises of the food business, but also provide regular follow-ups of all businesses within the local authority district to ensure that knowledge is transferred to what is being done in practice. They also felt that local authority EHPs should be able to have the time to fully educate and train the businesses they are responsible for inspecting as this could probably lead to greater compliance and knowledge of the law among many food businesses.

The implications for these findings is that if most of the literature reveals that education/training increase compliance with food legislation then LAs will need to have a generous training budget in order to effectively assist food businesses in gaining knowledge to comply with the law. In addition, food hygiene training should be relevant to the needs of the food handler and the business so that they can be motivated to have a positive attitude towards food hygiene and safety issues. This could be achieved by incorporating a separate inspection score rating for education and training as one of the respondent EHPs suggested.

7.2.5 Intelligence Gathering

Intelligence gathering was another intervention that all EHPs were rarely using because it was thought of as having little practical use. This is in contrast to the study by Bukowski *et al* (2012) in which the respondents indicated that intelligence gathering is an important aspect of their daily activities and a crucial part in their enforcement role. Furthermore, the LAEMS data revealed that the use of this intervention has increased in 2014/15 from the previous year and was used more times by EHPs compared with advice/education and sampling visits during 2014/15 in England. The EHPs in the Bukowski *et al* (2012) study concluded intelligence gathering was necessary because they said it was essential to have a detailed and comprehensive understanding of a business prior to inspection. The majority (16) of the respondent EHPs in this study, however, appeared to have a different understanding of intelligence gathering and took it to imply an alternative enforcement strategy involving sending out questionnaires to obtain information from low risk food businesses in order to ensure the LA database is kept up to date thereby targeting businesses that may not have been inspected for a number of years. The remaining respondents did not offer any comments other than whether or not they thought intelligence gathering was an effective regulatory intervention. The respondents viewed this intervention as having little practical use because of the low response rates from businesses and the incorrect information received from those that complete the questionnaire. This study therefore identified a different perspective of intelligence gathering as a regulatory intervention as understood by EHPs. This may have implications as to how this regulatory intervention is used since the EHPs in this study have a different understanding regarding the concept of intelligence gathering as a regulatory intervention. It also has implications of how the law is interpreted and the debate around consistency.

7.3 Food Hygiene Rating Scheme

Objective: To investigate EHP perceptions on the impact of the food hygiene rating scheme as a risk strategy tool for enforcement.

The majority (17) of the respondents thought that the Food Hygiene Rating Scheme (FHRS) had a positive effect in assisting EHPs with their work. These respondents indicated that the scheme

had brought some improvements to the overall performance of food businesses in terms of compliance with the law. There was a belief among the EHPs that food businesses thought that potential customers will be positively influenced by a high food hygiene rating score. These results support an evaluation carried out by Vegaris (2015) who found that the FHRS had a positive impact on the standards of food hygiene amongst food businesses. Those businesses achieving a score of 3 and above increased by 2% in the first year that the scheme was introduced. Simultaneously, the number of business with a score of 0 or 1 decreased by 1.9% in the first year of the scheme operating and 1.7% in the second year. Moreover, LAEMS data for 2014/15 showed an increase in food businesses that are broadly compliant in England (93.3%) compared to 92.1% in the previous year 2013/14. During the interviews some of the EHPs elaborated further to say that the FHRS created competition between businesses to get better scores than rivals thus driving up standards as FBOs realise that their business will suffer without a decent score and they believed that FBOs feared the threat of harsh media coverage. This claim is supported by the work of Choi *et al* (2011) and Vegaris (2015). This implies that the concept of the FHRS is important with regards to food law enforcement and compliance with food legislation.

However, some EHPs presented contrary views about the food hygiene rating scheme in that it is very subjective and there is a lack of consistency in the implementation of FHRS nationally. They suggested that more guidance may be needed to increase its accuracy so that the score reflects the hygienic status of the food business in question, in addition to assisting inexperienced officers. In relation to this, a number of issues were identified with regards to the criteria (risk factors) used to assess the performance of the food business. This provoked a mixed response from the EHPs. A small majority (13) were of the view that these risk factors were satisfactory, whilst others were not necessarily critical of the FHRS but pointed out that the risk factors did not represent all food safety risks. A small number of the respondents suggested introducing more risk factors and separating them into critical and non-critical contraventions and scoring them accordingly. The unique aspect of this finding is that the current literature does not cover improvements that could be made to the FHRS. The implication of this is that an improved scheme will better identify the food hygiene and safety risks within food businesses. Examples of additional risk factors include healthy eating; previous compliance history and food safety knowledge.

None of the respondents were particularly sure what form the scoring system should take with regards to the risk factors, since they did not understand how the current scores (multiples of 5) came to light nor were they certain whether these scores reflected the risks within a food business. These findings build on the research by da Cunha *et al* (2016) who concluded from their study that different risk categories should have corresponding weighted scores in order to evaluate food safety in food businesses. However, they stated that such mathematical scores may be ineffective in determining the risks of foodborne disease and therefore being able to identify those food businesses that are likely to cause a food poisoning outbreak.

There were also some cynical comments from a minority of EHPs who stated that the system could be prone to abuse in that a score of 4 or 5 could be issued then standards could slip and this would probably not be caught until the next inspection and so does not reflect what is happening throughout the whole year and customers will be deceived. There was a sense among a small majority of EHPs that the FHRS creates inconsistency and believed that other scoring methods would enhance the overall accuracy of the evaluating food businesses in relation to their compliance with the legislation. Several of the respondents made reference to other scoring systems in Scotland and the USA to buttress their arguments. An implication of these views is that the FSA may need to review the current FHRS and introduce a scheme that will better capture and illustrate the risks within a food business.

Almost all (19) of the respondents called for food businesses to be inspected more frequently because of their belief that there is so much non-compliance. The majority of the respondent EHPs believed that frequent inspections would lead to a reduction in the number of contraventions found during an inspection. The ideal inspection frequency among the sampled EHPs in this study was every three months (about 4 times a year) for premises considered high risk and twice a year for low risk premises. This supports the work of Newbold *et al* (2008) in which the majority of respondents (82%) believed three to four times annually would be an ideal number of inspections for food businesses. It further supports a study by Pizzino and Rupp (2013) who showed that an increased frequency of inspection did correspond to a reduced number of contraventions found in food businesses. These studies were carried out in Canada and the USA respectively. Conversely, there is research that refutes these claims, in that less inspections rather, improve compliance amongst businesses (Dechenaux and Samuel 2014).

All of the respondents argued for the display of food hygiene rating scores to become mandatory in England as it is in Wales. They stated that this would improve compliance with the legislation. About half of the respondents argued that there should also be on-the-spot fines for those businesses who do not display their food hygiene rating since it is only those businesses who achieve a score of 4 or 5 that are happy to display their inspection score. This is consistent with a study by Vegaris (2015) who revealed that in England the percentage of food businesses displaying the score in 2014 was 63% compared to 20% of those food businesses with a rating of 0, 1 or 2.

These findings support Etienne *et al* (2015) who provide data to indicate that since introducing the mandatory display of rating scores in Wales, the number of food businesses achieving the top score of 5 increased from 37% in October 2012 to 45% a year later when it became mandatory for businesses to display their rating. Twelve months after this scheme began the percentage of food businesses achieving a rating of 5 has increased further to 56% and there has also been a decrease in businesses with low ratings: 0, 1 or 2 (13.6% in 2013 to 6.3% in 2014). Similarly, Spencer and Young (2015) conducted a survey of over 1500 businesses in England, Northern Ireland and Wales and found that 75% were in favour of mandatory display of inspection scores. This implies that the mandatory display of inspection scores is imperative.

This study further shows that the use of the FHRS may not be the best way to assess food business compliance unlike what the current literature says. Some of the EHPs believed that it does not provide the desired accuracy to assess compliance. Whilst the benefit might be providing motivation to compliance, the desired effect is not achieved. This study reveals that more efficient mechanisms/procedures may need to be introduced to complement such a framework in order to accurately measure compliance.

There is a tendency for environmental health to reduce compliance to simple tools but in reality more complex and sophisticated systems may have to be utilised. Given the fact that less experienced EHPs are spending more time conducting inspections it might be worthwhile looking into systems that are more accurate (rather than elaborate) in order not to burden EHPs.

7.4 Current Enforcement Toolkit

Objective: *To examine the enforcement sanctions currently available to EHPs and whether (in their opinion) alternative enforcement tools would be more appropriate.*

7.4.1 Warning Letters

The opinion of the respondents was mixed about the effectiveness of written warnings in increasing standards of compliance among food businesses. Only a minority (7) of the respondents thought that warning letters were an effective tool in ensuring compliance. The respondents who viewed written warnings as effective stated that the food businesses they encounter generally show willingness to comply with the law so warning letters suit these circumstances. One EHP explained that warning letters provide a threat of legal action but only effective if food business voluntarily comply with the law (i.e. do not need to be coerced). It also emerged from the majority of the other respondents that warning letters are not very effective for repeated breaches that are considered minor, for example, no antibacterial soap at the wash hand basin. These findings correspond with those observed in a study by Bukowski *et al* (2012) who reported that the respondents had mixed feelings about warning letters and also acknowledged that warning letters were not effective for those food business operators who are apathetic.

The LAEMS data indicated that warning letters were issued far more than any other enforcement method in England and the UK overall. In 2014/15: 126,929 out of 132,714 of the total enforcement actions in England and 160,205 out of a total of 167,338 for the UK were for warning letters. From this data it could be assumed that many of the food businesses are voluntarily compliant given the vast amount of warning letters that are being issued on an annual basis. Moreover, the LAEMS data which showed that the majority of food businesses in England (93.3%) are broadly compliant for 2014/15 which means food businesses are exhibiting a good level of compliant behaviour and acquiring a food hygiene rating score of 3 or above. However, a significant finding of this study revealed that the perception of the sampled EHPs is that food businesses do not show such level of compliance as the LAEMS data indicates. Another significant finding from this study is that those respondents who regularly used warning letters were non-white EHPs. Moreover, those EHPs who had previously worked on other units mentioned that they rarely issued warning letters because they considered them pointless. For example, one of the

respondents who had previously worked on the housing unit of her LA argued that issuing a warning letter on an owner of a vacant property that had an overgrown garden and causing problems to its neighbouring property that is not vacant, would be futile. She mentioned food safety contraventions are not less important so considered warning letters ineffective.

7.4.2 Hygiene Improvement Notices

The sampled EHPs were almost unanimous in mentioning that hygiene improvement notices (HINs) were an effective way of achieving compliance amongst food businesses albeit time consuming to prepare. The Skype interviews also revealed that HINs are a more effective way to deal with non-compliance compared with warning letters. A small majority (13) of the respondents thought that contraventions of the law can be dealt with more effectively by issuing a hygiene improvement notice since failure to comply with an HIN is an offence and can result in prosecution. Other respondents offered no thoughts on this issue although a few of them stated that voluntary compliance is more likely to be longer lasting than enforced compliance. These results are also consistent with the study by Bukowski *et al* (2012) where it was discovered that this was the formal enforcement measure that was commonly used by EHPs. This is also reflected in the LAEMS data which shows that after written warnings this type of enforcement is most commonly used by EHPs in England in 2014/15 albeit a slight decrease from the previous year. The implications for these findings are that hygiene improvement notices are an important aspect of food law enforcement.

7.4.3 Hygiene Emergency Prohibition Notices

The majority (17) of EHPs thought that HEPNs are an effective tool for food law enforcement but less than a quarter (3) of the respondents have issued this type of notice. This corresponds with the statistics in the LAEMS data which show that HEPNs are issued far less than warning letters and hygiene improvement notices. Between 2011/12 and 2013/14, in English local authorities, an annual average of 9 out of every 1000 establishments was subject to a HIN. It transpired through the interviews that this particular enforcement tool can be fraught with limitations. Some of the respondents mentioned that HEPNs are very effective for serious contraventions but there is a very complicated procedure with possibilities to make mistakes and risk financial penalties. They stressed that prior to issuing this type of notice, there is a need to be confident there is an imminent

risk to health and that the Magistrates Court will agree otherwise the local authority will have to pay compensation to the food business. No literature currently identifies these findings/observations, hence it helps fill the gap in literature. Other significant findings that are not found in the literature also emerged from this study. First of all, the more experienced EHPs use this enforcement tool more than their less experienced colleagues. Secondly, those EHPs who had previously worked in other regulatory areas, for example, health and safety, were the EHPs who had regularly used this enforcement tool compared to those EHPs who had not previously worked on other environmental health units. This is a contribution that has not been previously reported or explored, that is, whether EHPs who had worked on other units have a different approach to food law enforcement. The implication is that although HEPNs are beneficial to enforcement, the procedure for issuing this notice may need to be reviewed so that they become more widely used by EHPs.

7.4.4 Prosecution

Prosecution was the enforcement tool that was considered to be most effective in dealing with the most serious food hygiene offences by all the sampled EHPs. Nevertheless, only a minority (4) of sampled EHPs had been involved in prosecution cases during the last eight years. This is consistent with the LAEMS data which indicates that the number of prosecutions decreased in 2014/15 compared with 2013/14. However, the LAEMS data also reveals that LAs in England are involved in the most prosecutions compared with Scotland, Wales and Northern Ireland. The data shows that LAs in England undertake more than 4 times as many prosecutions than the other three countries put together. This is probably because there are more LAs in England or it could be that the prosecution process is different and this could have implications for consistency.

The EHPs involved in prosecutions in this study were mainly experienced EHPs, who had been involved with food law enforcement for 12 years or more, although one of them had only been qualified for less than 5 years. It also appeared that male EHPs were more likely to be involved in prosecutions than their female colleagues which is a new finding and contribution to the literature. This finding provides additional insight of the extent to which a particular gender is predisposed to prosecution. Therefore a local authority that is predominately male will likely to undertake more prosecutions. The demographic characteristics of a particular LA can shape the extent to which people are likely to prosecute. This is an essential insight which the literature does not discuss.

From the findings only four EHPs mentioned that they had undertaken a prosecution in the last eight years. These four EHPs consisted of one female and three males. Beyond this among those who had not been involved in prosecution, the males indicated their likelihood to prosecute more than the females. Irrespective of the fact that the sample had more males compared to females because higher ratio regarding the tendency to want to prosecute. It is important to understand why this pattern occurs, maybe the males are more militant and authoritative than the women and want to exert their authority. It appeared that the female EHPs were more willing to give food businesses an opportunity for remedial action. This requires further exploration regarding the gender identity of the EHP with respect to the propensity to prosecute.

The reasons given by the EHPs for the infrequent use of prosecution as an enforcement tool was because they lacked confidence, lack of legal training, fear of failure and that the fact that it is a time consuming process. Nonetheless, prosecution was also seen by the majority of EHPs in this study as a way of raising the profile of the LA assuming that it is successful.

It also transpired that only two LAs employed an officer to specifically deal with legal proceedings. The other environmental health departments worked with the local authority legal team to which some of the respondent EHPs mentioned had its drawbacks. The problems these EHPs encountered were mainly related to communication in that their legal team was based in a different building from the environmental health department.

When asked to evaluate the impact of the fine imposed by the courts, two of the EHPs who had been involved in prosecutions were generally satisfied with the punishment given by the courts. They stated that the fine reflected the nature of the offence. The other EHPs were not satisfied with the outcome of the court cases and felt that the fines did not really have a strong deterrent to prevent future contraventions of the law. They also argued that the level of fines is different for similar offences across the country and therefore cases are dealt with inconsistently as each court across the country is different. These results support a survey by Moran (2005) also found inconsistency between different Magistrates' Courts and even between different magistrates in the same court with respect to the amount of fine given. However, the study by Moran (2005) was over 10 years ago and explored environmental regulations not food regulations. Hence this becomes a significant finding since EHPs that enforce food safety regulations are not referred to in this literature. The implication of this is that since magistrates play a strategic role in food law enforcement, it is

essential that there is a uniformity of policies and procedures in place with respect to dealing with food safety and hygiene offences.

Another significant finding that emerged from the study and not previously found in the literature is the views of those who had previously worked on other environmental health units such as health and safety, housing and environmental pollution. One of the respondents who had previously worked on the housing unit with another LA revealed that she had taken one prosecution whilst on housing. She felt that it was much easier to take a prosecution on other units of environmental health. The implications of these findings are prosecution is an important enforcement tool but the process needs to be less burdensome for EHPs so that they will not be reluctant to take prosecutions.

7.4.5 Cautions

An inspector can issue a formal caution. A formal caution is a statement by an inspector that says that an offence has been committed for which the offender can be prosecuted and convicted. A small number (4) of the sampled EHPs indicated that they have used formal cautions. These EHPs were the ones who had been involved in prosecutions. These findings do not support the study by Bukowski *et al* (2012) where the respondents expressed an increased use of cautions as an alternative to prosecution. The findings of this study is, however, consistent with the LAEMS data reveal that the use of cautions as an enforcement tool has been decreasing in the UK over three years 2012/13, 2013/14 and 2014/15. This implies that unless an EHP will embark on a prosecution, cautions have no use.

Conversely, the remainder of the respondents in this study indicated that cautions are of no use and have little effect in preventing a recurrence of offences, or in increasing the level of fines at subsequent prosecutions. According to one of them, a caution only achieves short-term compliance and does not seem to have any long-term effects to a positive change in behaviour. Not only that, in her experience getting the offender to admit the offence can be strained and ethnic food business operators fail to understand the significance of the caution.

The implications of these findings are that cautions are not an essential enforcement tool for EHPs given its limited use by this sample.

7.4.6 Seizure and Detention

The study revealed that seizure and detention were occasionally and rarely used respectively by the majority of the sampled EHPs. These results are consistent with the findings of the study by Bukowski *et al* (2012) in which none of the participants mentioned that they used seizure and detention as an enforcement tool. However, this is contrary to the LAEMS data which reveals that this enforcement tool was used more than HEPNs and prosecutions in England during 2014/15.

However, it was perceived to be effective by all the respondents since it involves the removal of unsafe food and therefore ensuring public health and well-being. Another benefit given by some of the EHPs was that the loss of stock will always hurt businesses financially so this enforcement tool acts as extra deterrent with no financial risk involved for the LA.

Furthermore, just under half (9) of the sampled EHPs believed that this regulatory intervention would function better without the need for a magistrate. They explained that a great deal of time could be saved if officers avoided the step of having to apply to a magistrate's court for them to decide whether the food in question must be condemned. Other EHPs disagreed and argued that there needs to be some involvement of the courts because in some cases it could be classed as food crime which is serious and serious offenders must be heavily punished especially in view of the horsemeat incident. These findings further add to the discussions on the role of magistrates in food law enforcement. The implications of these findings are LAs may need to revisit their policies on seizure and detention.

7.4.7 Remedial Action Notices

Almost all the sampled EHPs suggested that remedial action notices (RANs) be introduced in food premises not subject to approval (these notices are exclusively issued on food businesses who operate under Regulation 853/2004 (generally slaughterhouses, cutting plants, and businesses processing or manufacturing products of any animal origin). The main factor influencing this choice is that RANs require prompt corrective action to be taken by a food business operator without the need to go to court. They provided further insight into this issue by saying that this enforcement tool is important for food businesses that would not comply with the law voluntarily. These results seem consistent with the respondents that took part in a study by Etienne *et al* (2012) who also suggested that RANs be used for all types of food businesses. Furthermore, a more recent study by Etienne *et al* (2015) revealed that since the introduction of RANs in 2012 for Scotland,

Wales and Northern Ireland for all types of food businesses, the use of RANs in these countries have been increasingly used. This is reflected in the LAEMS data which shows a slight increase in 2014/15 compared to the previous years 2012/13 and 2013/14 for all four countries. However, none of the sampled EHPs in this study had used remedial action notices in their enforcement duties although they are available for approved premises for the prohibition of the use of any equipment or any part of the establishment. It is therefore interesting to note that English LAs issue the second highest number of RANs from the four countries in the UK (Etienne *et al* 2015). Amendments to the domestic hygiene legislation in Scotland, Wales and Northern Ireland extended the scope of RANs into non-approved premises, which are registered under Regulation 852/2004. In England however, it has not been possible to extend the scope of RANs to non-approved premises and these findings add to the debate on the implementation of RANs for non-approved premises in England. The implication of these finding is that an enforcement tool is needed that could help address a gap in enforcement powers and add the EHP enforcement toolkit. The introduction of RANs may ensure compliance for repeat offenders and those that harbour complete disregard for the law, without the time consuming involvement of going to court.

7.4.8 Alternative Enforcement Toolkit: Civil Sanctions

During the Skype interviews it transpired that the majority (17) of the EHPs did not think that civil penalties in general would work for food offences. However, a small majority (12) agreed that fixed monetary penalties (FMPs) could work for food offences as it would alleviate time consuming court cases. A few respondents cited instances where fixed monetary penalties would be useful in food law enforcement, for example, not registering the food business within the specified time, no hot water, no food safety management system or inappropriately stored food; punish repeat offenders and offences that are minor but need addressing.

A number of other issues were identified during the Skype interviews. It was agreed that the threat of financial penalties could be effective as they can directly affect a business and the threat of financial punishment can serve as a heavy deterrent and aid compliance. The EHPs also thought that civil sanctions will avoid costly and time consuming court cases was another advantage cited by the respondents. These views surfaced mainly because FMPs are seen as a way of imposing a penalty for moderate to serious offences where prosecution is not considered to be in the public interest. They indicated emphatically that there needs to be clear guidance and consistency in its

enforcement before these sanctions are introduced into food regulations. This implies that FMP could be a beneficial tool in food law enforcement. The FSA and LAs need to be aware of any costs that may be incurred in setting out such policies and strategies.

All the respondents agreed that the penalty should be high enough for it to be a deterrent and prevent unscrupulous businesses from profiting from their non-compliance. There was a question of what should be done with the monies generated from the fixed penalties. There was a call for monies to be retained by the local authority to help offset the costs of enforcement especially in the current economic climate where many LAs have been subject to budget cuts. Other respondents commented on the level of the fines, that they should be commensurate with the size of the business and linked to first time offence in addition to a discounted amount if the fine is paid early (similar to parking fine). This implies that EHPs are campaigning for an alternative, fairer and unbiased system to deal with offenders.

The other three types of civil sanctions (variable monetary penalty, enforcement undertakings and stop notices) were met with indecisiveness. Some of the sampled EHPs mentioned in the Skype interviews that enforcement undertakings were already being used in the form of warning letters and hygiene improvement notices and also stop notices were being used in the form of emergency prohibition notices. Therefore these types of civil sanctions would not add to existing powers or help to raise levels of compliance. Without knowing exactly what it might entail, the EHPs found it difficult to make substantive comments on the use of this sanction. These findings provide new contribution to knowledge since there is no literature or existing data on how civil sanctions would work for food law enforcement. However, there is no information available in order to compare these findings with data for environmental protection which has been using civil sanctions for some time. There are various implications for these findings. First of all, the FSA may want to pilot civil sanctions within food law enforcement to see how they might be introduced and implemented. Secondly, guidance would be required to ensure transparency and accountability in their use.

7.5 Specialist Court

Objective: To investigate EHPs perception of whether a specialist court would be required to deal with food law offences

The discussion was taken a step further to investigate the opinion of the sampled EHPs relating to the attitudes of magistrates and whether they are fully appreciative of the seriousness of the food safety offences. A small majority (14) were of the opinion that magistrates are appreciative of the seriousness of food safety offences. Level of experience did not appear to be a significant influence here but gender did. Interestingly, the female EHPs tended to think that magistrates are appreciative of food safety offences and the male EHPs tend to think that magistrates are on the side of the food business operator. Those EHPs who had spent time on other units of environmental health were the respondents who did not think that magistrates are fully appreciative of food safety offences. They cited their own experiences and knowledge of working with colleagues that have taken prosecutions. One of the respondents inferred that health and safety offences, for example, were considered to have more serious undertones than food hygiene offences. Another respondent EHP who had worked on environmental protection for three years prior to joining the food team explained that there may be a perception that environmental offences are more of a crime than food offences. However, there were some slightly negative comments about the attitudes of the magistrates and some of these comments coming from EHPs who had not directly been involved in a prosecution case. Concerns were expressed at the inability of magistrates to handle technical issues of the law and that they have limited legal knowledge of food hygiene offences. They pointed out that some magistrates do not deal with food hygiene offences on a regular basis and so do not really know how to handle them. They made reference to fines imposed by the courts as not being much of a deterrence unless they are quite substantial. These findings build on literature conclusions proposed by Gray and Shimshack (2011); Simpson *et al* (2013) and Gunningham (2015). The implication of these findings is that there needs to be a new approach to regulatory offences in the courts.

The participants were asked whether they thought a specialised court, investigatory board or administrative tribunal should be set up to handle environmental health cases in place of the criminal court. Interestingly, EHPs who had been enforcing food law for more than fifteen years agreed the current system seems to work well and a specialist court was not necessary for the

complexity of most cases. They believed that environmental health cases involving food offences must be maintained within the criminal court to avoid being “downgraded” to a civil offence. Conversely, the newly qualified and those EHPs who had been enforcing food law for less than fifteen years were of the view that a court with specialised knowledge and skills will be able to handle the environmental health cases more effectively. These findings are new to the debate on dealing with food hygiene offences but support the conclusions of an earlier study by Moran (2005).

7.6 EHP Training

Objective: To investigate EHP views and needs with regards to their working environment in relation to the current economic climate

This section of the thesis reviews data that offers new contribution to knowledge since there is no existing and current data on how of EHPs regarding their level of training with respect to carrying out their enforcement duties.

7.6.1 Academic Qualifications

There were somewhat differing views between less experienced and more experienced EHPs regarding the university courses participating in an environmental health program. Those EHPs who had been enforcing food law for more than fifteen years held different qualifications than those who had been enforcing the law for less than fifteen years. The majority of these EHPs had obtained a Diploma in Environmental Health whilst the less experienced EHPs had acquired a degree from university. The EHPs with a diploma were of the view that their course was more practical than the degree. A small minority (2) of the sampled EHPs held a master’s degree in environmental health and it was some of those who had worked on other units of their respective environmental health departments that had acquired this qualification. None of the sampled EHPs had qualifications above master’s level.

Half of the respondents were funded by their LA and so did not have to pay for fees out of pocket. From the remaining EHPs, two-thirds had received government grants and the remainder (mostly newly qualified EHPs) mentioned that they had to apply for student loans. Majority of the respondents spent 3 or 4 years at university. Almost all of them had had no problems being placed with a LA for their placement year. All the respondents said their courses were run by experienced

EHPs and other professionals such as microbiologists and health and safety professionals. And were generally satisfied with course content. Those respondents who had been qualified for more than twenty years said their courses were more practical. One of them mentioned that lectures on housing disrepair, for example, included learning the basics of home plumbing that enabled him to install the central heating system in his house! However, a small majority of respondents thought that the professional assessment at the end of the undergraduate course could be improved by making the portfolio students need to complete less complicated and offering simulated scenarios that mimic real life environmental health situations. Some even suggested that this could be used as an annual training tool for all EHPs as a consistency exercise.

7.6.2 Professional and Career Development: Current Economic Climate

The majority of the sampled EHPs had rather a bleak outlook with regards career development and thought that the professional training could be improved. Most of them cited the lack of promotion opportunities within their LA and support from their team leader/manager. Furthermore, the majority of the participants were not satisfied with their job citing the current economic climate as the main reason for their dissatisfaction. Many LAs were experiencing staff losses causing low morale among the workforce with having to attain unachievable targets. They lamented that the workload is the same irrespective of a reduction in staff leading to more burdens and stress on existing staff. A majority of respondents had experienced staff losses within the last 12 months and a small majority has had the number of food enforcement officers almost halved in the last 12 months. This could mean fewer food hygiene inspections could be carried out by LAs resulting in a possible food safety risk to the consumer. Some EHPs mentioned that their LA had to employ EHPs from an employment agency to help with the backlog of inspections. The majority of LAs had reduced their workforce mainly through offering early retirement for eligible officers and were no longer recruiting or offering student work experience placements. One of the respondents mentioned that he was in the process of acquiring a qualification in another subject area as a precaution against redundancies within his local authority. However, a small minority of LAs were continuing to recruit staff and/or offer student placements. These findings are consistent with the LAEMS data which shows a decrease in the number of full-time staff for 2014/15 compared to the previous 2 years. Subsequently, the number of vacant posts have increased during the same time. Tombs (2016) also found that there was a reduction in staffing levels from 2010-2015.

7.6.3 Future of Environmental Health

A note of optimism came from the mainly newly qualified EHPs and those who had been enforcing food law for less than ten years. They had the view the profession will not die out since there will always be food businesses that require inspection. In addition, most of the female EHPs applauded the flexible working hours that local authorities offer. A small majority of respondents (irrespective of gender and level of experience) indicated that salary is an attractive incentive to remain in the job. A small majority of the respondents voiced their concerns about students struggling to find work placements and/or permanent employment after graduating from university. With regards to the future of environmental health and food law enforcement, the majority of respondents were of the view that budget cuts could lead to many EHPs working from home to free up office space and therefore local authorities will not have to pay high rental and utility costs plus any other overheads that come with renting office space. One of the respondents informed this study that this has already happened in part in her LA.

7.7 Chapter Summary

In conclusion, the chapter has provided empirical evidence which revealed that the sampled EHPs are generally satisfied with the current range of enforcement tools when dealing with food hygiene and safety offences. However, the majority of the responses also imply that there is a gap in the enforcement powers toolkit that can effectively deal with certain situations when carrying out their enforcement duties. There are also underlining factors such as the economic climate that can affect the effectiveness of food law enforcement in England. The following chapter forms the basis of the contributions of this study as outlined in Chapter One. It also presents the overall conclusions and recommendations.

CHAPTER EIGHT: CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

This research has reviewed Environmental Health Practitioners (EHPs) from Local Authorities (LAs) in the Northwest of England with the aim of investigating their perceptions of the enforcement regime of food law. It investigated the aspects of enforcement that were significant to EHPs and how best to improve the enforcement toolkit in order to assist in their enforcement activities. This research utilised an interpretive qualitative method in order to elicit the perspectives of twenty-one EHPs from seventeen LAs. This chapter begins outlining the key conclusions of the research and how each research objective has been met. Recommendations for EHPs, LAs, the FSA and other policymakers that oversee food safety and hygiene enforcement are also discussed as well as academic and practitioner contributions. The chapter concludes with the study's limitations, future research and chapter summary.

8.2 Evaluating the key conclusions of the research

The aim of this research was to examine Environmental Health Practitioners (EHPs) perceptions of the relevancy and effectiveness of current policies, practices and legislative frameworks as they relate to enforcing food legislation. The aim has been met by using a constructivist qualitative strategy to investigate the perceptions of EHPs with respect to food law enforcement. The objectives of this research have been achieved as follows:

8.2.1 The use of regulatory interventions among EHPs in the Northwest of England

Conclusion 1: **Inspection is the main regulatory intervention used by EHPs**

This conclusion is supported by the FSA LAEMS data which reveals that for the period of 2014/15, inspections (and audits) account for two-thirds of the total food hygiene interventions. It is also supported in the primary data of this study in which all of the respondents indicated that they always use this regulatory intervention during the course of their enforcement duties. It is also reflected in their statements which suggest that if they do not conduct a full inspection then there is a chance that the food business they visited would be implicated in a major food poisoning outbreak. The implications of this conclusion is that a food hygiene inspection appears to be the best method to capture contraventions of the law.

Conclusion 2: EHPs are reluctant to use partial inspection as a regulatory intervention and their perception of what constitutes a partial inspection differs to that of the FSA

EHPs are reluctant to use partial inspection as a regulatory intervention. This conclusion is supported by the work of Bukowski *et al* (2012) who stated that food law enforcement officers are reluctant to use partial inspection in case they fail to notice important contraventions which could result in a food poisoning outbreak. It is also supported from the primary data in this study where the majority of respondents considered partial inspections as unnecessary. In addition, some of the respondents did not agree with the FSA explanation of what constitutes a partial inspection and thought it caused confusion to enforcement protocols. The implication of this conclusion is that if partial inspection is to remain a regulatory intervention then it needs to be clearly defined to avoid misinterpretation, inconsistency in inspection and subsequently irregularities in activity reports; otherwise it should be removed as a regulatory intervention.

Conclusion 3: There are some regulatory interventions that are effective but financial and human resources are a barrier.

This conclusion stems from the empirical study where the majority of the EHPs responded that regulatory interventions such as sampling, advice/education and training were valuable methods of enforcement but the current economic climate prevented them from using these interventions productively. For example, LAs do not have the budget to educate and train food handlers neither do they have the manpower to spend a great deal of time educating and training food handlers on site during an inspection. Furthermore, they do not have the budget to engage in frequent sampling activities. The implication of this conclusion is that in as much sampling, training and education positively impacts on compliance, budget cuts and having to work to targets prevent EHPs/LAs from fully carrying out these services. It could be argued that this could result in an increase in non-compliance and food poisoning incidences which can be detrimental to consumer health.

Conclusion 4: There are some regulatory interventions that EHPs consider ineffective.

This conclusion is supported by Bukowski *et al* (2012) who found that EHPs are unwilling to use monitoring and verification as individual interventions primarily because EHPs feel that solely using these interventions will make them liable if something goes wrong. Moreover, this conclusion is also supported by data collected in this study where the majority of EHPs rarely used these interventions and considered them ineffectual on their own. The implications of this conclusion is that although monitoring and verification are currently classed as official controls

they are thought of as being part of the inspection process and therefore do not need to be considered as separate regulatory interventions.

Conclusion 5: **A national standardised inspection form is required for consistency.**

This conclusion supports the work of Laikko-Roto *et al* (2015) who stated that standardised inspection reports result in greater consistency of inspection. The conclusion is further supported by the findings of this study where the majority of EHPs highlighted the need for a national standardised inspection form especially since it was revealed that some EHPs mentioned that they were not using inspection forms to record their inspection findings or they LA did not provide them. This conclusion implies that standardised inspection forms are essential to enhance communication and bring about consistency within the environmental health profession.

Conclusion 6: **Food hygiene inspections is an important regulatory intervention in capturing contraventions of the law.**

In summary, it can be concluded that conclusions 1-6 adequately addressed the first objective of this study, which was developed to investigate the importance of food hygiene inspections in capturing contraventions of food law from the views of EHPs enforcing food law in the Northwest of England. Linking this to the objective of the study, it is therefore accepted that food hygiene inspections are important to capture food hygiene contraventions. This implies the importance of conducting a full inspection and disposing of those regulatory interventions that are believed to be ineffective. This is reflected in suggestions EHPs made to improve the inspection process including the implementation of a national standardised inspection form.

8.2.2 The Food Hygiene Rating Scheme (FHRS) is a reliable risk based method to assess compliance

The research objective two which was to investigate EHP perceptions on the impact of the food hygiene rating scheme as a risk strategy tool for enforcement will be used as an evaluative tool to discuss the conclusions of this study.

Conclusion 7: **The display of FHRS should be mandatory for all food businesses**

This conclusion is supported by the work of Vegaris (2015) whose study revealed that enforcement officers, food business and consumers are in favour of a mandatory display of inspection scores. It is further supported by the new draft proposal of the Food Standards Agency (FSA) to make it compulsory for food businesses in England to display their food rating score. It is also supported by the work of the primary data which revealed that all the respondents were in favour of legislation for all food businesses to display the results of their inspection. The implication of this conclusion is that it would provide transparency for consumers to make their decisions about where they want to purchase/eat food. It could also increase food hygiene compliance since food businesses will not want to get a poor food rating score and lose their clientele.

Conclusion 8: **Additional risk factors are needed in order to accurately assess the compliance of a food business**

This conclusion is supported by the findings of this study where the respondents agreed that the concept of the FHRS is a positive impact on moving towards improving standards of food hygiene amongst food businesses with a hope of increasing compliance with food legislation. However, it was thought that the current risk factors identified within the scheme requires improvement. The implication of this conclusion is that developing a food hygiene rating scheme that encompasses elements to capture all risks within a food business is fundamental in order to reduce the incidence of food poisoning. Therefore, the food hygiene rating scheme, although a beneficial to EHPs in terms of, for example, prioritising inspections, in its current state is not a reliable risk based method. The implications for this conclusion is that the current system needs to be amended in order to provide the desired accuracy to assess compliance. This addresses the second objective of the study which was to investigate whether the perceptions of EHPs view the food hygiene rating scheme as a positive tool for enforcement.

8.2.3 To examine the enforcement sanctions currently available to EHPs and whether alternative enforcement tools would be more appropriate.

The research objective three stated above will be used as an evaluative tool to discuss the conclusions of this study.

Conclusion 9: **There is a gender disparity towards prosecution.**

This conclusion is supported by the findings of this study which revealed that males are more likely to undertake a prosecution compared to their female colleagues. This assertion is further supported by the fact that from the four EHPs who had undertaken a prosecution in the last eight years, one was female and three were male. The implication of this is that the demographics of a particular LA may shape the extent to which EHPs are likely to prosecute.

Conclusion 10: **Non-white EHPs and EHPs who have previously worked on other environmental health units have a different outlook towards enforcement and enforcement sanctions.**

This conclusion is supported by the findings of this study which revealed that the two non-white EHPs seemed to have a different attitude towards enforcement style and associated enforcement sanctions compared to their white colleagues. They both mentioned that they did not use formal enforcement tools such as improvement notices and prohibition notices and neither had been involved in a prosecution. In addition, both were in favour of LAs adopting a more educational approach to food enforcement by advocating for officers to spend more time training food handlers and/or the employment of an officer(s) to solely deal with food hygiene training. Furthermore, those respondents who had previously worked in other environmental health areas had views and opinions different to those who had solely worked on the food unit. For example, they thought that warning letters were unwarranted since they were inclined to issue formal notices only.

Conclusion 11: **There are alternative enforcement sanctions that could be beneficial to food law enforcement.**

This conclusion is supported by the findings of this study in that the majority of EHPs believed remedial action notices (RANs) for all types of food businesses, fixed penalty notices (civil sanctions), licensing of food businesses as opposed to registration, would enhance the enforcement toolkit of EHPs. The implication of this conclusion is that an extended enforcement toolkit could benefit EHPs in their enforcement duties and should be introduced into the legislation. It can be argued that conclusions 9-11 adequately address the objective 3 of the study which was developed to investigate whether alternative enforcement tools would assist EHPs in their enforcement duties.

This analysis was carried out by having the EHPs discuss their perspectives of the current enforcement toolkit and that of civil sanctions in terms of usage, practicality and effectiveness.

8.2.4 To investigate EHPs perception of whether a specialist court would be required to deal with food law offences

Conclusion 12: There are barriers that prevent EHPs from taking a prosecution.

This conclusion is supported by Bukowski *et al* (2012), May (2013) and Tombs (2016) who stated that there is a decreasing use of prosecutions among enforcement officers. It is also supported from the primary data in which only four of the respondent EHPs stated that they had been involved in prosecutions within the last eight years. The barriers included inadequate legal training, lack of confidence, fear of failure and the fact that prosecution is a time consuming process. The implication of this conclusion shows that EHPs maybe overlooking relatively serious contraventions.

Conclusion 13: The attitude of magistrates' impact on the penalties given for food hygiene offences.

This conclusion is supported by the findings in this study where a small majority of the respondent EHPs revealed that they are generally dissatisfied with the amount of penalties associated with food law offences and equated it to the relatively nonchalant attitude of the magistrates and inconsistencies within and between magistrates courts dealing with food law cases. The implication of this conclusion is that magistrates may be required to train/retrain in regulatory law particularly food law and how to deal with food hygiene offences.

Conclusion 14: A specialist court to oversee food law offences would be desirable.

There is no literature to support this claim for EHPs responsible for food law enforcement. However, Moran (2005), Adshead and Andrew (2009) and Macrory (2013) make the case for environmental regulations. It is also supported by the primary data in this study which noted that the respondents believed a specialist court would be advantageous over magistrates' court in dealing with food law offences/prosecutions. The implication of this conclusion is that the creation of a specialist court to oversee food law offences could mean that such cases may be handled more effectively, fairly and confidently by personnel who have the technical and legal understanding of food safety legislation in its interpretation and application of food law and policy.

8.2.5 To investigate EHP views regarding their level of training and general working environment in relation to the current economic climate.

The research objective five stated above will be used as an evaluative tool to discuss the conclusions of this study.

Conclusion 14: The current economic climate has had an adverse effect on environmental health departments.

This conclusion is supported by the work of UNISON (2012); NACCHO (2014), CIEH (2015) and Tombs (2016) who concluded that budget cuts have resulted in a shrinking workforce and local government services. It is also supported by the primary data in this study which revealed that staff shortages have resulted in stress, anxiety and unachievable targets. In addition, EHPs reported that they are carrying out fewer food hygiene inspections and their respective LAs are no longer recruiting new officers or student EHPs. The implication of this conclusion is that many LAs will have to adapt to the current economic climate by implementing income generating activities that will bring in additional funds to their depleting resources. In addition, fewer inspections could increase the likelihood of food poisoning outbreaks.

Conclusion 15: EHPs are only partly optimistic about the future of environmental health.

This conclusion is supported by the findings of the primary data where some of the respondent EHPs were hopeful that approaches to food law enforcement and environmental health can be improved and made suggestions in going forward. Other respondents were exploring avenues of alternative employment. The implication of this conclusion is that although environmental health is an important service to sustain the health of the population, financial challenges appear to be threatening its future.

8.3 Recommendations

This study has implications for EHPs who are responsible for enforcing food law as well as the FSA and those responsible for food policy implementation. This research provides an understanding of the challenges EHPs face and the aspects of the current enforcement toolkit and sanctions affect their enforcement duties. Hence this study suggests that policy makers should be aware of the issues that affect food law enforcement so that they can develop the appropriate

strategies. In achieving these statements above, the following recommendations need to be considered:

Recommendation 1: The FSA should identify those regulatory interventions that are impractical and ineffective and eliminate them from the range of interventions available to EHPs.

The aim of this recommendation is to inform the FSA that there are some regulatory interventions that EHPs find ineffective and do not need to be included in the range of controls available to EHPs. In achieving this recommendation, EHPs may no longer need to differentiate between official and non-official controls. The FSA can achieve this aim by setting up consultations with LAs to determine which interventions are beneficial to EHPs in their enforcement duties. The cost of this recommendation are those associated with the consultation process including preparing a consultation document, evaluating responses/feedback and arranging for informational meetings. The benefits to be derived from this recommendation will be a more effective and efficient enforcement protocols.

Recommendation 2: The FSA should develop and implement a food hygiene rating scheme that is capable of capturing all risks within food businesses.

The aim of this recommendation is to enable the FSA to develop a food hygiene rating scheme (FHRS) that will better achieve the FSA's goal of the scheme in reducing the incidence of foodborne illness in the UK. It can be achieved by bringing together a group of specialists from a variety of disciplines such as microbiology, epidemiology, statistics and environmental health to create and develop risk factors and scoring systems that will best assess food business compliance. This will involve research, several meetings and draft proposals. The final proposal can then be piloted in different regions of the UK to test suitability. The cost of this recommendation will be those associated with development, implementation, and monitoring of the research/feedback including human resources to carry out pilot studies. Other costs are those associated with developing surveys, focus group, training employees and the cost of implementing and monitoring the process. The benefits to be derived from this recommendation include standardised inspections due to the consistency in scoring methods and subsequently confidence in the whole inspection process. Other benefits may include reduced incidence of food poisoning, increased compliance and better way of communicating food hygiene issues to food businesses and the public.

Recommendation 3: The mandatory display of food hygiene rating scores should be introduced into the legislation in England.

The aim of this recommendation is to increase food hygiene and safety compliance by making it compulsory for food businesses to display their inspection score. It can be achieved through consultations between the FSA, government, local authorities, food businesses and the general public (consumers). The costs of this recommendation will be those associated with introducing new legislation and include carrying out an impact assessment to assess the costs and potential benefits of introducing the legislation. The benefits to be derived from this recommendation is that it will provide transparency about hygiene standards in food businesses. It will improve food hygiene standards in that food businesses will not want to ruin their reputation and lose their clientele through obtaining a low food hygiene rating score. In addition, adverse publicity may be a more effective deterrent than monetary fines. It is also a way of recognising those food businesses who are always striving to achieve a high level of compliance with the law. An improvement in food hygiene standards may decrease the likelihood of food poisoning incidences. Mandatory display of ratings at premises will also create a level playing field for businesses across the four countries operating the FHRS.

Recommendation 4: Local Authorities should consider developing and implementing electronic standardised inspection forms.

The aim of this recommendation is to enable EHPs within LAs, regions or nationally to achieve consistency in the inspection process. In achieving this recommendation EHPs (whether on a local, or national level) need to agree on how and what contraventions they want to record so that it captures the major hazards within a food business. This will form the basis for a predetermined inspection checklist. The inspection form could be part of the food hygiene rating in a sense that the score will be automatically calculated based on the contraventions found in the business. There will need to be regular meetings and workshops for food safety teams as well as training on the new system for all EHPs. The costs of this recommendation will include cost for electronic device and software, training of EHPs and LAs will need to factor in technical problems such as breakdown/repair costs of system. The FSA will also need to carry out a pilot study. The benefits that could be derived from this recommendation are consistency within and between LAs and this would increase the quality and efficiency of inspections. In addition, the data on the device can be a valuable database for EHPs that can be accessed by other EHPs and LAs in order to obtain

information about a particular food business. This will potentially offer a comprehensive transformation in the inspection process.

Recommendation 5: The FSA should remove the burden of target related performance from local authorities.

The aim of this recommendation is to enable EHPs to carry out quality inspections without the pressure of trying to achieve targets set by the FSA in lieu of an already depleting workforce. In achieving this recommendation, EHPs will be able to spend more time with those businesses that need the most assistance in complying with food legislation. The cost of this recommendation would be negligible. The benefits to be derived from this recommendation less stress and pressure on a dwindling workforce.

Recommendation 6: The FSA should consider extending the enforcement toolkit of LAs to include licensing, civil sanctions and remedial action notices for non-approved premises.

The aim of this recommendation is to extend the EHP enforcement toolkit to ensure food business operators cannot trade unless they are knowledgeable in food safety management (licensing); to enable EHPs to deal with minor and/or repeated regulatory offences without the need for going to court (RANs for non-approved premises and civil sanctions in the form of fixed penalty notices). This can be achieved, in the case of RANs, by extending the current legislation to include non-approved premises. Amendments need to be made to the existing legislation to incorporate licensing and civil sanctions as enforcement tools. Guidance and training on how to use the new toolkit should be given as well as carrying out initial pilot studies. The costs of this recommendation will be those associated with introducing new legislation. The benefits to be derived from this recommendation is that EHPs will have more options and greater flexibility in their enforcement toolkit. Another benefit would be that LAs will have more control over the number of food businesses in their area because food businesses will not be able to trade unless they have a license. In addition, EHPs will not have to spend time preparing court cases since there would not be the need for court involvement in the majority of cases.

Recommendation 7: The FSA and the government should consider an alternative ways of dealing with food hygiene offences.

The aim of this recommendation is to enable LAs to have an outlet in which to deal with food business operators that should be prosecuted. It can be achieved by designating individuals with specialist legal knowledge in food hygiene and safety issues to deal with prosecution cases. The

costs of this recommendation would be costs associated with setting up any new court, board or tribunal. The benefits to be derived from this recommendation would be a more efficient prosecution process for food law enforcement.

Recommendation 8: Local Authorities should concentrate their resources into providing EHPs regular and ongoing consistency training.

The aim of this recommendation is to allow long-term consistency within and between LAs. It can be achieved by developing training courses for EHPs such as seminars, workshops and simulated environments. The costs of this recommendation will be those associated with training courses. The benefits to be derived from this recommendation is that there would be fewer inconsistencies throughout the food law enforcement process.

8.4 Contribution of the study

This study has highlighted the perceptions of EHPs in relation to the enforcement of food legislation. It has particularly taken into account perceptions based factors such as gender, level of experience and those EHPs who had previously worked in other areas of environmental health such as environmental protection, housing and health and safety. The study highlights a gender disparity with regards to prosecution in that males have the tendency to prosecute compared to their female counterparts. This provides an additional insight into of the extent to which a particular gender is predisposed to prosecution. This is an essential insight which the literature does not discuss. It is important to understand why this pattern occurs and so this will require further exploration into the gender identity of the EHP with respect to the propensity to prosecute.

The study also drew the attention to the fact that the more experienced EHPs took less time to carry out inspections than their less experienced counterparts. This adds to the literature and is a significant contribution since the literature does not include the duration of the inspections.

In addition, the study highlighted that there is a high probability that EHPs are more likely to be white compared with any other ethnic group. This means that food businesses are primarily inspected by white EHPs, therefore there may be a cultural disconnection where there is a proliferation of ethnic cuisines. This lack of diversity could also impact on the interactions of food business operators with EHPs who serve the community. The racial profiling of EHPs is not

discussed in the literature and some enforcement sectors such as the police force show how racial profile can be an important aspect of enforcement (Delsol 2015; Menifield *et al* 2019).

The study revealed the support for the food hygiene rating scheme (FHRS) in terms of the idea behind this concept. This major enforcement instrument has flaws which is accentuated by the fact that previous studies are inconclusive in associating, for example, a high food rating score with food handlers who have been trained in food hygiene and those who have not been trained (Murphy *et al* 2013); and also its ability to detect the likelihood that a food business will be implicated in a food poisoning incident (Da Cunha *et al* 2014). Time and energy is being invested into the use of this tool but it does not actually shape the outcomes judging by the views from the respondent EHPs. This study reveals, through the views of the respondents, that the use of the FHRS may not be the best way to assess food business compliance. It is perceived not to provide the desired accuracy to assess compliance even though the benefit may be providing motivation to compliance, the desired effect is not achieved. More efficient mechanisms/procedures may be need to be introduced to complement such a protocol/framework in order to accurately measure compliance.

There is a tendency for environmental health to reduce compliance to simple tools but in reality more complex/sophisticated systems may have to be utilised. Given the fact that less experienced EHPs are spending more time conducting inspections it might be worthwhile looking into systems that are more accurate (rather than elaborate) in order not to burden the EHP for example, carry out a pilot study using the systems such as those employed in the US.

The literature does not discuss the previous role of EHPs from other units of the environmental health departments. There appears to be a variation into the way they think and process the law and communicate the legislation which is not discussed in the literature.

The study also revealed that several EHPs are seeking other academic qualifications in different fields. One would think that they would seek to expand their understanding in the area of environmental health but not the case in this study. The majority of the respondents had acquired a diploma or undergraduate degree from university. Only two of the respondent EHPs had postgraduate degrees and these were the EHPs who had previously worked on other units. None of the respondents possessed a PhD. The literature does not discuss the academic background of EHPs and the way they process the legislation. This could impact on their confidence to go outside

the general remit of their work, for example, contribute to research/studies to understand patterns that may be around them.

8.5 Research Limitations

While this study has provided valuable insights into the enforcement of food legislation, there are some limitations:

- 1) This research was conducted with EHPs working with LAs in the Northwest of England. This means that the results reflect the practices of EHPs in this region and may not reflect EHPs working in other parts of the UK or those employed in the private sector.
- 2) This thesis used qualitative research methods in the form of Skype interviews to collect data. It could be argued that other methods could be used to improve the validity of the research. The results could be different if the study was conducted with a larger number of EHPs.
- 3) The study did not include the opinions of food businesses and consumers. This was beyond the scope of the study due to the location of the researcher.

8.6 Future Research Recommendations

This study has offered adequate insights into the enforcement of food law in England. The findings of the EHPs in the Northwest of England may be regarded as a snapshot which represents the current situation in relation to food law enforcement. To validate the findings of this research LAs within other regions in England and the UK can be studied. In addition, comparative studies could be made with other countries in the UK, European countries or the USA and Canada to obtain a better understanding of this topic and improve validity, reliability and robustness. Such comparative studies can also be carried out with other regulatory areas, for example, health and safety, environmental protection.

From the findings of this research other future studies could also include:

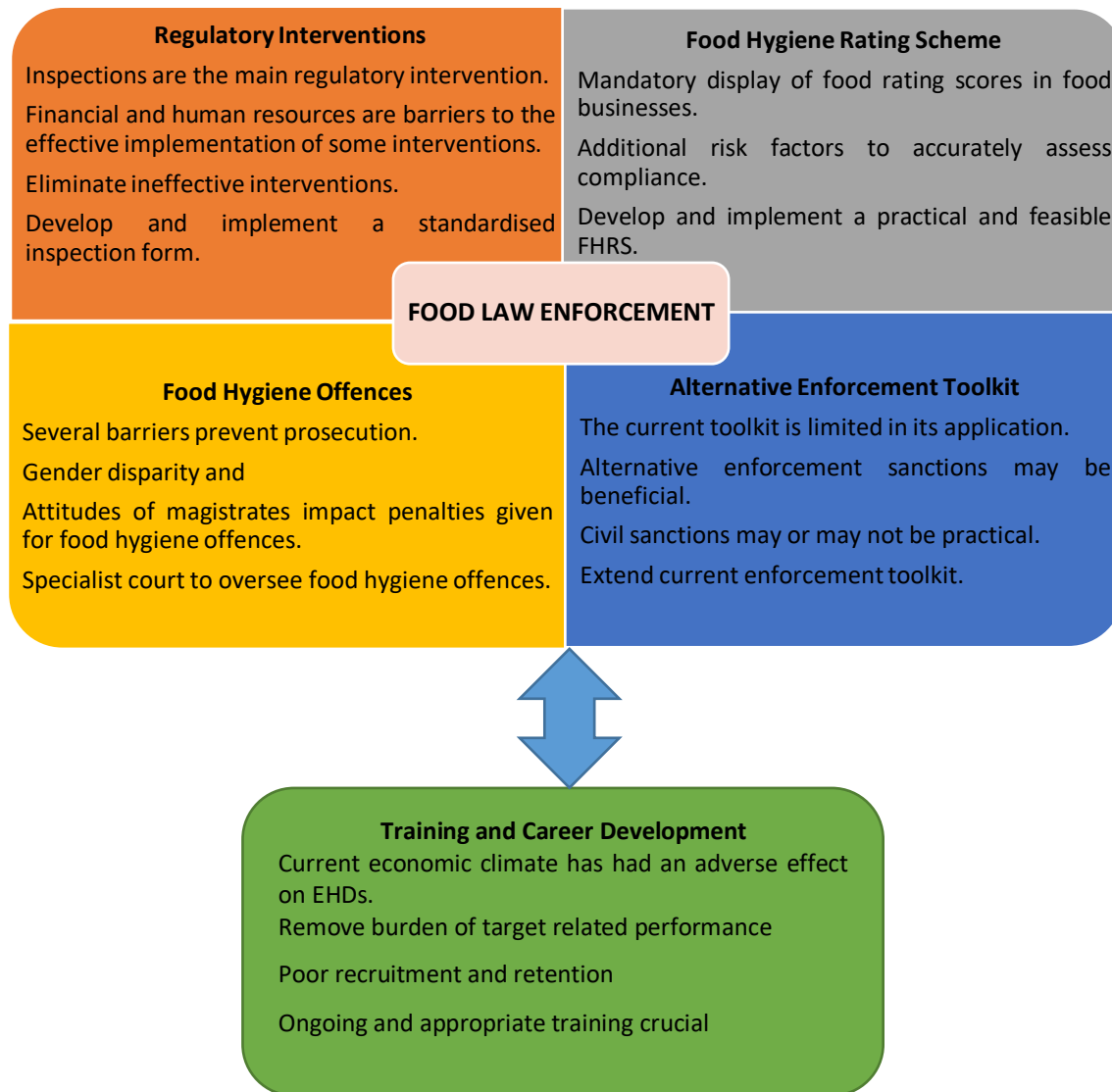
- 1) Examine whether announced or unannounced inspections are associated with compliance.
- 2) Carry out a pilot study for the mandatory display of food hygiene score and observe whether it increases compliance and food poisoning incidence.

- 3) The effects of Brexit on food regulation and enforcement.
- 4) Pilot the introduction of RANs for non-approved premises in England.
- 5) Pilot the introduction of civil sanctions for food law enforcement.
- 6) Implement a pilot standardised food inspection form
- 7) Compare the different weighted scores and mathematical scoring of risk factors of the food hygiene rating schemes.
- 8) Introduce additional demographic factors such as racial profiling and further investigate the effects of gender identity on prosecution and food law enforcement in general.

8.7 Chapter Summary

This chapter has outlined the research aim and objectives for the study and presented how the empirical findings were used to address the objectives. It also presented key conclusions and recommendations that address the objectives and contribution of the research (summarised in Figure 8.1). The limitations of the study and area for future research were also discussed in this chapter.

Figure 8.1 Summary of Conclusions and Recommendations



References

- Abels, G. and Kobusch A. (2010). Regulation of food safety in the EU: Changing patterns of multi-level governance. Paper presented at the Conference on Regulatory Governance, June 17-19, 2010, University College Dublin.
- Adler, M.D. (2009). Regulatory theory: A companion to philosophy of law and legal theory. Public Law Research Paper 10-07: 590-606.
- Adshead, J. and Andrew, T. (2009). Environmental Crime and the Role of Magistrates RICS COBRA Research Conference, University of Cape Town, 10-11th September 2009.
- Agnoli, L., Capitello, R., de Salvo, M., Lango, A. and Bueri, M. (2016). Food fraud and consumers' choices in the wake of the horsemeat scandal. *British Food Journal* 118(8): 1198-1913.
- Allen, R.E.S. and Wiles, J.L. (2015). A rose by any other name: Participants choosing research pseudonyms. *Qualitative Research in Psychology* 13(2): 149-165.
- Almanza B.A., Ismail J. and Mills J.E. (2002). The impact of publishing foodservice inspection scores. *Journal of Foodservice Business Research* 5(4) 45-62.
- Alomirah, H.F., Al-Zenki, S.F., Sowaya, W.N., Jabshel, F., Husain, A.J., Mazeedi, H.M., Al-Kandari, Jukes, D. (2010). Assessment of the food control system in the state of Kuwait. *Food Control* 21(4) 496-504.
- Alvseike, O., Røssvoll, E., Røtterud, O.J., Nesbakken, T., Skjerve, E. Prieto, M., Sanberg, M., Johannessen, G., Okland, M., Urdah, A.M. and Hauge, S.J. (2019). Slaughter hygiene in European cattle and sheep abattoirs assessed by microbiological testing and hygiene performance rating. *Food Control* 10: 233-240.
- Archibald, C. (2007) FSA 'should iron out bugs'. *Environmental Health News* 22(6).
- Ayres, I. and Braithwaite, (1992). Responsive regulation: Transcending the deregulation debate. Oxford University Press, UK.
- Baldwin, R. (2014). From regulation to behaviour change: giving nudge the third degree. *The Modern Law Review* 77(6): 831-857.

Baldwin, R. and Black, J. (2016). Driving priorities in risk-based regulation: what's the problem? *Journal of Law and Society* 43 (4): 565-595.

Baldwin, R. and Cave, M. (1999). *Understanding regulation: Theory, strategy and practice*. Oxford University Press, Oxford.

Baldwin, R., Cave, M. and Lodge, M. (2012). *Understanding regulation: Theory, strategy and practice*. Oxford University Press, Oxford.

Banister, P., Bunn, G., Burman, E., Daniels, J., Duckett, P., Goodley, D., Lawthom, R., Parker, I., Runswick-Cole, K., Sixsmith, J., Smailes, S., Tindall, C. and Whelan, P. (2011). *Qualitative methods in psychology*. Open University Press, UK.

Barbour, R. (2014). *Introducing qualitative research: A student's guide*. Sage Publications, London.

Bardach, E. and Kagan, R. (2017). *The problem of regulatory unreasonableness: Going by the book*. Routledge, Oxon UK.

Barlow, S.M., Boobis, A.R., Bridges, J., Cockburn, A., Dekant, W., Hepburn, P., Houben, G.F., Konig, J., Nauta, M.J., Schuermans, J. and Banati, D. (2015). The role of hazard and risk based approaches in ensuring food safety. *Trends in Food Science & Technology* 46: 176-188.

Bartle, I. and Vass, P. (2007). Self-regulation within the regulatory state: towards a new regulatory paradigm. *Public Administration* 85(4): 885-905.

Battersby, S. (2017). *Clay's Handbook of Environmental Health*. Routledge, London.

Becker, G.S. (1968). Crime and punishment: an economic approach. *The economic dimensions of crime*. Palgrave Macmillan UK 13-68.

Becker, G.S. (1974). A theory of social interactions. *Journal of Political Economy* 82(6): 1063-1093.

Becker, G.S. (1983). A theory of competition among pressure groups for political influence. *The Quarterly Journal of Economics* 98(3): 371-400.

Better Regulation Executive (2018). *Better regulation framework: Guidance for government officials*.

- Better Regulation Task Force (2005). Regulation less is more: Reducing burdens, improving outcomes. A BRTF Report to the Prime Minister.
- Black, J. (2002). Critical reflections on regulation. London School of Economics and Political Science.
- Black, J. and Baldwin, R. (2012). When risk-based regulation aims low: approaches and challenges. *Regulation and Governance* 6 (1): 2-22.
- Black, J. and Baldwin, R. (2016). Driving priorities in risk based regulation: What's the problem? *Journal of Law and Society* 43(4): 565-595.
- Black, J. (2014). Learning from regulatory disasters. LSE Law, Society and Economy Working Papers 24/2014.
- Blackstone, A. (2012). Principles of sociological inquiry: Qualitative and quantitative methods.
- Blanc, F. (2012). Inspection reforms: why, how and with what results. OECD.
- Bleasdale Hill, L.K. and Dickinson, J. (2016). Dangerous dogs: different dog, same lamppost? *Journal of Criminal Law* 80 (1): 64-76.
- Bocher, M. (2011). A theoretical framework for explaining the choice of instruments in environmental policy. Forest Policy and Economics. Elsevier.
- Bonde, D. (2013). Qualitative interviews: When enough is enough. Retrieved from: http://www.raptureconsulting.com/uploads/2/4/3/8/24380515/how_many_qualitative_interviews.pdf
- Borck, J.C. and Coglianese, C. (2011). Beyond compliance: Explaining business participation in voluntary environmental programs. U of Penn, Inst for Law & Econ Research Paper No. 12-04; U of Penn Law School, Public Law Research Paper No. 12-06.
- Borges, M.R. (2017). Regulation and regulatory capture. World Academy of Art and Science.
- Bowden, P., Robinson, W., Shelling, T. and Linders, W. (2008) EU Food Law

- Bradford-Knox, R. and Kane, K. (2014). Safe and local supplier approval: a case study of the third party supplier approval scheme for micro and small food businesses. *International Journal of Management and Applied Research* 1(1): 30-47.
- Braithwaite, V., Braithwaite, J., Gibson, D. and Makkai, T. (1994). Regulatory Styles, Motivational Postures and Nursing Home Compliance. *Law and Policy* 16(4) 363-394.
- Braithwaite, J., Coaglianese, C and Levi-Faur, D. (2007). Can regulation and governance make a difference? *Regulation and Governance* 1(1): 1-7.
- Braithwaite, J. (2011). The essence of responsive regulation. *Law Review* 43(3): 475-520.
- Braithwaite, V. (2012). A regulatory approach to support the core functions of the Australian Charities and Not-for-profit Commission Regulatory Institutions Network Australian National University Paper prepared for the Australian Charities and Not-for-profit Commission Taskforce.
- J. Braithwaite (2017). 'Types of Responsiveness' in P. Drahos (ed.) *Regulatory Theory: Foundations and Applications*. ANU Press, Canberra.
- Braithwaite, J. (2018). Minimally sufficient deterrence. *Criminal Justice and behavior* 47(1): 69-118.
- Brar, K.K. (2016). Analysing interrelationships between food safety practices and inspections among food staff in Manitoba. Walden University.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.
- Brinkmann, S. and Kvale, S (2018). *Doing interviews*. Sage Publications, UK.
- Brown, J. (2018). The regulatory gift: Politics, Regulation and governance. *Regulation and Governance* 46(4): 109-125.
- Bryman, A. (2012). *Social Research Methods*. Oxford University Press, Oxford.
- Bryman, A. and Allen, E. (2011). *Business research methods*. Oxford University Press, Oxford.
- Bryman, A. and Bell, E.A. (2015). *Business Research Methods*: Oxford University Press, Oxford.

Bryman, A. and Bell, E.A., (2016). *Social Research Methods: Canadian Edition*. Oxford University Press.

Buckley, M. and Reid, A. (2010). *Global food safety: keeping food safe from farm to table*. American Academy of Microbiology, Washington

Buckley, J.A. (2015). Food safety regulation and small processing: A case study of interactions between processors and inspectors. *Food Policy* 51: 74-82.

Buckley, J. (2016). Interpersonal skills in the practice of food safety inspections: A study of compliance assistance. *Journal of Environmental Health* 79(5): 8-12

Bukowski, G., Boal, N. and Tavakoli, L. (2012). Qualitative review of food safety regulatory decision making. Ipsos MORI report for the Food Standards Agency.

Burke, A., Manes, M.R., Lui, L. and Dworkin, M.S. (2011). Do certified food manager knowledge gaps predict critical violations and inspection scores identified during local health department restaurant inspections? *Food Protection Trends* 31(2): 101-110.

Carpenter, D. and Moss, D. (2013). *Preventing regulatory capture: special interest influence and how to limit it*. Cambridge University Press, New York.

Carr, C.T. (2016). *Delegated legislation*. Cambridge University Press, UK.

Carrigan, C. and Coglianese, C. (2016). Capturing regulatory reality: Stiger's the theory of regulation. Faculty Scholarship Paper 1650. Penn Law: Legal Scholarship Repository.

Cartwright, P. (2012). Publicity, punishment and protection: the roles of adverse publicity in consumer policy. *Legal Studies* 32(2): 179-201.

Castro, D. (2011) Benefits and limitations of industry self-regulation for online behavioral advertising the information technology & innovation foundation.

Cater, J.K. (2011). Skype: A cost-effective method for qualitative research. *Rehabilitation Counsellors & Educators Journal* Volume 4(2): 3.

Chartered Institute of Environmental Health (2013). Report on phase 1 of the CIEH workforce survey and other similar intelligence sources.

- Chalmers, J. and Leverick, F. (2018). Criminal law in the shadows: Creating offences in delegated legislation. *Legal Studies* 38(2): 221-241.
- Charalambous, M., Fryer, P.J., Panayides, S. and Smith, M. (2015). Implementation of food safety management systems in small food businesses in Cyprus. *Food Control* 57: 70-75.
- Chenail, R.J. (2011). Interviewing the investigator: strategies for addressing instrumentation and researcher bias concerns in qualitative research. *The Qualitative Report* 16(1): 255-262.
- Choi, J., Nelson, D.C. and Almanza, B. (2011). The impact of inspection reports on consumer behaviour: a pilot study. *Food Control* 22(6): 862-868.
- Choi, J. and Almanza, B. (2012). Health inspectors' perceptions of the words used to describe violations. *Food Protection Trends* 32(1):26-33.
- Choi, J., Miao, L., Almanza, B. and Nelson, D.C. (2013). Consumers' responses to restaurant inspection reports: the effects of information source and message style. *Journal of Food Service Business Research* 16 (3): 255-275.
- Choi, J. and Scharff, R. (2017). Effect of a publicly accessible disclosure system on food safety inspection scores in retail and food service establishments. *Journal of Food Protection* 80(7): 1188-1192.
- Choy, L.T. (2014). The strengths and weaknesses of research methodology: comparison and complimentary between qualitative and quantitative approaches. *Journal of Humanities and Social Science* 19(4): 99-104.
- Christensen, J.G. (2010). 'Competing theories of regulatory governance: reconsidering public interest theory' in D. Levi-Faur (ed) *Handbook on the Politics of Regulation*. Edward Elgar Publishing, Cheltenham UK: 96-110.
- Codex Alimentarius (2009): Food Hygiene (basic texts), Rome, FAO. Fourth edition.
- Coffe, J.C. (2007). Law and the market: the impact of enforcement. The Centre for Law and Economics Studies, Columbia Law School, Working Paper No. 304.
- Coglianesi, C. (2012). Measuring regulatory performance: Evaluating the impact of regulation and regulatory policy. OECD.

- Coglianesi, C. (2017). The limits of performance-based regulation. *University of Michigan Journal of Law Reform* 50(3): 525-563.
- Collis, J. and Hussey, R. (2014). Business research: A practical guide for undergraduate and postgraduate students. Macmillan, UK.
- Cooper, D.R. and Shindler, P.S. (2011). Business research methods. McGraw-Hill, Boston USA.
- Coslovsky, S., Pires, R and Silbey, S. (2010). The Pragmatic Politics of Regulatory Enforcement Jerusalem Papers in Regulation & Governance. Working Paper No.29
- Crane, D.A. (2016). Tesla, dealer franchise laws, and the politics of crony capitalism. *Iowa Law Review* 101: 573-607.
- Cresswell, J.W. (2009). Research design: Qualitative, quantitative, and mixed method approaches. Sage Publications, CA.
- Cresswell, J.W. (2013). Qualitative inquiry and research design: Choosing among five approaches. Sage Publications, USA.
- Creswell, J.W. and Plano-Clark, V.L. (2007). Designing and conducting mixed methods research. Sage Publications, CA.
- Creswell, J.W. and Plano-Clark, V.L. (2011). Designing and conducting mixed methods research. Sage Publications, CA.
- Croley, S. (2008). Regulation and public interests: the possibility of good regulation government. Princeton University Press, New Jersey USA.
- Croley, S.P. (2011). 'Beyond capture: Towards a new theory of regulation' in D. Levi-Faur (ed) *Handbook on the Politics of Regulation*. Edward Elgar Publishing, UK: 50-69.
- Crotty, M. (2015). The foundations of social research. Sage Publications, London.
- Da Cunha, D.T., De Oliveira, A.B.A., Tondo, E.C. and Stedefeldt, E. (2014). Food safety of food services within the destinations of the 2014 FIFA World Cup in Brazil: development and reliability assessment of the official evaluation instrument. *Food Research International* 57: 95-103.

- Da Cunha, D.T., De Rosso, V.V. and Stedefeldt, E. (2016). Should weights and risk categories be used for inspection scores to evaluate food safety in restaurants. *Journal of Food Protection* 79(3): 501-506.
- DaCunha, D.T., DeFreitas Saccol, A.L., Tondo, E.C., DeOliveira, A.B.A., Ginani, A.C., Araujo, C.V., Lima, T.A.S., DeCastro, A.K.F. and Stedefeldt, E. (2016). Inspection score and grading system for food services in Brazil: the results of a food safety strategy to reduce the risk of foodborne diseases during the 2014 FIFA World Cup. *Frontiers in Microbiology Volume 7 Article 614*.
- Dai, D., Wang, M., Yand, Y. and Goug, S. (2019). Food safety in restaurants: The consumer perspective. *International Journal of Hospitality* 77: 139-146.
- Deakin, H. and Wakefield, K. (2013). Skype interviewing: reflections of two PhD researchers. *Qualitative Research* 14(5): 603-616
- Dechenaux, E. and Samuel, S. (2014). Optimal Fines under Announced and Surprise Inspections. *European Journal of Political Economy* 18(5): 786-801.
- Delsol, R. (2015). Racial profiling. *Criminal Justice Matters* 10(1): 34-35.
- Demeritt, D., Rothstein, H., Beaussier, A.L. and Howard, M. (2015). Mobilizing risk: explaining policy transfer in food and occupational safety regulation in the UK. *Environment and Planning a* 47: 373 – 391.
- Den Hertog, J. (2010). Review of economic theories of regulation. Working Papers 10-18. Utrecht School of Economics.
- Den Hertog, J. (2012). ‘Economic theories of regulation’ in R.J Van Den Burgh and A.M Paces (eds) *Regulation and Economics*. Edward Elgar Publishing, UK.
- Denscombe, M. (2014). *The good research guide: for small scale social research projects* Open University Press, Maidenhead, England.
- Denzin, N.K. and Lincoln, Y.S. (2011). *The handbook of qualitative research*. Sage Publications, CA.

- Dhami, M.K. (2013). Sentencing guidelines in England and Wales: Missed opportunities. *Law and Contemporary Problems* 76(1): 289-307.
- Dobinson, I. and John, F. (2017). 'Legal research as qualitative research' in M.McConville and W.H. Chui (eds) *Research Methods for Law*. Edinburgh University Press, UK: 18-47.
- Domenech, E., Amorós, J.A., Peréz-Gonzalvo, M. and Escriche, I. (2011). Implementation and effectiveness of the HACCP and prerequisites in food establishments. *Food Control* 22(8): 1419-1423.
- Draper, A. (2016). The use of food hygiene rating schemes. Food Standards Agency.
- Driscoll, D.L. (2011). Introduction to primary research: Observations, surveys and interviews. *Writing Spaces: Readings on Writings* 2: 153-174.
- Dür, A. (2018). How interest groups influence public opinion: Arguments matter more than the sources. *European Journal of Political Research* 58(2): 514-535.
- Earnhart, G.H. and Glicksman, R.L. (2015). Coercive vs cooperative enforcement: effect of enforcement approach on environmental management. *International Review of Law and Economics* 42: 135-146.
- Easterby-Smith, M., Thorpe, R. and Jackson, P. (2015). *Management and Business Research*. Sage Publications, London UK.
- Einhorn E. (2010). 'Restaurants dishing up phony letter grades in wake of new sanitation policy'. *New York Daily News*. 5 September 2010.
- Ekpu, V.U and Brown, A.K. (2015). The economic impact of smoking and reducing smoking prevalence: Review of evidence. *Tobacco Use Insights* 8: 1-35.
- Eliot, C. (2014). Review into the integrity and assurance of food supply networks: final report – a national food crime prevention framework. HM Government.
- Elo, S., Kääriäinen, M., Outi, K., Pölkki, T., Utriainen, K., and Kyngäs, H. (2014). *Qualitative content analysis: A focus on trustworthiness*. Sage.
- Epstein, L. and Martin, A.D. (2014). *An introduction to empirical legal research*. Oxford University Press, UK.

- Etienne, J. (2011). Compliance theory: a goal framing approach. *Law and Policy* 33(3): 305-333
- Etienne, J. (2015). Studying consistency in regulatory work: concepts and options. London School of Economics and the Food Standards Agency.
- Etienne, J. Munnick, M., Dzakula, J. and Shah, H. (2015). Post-implementation study of the introduction of remedial action notices (RANs) for non-approved businesses in Scotland, Wales and Northern Ireland. Food Standards Agency.
- Etikan, I., Musa, S.A. and Alkassim, R.S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics* 5(1): 1-4.
- Faure, M.G. and Svatikova, K. (2012). Criminal or administrative law to protect the environment? Evidence from Western Europe. *Journal of Environmental Law* 24(2): 253-286.
- Feilzer, M.Y. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research* 4(1): 6-16.
- Filion K, Powell DA. (2009). The use of restaurant inspection disclosure systems as a means of communicating food safety information. *Journal of Foodservice* 20(6): 287-297.
- Filion, K. and Powell D.A. (2011). Designing a national restaurant inspection disclosure system for New Zealand. *Journal of Food Protection* 74(11):1869-74.
- Fleetwood, J., Rahman, S., Holland, D., Millson, D., Thomson, L. and Poppy, G. (2019). As clean as they look? Food inspection scores, microbiological contamination and foodborne illness. *Food Control* 96: 67-86.
- Flick, U. (2015). *Introducing research methodology: A beginner's guide to doing a research project*. Sage Publications, London.
- Food Standards Agency (2009) *Food Safety Act 1990 – A Guide for Food Businesses*
- Food Standards Agency (2015). *Annual report on UK local authority food law enforcement 1st April 2014 to 31st March 2015*.
- Food Standards Agency Wales (2015). *Review of the Implementation and Operation of the Statutory Food Hygiene Rating Scheme in Wales and the Operation of the Appeals System*.

Food Standards Agency (2016). The food hygiene rating scheme: guidance for local authorities on implementation and operation – the brand standard.

Food Standards Agency (2017). The Food Law Code of Practice.

Fortin, N. (2017). Food regulation: Law, science, policy and practice. Wiley, Canada.

Francis, J.J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, E., Eccles, M.P. and Grimshaw, J.M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Journal of Psychology and Health* 25(10): 1229-1245.

Fukuda, K. (2015). Food safety in a globalised world. *Bulletin of the World Health Organisation* 93(4): 212.

Fusch, P.I. and Ness, L.R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report* 20(9): 1408-1416.

Gaffikin, M. (2005). Regulation as accounting theory. Accounting and Finance Working Papers. University of Wollongong.

Ganz, G. (1997). 'Delegated legislation: a necessary evil or a constitutional outrage' in P. Leyland and T. Woods (eds) *Administrative law facing the future: Old constraints and new horizons*. Oxford University Press.

Godfrey, A. (2016). Growth with purpose: building an inclusive community. Chartered Institute of Environmental Health, UK.

Grant, D. (2018). Realism. Routledge, New York.

Gray, W.B. and Shimshack, J.P. (2011). The effectiveness of environmental monitoring and enforcement: a review of the empirical evidence. *Environmental Economics and Policy* 5(1): 3-24.

Gray, W.B. and Shadbegian, R.J. (2005). When and why do plants comply? Paper mills in the 1980s. *Law and Policy* 27(2): 238-261.

Gray, W.B., Shadbegian, R.J., Ronald, J., Wang, C. and Meral, M. (2014). Do EPA regulations affect labour demand? Evidence from the pulp and paper industry. *Journal of Environmental Economics and Management* 68(1): 188-202.

- Gray, G.C., and S.S. Silbey (2014). Governing inside the organization: interpreting regulation and compliance. *American Journal of Sociology* 120(1): 96–145.
- Gray, D.E. (2018). Doing research in the real world. Sage Publications, UK.
- Green, L.G. and Selman, C. (2005). ‘Environmental Health Specialists’ practices and beliefs concerning restaurant inspections’. Presented at the 92nd Annual International Association for Food Protection Baltimore, MD, August 14-17, 2005.
- Green, R.M. and Kane, K. (2014). The effective enforcement of HACCP based food safety management systems in the UK. *Food Control* 37: 257-262.
- Green, J. and Thorogood, N. (2018). Qualitative methods for health research. Sage Publications, London.
- Griffith, C.J. (2010). Do businesses get the food poisoning they deserve? *British Food Journal* 112(4): 416 – 425
- Griffiths, C.J. (2014). Developing and maintaining a positive food safety culture. Highfield Publications, UK.
- Griffiths, C.J. and Redmond, F. (2014). Principles of food safety training and health education in the encyclopedia of food safety. Elsevier Oxford UK.
- Griffiths, C.J., Jackson, L.M. and Lues, R. (2017). The food safety culture in a large South African food service complex: Perspectives on a case study. *British Food Journal* 119(4): 729-743.
- Grimshaw, J.M. (2010). What is adequate sample size? Operationalising data saturation for theory-based interview studies’, *Psychology and Health*, 25: 1229-45.
- Grossoehme, D.H. (2014). Research methodology overview of qualitative research. *J Health Care Chaplain* 20(3): 109-122.
- Guest, G., Bunce, A. and Johnson, L. (2006). How many interviews are enough? *Field Methods* 18(1): 59-82.
- Guhl, N. and Hughes, D.W. (2006). Cigarette smoking and market failure: A determination of the economically efficient cigarette tax rate. B Quest Research Articles.

- Gunningham, N., Thornton, D. and Kagan, R.A. (2007). 'Motivating management: Corporate compliance in environmental protection' in F. Haines *Crime and Regulation*. Routledge, London.
- Gunningham, N. (2011). Enforcing environmental regulation. *Journal of Environmental Law* 23(2): 169-201.
- Gunningham, N. (2015a). Compliance and enforcement of environmental regulation: what makes an excellent regulator? Discussion Paper for the Penn Program on Regulation's International Expert Dialogue on Defining and Measuring Regulatory Excellence. March 19-20, 2015
- Gunningham, N. (2015b). 'Compliance, deterrence and beyond' in Lee Paddock *Environmental Law*. Edward Elgar Publishing, UK.
- Gunningham, N. (2017). Compliance, enforcement, and regulatory excellence. RegNet Research Paper No.124.
- Hadjichristodoulou, C., Varzakas, T.H., Arvanitoyannis, I. (2008). Standardised inspections of food premises during the 2004 Athens Olympic Games: descriptive analysis and risk factors for unsatisfactory results. *Journal of Food Protection* 71(8): 1632-1640.
- Hagaman, A.K. and Wutich, A. (2017). How many interviews are enough to identify metathemes in multisited and cross-cultural research? Another perspective on Guest, Bunce and Johnson's 2006 landmark study. *Field Methods* 29(1): 23-41.
- Hakansson, A. (2013). Portal of Research Methods and Methodologies for Research Projects and Degree Projects. International Conference on Frontiers in Education: Computer Science and Computer Engineering.
- Hale, A., Borys, D. and Adams, M. (2011). Regulatory overload: a behavioural analysis of regulatory compliance. Working Paper 11-47.
- Hampton P (2005). Reducing administrative burdens: inspections and enforcement. HM Treasury. HMSO Norwich.
- Harlow, C. and Rawlings, R. (2009). Law and Administration. Cambridge University Press, UK.

- Harris, K. and Murphy, K.S. (2015). Food safety inspection results: a comparison of ethnic operated restaurants and non-ethnic operated restaurants. *International Journal of Hospitality Management* 46: 190-199.
- Harris, K.J., Hanks, L., Line, N.D. and McGinley, S. (2017). Understanding responses to posted restaurant food safety scores: An information processing and regulatory focus perspective. *International Journal of Hospitality Management* 60: 67-76.
- Haukijarvi, V. and Lunden, J. (2017). Does waiving preventive food control inspections in Finland weaken the prerequisites for safe food handling in restaurants? *Food Control* 71: 187-192
- Havinga, T. and Van Waarden (2013). Enforcing compliance with food regulations: modalities in the relationship between public enterprise agencies and private parties. Amsterdam University Press.
- Havinga, T. and Verbruggen, P. (2017). Understanding complex governance relationships in food regulation. *Annals of the American Academy of Political and Social Science* 670(1): 58-77.
- Hay-Gibson, N.V. (2009). Interviews via VoIP: Benefits and disadvantages within a PhD study of SMEs. *Library and Information Research* 33(105): 39-50.
- Hazzi, O. and Maldaon, I. (2015). A pilot study: Vital methodological issues. *Business Theory and Practice* 16(1): 53-62.
- Hennink, M.M., Kaiser, B.N. and Marconi, V.C. (2016). Code saturation versus meaning saturation: How many interviews are enough? *Qualitative Health Research* 27(4): 591-608.
- Hibbert, T. and Bulloch, A. (2007). Interim Findings of an Evaluation of the Impact and Effectiveness of “Scores on the Doors” for the “Scores on the Doors” User Group, School of Applied Sciences, Northumbria University.
- Ho, D.E. (2010). Fudging the Nudge: Information Disclosure and Restaurant Grading. *The Yale Law Journal* 122: 574-668.
- Hoag, M.A., Porter, C., Uppala, P.P. and Dyjack, D.T. (2007). A risk based food inspection program. *Journal of Environmental Health* 69(7): 33-36.

- Holley, R.A. (2010). Smarter inspection will improve food safety in Canada. *Canadian Medical Association Journal* 182(5): 471-473.
- Holley, C. and Sinclair, D. (2017). 'Enforcement strategies: inspection, targeting and escalation' in M. Faure *Environmental Law*. Edward Elgar Publishing, UK: 101-113.
- Holloway, I. (2008) A-Z of Qualitative Research in Nursing and Healthcare. Wiley-Blackwell, Chichester, UK.
- Hood, C., Rothstein, H. and Baldwin, R. (2001). The government of risk: Understanding risk regulation regimes. Oxford University Press, UK.
- Howlett, M. and Newman, J. (2013). After the regulatory moment in comparative regulatory studies: modelling the early stages of regulatory life cycles. *Journal of Comparative Policy Analysis: Research and Practice* 15(2): 107-121.
- Hutcheson, G. and Longhurst, R. (2017). At least in person there would have been a cup of tea: interviewing via Skype. *Royal Geographical Society* 49(2): 148-155.
- Hutter, B. and Amodu, T. (2008). Risk Regulation and Compliance: Food Safety in the UK. London School of Economics and Political Science.
- Hutter, B.M. and Bostock, S.L. (2017). Regulatory crisis. Cambridge University Press. UK.
- Hutton, W. and Schneider, P. (2008). The failure of market failure. Towards a 21st century Keynesianism. NESTA.
- Hyde, D. (2014). 'Mortgage clampdown is too late and too harsh'. The Telegraph. 28th April 2014.
- Idowu, O.E. (2016). Positivism versus interpretivism: fire-war on the methodological approach in the study of organisational culture. *International Journal of Human Resource Studies* 6(4): 178-187.
- Jackson, J., Bradford, B., Hough, M., Myhill, A., Quinton, P. and Tyler, T.R. (2012) Why do people comply with the law? Legitimacy and the influence of legal institutions. *British Journal of Criminology* 52 (6): 1051-1071.

- Janghorban, R., Roudsari, R.L. and Taghipour, A. (2014). Skype interviewing: The new generation of online synchronous interview in qualitative research. *International Journal of Qualitative Studies on Health and Well-being* 9(1): 241-52.
- Jenkins, H. (2011). 'Let's restart the green revolution'. Wall Street Journal. 2 February.
- Jianu, C. and Golet, I (2014). Knowledge of food safety and hygiene and personal hygiene practices among meat handlers operating in Western Romania. *Food Control* 42: 214-219.
- Jin, G.Z. and Lee, J. (2009). Reputational Incentives for Restaurant Hygiene. *American Economic Journal: Microeconomics* 1(1): 237-267.
- Jin, G.Z. and Lee, J. (2014). Inspection technology, detection, and compliance: evidence from Florida restaurant inspections. *The RAND Journal of Economics* 45(4): 885-917.
- Jin, G.Z. and Lee, J. (2018). A tale of repetition: lessons from Florida restaurant inspections. *The Journal of Law and Economics* 61(1): 159-188.
- Jin, J.Z. and Leslie, P. (2003). The effect of information on product quality: evidence from restaurant hygiene grade cards. *Quarterly Journal of Economics* 118(2): 409-451.
- Jones, T.F. and Grimm, K. (2008). Public Knowledge and Attitudes Regarding Public Health Inspections of Restaurants. *American Journal of Preventative Medicine* 34(6): 510-513.
- Jones, S.L., Parry, S.M., O'Brien, S.J. and Palmer, S.R. (2008) Are Staff Management Practices and Inspection Risk Ratings Associated with Foodborne Disease Outbreaks in the Catering Industry in England and Wales. *Journal of Food Protection* 71(3): 550-557.
- Jones, A.K., Cross, P., Burton, M., Millman, C., O'Brien, S.J. and Rigby, D. (2017). Estimating the prevalence of food risk increasing behaviours in UK kitchens. *Plus One* 12(6): 1-17.
- Jones, D. (2018). A cross-sectional study of the economic impact of posting restaurant ratings: UK and US experience in T, Roberts *Food Safety Economics*. Springer, UK. 67-80.
- Jouve, J.L. (1998) Principles of Food Safety Legislation. *Food Control* 9(2/3): 75-81.
- Johnson, B. and Christensen, L. (2010) Educational Research: Quantitative, Qualitative, and Mixed Approaches. UK: SAGE.

- Jordana, J. and Levi-Feur, D. (2004). *The Politics of Regulation: Examining Regulatory Institutions and Instruments in the Governance Age*. Edward Elgar Publishers, UK.
- Kafetzopoulous, D.P., Psomas, E. and Kafetzopoulous, P.D. (2013). Measuring the effectiveness of the HACCP food safety management system. *Food Control* 33(2): 505-513.
- Kagan, R.A. (1989). Understanding regulatory enforcement. *Law and Policy* 11(2): 89-119.
- Kagan, R.A. (1994). 'Regulatory Enforcement' in D.H. Rosenbloom and R.D. Schwartz (eds) *Handbook of regulation and administrative law*. Marcel Decker, New York.
- Kagan, R.A., Gunningham, N. and Thorton, D. (2011). 'Fear, duty and regulatory compliance: Lessons from three research projects' in C. Parker and V.L Nielsen (eds) *Explaining Compliance*. Edward Elgar Publishing, Cheltenham, UK: 37-58.
- Kang, J.S., Kuznetsova, P., Choi, Y. and Luca, M. (2013a). Using Text Analysis to Target Government Inspections: Evidence from Restaurant Hygiene Inspections and Online Reviews. Working Paper 14-007
- Kang, J.S., Kuznetsova, P., Luca, M. and Choi, Y. (2013b). 'Where not to eat? Improving public policy by predicting hygiene inspections using online reviews'. Conference on Empirical Methods in Natural Language Processing. October 2013. Seattle, Washington USA: 1442-1448.
- Kemparaj, U. and Chavan, S. (2013). Qualitative research: a brief description. *Indian Journal of Medical Sciences* 67(3): 89-98.
- Kerr, C., Nixon, A. and Wild, D. (2010). Assessing and demonstrating data saturation in qualitative inquiry supporting patient-reported outcomes research. *Expert Review of Pharmacoeconomics & Outcomes Research* 10(3): 269-81.
- Kettunen, K., Nevas, M. and Lunden, J. (2015). Effectiveness of enforcement measures in local food control in Finland. *Food Control* 56: 41-46.
- Kim, Y. (2011). The pilot study in qualitative inquiry identifying issues and learning lessons for culturally competent research. *Qualitative Social Work* 10(2): 190-206.

Kinchin, G., Ismail, N. and Edwards, J.A. (2018). Pilot study, does it really matter? Learning lessons from conducting a pilot study for a qualitative PhD thesis. *International Journal of Social Science Research* 6 (1).

Klerks, M.C.J.L., Ketelaars, C.A.J. and Robben, P.B.M. (2013). Unannounced, compared with announced inspections: a systematic review and exploratory study in nursing homes. *Health Policy* 111: 311-319.

Knight, A.J., Worosz, M.R. and Todd, E.C.D. (2009). Dining for safety: consumer perceptions of food safety and eating out. *Journal of Hospitality and Tourism Research* 33(4): 471-486.

Knox, R.B., Kane, K. and Neighbour, S. (2016). Approaches to food safety hazard control and risk management: A case study of Preston City Council's food safety compliance strategy. *International Journal of Management and Applied Research* 3(1): 14-29.

Ko, K., Mendeloff, J. and Gray, W. (2010). The role of inspection sequence in compliance with the US Occupational Safety and Health Administration's (OSHA) standards: interpretations and implications. *Regulation and Governance* 4: 48-70.

Kothari, C.R. (2008). Research methodology, methods and techniques. New Age International Publishers, New Dehli.

Kumar, R. (2011). Research methodology: A step by step guide for beginner's. Sage Publications, London.

Kvale, S. and Brinkman, S. (2009). Interviews: Learning the craft of qualitative research interviewing. Sage Publications, CA.

Laikko-Roto, T. and Nevas, M. (2014). Restaurant business operators' knowledge of food hygiene and their attitudes toward official food control affect the hygiene in their restaurants. *Food Control* 43: 65-73.

Laikko-Roto, T., Makela, S., Lunden, J., Heikkila, J. and Nevas, M. (2015). Consistency in inspection processes of food control officials and efficacy of official controls in restaurants in Finland. *Food Control* 57: 341-350.

- Lakhani, M. (2017). Increasing regulation has unintended consequences. *British Medical Journal* 357.
- Lee, B. (2013). The effectiveness of disclosing restaurant inspection results on improving food safety. National Collaborating Centre for Environmental Health: 11-27.
- Lee-Woolf, C., Bain, J. and Fell, D. (2015). Consistency in the delivery of official food safety controls: the role of organisational-level factors. A report for the Food Standards Agency.
- Lee, J.E., Almanza, B.A., Nelson, D.C. and Ghiselli, R.F. (2009). Using health inspection scores to assess risk in food services. *Journal of Environmental Health*.
- Lee, J.E., Nelson, D.C. and Almanza, B.A. (2010). The impact of individual health inspectors on the results of restaurant sanitation inspections: empirical evidence. *Journal of Hospitality Marketing & Management*, 19(4): 326-339.
- Lee, J.E., Almanza, B.A. and Nelson, D.C. (2012). Health inspection reports as predictors of specific training needs. *International Journal of Hospitality Management* 31: 522– 528.
- Lemaire, D. (2017). ‘The stick: Regulation as a tool of government’ in M. Videc, R.C Rist and E. Verdung (eds) *Carrots, sticks and sermons*. Taylor and Francis, UK.
- Levi-Faur, D. (2010). Regulation and Regulatory Governance. Jerusalem Papers in Regulation and Governance. Working Paper No.1
- Levi-Faur, D (2011). Handbook on the politics of regulation. Edward Elgar Publishing, Cheltenham, UK.
- Lincoln, Y.S. and Guba, E.G. (1985). Naturalistic inquiry. Sage Publications, CA.
- Liu, L., Su, C.S. and Gan, B. (2014). Effective restaurant rating scale development and a mystery shopper evaluation approach. *International Journal of Hospitality Management* 43: 53-64.
- Lowrey, B.V., Maguire, E.R. and Bennett, R.R. (2016). Testing the effects of procedural justice and overaccommodation in traffic stops: A randomised experiment. *Criminal Justice and Behaviour* 43(10): 1430-1449.

- Lund, B.M. (2015). Microbiological food safety for vulnerable people. *International Journal of Environmental Health Research and Public Health* 12(8): 10117-10132.
- Lunden, J. (2013). Reasons for using enforcement measures in food premises in Finland. *Food Control* 31: 84-89.
- MacAuslan, E. (2013). Developing food safety cultures: are small catering businesses being neglected? *Perspectives in Public Health* 133(6): 303-305.
- MacMaolain, C. (2007) EU Food Law: Protecting Consumers and Health in a Common Market. Portland, USA: Hart Publishing.
- MacMaolain, C. (2015). Food law: European, domestic and international frameworks. Hart Publishing, Oxford UK.
- Macrory, R. (2006) Regulatory Justice: Sanctioning in a post-Hampton world. London: Better Regulation Executive.
- Macrory, R. (2014). Regulation, enforcement and governance in environmental law. Hart Publishing, Oxford.
- Makkai, T. and Braithwaite, J. (1991). Criminological theories and regulatory compliance. *Criminology* 29(2): 191-220.
- Makkai, T. and Braithwaite, J. (1994). Reintegrative shaming and compliance with regulatory standards. *Criminology* 32(3): 361-385.
- Makofske, M.P. (2019). Inspection regimes and regulation compliance: How important is the element of surprise. *Economic Letters* 177: 30-34.
- Malterud, K., Siersma, V.D. and Guassora, A.D. (2016). Sample size in qualitative interview studies: Guided by information and power. *Qualitative Health Research* 26(13): 1-8.
- Marriott, N.G., Schilling, M.W. and Gravani, R.B. (2018). Principles of food sanitation. Springer, USA.
- Marshall, B., Cardon, P., Poddar, A. and Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in IS research. *Journal of Computer Information Systems* 54(1): 11-22.

- Mascini, P. (2013). Why was the enforcement pyramid so influential and what price was paid? *Regulation & Governance* 7: 48–60.
- Mason, M. (2010). Sample Size and Saturation in PhD Studies Using Qualitative Interviews. *Qualitative Social Research* 11(3)
- May, P. and Winter, S. (2000). Reconsidering styles of regulatory enforcement: patterns in Danish agro-environmental inspection. *Law and Policy* 22(2): 143-173.
- May, P. and Winter, S. (2003). At the regulatory front lines: inspectors' enforcement styles and regulatory compliance. *Journal of Public Administration Research and Theory* 13(2): 117-139.
- May, P.J. (2005). Compliance motivations: perspectives of farmers, homebuilders, and marine facilities. *Law and Policy* 27(2): 319-347.
- May, P. and Winter, S. (2011). 'Regulatory enforcement styles and compliance' in C. Parker and V.L. Nielsen (eds) *Explaining Compliance: Business Responses to Regulation*. Edward Elgar Publishing, Cheltenham UK: 222-244.
- May, T. (2011). *Social research: Issues, methods and process*. Open University Press/McGraw-Hill, England.
- McAllister, L.K. (2010). Dimensions of enforcement style: factoring in regulatory autonomy and capacity. *Law and Policy* 32(1): 61-78.
- McAllister, L.K. (2010). Dimensions of Enforcement Style: Factoring in Regulatory Autonomy and Capacity. *Law and Policy* 32(1): 61-78.
- McConville, M. and Chui, W.H. (2010) *Research Methods for Law*. Edinburgh: Edinburgh University Press.
- McIntyre, L., Vallaster, L. Wilcott, L., Henderson, S.B. and Kosatsky, T. (2013). Evaluation of food safety knowledge, attitudes and self-reported hand washing practices in foodsafe trained and untrained food handlers in British Columbia, Canada. *Food Control* 30: 150-156.
- Meltzer, R., Rothbart, M.W., Schwartz, A.E., Calabrese, T., Silver, D., Mijanovich, T. and Weinstein, M. (2015). Is public grading worth the costs? An evaluation of New York City's restaurant grades policy.

- Mendeloff, J. and Gray, W.B. (2005). Inside the black box: how do OSHA inspections lead to reductions in workplace injuries? *Law and Policy* 27(2): 219-237.
- Mensah, L.D. and Julien, D. (2011). Implementation of food safety management systems in the UK. *Food Control* 22(8): 1216-1225.
- Mendez, F. (2014). Can Corruption Foster Regulatory Compliance? *Public Choice* 158(1/2): 189-207.
- Menifield, C.E., Shin, G. and Strother, L. (2019). Do white law enforcement officers target minority suspects? *Public Administration Review* 79(1): 56-68.
- Mensah, L.D. and Julien, D. (2011). Implementation of food safety management systems in the UK. *Food Control* 22(8): 1216-1225.
- Merriam, S.B. and Tisdell, E.J. (2016). Qualitative research: a guide to design and implementation. John Wiley and Sons, USA.
- Middleton, J. (2017). Public health in England in 2016 - The health of the public and the public health system: A review. *British Medical Bulletin* 121(1): 31-46.
- Mills, A. (2008). 'Applying the enforcement pyramid to organisational corruption prevention'. Paper prepared for the Ethics and Integrity of Government Study Group EGPA Conference, Rotterdam, 3-5 September 2008.
- Millstone, E. and Lang, T. (2008). Risking regulatory capture at the UK's Food Standards Agency? *The Lancet* 372(9633): 94-95.
- Monk, J. (2012). Reform of regulatory enforcement and inspections in OECD countries. OECD.
- Moosa, I.A. and Ramiah, B. (2014). The costs and benefits of environmental regulation. Edward Elgar Publishing, UK.
- Moran, T. (2005). Magistrates' courts and environmental regulators: Attitudes and opportunities. *Journal of Environmental Health Research* 4(1)
- Moreb, N.A., Priyadarshini, A. and Jaiswal, A.K. (2017). Knowledge of food safety and food handling practices amongst food handlers in the Republic of Ireland. *Food Control* 80: 341-349.

Morgan, B. and Yeung, K. (2007). *An introduction to law and regulation: text and materials*. Cambridge University Press.

Morrison, K. and Wong, J. (2014). Predicting severe food safety violations in Toronto, Ontario.

Morse, J.M. (2015). Analytic strategies and sample size. *Qualitative Health Research* 25(10): 1317-1318.

Mortimore, S. and Wallace, C. (2013). *HACCP: a practical approach*. Springer, New York.

Moss, M. & Martin, A. (2009). 'Food problems elude private inspectors'. *New York Times*. 5 March.

Mouchtouri, V.A., Westacott S., Nichols, G., Riemer, T., Skipp, M., Bartlett, C.L., Kremastinou, J. and Hadjichristodoulou, C. (2010). Hygiene inspections on passenger ships in Europe: An overview. *BMC Public Health* 10(1): 122.

Murphy, K., Tyler, T.R. and Curtis, A. (2009). Nurturing regulatory compliance: is procedural justice effective when people question the legitimacy of the law? *Regulation & Governance* 3: 1–26.

Murphy, K.S., DiPietro, R.B., Kock, G. and Jumyong, S.L. (2011). Does mandatory food safety training and certification for restaurant employees improve inspection outcomes? *International Journal of Hospitality Management* 30: 150-156.

Murphy, K.S., DiPietro, R.B., Kock, G. and Lee, J. (2013). Does mandatory food safety training and certification for restaurant employees improve inspection outcomes? *International Journal of Hospitality Management* 30: 150–156

Murphy, K. (2016). Turning deviance into compliance with procedural justice: Understanding reactions to regulatory encounters through motivational posturing. *Regulation and Governance* 10(1): 93-109.

Murphy, K., Bradford, B. and Jackson, J. (2016). Motivating compliance behaviour among offenders' procedural justice or deterrence? *Criminal Justice and Behaviour* 43(1): 102-118.

- Murphy, K. (2017). 'Procedural justice and its role in promoting voluntary compliance' in P. Drahoš (ed) *Regulatory Theory: Foundations and Applications*. ANU Press, Australia: 43-58.
- Myers, M.D. (2013). *Qualitative research in business and management*. Sage Publications, London.
- Mytton, O.T., Clarke, D. and Rayer, M. (2012). Taxing unhealthy food and drinks to improve health. *British Medical Journal* 344.
- NACCHO (2014). Study of retail food establishment inspection scoring and grading systems. Research Brief.
- Nayak, R. and Waterson, P. (2017). The assessment of food safety culture: An investigation of current challenges, barriers and future opportunities within the food industry. *Food Control* 73 Part B: 1114-1123.
- Nayak, R. and Taylor, J.Z. (2018). Food safety culture: The food inspectors' perspective. *Worldwide Hospitality and Tourism Themes* 10(3): 376-381.
- Neal, J.A., Dawson, M. and Madera, J.M. (2011). Identifying food safety concerns when communication barriers exist. *Journal of Food Science Education* 10(4): 36-44.
- Negri, S. (2009). Food safety and global health: An international law perspective. *Global Health Governance* 3(1): 1-26.
- Nehls, K., Smith, B.D. and Scheider, H.A. (2015). 'Video-conferencing interviews in qualitative research' in S. Hai-Jew (ed). *Enhancing qualitative and mixed method research with technology*. IGI Global Publishing, USA: 140-157.
- Nevas, M., Saija, K. and Janne, L. (2013). Significance of official food control in food safety: Food business operators' perceptions. *Food Control* 31: 59-64.
- Newbold, K.B., McKeary, M., Hart, R. and Hall, R. (2008). Restaurant inspection frequency and food safety compliance. *International Perspectives* 71(4): 56-62.
- Nguz, K. (2007) Assessing Food Safety Systems in Sub-Saharan Countries: An Overview of Key Issues. *Food Control* 18(2):131-134

- Nieober, J., Reader, T. and Leardini, D. (2015). Consistency and cognitive influences on the expert judgment of environmental health officers: an experimental study. London School of Economics and the Food Standards Agency.
- Noble, H. and Smith, J. (2015) Issues of validity and reliability in qualitative research. *Evidence Based Nursing 18 (2)*: 34-35.
- Norwich City Council (2007). Safer food award: Food safety award ratings.
- OECD (2010). Better regulation in Europe: United Kingdom.
- OECD (2015). Industry self-regulation: role and use in supporting consumer interest
- Office of National Statistics 2016
- Ogus, A. (2004). Regulation: legal form and economic theory. Hart Publishing, Portland, Oregon.
- Ogus, A. (2009) Regulation Revisited. *Public Law 2*: 332-346.
- Ogus, A. and Abbot, C. (2002). Sanctions for pollution: Do we have the right regime? *Journal of Environmental Law 14(3)*: 283-298.
- Ogus, A. and Carbonara, E. (2011). 'Self-regulation' in F. Parisi (ed) *Production of legal rules*. Edward Elgar Publishing, UK.
- Ojo, M. (2010). Co-operative and competitive enforced self-regulation: The role of governments, private actors and banks in corporate responsibility. *Journal of Financial Regulation and Compliance 19(2)*: 139-155.
- Onwuegbuzie, A. J., and Leech, N. L. (2010). Generalization practices in qualitative research: a mixed methods case study. *Quality and Quantity 44*: 881-92.
- Oosterveer, P. (2007). Global governance of food production and consumption: Issues and challenges. *Global Environmental Politics 8(3)*: 161-163.
- Oosterveer, P. and Sonnenfeld, D.A. (2012). Food, globalization and sustainability. Earthscan, Oxon UK.
- Oppong, S.H. (2013). The problem of sampling in qualitative research. *Asian Journal of Management Sciences and Education 2(2)*: 202-210.

- O'Reilly, M. and Parker, N. (2012). Unsatisfactory saturation: A critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research Journal* 1-8.
- Paddock, L.C. (2011). Beyond deterrence: compliance and enforcement in the context of sustainable development. Ninth International Conference on Environmental Compliance and Enforcement.
- Papworth, T. (2015). SME's and health and safety. St. John's Ambulance.
- Parker, C. and Gilad, S. (2011). 'Internal corporate compliance management systems: Structure, culture and agency' in C. Parker and V.L Nielsen (eds) *Explaining compliance: Business responses to regulation*. Edward Elgar Publishing, Cheltenham UK: 170-198.
- Parker, C. and Nielsen, V.L. (2011). Deterrence and the impact of calculative thinking on business compliance with competition and consumer regulation. *The Antitrust Bulletin*: 56(2): 377- 426.
- Parker, C. and Nielsen, V.L. (2017). 'Compliance: 14 questions' in P. Drahos (ed) *Regulatory theory: Foundations and applications*. Australian National University Press, Australia: 217-232.
- Patermoster, R. (2018). 'Perceptual deterrence theory, deterrence,' in D.S. Nagin, F.T Cullen and C.L Johnson *Deterrence, choice and crime: Advances in Criminological Theory*. Taylor and Francis, UK.
- Paull, G. (2014). Can government intervention in childcare be justified? *Economic Affairs* 34(1): 14-34.
- Peltzman, S. (1976). Towards a more general theory of regulation. *The Journal of Law and Economics* 19(2): 211-240.
- Pennington, T.H. (2009). The public inquiry into the September 2005 outbreak of E.coli 0157 in South Wales. HMSO.
- Pennington, T.H. (2014). E. Coli 0157 outbreaks in the United Kingdom: past, present and future. *Infection and Drug Resistance* 7: 211-222.
- Pernecky, T. and Jamal, T. (2010). (Hermeneutic) phenomenology in tourism studies. *Annals of Tourism Research* 37(4):1055–1075.

- Pettinger, R. (2012). 'Standards: A behavioural approach to management' in b. Fryzel (ed) *The true value of CSR: Corporate identity and stakeholder perceptions*. Palgrave McMillan, London: 264-279.
- Pham, M.T., Jones, A.Q., Sargeant, J.M., Marshall, B.J. and Dewey, C.E. (2010). A qualitative exploration of the perceptions and information needs of public health inspectors responsible for food safety. *BMC Public Health* 10: 345-357.
- Pizzino, D.R. and Rupp. K.A.N. (2013). A Comparison of food inspection practices of the US airforce and Ohio local public health. Wright State University.
- Powell, D.A., Erdozain, S., Dodd, C., Costa, R., Morley, K. and Chapman, B.J. (2013). Audits and inspections are never enough: a critique to enhance food safety. *Food Control* 30(2) 686-691.
- Porket, J.L. (2002). The pros and cons of government regulation. *Economic Affairs* 23(4): 48-54.
- Posner, R.A. (1974). Theories of economic regulation. *The Bell Journal of Economics and Management Science* 5(2): 335-358.
- Prendergast, Canice (2007). The Motivation and Bias of Bureaucrats. *American Economic Review*. 97(1): 180-196.
- Pries-Heje, J., Lee, J. S., & Baskerville, R. (2011). Theorizing in Design Science Research. *Lecture Notes in Computer Science LNCS (6629)*: 1-16.
- Prosser, T. (2010). *The regulatory enterprise: government, regulation and legitimacy*. Oxford University Press, Oxford.
- Qu, S. Q. and Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting and Management*, 8(3): 238-264.
- Rakić, T. and Chambers, D. (2011). *An introduction to visual research methods in tourism*. Routledge, London.
- Ramalho, V., de Moura, A.P. and Cunha, L.M. (2015). Why do small business butcher shops fail to fully implement HACCP? *Food Control* 49: 85-91.

- Reske, K.A., Jenkins, T., Fernandez, C., VanAmber, D. and Hedberg, C.W. (2007). Beneficial effects of implementing an announced restaurant inspection program. *Journal of Environmental Health* 69(9) 27-34.
- Ritchie, J. and Lewis, J., Mac Naughton-Nicholls, C. and Ormston, R. (2014) *Qualitative Research Practice: A guide for social science students and researchers*. Sage Publications, London
- Robson, C. (2011) *Real World Research*. Wiley and Sons Ltd, Chichester, UK.
- Ramalho, V., de Moura, A.P., Cunha, L.M. (2015). Why do small business butcher shops fail to fully implement HACCP? *Food control* 49: 85-91.
- Rossman, G.B. and Rallis, S.F. (2017). *An introduction to qualitative research: Learning in the field*. Sage Publications, USA.
- Rouviere, E. and Caswell, J. (2012). From punishment to prevention: a French case study of the introduction of co-regulation in enforcing food safety. *Food Policy* 37 (3): 246-254.
- Salis, S., Jabin, N. and Morris, S. (2015). Evaluation of the impact of the food hygiene scheme and the food hygiene information scheme on food standards and foodborne illnesses. Food Standards Agency.
- Saunders, M.N., Saunders, M., Lewis, P. and Thornhill, A. (2011) *Research Methods for Business Students*. 5th Edition, Pearson Education, Essex.
- Saunders, B., Kitzinger, J. and Kitzinger, C. (2015a). Anonymising interview data: challenges and compromise in practice. *Qualitative Research* 15(5): 616-632.
- Saunders, M.N., Lewis, P., Thornhill, A. and Bristow, A. (2015b). 'Understanding research philosophy and approaches to theory development' in: M.N. Saunders, P. Lewis, A. Thornhill (eds) *Research Methods for Business Students*. Pearson Education, England: 122–161.
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H. and Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualisation and operationalisation. *Quality and Quantity* 52(4): 1893-1907.
- Schneier, B. (2012). *Liars and outliers: Enabling the trust that society needs to thrive*. John Wiley and Sons, Indianapolis, USA.

- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching* 5(9): 9-16.
- Scott, C. (2010). Regulatory crime: history, functions, problems, solutions. University College, Dublin.
- Seo, S., Almanza, B., Miao, L. and Behnke, C. (2015). The effect of social media comments on consumers' responses to food safety information. *Journal of Foodservice Business Research* 18(2): 111-131.
- Shah, H. (2015). Analysis of LAEMS data to inform a study on inconsistencies in the delivery of official food safety controls. Food Standards Agency.
- Silbey, S. S. (2013). Organizational challenges to regulatory enforcement and compliance: a new common sense about regulation. *The ANNALS of the American Academy of Political and Social Science* 649 No. 1: 6–20.
- Silverman, D. (2014). Interpreting qualitative data. Sage Publications, London.
- Silverman, D. (2017). Doing qualitative research. Sage Publications, London.
- Simpson, S. S., Gibbs, C., Rorie, M., Slocum, L. A., Cohen, M., and Vandenberg, M. (2013). An empirical assessment of corporate environmental crime-control strategies. *The Journal of Criminal Law & Criminology* 103(1): 231–278.
- Singhal, A.K. and Malik, I. (2012). Doctrinal and socio-legal methods of research: Merits and demerits. *Educational Research Journal* 2(7): 252-256.
- Sinopoli, M. (2011). Economic downturns and government intervention.
- Sharma, L.L., Teret, S.P. and Brownell, K.D. (2010). The food industry and self-regulation: standards to private success and to avoid public health failures. *American Journal of Public Health* 100(2): 240-246.
- Smigic, M. Djekic, I., Martins, M.L. and Rocha, A. (2016). The level of food safety knowledge in food establishments in three European countries. *Food Control* 63: 187-194.

- Snieder, R. and Larner, K. (2009). *The art of being a scientist: A guide for graduate students and their mentors*. Cambridge University Press, England.
- Soiferman, K.L. (2010). Compare and contrast inductive and deductive research approaches [online] Available at: <http://eric.ed.gov/?id=ED542066> [Accessed 19 Feb. 2015].
- Soon, J.M., Baines, R. and Seaman, P. (2012). Meta-Analysis of food safety training on hand hygiene knowledge and attitudes among food handlers. *Journal of Food Protection* 75(4): 793-804.
- Spear S (2006). Scores on doors. *Environmental Health Practitioner* 114(6): 8-10.
- Spear, S. (2006). Could scores on doors just be a wish upon a star? *Environmental Health Practitioner* 114(3).
- Spencer, S. and Young, V. (2015). Display of food hygiene ratings at food business premises in England, Northern Ireland and Wales. Food Standards Agency.
- Stanton, J. Burton, Y. and Gooding, C. (2008). An assessment of the effectiveness of a five-star 'Scores on the Doors' scheme for improving food hygiene compliance amongst Norwich catering businesses. *Journal of Environmental Health Research* 7(1):1.
- Stigler, G.J. (1971). The theory of economic regulation. *The Bell Journal of Economic Managment* 2(1): 3-21.
- Stiglitz, J. (2010) 'Regulation and failure' in D. Moss and J. Cisternino (eds). *New Perspectives on Regulation*. The Tobin Project, Massachusetts USA.
- Sullivan, A. (2017). Restaurant grading toolkit: a guide to develop a food grading program in your community. City of Newton Department of Health and Human Services. Newton, MA.
- Syrpis, P. (2015). The relationship between primary and secondary law in the EU. *Common Market Law Review* 52(2): 461-487.
- Taylor, E. (2008) A new method of HACCP for the catering and food service industry. *Food Control* 19(2): 126-134.
- Thornton, D., Gunningham, N.A., Kagan, R.A. (2005). General deterrence and corporate environmental behaviour. *Law and Policy* 27(2): 262-288.

- Thomann, E. (2018). 'Food safety policy: Transnational, hybrid, wicked' in *Oxford Research and Encyclopedia of Politics*. Oxford University Press UK.
- Tombs, S. and Whyte, D. (2013). The myths and realities of deterrence in workplace safety regulation. *British Journal of Criminology* 53(5): 746-763.
- Tombs, S. (2016). Better regulation for whom? Centre for Crime and Justice Studies, Briefing 14
- Tse, Y.K., Zhang, M., Doherty, B., Chappell, P. and Garnett, P. (2016). Insight from the horsemeat scandal: Explaining the consumers' opinion of tweets toward Tesco. *Industrial Management and Data Systems* 116(6): 1178-1200.
- Tyler, T.R. (2006). Why people
- UNISON (2012) Environmental Health: How cuts are putting individuals and communities at risk and damaging local businesses and economies.
- Van der Meulen, B. (2010) The Global Arena of Food Law: Emerging Contours of a Meta-Framework. *Erasmus Law Review* 3(4): 217-240.
- Van der Meulen, B. (2014). 'Food law' in N.K. van Alfen (ed) *Encyclopedia of agriculture and food systems*. Elsevier, USA: 186-195.
- Van Wingerde, K. (2016). 'Deterring corporate environmental crime: lessons from the waste industry in the Netherlands' in T. Spapens, R. White and W. Huisman. *Environmental crime in transnational context*. Routledge, UK: 193-207.
- Vasileiou, K., Barnett, J., Thorpe, S. and Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology* 18(1): 148-164.
- Vapnek, J. and Spreij, M. (2005). Perspectives and guidelines on food legislation: With a new model food law. FAO Legislative Study 87, UN Rome.
- Vegaris, S. (2015). The food hygiene rating scheme and the food hygiene information scheme: evaluation findings 2011-2014. Food Standards Agency and the Policy Studies Institute, University of Westminster.

Vohs, K.D. and Baumeister, R.F. (2016). *Handbook of Self-regulation: Research, theory and applications*. Guilford Press, New York.

Von Rooij, B. (2010). Reorienting regulation: pollution enforcement in industrialised countries. *Law and Policy* 32(1): 1-13.

Wallace, C.A. and Mortimore, S.E. (2014). 'HACCP' in H.L.M Lelieveld, J. Holah and D. Gabric. *Handbook of Hygiene Control*. Elsevier, UK: 25-41.

Wallace, C.A. and Mortimore, S.E. (2016). 'HACCP' in H. Lelieveld, J. Holah and D. Gabrić (eds) *Handbook of hygiene control in the food industry*. Woodhead Publishing, UK: 25-42.

Wallace, C.A., Sperber, W.H. and Mortimore, S.E. (2018). *Food Safety for the 21st Century: Managing HACCP and food safety throughout the global supply chain*. Wiley and Sons, USA.

Walliman, N. (2011). *Research methods: The basics*. Routledge, UK.

Walker, J. L. (2012). The use of saturation in qualitative research. *Canadian Journal of Cardiovascular Nursing* 22(2): 37-46.

Walshe, K., Boyd, A., Addicott, R., Robertson, R. and Ross, S. (2014). Regulation: A closer look at the new CQC regime. *Health Services Journal* 124(6409): 22-3.

Warren, R. and Samuel, M. (2012). *Business Perceptions Survey 2012*.

Waters, A.B., VanDerslice, J., Porucznik, C.A., Kim, J., DeLegge R. and Durrant, L. Examination of the Association between Announced Inspections and Inspection Scores. *Journal of Environmental Health* 76(2): 8-12.

Webly, L. (2010). 'Qualitative approaches to empirical legal research' in P. Cane and H.M. Kritzer (eds) *The Oxford Handbook of Empirical Legal Research*. Oxford University Press, Oxford: 926-950.

Weil, D. (2010). *Improving workplace conditions through strategic enforcement*. Boston University.

Werden, G.J., Hammond, S.D. and Barnett, B.A. (2012). *Deterrence and detection of cartels: using all the tools and sanctions*. Presented by the ABA Center for Continuing Legal Education.

- Wilson, A.M., Meyer, S.B., Webb, T., Henderson, J., Coveney, J., McCullum, D. and Ward, P.R. (2015). How food regulators communicate with consumers about food safety. *British Food Journal* 117(8): 2129-2142.
- Wong, M.R., McKelvey, W., Kazuhiko, I., Schiff, C, Jacobson, J.B. and Kass, D. (2015). Impact of a Letter-Grade Program on Restaurant Sanitary Conditions and Diner Behavior in New York City. *American Journal of Public Health* 105(3): 81-87.
- World Trade Organisation (2010) Understanding the WTO. Switzerland.
- Worsfold, D. (2005). Protecting consumers: a review of hygiene award schemes. *British Food Journal* 107(3):162-72.
- Worsfold, D. and Worsfold, P.M. (2007). Evaluation food hygiene inspection schemes: 'Scores on Doors' in the U.K. *International Journal of Consumer Studies* 31:582-588.
- Worsfold, D. and Worsfold, P.M. (2008). 'Scores on Doors': hygiene disclosure schemes for consumers. *Nutrition and Food Science* 38: 22-31.
- Wright M, Smith R, Evans R, Williams N, Leach P. (2008). Evaluation of scores on the doors: final main report for the Food Standards Agency.
- Yapp, C. and Fairman, R. (2004). Compliance with Food Safety Legislation in Small and Micro-businesses: Enforcement as an External Motivator. *Journal of Environmental Health Research* 3(2): 40-48.
- Yapp, C. and Fairman, R. (2005a). Assessing compliance with food safety legislation in small businesses. *British Food Journal* 107(3): 150-161.
- Yapp, C. and Fairman, R. (2005b). Enforced self-regulation, prescription and conceptions of compliance within small businesses: the impact of enforcement. *Law and Policy* 27(4): 491-519.
- Yapp, C. and Fairman, R. (2006). Factors Affecting Food Safety Compliance within Small and Medium Sized Enterprises: Implication for Regulatory and Enforcement Strategies. *Food Control* 17(1): 42-51.
- Yang, M. and Zucchelli, E. (2018). The impact of public smoking bans on well-being externalities: Evidence from a policy experiment. *Scottish Journal of Political Economy* 65(3): 224-247.

Yasuda, T. (2010). Food safety regulation in the US: an empirical and theoretical examination. *The Independent Review* 5(2):201-226.

Yeung, K. (2013). Better regulation, administrative sanctions and constitutional values. *Legal Studies* 33(3) 312-339

Yilmaz, Y. (2013). Comparison of Quantitative and Qualitative Research Traditions: epistemological, theoretical, and methodological differences. *European Journal of Education* 48(2): 311-325.

Yin, R. (2014). Case study research: Design and methods. Sage Publications, Thousand Oaks CA.

Zhanga, Z., Qiang, Y., Law, R. and Li, Y. (2010). The impact of e-word-of-mouth on the online popularity of restaurants: a comparison of consumer reviews and editor reviews. *International Journal of Hospitality Management* 29: 694-700.

Zingales, L. (2013). Preventing economists capture. Chicago Booth Research Paper No. 13-81.

Zwietering, M.H., Jacxsens, L., Jeanne-Marie Membre, J.M., Nauta, M. and Peterz, M. (2016). Relevance of microbial finished product testing in food safety management. *Food Control* 60: 31-43.

Websites:

www.food.gov.uk

www.hse.gov.uk

www.gov.uk

**THE CHALLENGES OF FOOD LAW
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PERCEPTIONS OF ENVIRONMENTAL
HEALTH PRACTITIONERS IN THE
NORTHWEST OF ENGLAND**

By

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