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Corresponding Author: Jason Barnes, School of Psychology and Public Health, La Trobe University, 1 Kingsbury Drive, Bundoora, VIC, 3086, Australia.
Email: jason.barnes@latrobe.edu.au.

Note. These supplemental figures and tables were submitted by the authors as an extra resource should the reader want more information and have been posted online due to space limitations at https://www.neha.org/jeh-supplementals. The *Journal of Environmental Health* did not copy edit these tables, nor were they peer reviewed.

Supplemental Figure 1: Online Survey

Q1 Information Sheet and Consent

Q66 Do you consent to participating in this online survey?

- ○ Yes, I consent to participate (1)
- ○ No, I do not wish to participate (2)

Skip To: End of Survey If Do you consent to participating in this online survey? = No, I do not wish to participate

Q68 Thank you for your assistance with our research. This survey will take about 25 minutes to complete. Should you be unable to complete the survey all at once, you can resume your survey at a later time by using the original survey link with the same browser and computer. The survey can be resumed a maximum of 7 days from the first attempt.

Q67 Please provide an email address so that we may assist you recover your survey access should you encounter any troubles. (Your email address provided here shall be deleted once the data collection process is complete)

_____

Q2 Do you undertake food safety inspections as part of your employment?

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If Do you undertake food safety inspections as part of your employment? = No

Q1A In which of the following jurisdictions are you employed to undertake food safety inspections?

- ○ Australia (1)
- ○ United Kingdom (2)
- ○ United States of America (3)
- ○ New Zealand (4)
- ○ Ireland (6)
- ○ Other (5)

Skip To: End of Survey If In which of the following jurisdictions are you employed to undertake food safety inspections? = Other

Q3 Which of the following best describes your employer?

- ○ Local Government (1)
- ○ County / Regional Government (2)
- ○ State Government (3)
- ○ Federal Government (4)
- ○ Government Contractor (5)
- ○ Private Consultancy (6)
- ○ Food Manufacturer / Producer (7)
- ○ Other (please specify) (8) _____

Q4 In what settings do you undertake food safety inspections? (please select all that apply)

- [ ] Food Retail (restaurants and cafes) (1)
- [ ] Food Imports / Exports (2)
- [ ] Food Manufacturing (3)
- [ ] Farming / Agriculture / On-Farm (4)
- [ ] Abattoir / Butchery / Meat Production (5)
- [ ] Dairy Food Production (6)
- [ ] Institutional Settings (hospitals, aged care, child care) (7)
- [ ] Food Warehousing / Distribution (8)
- [ ] Supermarkets (9)
- [ ] Seafood Production (10)
- [ ] Other (please specify) (11)

_____

Q5 What is your job title?

_____

Q6 What is the highest level of training you have attained to undertake your role in food safety inspection?

- ○ On the job experience (1)
- ○ Certificate or Diploma (2)
- ○ Bachelor Degree (3)
- ○ Post-graduate Degree (4)
- ○ Still studying (5)
- ○ Other (6)

Q7 How many years have you held a role responsible for undertaking food safety inspections?

_____

Q8 How many food safety inspections did you complete in the last 7 days?

_____

Q17 When undertaking a food safety inspection, do you evaluate the capability of the food business to sustain a positive food safety culture beyond the time of inspection?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q19 If When undertaking a food safety inspection, do you evaluate the capability of the food business to... = Never

Q18 How do you evaluate the capability of the food business to sustain a positive food safety culture? (please select all that apply)

- ☐ Review food safety plans and procedures of the food business (1)
- ☐ Review food safety records kept by the food business (2)
- ☐ Test the knowledge of food handlers on safe food handling procedures (3)
- ☐ Review compliance history of the food business (4)
- ☐ Other (please specify) (5) _____

Q19 If a food business uses cooking as a microbiological kill-step for potentially hazardous foods, do you assess the adequacy of the cooking process?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q21 If If a food business uses cooking as a microbiological kill-step for potentially hazardous foods, d... = Never

Q20 How do you make this assessment cooking adequacy? (please select all that apply)

- ☐ Measure the temperature of foods being cooked with a thermometer (1)
- ☐ Review records of cooking temperature checks being kept by the food business (2)
- ☐ Review the cooking procedure to ensure cooking temperatures will be sufficient and met reliably (3)
- ☐ Test the knowledge of food handlers on safe food handling procedures relating to cooking (4)
- ☐ Other (please specify) (5) _____

Q21 If a food business stores potentially hazardous foods in cold storage to control microbiological growth, do you assess the adequacy of the cold storage?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q23 If If a food business stores potentially hazardous foods in cold storage to control microbiological... = Never

Q22 How do you make this assessment of cold storage adequacy? (please select all that apply)

- ☐ Measure the temperature of foods in cold storage with a thermometer (1)
- ☐ Review records of cold storage temperature checks being kept by the food business (2)
- ☐ Test the knowledge of food handlers on safe food handling procedures relating to cold storage (3)
- ☐ Other (please specify) (4) _____

Q23 If a food business holds food hot to control microbiological growth, do you assess the adequacy of the hot storage?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q27 If If a food business holds food hot to control microbiological growth, do you assess the adequacy o... = Never

Q24 How do you make this assessment of hot storage adequacy? (please select all that apply)

- ☐ Measure the temperature of foods in hot storage with a thermometer (1)
- ☐ Review records of hot storage temperature checks being kept by the food business (2)
- ☐ Test the knowledge of food handlers on safe food handling procedures relating to hot storage (3)
- ☐ Other (please specify) (4) _____

Q27 If a food business cools potentially hazardous foods after a microbiological kill-step, do you assess the adequacy of the cooling process?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q29 If If a food business cools potentially hazardous foods after a microbiological kill-step, do you as... = Never

Q28 How do you make this assessment of cooling adequacy? (please select all that apply)

- ☐ Measure the time it takes for foods to cool to safe storage temperatures (1)
- ☐ Review the cooling procedure to ensure cooling temperatures will be sufficient and met reliably (2)
- ☐ Review records of time and temperature checks being kept by the food business (3)
- ☐ Test the knowledge of food handlers on safe food handling procedures relating to cooling food (4)
- ☐ Other (please specify) (5) _____

Q29 If a food business uses a low temperature cooking process as a microbiological kill-step, do you assess the adequacy of the cooking process?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q33 If If a food business uses a low temperature cooking process as a microbiological kill-step, do you... = Never

Q30 How do you make this assessment of low temperature cooking adequacy? (please select all that apply)

- ☐ Measure the temperature of foods being cooked with a thermometer (1)
- ☐ Measure the time taken to cook foods at a low temperature (2)
- ☐ Make a visual assessment of foods cooked at a low temperature (3)
- ☐ Review the cooking procedure to ensure cooking temperatures, times and quantities will be sufficient and met reliably (4)
- ☐ Other (please specify) (5) _____

Q33 If a food business uses time to control microbiological growth when storing food outside of temperature control, do you assess the adequacy of the time control?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q35 If If a food business uses time to control microbiological growth when storing food outside of tempe... = Never

Q34 How do you make this assessment of time control adequacy? (please select all that apply)

- ☐ Measure the time that foods are stored outside of temperature control (1)
- ☐ Review records of time and food temperature being kept by the food business (2)
- ☐ Review the time control procedure to ensure time outside temperature control will be within safe limits and met reliably (3)
- ☐ Test the knowledge of food handlers on safe food handling procedures relating to time and temperature (4)
- ☐ Other (please specify) (5)
  _____

Q35 If a food business prepares and serves foods that do not have a microbiological kill-step, do you assess the adequacy of the food preparation process?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q37 If If a food business prepares and serves foods that do not have a microbiological kill-step, do you... = Never

Q36 How do you make this assessment of preparation adequacy? (please select all that apply)

- ☐ Visual observation of foods prepared that have not undergone a microbiological kill-step (1)
- ☐ Test the knowledge of food handlers on safe food handling procedures for ready to eat foods (2)
- ☐ Review the preparation procedure for ready to eat foods to ensure protection from contamination is sufficient and met reliably (3)
- ☐ Other (please specify) (4) _____

Q37 If a food business handles food after a microbiological kill-step, do you assess the adequacy of these food handling processes?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q39 If If a food business handles food after a microbiological kill-step, do you assess the adequacy of... = Never

Q38 How do you make this assessment of preparation adequacy? (please select all that apply)

- ☐ Visual observation of foods prepared that have undergone further handling after a microbiological kill-step (1)
- ☐ Test the knowledge of food handlers on safe food handling procedures (2)
- ☐ Visual observation of food handling practices (3)
- ☐ Other (please specify) (4) _____

Q39 If a food business produces a food and declares that it is 'free from' a specific food allergen, do you assess the adequacy of the food production process?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q43 If If a food business produces a food and declares that it is 'free from' a specific food allergen,... = Never

Q40 How do you make this assessment of allergen control adequacy? (please select all that apply)

- ☐ Test the knowledge of food handlers on safe food handling procedures relating to food allergens (1)
- ☐ Review the allergen management procedure to ensure allergen control will be sufficient and met reliably (2)
- ☐ Visually observe foods being prepared that are being declared 'free from' a particular food allergen (3)
- ☐ Other (please specify) (4) _____

Q43 If a food business relies on a water supply from a non-reticulated source, do you assess the adequacy of water treatment methods?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q45 If If a food business relies on a water supply from a non-reticulated source, do you assess the adeq... = Never

Q44 How do you make this assessment of water treatment adequacy? (please select all that apply)

- ☐ Review the water treatment procedure to ensure it will be sufficient and met reliably (1)
- ☐ Visually observe the condition of any filtration and treatment equipment (2)
- ☐ Test the knowledge of food handlers on safe water treatment procedures (3)
- ☐ Review servicing records or receipts for maintenance of water treatment equipment (4)
- ☐ Other (please specify) (5) _____

Q45 If a food business thaws frozen potentially hazardous foods prior to a microbiological kill-step, do you assess the adequacy of the thawing process?

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q47 If If a food business thaws frozen potentially hazardous foods prior to a microbiological kill-step,... = Never

Q46 How do you make this assessment of thawing adequacy? (please select all that apply)

- ☐ Review records of time and food temperature being kept by the food business (1)
- ☐ Review the thawing procedure to ensure time and temperature will be controlled sufficiently and met reliably (2)
- ☐ Test the knowledge of food handlers on safe food handling procedures relating to thawing foods (3)
- ☐ Visually observe foods being thawed (4)
- ☐ Other (please specify) (5) _____

Q47 When inspecting food premises, do you attempt to identify uncontrolled environmental sources of contamination? (e.g. leaking wastewater pipe in food production area)

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q49 If When inspecting food premises, do you attempt to identify uncontrolled environmental sources of c... = Never

Q48 How do you identify sources of environmental contamination? (please select all that apply)

- ☐ Visual observation of the food premises structure and fixtures and fittings (1)
- ☐ Measurement of microbiological activity using an ATP luminometer or environmental surface swabs (2)
- ☐ Review of the equipment dismantling and deep clean schedule (3)
- ☐ Review food business maintenance records (4)
- ☐ Other (please specify) (5) _____

Q49 When inspecting food premises, do you attempt to identify uncontrolled inherent sources of contamination? (e.g. foods that must be specially prepared to remove naturally occurring toxins such as red kidney beans or particular types of seafood)

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q51 If When inspecting food premises, do you attempt to identify uncontrolled inherent sources of contam... = Never

Q50 How do you identify sources of inherent contamination? (please select all that apply)

- ☐ Visually observe foods stored ready for use in the food premises (1)
- ☐ Review the menu or a list of foods produced at the premises (2)
- ☐ Inquire with food handlers if there are any foods they prepare that require specific procedures to render them safe (3)
- ☐ Review the food ingredient order list of the food business (4)
- ☐ Other (please specify) (5) _____

Q51 When inspecting food premises, do you attempt to identify uncontrolled sources of cross-contamination? (e.g. failure to clean and sanitise surfaces between handling raw potentially hazardous foods and ready to eat foods)

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q53 If When inspecting food premises, do you attempt to identify uncontrolled sources of cross-contamina... = Never

Q52 How do you identify sources of cross-contamination? (please select all that apply)

- ☐ Visually observe food being prepared in the kitchen (1)
- ☐ Visually observe food storage areas and food storage conditions (2)
- ☐ Review the food preparation procedure to ensure food contact surfaces will be sufficiently separated or cleaned and sanitised between uses (3)
- ☐ Test the knowledge of food handlers on safe food handling procedures relating to cross-contamination (4)
- ☐ Visually examine food preparation equipment and utensils for contaminants (5)
- ☐ Other (please specify) (6) _____

Q53 When inspecting food premises, do you attempt to identify uncontrolled sources of contamination by food handlers? (e.g. food handlers presenting with symptoms of acute gastrointestinal illness while handling food)

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q55 If When inspecting food premises, do you attempt to identify uncontrolled sources of contamination b... = Never

Q54 How do you identify sources of contamination related to food handlers? (please select all that apply)

- ☐ Visually observe food handlers while they prepare food (1)
- ☐ Review the procedures relating to exclusion of ill food handlers (2)
- ☐ Visually observe the presentation and attire of food handlers working at the food premises (3)
- ☐ Test the knowledge of food handlers on management and concealment of cuts and broken skin when handling food (4)
- ☐ Other (please specify) (5) _____

Q55 When inspecting food premises, do you attempt to identify sources or evidence of food adulteration? (e.g. adding melamine as a filler to milk products)

- ○ Never (1)
- ○ Sometimes (2)
- ○ About half the time (3)
- ○ Most of the time (4)
- ○ Always (5)

Skip To: Q57 If When inspecting food premises, do you attempt to identify sources or evidence of food adulteratio... = Never

Q56 How do you identify evidence of food adulteration? (please select all that apply)

- ☐ Visually observe food storage areas for non-food products that may used to supplement food ingredients (1)
- ☐ Acquire samples of food products to send for compositional analysis by a food laboratory (2)
- ☐ Review your records for food safety complaints from the public (3)
- ☐ Other (please specify) (4)

_____

Display This Question:

If In which of the following jurisdictions are you employed to undertake food safety inspections? = Australia

Q63 Are you willing to be contacted about participating in further research into food safety inspections?

- Yes (1)
- No (2)

Skip To: End of Survey If Are you willing to be contacted about participating in further research into food safety inspecti... = No

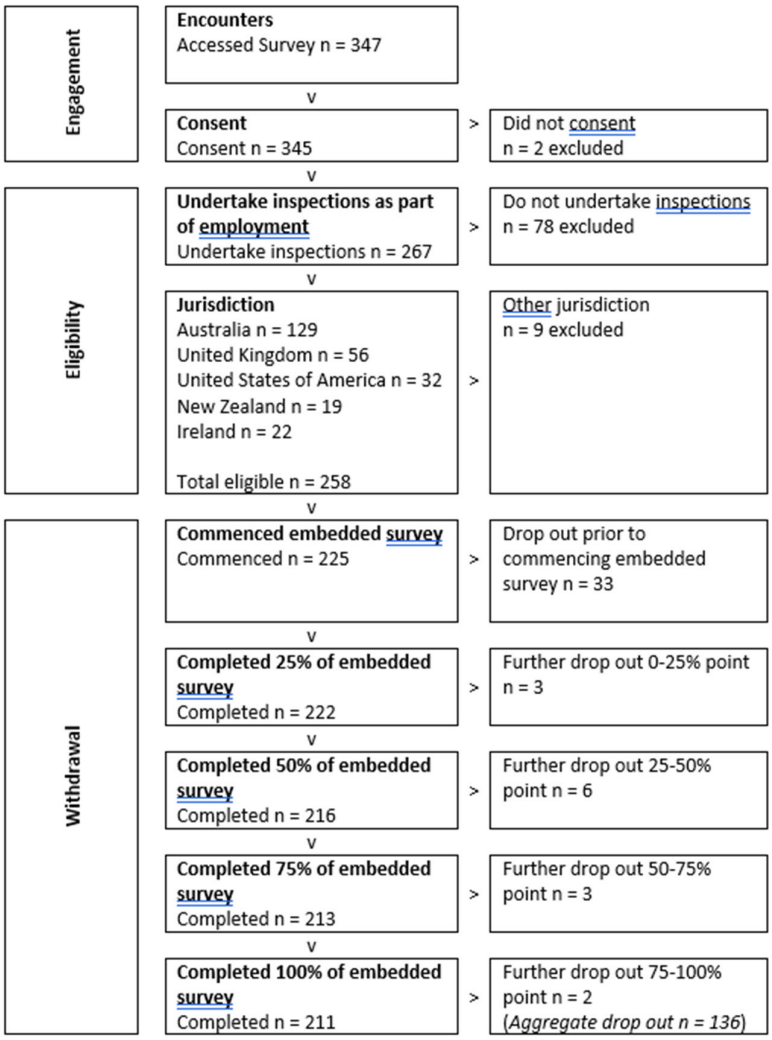
Display This Question:

If In which of the following jurisdictions are you employed to undertake food safety inspections? = Australia

Q62 Thank you for your interest in participating in further research. Please add your contact details below.

- Given Name (1) _____
- Email (2) _____
- Telephone (3) _____

Supplementary Figure 2: Survey Engagement, Eligibility, and Withdrawal Flow Diagram



Supplementary Table 1: Number of Survey Respondents Relative to Country

Country	Number of Survey Respondents	Percentage of survey respondents
Australia	129	50%
United Kingdom	56	21.7%
United States of America	32	12.4%
New Zealand	19	7.4%
Ireland	22	8.5%

Supplementary Table 2: Employer of Survey Respondents

Employer	Number of survey respondents	Percentage of survey respondents
Local Government	202	78.6%
County / Regional Government	17	6.6%
State Government	23	8.9%
Federal Government	1	.4%
Government Contractor	1	.4%
Private Consultancy	2	.8%
Food Manufacturer / Producer	2	.8%
Other	9	3.5%

Supplementary Table 3: Highest Level of Relevant Training of Eligible Survey Respondents

Highest level of relevant training	Number of survey respondents	Percentage of survey respondents
On the job experience	11	4.3%
Certificate or Diploma	27	10.6%
Bachelor degree	125	49.2%
Post-graduate degree	84	33.1%
Still studying	3	1.2%
Other	4	1.6%

Supplementary Table 4: Years of Experience of Survey Respondents Coded to 5-Year Categories

Years of experience coded to five-year categories	Number of survey respondents	Percentage of survey respondents
0 < > 5 years	53	21.2%
5 ≤ > 10 years	36	14.4%
10 ≤ > 15 years	37	14.8%
15 ≤ > 20 years	32	12.8%
20 ≤ years	92	36.8%

Supplementary Table 5: Regularity of Assessing Food Safety Culture, Food Preparation Points, and Processing Against Country, Training, and Experience

ST5 Regularity of assessing food safety culture, food preparation points and processes against country, training and experience - Pearson's Chi Square Test of Independence using Monte Carlo method and Cramer's V measure of effect size								
	Dependent variable	**X^2**	***df***	**Sample size (N)**	**ρ value**	**Cramer's V**	**Lower 95% CI**	**Upper 95% CI**
	Country							
Q17	Food safety culture	*26.639*	*16*	*225*	*.050*	*.172*	*.150*	*.257*
Q19	Cooking adequacy	**34.454**	**12**	**224**	**<.001**	**0.226**	**0.193**	**0.314**
Q21	Cold storage adequacy	NSR						
Q23	Hot storage adequacy	NSR						
Q27	Cooling adequacy	NSR						
Q29	Low temperature cooking adequacy	NSR						
Q33	Time control adequacy	NSR						
Q35	Ready to eat food preparation adequacy	NSR						
Q37	Post kill-step handling adequacy	NSR						
Q39	Allergen control adequacy	**75.910**	**16**	**212**	**.000**	**0.299**	**0.251**	**0.387**
Q43	Water treatment adequacy	**37.728**	**14**	**209**	**.004**	**0.212**	**0.183**	**0.305**
Q45	Thawing adequacy	NSR						
	Training							
Q17	Food safety culture	NSR						
Q19	Cooking adequacy	NSR						
Q21	Cold storage adequacy	NSR						
Q23	Hot storage adequacy	NSR						
Q27	Cooling adequacy	NSR						
Q29	Low temperature cooking adequacy	NSR						
Q33	Time control adequacy	NSR						
Q35	Ready to eat food preparation adequacy	NSR						
Q37	Post kill-step handling adequacy	NSR						
Q39	Allergen control adequacy	NSR						

Q43	Water treatment adequacy	NSR
Q45	Thawing adequacy	NSR
	Experience	
Q17	Food safety culture	NSR
Q19	Cooking adequacy	NSR
Q21	Cold storage adequacy	NSR
Q23	Hot storage adequacy	NSR
Q27	Cooling adequacy	NSR
Q29	Low temperature cooking adequacy	NSR
Q33	Time control adequacy	NSR
Q35	Ready to eat food preparation adequacy	NSR
Q37	Post kill-step handling adequacy	NSR
Q39	Allergen control adequacy	NSR
Q43	Water treatment adequacy	NSR
Q45	Thawing adequacy	NSR

NSR – No significant relationship indicated

X – Significant relationship indicated with at least moderate effect size

X – Significant relationship indicated not meeting inclusion criteria

Supplementary Table 6: Regularity of Assessing Food Contamination Sources and Probity Against Country, Training, and Experience

ST6 Regularity of assessing food contamination sources and probity against country, training and experience - Pearson's Chi Square Test of Independence using Monte Carlo method and Cramer's V measure of effect size								
	Dependent variable	**X^2**	***df***	**Sample size (N)**	**ρ value**	**Cramer's V**	**Lower 95% CI**	**Upper 95% CI**
	Country							
Q47	Environmental sources of contamination	NSR						
Q49	Inherent sources of contamination	**63.230**	**16**	**208**	**.000**	**0.276**	**0.24**	**0.369**
Q51	Sources of cross-contamination	NSR						
Q53	Sources of contamination by food handlers	NSR						
Q55	Sources or evidence of food adulteration	**50.356**	**16**	**211**	**<.001**	**0.244**	**0.216**	**0.333**
	Training							
Q47	Environmental sources of contamination	NSR						
Q49	Inherent sources of contamination	NSR						
Q51	Sources of cross-contamination	NSR						
Q53	Sources of contamination by food handlers	NSR						
Q55	Sources or evidence of food adulteration	NSR						
	Experience							
Q47	Environmental sources of contamination	NSR						
Q49	Inherent sources of contamination	NSR						
Q51	Sources of cross-contamination	NSR						
Q53	Sources of contamination by food handlers	NSR						
Q55	Sources or evidence of food adulteration	*28.139*	*16*	*211*	*.029*	*.183*	*.168*	*.281*

NSR – No significant relationship indicated

X – Significant relationship indicated with at least moderate effect size

X – Significant relationship indicated not meeting inclusion criteria