

Improving Food Safety Outcomes

Belinda Davies



‘For regulators, continuing in a traditional, enforcement-centred mode – given the constraints of shrinking budgets, declining public tolerance for the use of regulatory authority, and clogged judicial systems – is now simply infeasible’.

(Sparrow 2000, p.20)

Therefore, environmental health professionals need to find innovative ways of improving food safety outcomes.

Factors that influence compliance

- **Social norms**
(Jackson, Bradford, Hough, Myhill, Quinton & Tyler 2012 ; Wingrove, Korpas & Weisz 2011; Yan et.al 2016)
- **Personal morals, attitudes, etc.**
(Gur 2013; Jackson et.al 2012; Sanderson & Darley 2002; Wingrove et.al 2011; Yan et.al 2016)
- **Habitual or routine behaviours**
(Jackson et.al 2012)
- **Perceived importance of laws**
(Sanderson & Darley 2002)
- **Perceived sense of duty to obey the law**
(Wingrove et.al 2011; Yan et.al 2016)

Factors that influence compliance

- Legal regulatory pressures
(Akamangwa 2017)
- Cost of compliance compared to cost of non-compliance
(Yan, van Rooij & van der Heijden 2016)
- Fear of experiencing informal social sanctions (e.g. shame)
(Sanderson & Darley 2002)
- Capacity to obey the law – finance, knowledge, etc.
(Yan et.al 2016)
- Customer demands
(Akamangwa 2017)
- How an organisation adapts to regulatory regimes
(Akamangwa 2017)

Factors that influence compliance

- Moral alignment with the regulator
(Jackson et.al 2012)
- Legitimacy of regulatory agencies and staff:
‘a psychological property of an authority, institution, or social arrangement that leads those connected to it to believe that it is appropriate, proper, and just’
(Tyler 2006, p.375)
 - Influenced by respectful and fair treatment of people, procedural justice, et.
(Jackson et.al 2012; McAdams & Nadler 2008; Tyler, 1990; Yan et.al 2016)

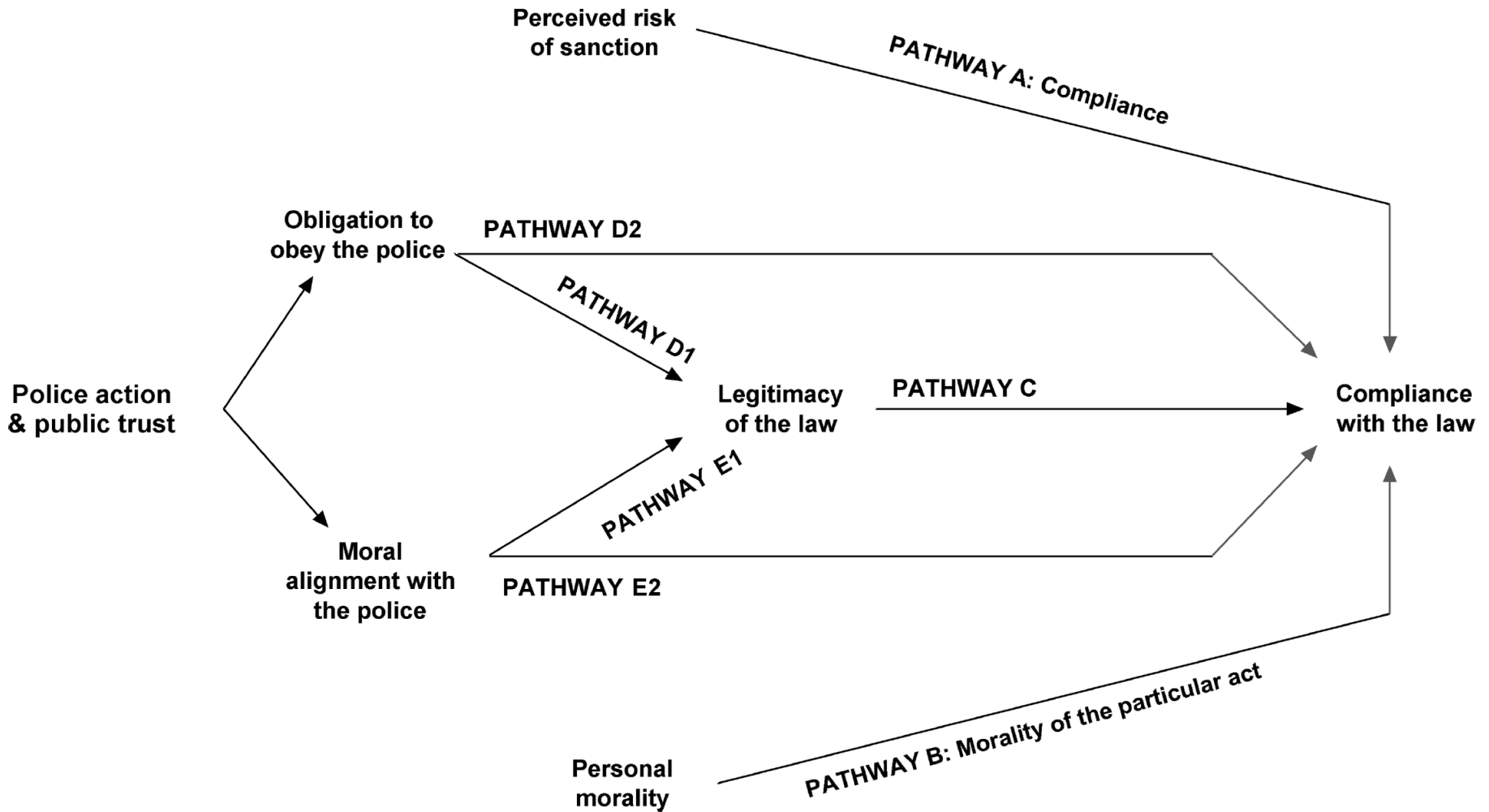


FIG. 1 Pathways to compliance with the law

(Jackson et.al 2012)

Challenges

- Multiple factors influence compliance
(Gur 2013; Yan et.al 2016)
- People view the importance of various laws differently
(e.g. does breaching the law have a negative effect?)
(Gur 2013; Sanderson & Darley 2002)
- Individuals perceive law enforcement differently
(Yan et.al 2016)
- Research shows that individuals rapidly form opinions about other people and these assumptions lead to judgments about the likelihood that they will engage in particular behaviour
(Sanderson & Darley 2002)

Other considerations

- Research shows most individuals view crimes against other people as more serious than other types of crimes
(Sanderson & Darley 2002)
- People think differently about the causes of their own behaviour compared to the causes of other peoples' behaviour.
 - Self – good behaviour due to internal factors and bad behaviour due to external factors.
 - Others – bad behaviour is evidence of poor character (i.e. internal factor).
(Sanderson & Darley 2002)
- People are generally not good at acknowledging their own limitations, incompetence, and ill judgement (known as self-enhancement bias) and therefore may underestimate the risk involved in a particular action.
(Gur 2013)

Types of compliance

- Forced / enforced
 - Increases costs of breaching law, therefore acting as a deterrent.
 - Deterrent relies on:
 - Certainty – detection of breach, enforcement action; and
 - Severity of the punishment.
- Voluntary

Compliance focus challenges

- Risk-based approach to ensure better use of resources and high-risk activities are inspected more frequently. (Griffith 2005)
- Do compliance staff and strategies focus on:
 - The high risk issues; or
 - The requirements more likely to be breached and the people/organisations more likely to breach them. (Yan et.al 2016)
- Potential problems:
 - A regulator may not know which requirements are more likely to be complied with and those which are more likely to be breached.
 - A regulator may not know who is more likely to comply (even if there is limited deterrence). (Yan et.al 2016)

Perceived problems with inspection processes

- UK:
 - Lack of consistency;
 - Resource burden / inadequate resources;
 - Not used proactively;
 - Business confused over the meaning of ‘compliance’;
 - Finding the balance between enforcement and education;
 - Little commercial incentive to comply;
 - etc.

(Griffith 2005)

Perceived problems with inspection processes

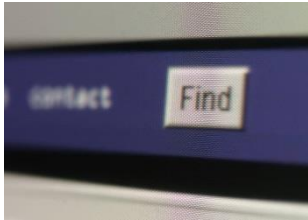
- USA:
 - Inspections do not reliably identify restaurants that are at increased risk of food-borne illness outbreaks.
 - 45% of case restaurants (i.e. there had been a food-borne illness outbreak) had no critical violations cited in the inspection report preceding the outbreak.
 - But a previous study found there was an association between outbreaks and poor inspection results.

(Cruz, Katz & Suarez 2001)

Research finding: Council's systems and processes

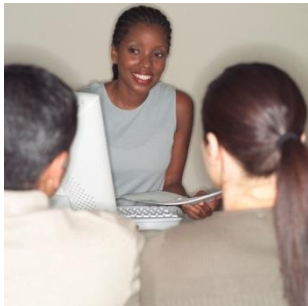
- Typical process when starting up a food business:

1. Look up information on the internet.



- Literacy / access / language issues
- May not understand technical content

2. Go to Council and ask for help.



- Staff help by telling the person what they need to do.
- They obey.
- They get a licence.



(Davies, Brough & Johnstone 2014)

Council's systems and processes



3. First inspection.

- EHO advises them what isn't correct and what they need to do.
- The business obeys.
- The EHO is satisfied.
- The business can focus on making \$.



- At what stage has the business been required to take responsibility for the proactive management of food safety in their business?
- Systems and processes can unintentionally establish and reward behaviours that create an increased regulatory burden and workload for the council.

(Davies, Brough & Johnstone 2014)

Understanding 'compliance'

Compliance is defined as:

- the state of meeting rules or standards
- the action of complying with a command

Council's perspective		A business perspective
Ongoing adherence to food safety laws. Proactive.	Understanding of 'compliance'	Obeying the regulator. Reactive.
Non-compliances detected.	Issues detected during inspections	Will obey and complete list, i.e. will comply with Council, therefore they are being compliant.
History of ongoing/repeated non-compliances.	History of issues being detected during inspections	Have complied with the directions of Council after each inspection. History = proof of continued compliance with directions given to them.
Non-compliant.	Perceived level of compliance	Being very compliant.

Relationship with Council

- Perceptions of business owners varied about who had ultimate responsibility for food safety.
 - More experienced, motivated and educated owners: its everyone's responsibility.
 - Less experienced and educated: it is Council's role to tell them what to do.

(Davies, Brough & Johnstone 2014)

Perceptions

- Significant issues regarding perceived inconsistencies
 - Some may be due to age of business (e.g. established in era of prescriptive legislation compared to newer competitors).
 - Lack of understanding of risk-based legislation.
 - Local and regional consistency important.
- Consistency vs. uniformity.

(Davies, Brough & Johnstone 2014)

Relationship with EHOs

- EHOs are generally seen to have a good understanding of regulatory matters and how to apply the legislation.
- This knowledge is seen to be enhanced when combined with a good level of knowledge of the food industry as well as an appreciation of the issues and challenges of owning or managing a food business.
- The quality of relationship between an EHO and a business owner can either positively or negatively influence a business owners perception of Council and their willingness or effort in ensuring compliance.

(Davies, Brough & Johnstone 2014)

Relationship with EHOs

- When a good relationship exists, business owners feel there is more opportunity to engage in meaningful discussions to identify solutions that are mutually beneficial.
- If a good relationship can exist business owners may be more willing to take a proactive rather than reactive to ensuring food safety in their business.
- A good experience with Council during inspections can minimise the level of anxiety that is felt by business owners.

(Davies, Brough & Johnstone 2014)

Communication

- An EHO may be regarded as less skilled or knowledgeable when they are not able to develop flexible responses or advise a business owner how the legislation can be applied to specific business needs.
- EHOs are seen to be highly knowledgeable when they are able to collaborate or develop solutions with business owners that are both responsive to the unique features of individual businesses and ensure that the business owners are fully compliant.

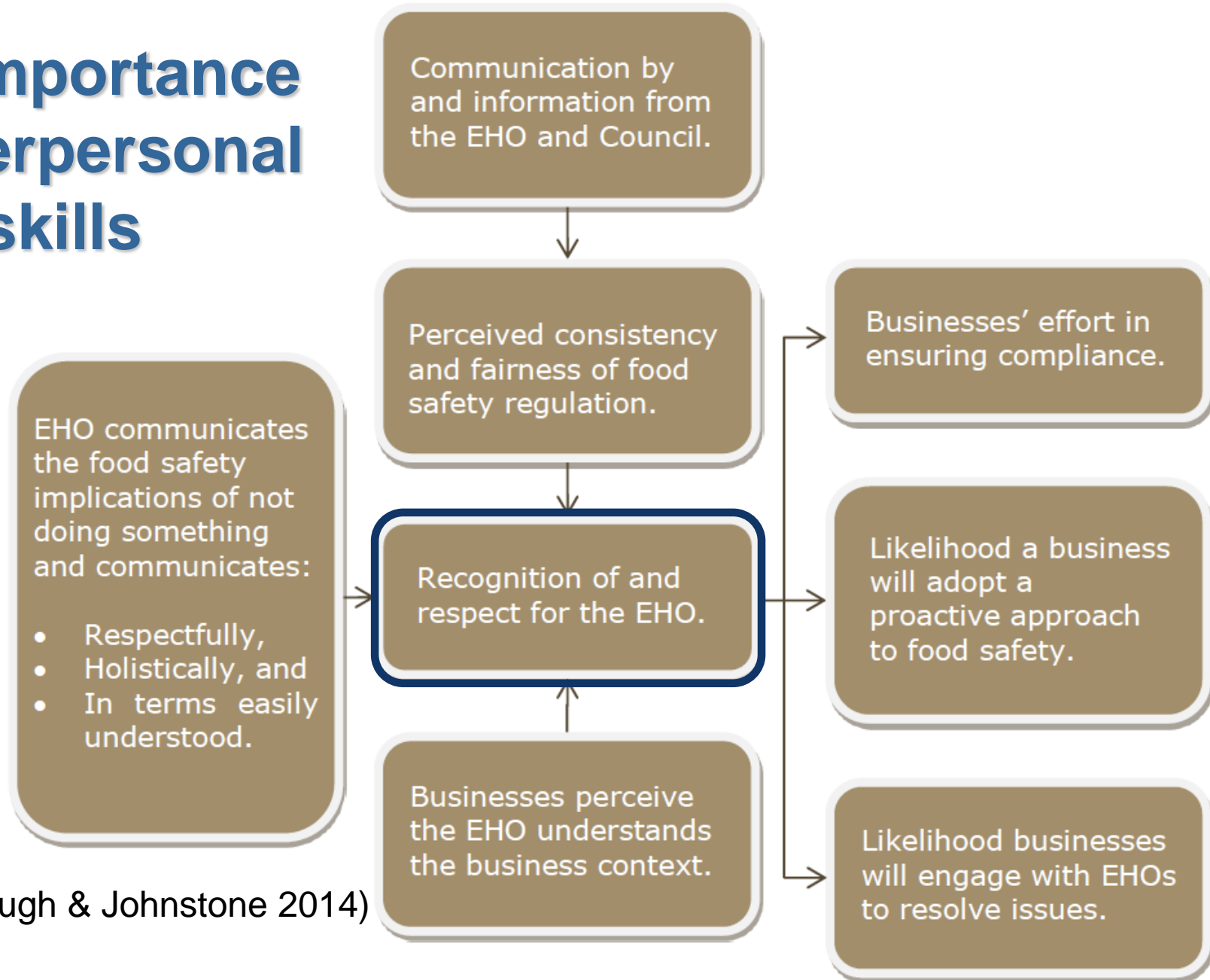
(Davies, Brough & Johnstone 2014)



Communication

- EHO's are more likely to receive a greater level of recognition/respect when they are able to explain concepts and ideas in ways that are easily understood by business owners.
- If EHOs inform business owners what they must do, why it needs to be done and the food safety implications of not doing it, they are more likely to adopt the desired behaviour.
- During inspections where an EHO can clearly explain to business owners the many interrelated facets of food safety, it appears they are more likely to view food safety on a continuum of interrelated procedures.

The importance of interpersonal skills



(Davies, Brough & Johnstone 2014)

Inspections

- Very strong relationship between what an EHO focused on during an inspection and businesses perception of what is important.

EHOs need to communicate about the important things, not just non-compliances.

(Davies, Brough & Johnstone 2014)

Understanding 'compliance'

- Other research has also noted different understandings of compliance
 - e.g. Yapp & Fairman R. 2005; Griffith 2005.
- Developing a shared understanding of Councils' expectations of food businesses is critical.
- Different terminology such as 'adherence' may avoid different uses of the term compliance.

Food safety culture

- Food safety culture is the:
“prevailing attitudes, values and practices related to food safety that are taught, directly and indirectly, to new employees” (Taylor, 2011)
- Influences what occurs in a business, including when no-one is looking (Taylor, Garat, Simreen & Sarieddine 2015)
- Some attitudes and practices are hard to detect, e.g.
 - Management priorities
 - Incentives / disincentives (Taylor et.al 2015)
- Understanding food safety culture and its components may be a valuable tool in improving compliance and reducing the incidence of food-borne illness (Griffith et.al 2010)

Unpublished food safety research



Talking food: A conversation with refugee and migrant communities about food safety

- Aimed to explore refugee and migrant communities understanding of food safety
- Semi-structured interviews with food business owners / managers who are a refugee or migrant
- Six key themes:
 1. background, beliefs, and core values;
 2. food safety knowledge and awareness;
 3. meaning of food safety;
 4. food safety laws and compliance;
 5. relationship with the council and Environmental Health Officers (EHOs); and
 6. suggestions of food business operators

Talking food: A conversation with refugee and migrant communities about food safety - Findings

- Participants who had traumatic experiences in their home country described Australia as being full of opportunities after their arrival, even though they faced some challenges.
- Participants who hadn't experienced such problems thought that finding a job in Australia was difficult.
- Traditional food was an important link to culture and their home country.
- Some participants considered cleanliness as an integral part of their culture and identity.
- Most learnt to cook from relatives.
- Sources of training varied – some formal training, others learnt from family.

Talking food: A conversation with refugee and migrant communities about food safety - Findings

- Some findings similar to previous research:
 - ‘Bookish’ knowledge of recent graduates
 - Experienced EHOs – educate, use experience to suggest ways to improve, etc.
 - Believed they were compliant because they followed the EHOs’ instructions
 - Good relationship with EHO = more likely to be proactive in managing food safety
 - Barriers to compliance were the same as previous research (e.g. time, finance, language)
 - Food safety laws thought to be strict, but fair
 - etc.

Motivation to acquire and implement food safety knowledge

- What motivates some experienced Indian food business owners/managers acquire food safety knowledge and apply good food handling practices?
- Semi-structured interviews with owners/managers of Indian restaurants with a 4 or 5 star Eat Safe rating.
- Considered threat and reward responses.

Motivation to acquire and implement food safety knowledge - Findings

- Motivations:
 - Protect their customers
 - Protect their sole income source
- Deeper motivations:
 - Protect their family
 - Protect the reputation of their business/family, especially if the business had developed over multiple generations
- Norms:
 - they had developed good food handling habits after spending a lot of time in the food industry and practiced good food handling in their every-day lives

Other food safety strategies / programs



Private standards

- Set standards in the private sector (e.g. supermarkets, franchises, etc.).
 - Often involves internal and/or third-party audits.
 - Ritualism – focus on conforming with the rules
- (Davey & Richards 2013)

Food safety rating schemes

- Voluntary or mandatory display of results.
- Creates incentives to comply with laws and discourages poor performance.
- Consumers can make informed choices, creating market incentive to improve food safety. (Griffith 2005)
- Literature indicates improved scores / grades / results and a decline in violations over time (e.g. Fielding, Aguirre & Palaiologos 2001).
- Consistency is essential.
- Increases the risk of pressure being placed on officers, bribery, etc. to increase scores.

Inspection / audit standards

- Auditing standards:
 - Set expectations
 - Influence auditor behaviour
 - Promote consistency
 - Facilitate specific outcomes (e.g. education)
 - Set standards to measure performance against
 - etc.

(Burns & Fogarty 2010)

- Inspection standards could achieve similar outcomes.

Use of audit results to reduce inspection frequency

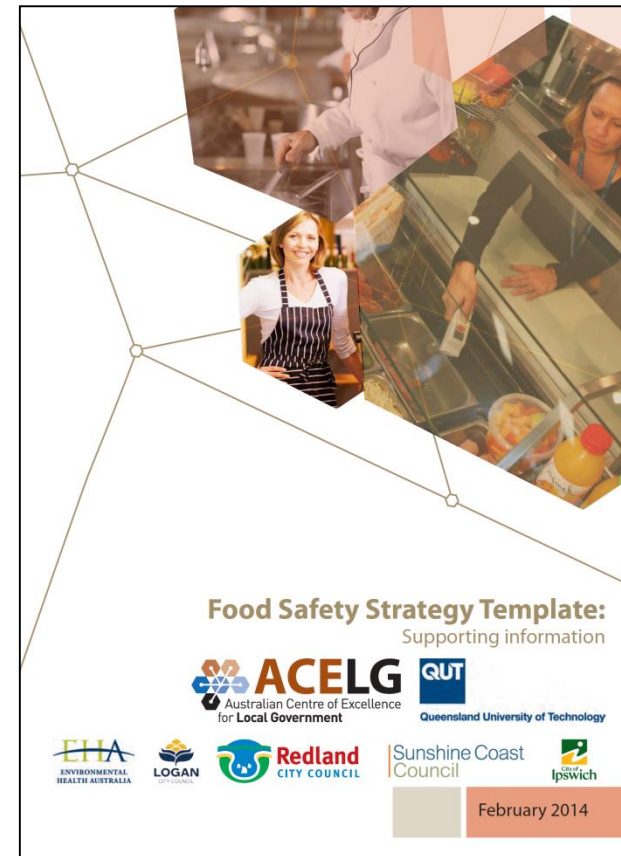
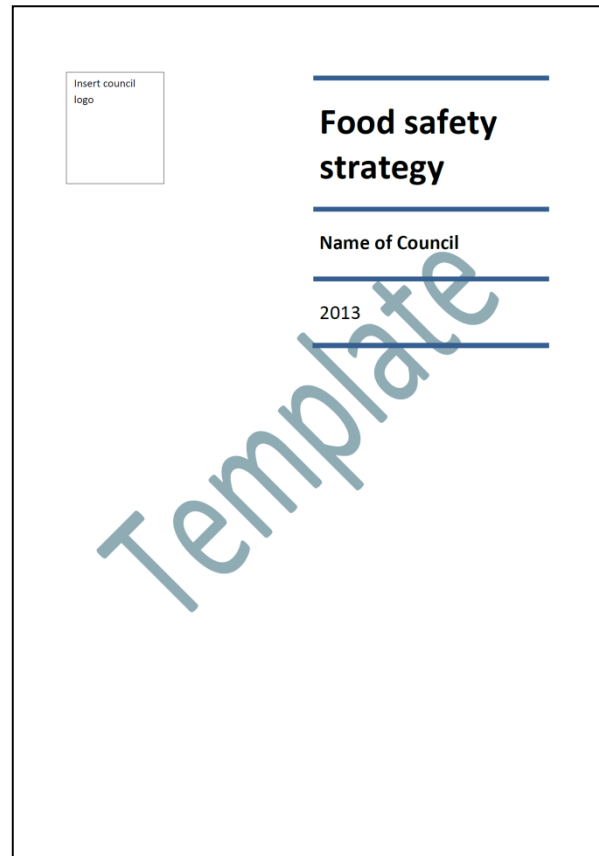
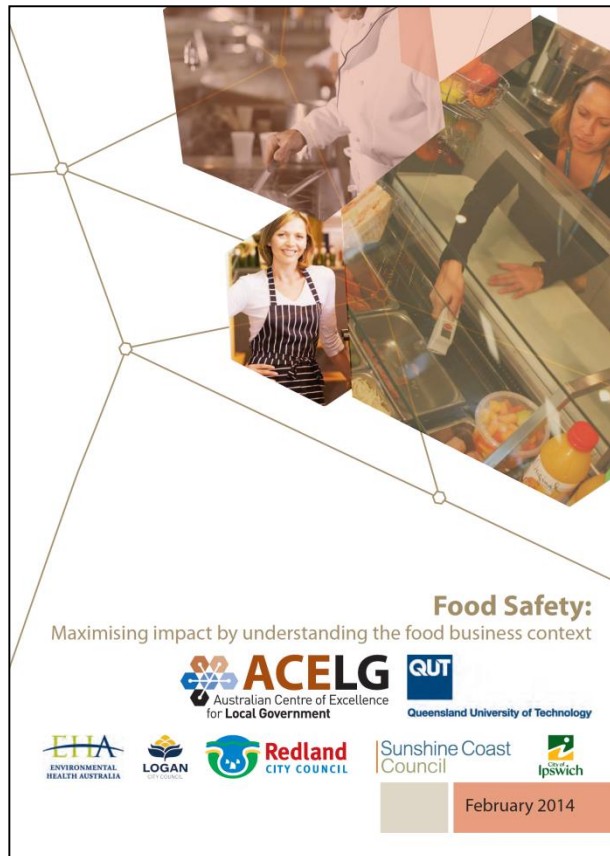
- Study in Finland
- Significant variation between inspection and audit results
- Inspections detected more non-compliances relating to:
 - Cross contamination,
 - maintenance,
 - hygienic working methods,
 - Sanitation
 - etc.
- Possible reasons: inspector / auditor ability; unannounced inspections vs. announced audits, etc.

(Turku, Lepisto, Lunden 2018)

Conclusion

- Understanding:
 - how food business operators think about food safety
 - the factors that influence behaviour
 - how government processes can unintentionally encourage undesired behaviourcan help EHOs to identify strategies that address causes of non-compliant behaviour and motivate food business operators to improve their practices.
- Such strategies are more likely to be sustainable and improve food safety outcomes.

- Resources to help translate research findings into practice
- Resources available via:
https://eprints.qut.edu.au/view/person/Davies,_Belinda.html



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