Food Fraud and the Tools for Combat:
Food labelling regulation and the protection of food safety and public health in Australia

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Abstract

Food fraud is not a new phenomenon. However, globalisation of the food supply is relatively new, introducing new threats for food regulatory frameworks to effectively control in the interest of protecting safety and public health. The significance of food labelling compliance regulatory control in preventing food fraud warrants an examination of the Australian food regulatory framework. This thesis asks, does the Australian food regulatory framework operate to control food authenticity and prevent direct, indirect and technical harms to safety and public health from food fraud? The thesis reviews and synthesises food fraud, food crime and food supply chain literature to conceptualise the problems and provide solutions based on current food fraud knowledge and incident data. It analyses Australian food laws and strategic policies to show how food labelling compliance is controlled within the overall food regulatory framework. An account of the history of food legislation for safety and public health in Australia and the UK shows preventing food fraud is an historical driver of food safety regulation. Australia's modern food offence architecture is reviewed to suggest an Australian food fraud definition coherent within those laws. The operation of Australia's foundational food safety risk-based classification and prioritisation scheme to achieve the overarching objective to 'protect safety and public health' in the context of both traditional foodborne illness harms and harms from fraud and misrepresentation is explored. Under analysis also are the national policies and compliance monitoring and enforcement strategies implemented by state food enforcement agencies in achieving the objectives of preventing misleading or deceptive conduct in the sale of food. In particular, this thesis critically examines the guiding policy framework for the regulation of food labelling, the Food Labelling Issues Hierarchy. This thesis shows that the implementation of this Hierarchy has underestimated the risk of fraud and misrepresentations and there is the need for enhanced monitoring of compliance and conducting enforcement to protect consumers from associated direct, indirect and technical threats to safety and public health. Additionally, fraud and misrepresentations are camouflaged by the operating regulatory food safety audits. This research leads to new knowledge about the operation of Australia's food regulatory framework. The findings demonstrate at most a general failure, or at least uncertainty, in how Australia's food regulatory framework can effectively achieve the main objectives when the threats of harm to safety and public health are caused by fraud and misrepresentation, not the agents of foodborne illness. Overall, the findings suggest that if Australia's food regulatory framework is to effectively achieve its statutory and strategic objectives in a globalised food supply maze, ensuring food authenticity and preventing food fraud must be explicitly articulated by responsible governments as a policy goal for proactive measures at the intersection of food and safety and public health. New regulatory measures, policies and strategies targeting the prevention of fraud and misrepresentation are required. New regulatory measures in the ANZFSC should complement the traditional foodborne illness focused food safety approaches and work towards achieving the safety and public health objectives of the food regulatory framework regardless of the cause of harm.

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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Secondly, I dedicate this thesis to my ex-colleagues at the NSW Food Authority. It is an understatement to state that my experience working with highly skilled and committed food safety officers precipitated this research. I am most grateful to those dedicated public servants who taught me all I know about food safety management systems and regulatory strategies aiming to protect safety and public health.

Lastly but definitely not the least, I thank my parents, sister and partner. Without their support, there is no doubt, this thesis would be nothing but ideas dancing in my brain.

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ABBREVIATIONS

ACCC	Australia Competition and Consumer Commission
ANZFSC	Australia New Zealand Food Standards Code
FSANZ	Food Standards Australia New Zealand
NSWFA	New South Wales Food Authority
The Forum	Australia New Zealand Ministerial Forum on Food Regulation
UK	United Kingdom
US	United States of America

CHAPTER 1: INTRODUCTION

I AN INTRODUCTION TO FOOD FRAUD

In 1820 food authenticity analyst Fredrick Accum proclaimed that of all marketplace frauds:

> [T]here is none more reprehensible, and at the same time more prevalent, than the sophistication of the various articles of food. This unprincipled and nefarious practice, increasing in degree as it has been found difficult of detection, is now applied to almost every commodity which can be classed among either the necessaries or the luxuries of life, and is carried on to a most alarming extent in every part of the United Kingdom. It has been pursued by men, who, from the magnitude and apparent respectability of their concerns, would be the least obnoxious to public suspicion; and their successful example has called forth, from among the retail dealers, a multitude of competitors in the same iniquitous course. … Among the number of substances used in domestic economy which are now very generally found sophisticated, may be distinguished – tea, coffee, bread, beer wine, spirituous liquors, salad oil, pepper, vinegar, mustard cream, and other articles of subsistence. Indeed, it would be difficult to mention a single article of food which is not to be met with in an adulterated state; and there are some substances which are scarcely ever to be procured genuine … The object of all unprincipled modern manufacturers seem to be the sparing of their time and labour as much as possible, and to increase the quantity of the articles they produce, without much regard to their quality. … The eager and insatiable thirst for gain, which seems to be a leading characteristic of the times, calls into action every human faculty, and gives an irresistible impulse to the power of invention; and where lucre becomes the reigning principle, the possible sacrifice of even a fellow creature's life is a secondary consideration. [1]

Today, food fraud is one of the most 'deep-rooted and significant issues' facing the food industry,[2] a 'transversal issue … [that] impacts on both food quality and safety …a very difficult problem to tackle'.[3] Accum's statement is as applicable today as it was nearly 200 years ago. However, today's complex, globalised food supply maze only enhances the opportunities for food frauds. Not only are food frauds reprehensible and prevalent, but in the 21st century the threats to safety and public health can now impact hundreds of thousands of consumers globally.

The phrase 'food fraud' is 'a collective term' used in food policy discourse at the European Parliament,[4] United Kingdom (UK) Department of Environment Food and Rural Affairs

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1 Frederick Accum, *A Treatise on Adulterations of Food and Culinary Poisons - Exhibiting the fraudulent sophistications of bread, beer, wine, spiritous liquors, tea, coffee, cream, confectionary, vinegar, mustard, pepper, cheese, olive oil, pickles and other articles employed in domestic economy* (The Echo Library, 1820), 1 <https://publicdomainreview.org/collections/a-treatise-on-adulteration-of-food-and-culinary-poisons-1820/> ('*Treatise on Adulterations*').

2 National Farmers Union Mutual, 'Food Fraud Report' (Research Report, NFU Mutual Insurance Society, 2017) 2.

3 Iran, Canada and the Netherlands for the Joint Food Agriculture Organisation and World Health Organisation Food Standards Programme Codex Alimentarius Committee on Food Labelling, *Committee on Food Import and Export Inspection and Certification Systems (CCFICS22) Proposed New Codex Work on Food Integrity/Food Authenticity as Emerging Issues*, CX/FL 16/432-Add.1 (April 2016), 5; Joint FAO/WHO Food Standards Programme Codex Alimentarius Committee on Food Import and Export Inspection and Certification Systems, *Twenty-Second Session, Other Business and Future Work, Agenda Item 11 Comments of Islamic Republic of Iran*, CAC/38 CRD/29' (2016).

4 European Parliament, 'European Parliament Resolution of 14 January 2014 on the Food Crisis, Fraud in the Food Chain and the Control Thereof' (European Parliament Resolution 2013/2091(INI), 2014) ('*European Resolution*').

(DEFRA),[5] and Global Food Safety Initiative (GFSI),[6] 'to encompass the deliberate and intentional substitution, addition, tampering, or misrepresentation of food, food ingredients, or food packaging; or false or misleading statements made about a product for economic gain'.[7] The phrase, defined in 2011 by John Spink and Douglas Moyer captures at least seven intentionally deceptive and illegal acts involving the sale of food.[8] The most prevalent type, the substitution and dilution of food and ingredients, represents an estimated 65 per cent of known food frauds since 1980.[9] This thesis focuses on this most common type of food fraud in food supply chains, adopting 'fraud and misrepresentation' as the phrase to capture acts resulting in food frauds of this type. The phrase includes the use of false representations, misleading or deceptive conduct, mislabelling and non-compliant use of information when promoting the sale of food.

Globally, the food fraud phenomenon suffers from a dearth of data.[10] Exactly how prevalent food fraud is throughout the world is generally unknown.[11] The incidence of fraud and misrepresentation in Australian food supply chains is also unknown. Comprehensive and empirical research data into the authenticity rates of foods and ingredients traded in supply chains and used in the manufacture of food in Australia is also lacking.[12] However, reports of suspected food frauds

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5 Christopher Elliott, 'Elliott Review into the Integrity and Assurance of Food Supply Networks – Final Report A National Food Crime Prevention Framework' (Independent Review Report, Department of Environment Food and Rural Affairs (DEFRA), July 2014) 12 ('*Elliott Review*').

6 Global Food Safety Initiative (GFSI), 'GFSI Position on Mitigating the Public Health Risk of Food Fraud' (Policy Position, The Consumer Goods Forum, 2014); GFSI, 'Tackling Food Fraud Through Food Safety Management Systems' (GFSI Final Benchmarking Requirement, The Consumer Goods Forum, 2018), 3.

7 John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* 157, 158. The Spink and Moyer definition continues, 'Food fraud is a broader term than either the economically motivated adulteration (EMA) defined by the Food and Drug Administration (FDA) or the more specific general concept of food counterfeiting. Food fraud may not include "adulteration" or "misbranding" as defined in the Food, Drug, and Cosmetic Act (FD&C Act), when it involved acts such as tax-avoidance and smuggling'.

8 Specifically, the adulteration of food and ingredients such as substitution and dilution with a fraudulent ingredient or substance, tampering or up-labelling (e.g. date marking changes), over-run of production and distribution beyond regulated channels, stolen foods mixed with legitimate foods for distribution, diversion of food beyond legitimate supply chains, simulated foods (cheaper knock-offs of lesser quality and safety than real version) and, counterfeit copies of foods. John Spink, 'Global counterfeit food and beverage packaging: impacts on food safety.' Paper presented at the Association of Food and Drug Officials (AFDO), Annual Conference (2007); John Spink, 'Defining Food Fraud and the Chemistry of the Crime', paper presented at the American Association for the Advancement of Science 2009 Annual Meeting (2009) cited in Spink and Moyer, above n 7, R162. See also Louise Manning and Jan Mei Soon, 'Food Safety, Food Fraud, and Food Defense: A Fast Evolving Literature' (2016) 81(4) *Journal of Food Science* R823, R826.

9 Renée Johnson, 'Food Fraud and "Economically Motivated Adulteration" of Food and Food Ingredients' (Research Report, 7-5700 R43358, Congressional Research Service, United States Congress, 10 January 2014), 19. Data from the USP Food Fraud Database <http://www.foodfraud.org/>, as compiled by NCFPD EMA Incident Database (January 6, 2014), based on 306 reported incidents from 1980 to 2013. As of 2018, the Food Fraud Database is owned by Decernis and accessed at <https://decernis.com/solutions/food-fraud-database/>.

10 Michael T Roberts and Whitney Turk, 'The Pursuit of Food Authenticity' (White Paper, Resnick Program For Food Law and Policy, UCLA, 2017) 11.

11 Johnson, above n 9, 2.

12 Before 2008 FSANZ conducted food label monitoring surveys by checking the presence of mandatory food labelling information in sampled foods. The surveys did not consider whether the information provided was true and correct, only that the required information was present. See, eg, AssureQuality Australia Pty Limited and FSANZ, 'Ongoing Food Label Monitoring Survey in Australia and New Zealand: Report on the Assessment of 2006 Labels for Key Mandatory Labelling Elements for Consistency against Labelling Provisions (Phase 2 Report) (Evaluation Report Series No 18, Commonwealth of Australia, 2008). No food label monitoring survey has been conducted in Australia and published by FSANZ since 2008.

in international markets is rising.[13] Governments and research institutions are also now compiling databases of food fraud incidents to enable research and the sharing of known incident data.[14]

Preventing food fraud for safety and public health has been an aim of food laws for centuries.[15] Food fraud is not a new phenomenon. However, globalisation of the food supply is relatively new, bringing new threats and factors to consider when ensuring a safe food supply into the 21st century. New threats include a range of potential threats to safety and public health. Preventing (not detecting) fraud of food and ingredients is key to protecting safety and public health. Preventing misleading or deceptive conduct is an objective of Australia's food regulatory framework. Unfortunately though, in Australia food fraud-related government commentary and industry research appears limited to articulating the economic risk and quantifying monetary losses from acts of counterfeiting food brands in export food markets.[16] Certainly, significant profits can be made by fraudsters.[17] Losses to the Australian food and wine exporters, for example is estimated at $1689 million per annum.[18] Lesser attention focuses on the range of potential food safety and public health threats from food fraud requiring control.

The 2008 discovery that Chinese infant formula was made with diluted milk powder highlighted the importance of strategically controlling potential threats from fraud and misrepresentation in the global food trade.[19] Enhanced with the plasticiser melamine to fraudulently raise the protein readings in food safety management quality tests and cover up the act of dilution, the diluted milk powder killed at least six infants, and injured estimated hundreds of thousands. John Spink and Douglas Moyer profess, 'food fraud related public health risks are often more risky than traditional food safety threats because the contaminants are unconventional',

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13 See, eg, John Dennis and Simon Kelly, 'The Identification of Sources of Information Concerning Food Fraud in the UK and Elsewhere (Research Report Q01R0025, Report to DEFRA, Food Authenticity Branch, The Food and Environment Research Agency, March 2013), 20-21. The UK Food Standards Authority Food Fraud Team database shows an increase in reports. In 2011, 1321 reports were received compared to 908 in 2010.

14 See, eg, the Food Fraud Database which (as of 2018) is owned by Decernis and accessed at <https://decernis.com/solutions/food-fraud-database/>. Chapter 8 uses Food Fraud Database data.

15 Bee Wilson, Swindled - From poison sweets to counterfeit coffee – the dark history of the food cheats (John Murray, 2008).

16 See, eg, Alex Sampson, 'Food fraud: high roller of the crime scene', (*The Weekly Times* (online) 29 May 2017). In this rare example of an Australian government representative publically referring to food fraud, reference was limited to brand protection from counterfeiting in export markets. The representative from Department of Agriculture and Water Resources commented, 'food fraud is a risk in any market where there is opportunity to make greater profits…(and) may undermine the trust of consumers in the quality and safety of a branded food product and unfairly penalises producers of genuine products'.

17 Douglas Moyer, Jonathan DeVries and John Spink, 'The Economics of a Food Fraud Incident - Case Studies and Examples Including Melamine in Wheat Gluten' (2017) 71 *Food Control* 358, 358. The full economic impact of a food fraud event is often immeasurable, 'a single shipment of fraudulent food can result in tens of thousands of dollars in illegal profit'.

18 Ross McLeod, 'Counting the cost: Lost Australian Food and Wine Export Sales Due to Fraud' (Food Innovation Australia Limited (FIAL), 2017), 4. Estimations are highest for the dairy, wine and meat product sectors with $360 million attributed to dairy products, $303 million for wine, $272 million for meat (including live animal export frauds), $248 million for horticulture, and $189 million for seafood.

19 Food and Agriculture Organization of the United Nations (FAO), 'Toxicological and Health Aspects of Melamine and Cyanuric Acid: Report of a WHO Expert Meeting in Collaboration with FAO, Supported by Health Canada' (Press Release, 1-4 December 2008); See generally Marion Nestle, *Pet Food Politics: The Chihuahua in the Coal Mine* (University of California Press, 2008).

emphasising 'although the cause or motivation is economic or financial, the effect is often a public health threat'.[20]

The threats to safety and public health from food fraud can be direct, indirect or technical.[21] Direct food fraud risk exists where immediate and acute toxicity or illness results from false descriptions of foods or food ingredients following, for example, the substitution or dilution of premium ingredients with cheaper, allergenic components.[22] Indirect threats flow from long-term consumption and repeated exposure to an affected food, where discovery of an impact on the public's health may be delayed. Examples include the long-term exposure to artificial enhancements added to food to achieve a claimed health effect or food function,[23] a nutritionally defective food missing the claimed beneficial properties of the food,[24] or a food with false or misleading health claims specific to the food.[25] Technical threats include false descriptions on labels that do not result in a direct or indirect public health threats but a technical threat to safety exists, mainly because any false representation of food prevents an effective recall due to a lack of traceability. Technical threats generally concern credence attributes (for example, country of origin labelling, claims of organic farming or specific production practices, such as higher standards of animal welfare). All three types of threats pose food safety and public health dangers as discussed in this thesis.

Food frauds are crimes of opportunity.[26] Simply put, this means motivated offenders with opportunities make rational choices to choose targets that bring high rewards with minimal effort and risk. Food frauds are designed to avoid detection and take advantage of opportunities presented in optimal environments where low risk of detection, leniency of punishment and opportunity for an economic benefit exists.[27] Motivated offenders include actors operating within

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20 Spink and Moyer, n 7, 157.

21 Ibid 159.

22 See, eg, Tom Bawden, 'New Food Scandal over Peanuts Is 'More Serious' than the Horsemeat Crisis' (*The Independent* (online), 14 February 2015) warning consumers of the potentially life threatening activity of using allergenic peanuts and almonds in place of more expensive cumin seeds.

23 See, eg, NSW Food Authority, 'Fined for Undeclared Sibutramine Drug in Food' (*Foodwise* Issue 31, November 2013) involving the recall of coffee, teas and chocolates labelled as natural weight loss products containing (undeclared) Schedule IV therapeutic agents withdrawn from the market due to an increase in reported side effects, including blood pressure, cardiac events and strokes.

24 See, eg, *NSW Food Authority (Officer Ian Beer) v P and N Beverages Pty Limited* (Unreported, Local Court of NSW, Magistrate GJT Hart, 21 July 2008), a local court prosecution of a drinks manufacturer falsely describing the diluted concentrate of deionised apple juice with added preservative, as '99% apple juice, preservative free'.

25 See, eg, Robert Burton-Bradley, 'Microbioflora Pty. Ltd. fined for illegal health claims on its Progurt' (*News Limited* (online), 19 October 2011) involving a 'probiotic yogurt' promoted with claims the food could 'alleviate symptoms of HIV, multiple sclerosis, diabetes and asthma'. See also Chapter 7 of this thesis.

26 Nicholas Lord, Cecilia Flores Elizondo and Jon Spencer, 'The Dynamics of Food Fraud: The Interactions between Criminal Opportunity and Market (Dys)Functionality in Legitimate Business' (2016) (October) *Criminology and Criminal Justice* 1, 10; John Spink, 'Defining Food Fraud and the Chemistry of the Crime' in Wayne Ellefson, Lorna Zach and Darryl Sullivan (eds), *Improving Import Food Safety* (John Wiley and Sons and Institute of Food Technologists, 2013) 195-197; Spink and Moyer, 'Defining the Public Health Threat of Food Fraud', above n 7, 160; National Food Crime Unit, 'Food Crime Annual Strategic Assessment: A 2016 Baseline', (Food Standards Agency and Food Standards Scotland, 2016), 9; Louise Manning, Robert Smith and Jan Mei Soon, 'Developing an Organizational Typology of Criminals in the Meat Supply Chain' (2016) 59 *Food Policy* 44, 45.

27 NSF Safety and Quality UK Ltd, 'Risk Modelling of Food Fraud Motivation – "NSF Fraud Protection Model" Intelligent Risk Model Scoping Project' (Research Report FS 246004, NSF International, Food Standards Agency, 2014), 3; John Spink, 'Defining Food Fraud and the Chemistry of the Crime' in Wayne Ellefson, Lorna

legitimate food supply chains.[28] It is because food fraud occurs at the nexus of criminal and non-compliant business behaviours that understanding it as a crime is important for effective control by regulators. The illegal acts of fraud can be 'multi-faceted, and by nature, complex'.[29]

The drivers of fraud in food supply chains are many, including but not limited to the multiplicity of physical borders across the globalised market, marketplace competition, low probability of discovery, lean supply chains with weakened resilience, lack of visibility, lack of trust, lack of enforcement, documentary overload and complexity.[30] Consumer demand for low prices and access to seasonal food varieties all year round is shrinking the profit margins of food suppliers.[31] Significantly, the global trading of food and ingredients lengthens supply chains and increases the range of fraud risks and vulnerabilities foods, ingredients and food substances are exposed to.[32] Different food supply chains,[33] foods and forms of foods are more vulnerable to frauds than others.[34] Some fraudulently sold foods are riskier to health than others. The unique features of food frauds render effective fraud controls for preventing harms to safety and public health different from the traditional food safety hazard contamination control regulatory paradigm.[35] Motivated by various layers of financial advantage,[36] food fraud prevention requires a different approach to that traditionally taken to protect safety and public health.

Regional and global food governance forums are now discussing food authenticity and options for preventing food fraud. Member countries of key trade and public health governance bodies, the regional Asia-Pacific Economic Cooperation forum (APEC) and committees at the global food standards governance body, the joint Food and Agriculture Organisation and World Health Organisation Codex Alimentarius Commission (Codex),[37] are now considering the role of food authenticity in preventing the direct, indirect and technical health threats of food fraud. Food authenticity and preventing food fraud was topical for the first time at the 25th APEC Summit in

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Zach and Darryl Sullivan (eds), Improving Import Food Safety (John Wiley and Sons, Inc and the Institute of Food Technologists, First Edition, 2013), 205 adapting the Cohen and Felson (1979) crime triangle of victim, criminal and guardian/hurdle gaps. See also Lord, Elizondo and Spencer, above n 26.

28 Lord, Elizondo and Spencer, above n 26, 9-11.

29 Louise Manning, 'Food Fraud: Policy and Food Chain' (2016) 10(2) *Current Opinion in Food Science* 16, 16.

30 Ibid.

31 *Elliott Review*, above n 5, 13 paras 1.8-1.11.

32 Francesca Lotta and Joe Bogue, 'Defining Food Fraud in the Modern Supply Chain' (2015) 1 *European Food and Feed Law Review* 114, 115; See also Karen Everstine, 'Supply Chain Complexity and Economically Motivated Adulteration' in Shaun Kennedy (ed), *Food Protection and Security: Preventing and Mitigating Contamination During Food Processing and Production* (Elsevier, 2016).

33 Saskia van Ruth et al, 'Differences in Fraud Vulnerability in Various Food Supply Chains and Their Tiers' (2018) 84 *Food Control* 375, 376.

34 Karen Everstine, John Spink and Shaun Kennedy, 'Economically Motivated Adulteration (EMA) of Food: Common Characteristics of EMA Incidents.' (2013) 76(4) *Journal of Food Protection* 723, 724-729.

35 John Spink, David Ortega, Chen Chen and Felicicia Wu, 'Food Fraud Prevention Shifts the Food Risk Focus to Vulnerability' (2017) 62 *Trends in Food Science and Technology* 215, 216; Karen Everstine, John Spink and Shaun Kennedy, 'Economically Motivated Adulteration (EMA) of Food: Common Characteristics of EMA Incidents.' (2013) 76(4) *Journal of Food Protection* 723, 723; See also Isabelle Silvis, Saskia van Ruth, Ine van der Fels-Klerx and Pieternel Luning, 'Assessment of Food Fraud Vulnerability in the Spices Chain: An Explorative Study' (2017) 81 *Food Control* 80; See also John Spink, Neal Fortin, Douglas Moyer, Hong Miao, Yongning Wu, 'Food Fraud Prevention: Policy, Strategy and Decision-Making - Implementation Steps for a Government Agency or Industry' (2016) 70(5) *Chimia* 320.

36 Lord, Elizondo and Spencer, above n 26, 7.

37 Codex Alimentarius Commission has not itself addressed the issue of food fraud, leaving it for discussion in a number of committees (as at 1 July 2018).

November 2017.[38] Globally, Codex committees are defining food fraud, food integrity and food authenticity and establishing working groups to discuss options to enhance food safety management systems to systematically prevent fraud.[39]

II Research Question and Thesis Structure

The significance of food labelling compliance regulatory control in preventing food fraud warrants the examination of the Australian food regulatory framework, which comprises food laws, policies and compliance monitoring and enforcement strategies in Australia. This thesis therefore asks: *Does the Australian food regulatory framework operate to control food authenticity and prevent direct, indirect and technical harms to safety and public health from food fraud?*

In particular the thesis critically examines the guiding policy framework for the regulation of food labelling, the Food Labelling Issues Hierarchy (Hierarchy). Back in 2011, Australia's most comprehensive review of food labelling law and policy,[40] *Labelling Logic: Review of food labelling law and policy* (Blewett Review), made recommendations to government about the need to reform law and policy.[41] This includes the Hierarchy and its graduated risk-based approach to food labelling regulation. Responsible government actors then documented (for the first-time) nationally operating food labelling monitoring compliance policies and enforcement strategies. The Hierarchy steers food labelling regulation by prioritising the regulatory mode of intervention based on type of threat to safety as well as justifying the compliance monitoring and enforcement decisions of state food regulators. Tier one food labelling issues are prioritised because of the direct, acute and immediate threats to safety and public health. This thesis shows that the implementation of this Hierarchy has underestimated the risk of fraud and misrepresentations and the need for monitoring compliance and conducting enforcement to protect consumers from associated direct, indirect and technical threats to safety and public health.

This thesis is structured over nine chapters:

Chapter 2 provides an account of the history of food legislation for safety and public health in Australia and the UK, where much of Australia's original food legislation was drawn. It asks how have regulatory measures and definitions relating to food authenticity and food fraud changed over history? Chapter 2 shows that preventing fraud and misrepresentation has been a driver of

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38 Geoffrey Annison, 'In the Shadows of APEC, a Light Shines on Food Authenticity' (2018) 70(1) *Food Australia* 23. Food authenticity was discussed in the Food Safety Modernisation project, a workshop of the APEC Food Safety Cooperation Forum.

39 See Codex, above n 3.

40 Australia and New Zealand Forum on Food Regulation Ministerial Council commissioned an independent panel to review food labelling law and policy in Australia. The final report, Neal Blewett, Nick Goddard, Simone Pettigrew, Chris Reynolds and Heather Yeatman, *Labelling Logic: Review of Food Labelling Law and Policy* (Independent Review Report, Commonwealth of Australia, 2011) ('*Blewett Review*') and recommendations was officially presented on 28 January 2011. On 9 December 2011 the Forum agreed its response to the Review and published Legislative and Governance Forum on Food Regulation, 'Response to the Recommendations of Labelling Logic: Review of Food Labelling Law and Policy' (Government Response to Blewett, Commonwealth of Australia, 2011).

41 *Blewett Review*, above n 40.

food safety regulation throughout modern history. The chapter then outlines the Australian modern-day food regulatory offence architecture prohibiting fraud and misrepresentation. An adapted Food Protection Matrix, first devised by John Spink and Douglas Moyer, is used to demonstrate the relationships between the four food issues managed in a food protection system with reference to Australian food laws: Food safety, food defence, food fraud and food quality. The chapter also examines examination of whether the Spink and Moyer definition of food fraud is coherent within those laws, before suggesting a more useful definition for Australian policy discourse. It also shows the wide range of offences available to regulators in controlling food authenticity.

Chapter 3 asks how is food labelling compliance control treated in Australia's food regulatory framework? It describes the key government bodies, agencies, and legal and strategic policy instruments comprising the modern-day Australian regulatory framework for food labelling regulation, compliance and enforcement. The chapter introduces the Food Labelling Issues Hierarchy and its risk-based approach to food labelling regulation.

Chapter 4 explores the operation of Australia's foundational food and sector risk classification and prioritisation schemes to achieve the overarching objective to 'protect safety and public health' in the context of *both* traditional foodborne illness harms and harms from fraud and misrepresentation. It asks how does the Australian food regulatory framework classify risk in its food safety risk-based approach to food labelling regulation? It concludes with an account on how international food safety risk-based management systems and policies are modernising to adopt food fraud controls aiming for prevention of the nefarious activity. The chapter argues that globalisation of the food supply introduces new factors and risks to consider when aiming to protect consumer safety and public health. Food fraud is underestimated as a risk requiring proactive control to prevent food safety and public health harms.

Chapter 5 analyses the food regulatory framework's food labelling monitoring and enforcement policies and strategies following recommendations of the Blewett Review in 2011. How do the national food labelling compliance policies and strategies implemented at the state level of enforcement operate to prevent fraud and misrepresentation and protect safety and public health? Chapter 5 describes approved national strategies and policies comprising the food labelling compliance and enforcement framework before examining implementation in one state of Australia. The New South Wales (NSW) Food Authority (NSWFA) of the NSW Department of Primary Industries, is used as the case study to examine implementation and enforcement because it is the only through-chain, paddock to plate state food regulator. Published food labelling strategies by the intergovernmental Ministerial body that oversees food regulation and implemented state based policies are examined against the Australian National Audit Office's guidelines on best practice regulation.[42]

Chapters 6, 7 and 8 go on to present research and analysis in the Hierarchy's ascending order of risk steering operation of Australia's food labelling regulation and enforcement.

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[42] Australian National Audit Office, 'Administering Regulation Achieving the Right Balance Better Practice Guide' (National Policy Guideline, Commonwealth of Australia, 2014).

Chapter 6 uses enforcement data from 14 known enforcement actions involving consumer value issues (Tier three - technical risks to health), and a small number of interviews with meat supply chain industry actors, to describe the crime opportunity structure for a type of food fraud involving representations of premium-value meats. The study analyses publically available enforcement data and interviews with food industry actors to formulate the crime opportunity structure based on acts of fraud and misrepresentation in legitimate, premium meat processing systems which are already subject to food safety scheme regulatory audits. Finally, specific opportunity-reducing techniques are described in conclusion.

Chapter 7 examines the regulation of preventative health issues (Tier two - indirect, long term impacts on health). It analyses whether Australia's new health claims on food standard has the capacity to prevent false and misleading nutrition and health claims used to promote food for sale. It does so using a case study of 38 açai berry products sold with anti-aging health claims. It includes a comparative legal analysis between the health claim regulatory schemes administered in Australia, the EU and US, to highlight some of the failings of the Australian regime.

Chapter 8 critically examines the capacity of Australia's food regulatory framework to prevent direct threats to safety and public health from fraud and misrepresentation of Tier one food and ingredient information? It focuses on whether the operation of Australia's legally defined concepts of safe and suitable food restrains or enables regulatory control of authenticity of this information. The chapter uses analysed data from 112 international cases of food fraud with foods classified as 'low food safety risk'. It demonstrates the concept of 'unsafe' food is limited to unsafe to the majority of persons. The definitions reflect the domination of the microbial-hazard based paradigm within the legal food safety regulatory concept. ANZFSC food processing controls focus on producing safe and suitable food based on controlling hazard contamination. The processing controls do not extend to systematic controls verifying authenticity of Tier one labelling information and support compliance with ANZFSC labelling requirements in the pursuit of protecting the safety and public health of all persons.

Finally, Chapter 9 presents thesis findings and conclusions and suggests opportunities for future research on solutions to food fraud and the tools for combat in Australia. Overall, the findings suggest that if Australia's food regulatory framework is to effectively achieve its statutory objectives in a globalised food supply maze, ensuring food authenticity and preventing food fraud must be explicitly articulated by responsible governments as a policy goal for proactive measures at the intersection of food and safety and public health. New regulatory measures, policies and strategies targeting the prevention of fraud and misrepresentation in the interest of safety and public health is required to complement Australia's traditional food safety regulatory approaches.

CHAPTER 2: A HISTORY OF FOOD LEGISLATION AND THE MODERN-DAY FOOD OFFENCE ARCHITECTURE

I INTRODUCTION

Part II of Chapter 2 sets out a history of food legislation in Australia and the UK from 1801 to the present. It examines the food authenticity and food fraud offence architecture in Australian food and consumer laws. Part III delivers a substantiative account of food fraud offences as strict liability offences and requisite proof elements within the Australian food offence framework. An adapted John Spink and Douglas Moyer's Food Protection Matrix conceptualising where threats to safety and public health manifest is suggested at Part IV along with a review of food fraud definitional literature. With reference to Australia's food offence architecture, the adapted Food Protection Matrix demonstrates the dichotomy between intentional and unintentional offences: Food safety, food defence, food fraud and food quality. Part V concludes by recommending an Australian food fraud definition coherent within those laws.

II A HISTORY OF FOOD LEGISLATION FOR SAFETY AND PUBLIC HEALTH

Historically, fraud and misrepresentation were one of the drivers for food regulatory systems in Australia (and the UK) until a 2000 change in food legislation. Neo-liberal policy diffusion in the 1990's influenced national and international governments to develop self-regulatory frameworks demanding less resources from governments. At this time, the focus of food legislation shifted from protecting consumers from food adulteration with explicit and prescribed legislation supported by compositional standards to assuring food safety by controlling the risk of unintentional contamination from known microbial, physical and chemical hazards. Unsafe, unsuitable and falsely described food became legal concepts for regulatory control. The change coincided with the rise of a complex and globally dominated food supply with fraud and misrepresentation risks. Attention shifted away from focusing on potential harms due to food fraud and misrepresentation at a time when the framework also needed to be cognisant of food and ingredient authenticity to reduce the range of harms to safety and public health.

A *1801 to 2000: From adulterated to falsely described food*

The first law regulating food in England, the Assize of Bread and Ale (*Assisa panis et cervisiae*) (the Assize)[1] stood for 700 years until its repeal[2] in 1815.[3] The Assize tightly regulated the

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1 51st Hen. III (1266 A.D.), "Assia Panis et Cerevisiae" quoted in Henry de Beltgens Gibbins, 'The Industrial History of England' (1897, Methuen and Co.), 229, "'The earliest notice of an 'azzize' in England is found in the Parliament Rolls for 1203, but the practice is probably much older; and the most ancient law upon the subject is the 51st Hen III. (A.D 1266), "Assia Panis et Cerevisiae"' <ia801409.us.archive.org>.

2 Ian Freckleton, 'Food Law: Challenges and Future Directions' (2009) 14(2) *Deakin Law Review* 219, 221 citing Assize of Bread Repeal Bill, HC Deb 27 June 1815 vol 31 cc1009-11 <http://hansard.millbanksystems.com/commons/1815/jun/27/assize-of-bread-repeal-bill>.

3 After some perverse impacts on bread prices.

making and sale of breads and fixed ingredient proportions, maximum prices and the profits bakers could make.[4] It also set quality standards and empowered government officers to monitor non-compliance and prosecute to control fraud.[5] Substances known to be added to foods to artificially enhance the whiteness or weight of a loaf of bread and potentially injurious to health were restricted.[6]

Alarm over food adulteration and public health implications of that adulteration eventually precipitated the introduction of food safety and adulteration laws in England. Frederick Accum's 1820 *Treatise on Adulteration*[7] and subsequent work by Drs. Arthur Hill Hassall and Thomas Wakley MP in the 1850s were both instrumental in food law reform for public health and safety.[8] Accum initially called out the dangers of adulterated foodstuffs[9] by publishing disturbing facts of nefarious acts, and easy, at-home detection methods.[10] Food adulteration as a public health issue was forced upon England's General Board of Health in 1855 when Wakley published Hassall's Analytical Sanitary Commission reports in *The Lancet*.[11] These scientists provided evidence that adulteration of foodstuffs was of 'extreme and even of national importance' to public health and safety, justifying government intervention in response to the harm in the laissez-faire society.[12]

Increasing public pressure over controlling the manufacture and sale of food for human consumption drove the appointment of a Parliamentary Select Committee, ultimately leading to the UK's first *Adulteration of Food or Drink Act* in 1860[13] before the *Sale of Food and Drugs Act* in 1875.[14] The fearless exposure of the extent of food adulteration by *The Lancet* led to the introduction of laws prohibiting adulteration of foods in the English colonies. NSW was first to regulate the adulteration of bread,[15] before Victoria and NSW legislated to prohibit the adulteration

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4 Alan Ross, 'The Assize of Bread' (1956) 9(2) *Economic History Review* 332, 332.

5 Ibid 334.

6 Noel Coley, 'The fight against food adulteration' (Royal Society of Chemistry (online), 1 March 2005,). Substances restricted included alum, clay, chalk, plaster of Paris, pipe clay and ammonium carbonate.

7 Frederick Accum, *A Treatise on Adulterations of Food and Culinary Poisons - Exhibiting the fraudulent sophistications of bread, beer, wine, spiritous liquors, tea, coffee, cream, confectionary, vinegar, mustard, pepper, cheese, olive oil, pickles and other articles employed in domestic economy* (The Echo Library, 1820), 1 < https://publicdomainreview.org/collections/a-treatise-on-adulteration-of-food-and-culinary-poisons-1820/> ('*Treatise on Adulterations*').

8 See Arthur Hassall, *Food Adulterations: Comprising the reports of the Analytical Sanitary Commission of "The Lancet" for the years 1851 to 1854 inclusive, revised and extended* (London, Longman, 1855) < https://ia802706.us.archive.org/34/items/b2135554x/b2135554x.pdf>. Hassall was the Chief Analyst of the Analytical Sanitary Commission and addressed the published works to Sir Benjamin Hall, Bat., M.P., President of the General Board of Health. See also Maree Gallagher and Ian Thomas, 'Food Fraud: The Deliberate Adulteration and Misdescription of Foodstuffs' (2010) 6 *European Food and Feed Law Review* 347, 348-9.

9 Foodstuffs included water, wine, bread, beer, tea leaves, coffee, spirits, cheese, pepper, pickles, vinegar, cream, custard, anchovy sauce, lozenges, olive oil, mustard, lemon acid, and the use of copper or leaden vessels.

10 *Treatise on Adulterations*, above n 7.

11 Hassall, above n 8.

12 Ibid 4.

13 The Act was amended in 1872 and 1899 to enhance the controls, which included provisions for the appointment of public analysts.

14 *Public Health Act 1848* established institutions and the necessary infrastructure to administer enacted food laws intended for public health and safety.

15 Department of the Parliament Library Information and Research Services, 'Food Regulation in Australia – A Chronology' (Report No. 1, Commonwealth of Australia, 2001-02), 3 ('*Food Regulation in Australia – A Chronology*'); An 1801 ordinance by Governor King limited the addition of ash and clay to bread sold in the colony. The *Adulteration of Bread Act 1838* (NSW) prescribed bread ingredients, maximum additive limits and provided penalties for the prohibited addition of alum to flour.

of all foods and drinks in 1863 and 1879, respectively.[16] Media outlets in Victoria reported at the time, 'this is pretty well in its way as a stoppage to practices which it is to be feared have become so common as to be looked upon as almost orthodox'.[17] Legislative changes continued until federation, following which, all states enacted comprehensive pure food and safety laws.

Australia's contemporary uniform sale of food laws (enacted by all states and territories) can be traced to the UK's *Sale of Food and Drugs Act 1875*. Victoria enacted Australia's first 'pure food' laws after federation in 1905 to international acclaim.[18] The laws contained compositional standards that defined and specified the true nature or substance of foods for sale when using prescribed names. The introduction of compositional standards reversed the onus of proof, enhancing administration of the Act compared to the rare enforcement activities before federation.[19] By 1914 a number of different pure food laws applied in states across the federation.[20] Establishment of the National Health and Medical Research Council (NHMRC) in 1953 aimed towards uniform standardising of foods manufactured and sold within Australia.[21] Global reference food standards developed by Codex, of which Australia has been a member since commencement in 1961, ultimately influenced diffusion of food safety scientific policy and practice.[22]

By 1980 Australia's first uniform model food laws provided core food offences which included labelling and hygienic processing requirements for adoption by the states and territories.[23] Of significance to this analysis, is that the original *Model Food Act 1980* (Cth) (MFA 1980) prohibited, inter alia, the sale, preparation, or packaging of food that is 'i) Unfit for human consumption; (ii) *adulterated*; or (iii) damaged, deteriorated or perished' (emphasis added).[24] The MFA 1980 provided any food shall be deemed to be adulterated:

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16 Milton Lewis, 'New Directions in Public Health?' in *The People's Health: Public Health in Australia 1788-1950* (Greenwood Publishing Group, 2003), 137-8 cite the *Act to Prevent the Adulteration of Articles of Food or Drink 1863* (Vic) provided, inter alia, fines of up to 10 pounds could be issued (and offender details published) to persons who 'make, sell, or exhibit or offer for sale any adulterated or impure articles of food or drink, whether the deleterious to health or otherwise; or any article of food or drink bearing any label or other mark making it appear to be that which it is not'; *Adulteration of Food Prevention Act* (NSW) was introduced in 1879, following failed attempts.

17 Anon, 'The Victorian Act for Preventing Adulteration' (*The Maitland Mercury and Hunter River General Advertiser*, 10 November 1863), 2.

18 Australian Academy of Science, 'Food quality in Australia: A report on food safety monitoring in Australia, Science and Industry Forum' (Report Number 22, 19 February 1977) cited in *Food Regulation in Australia – A Chronology*, above n 15. An international conference in Paris reportedly praised Victoria for the *Pure Food Act 1905* (Vic) as the most comprehensive and advanced in the world at the time.

19 Lewis, above n 16, 137.

20 Following Victoria, New South Wales enacted the *Pure Food Act 1908* and South Australia passed its *Food and Drugs Act 1908*.

21 Contemporary food standards are based on much of the work of the NHMRC Food Additives Committee. The Australian Food Standards Code was initially developed by the NHMRC, endorsed and adopted for implementation by the states.

22 See Diahanna Post, 'Standards and Regulatory Capitalism: The Diffusion of Food Safety Standards in Developing Countries' (2005) 598(March) *The ANNALS of the American Academy of Political and Social Science* 168.

23 *Model Food Act 1980* (Preface); *Food Act 1981* (Qld); *Food Act 1984* (Vic); *Food Act 1985* (SA); *Health Act 1911* (WA); *Food Act 1986* (NT); *Food Act 1989* (NSW). In 1975 Health Ministers established a working party to create a unified system of food safety and labelling requirements in the sale of food.

24 *Model Food Act 1980* s 5; NSW adopted the provisions in the *Food Act 1989* (NSW) ss 9(1)-(3).

> a) when it is labelled or otherwise represented as being a particular kind of food; and i) it contains or is mixed or diluted with any substance in any quantity which diminishes in any manner any of its properties as compared with such food in a pure state and in an un-deteriorated condition; or ii) has had any constituent wholly or partly extracted or removed so that its properties as compared with such food in a pure state are diminished; or when it contains any substance prescribed as prohibited generally or in relation to that food; where the regulations specify that food generally or food of the class or description concerned is to contain no more than a specified quantity or proportion of a particular substance and the food contains more than that quantity or proportion; or when it is prepared in any manner whereby damage deterioration or inferiority is or may be concealed; or when it is, either wholly or in part, the product of a diseased animal or one which has died naturally or, in the case of warm blooded animals, otherwise than by slaughter; or when it is labelled or otherwise specified as being a particular type of food and it has been prepared or stored or otherwise dealt with so that its taste or smell is not the taste or smell ordinarily associated with that type of food; or when it is injurious to health, dangerous or offensive; or when any package or anything included in the package or anything or matter with which food comes in contact consists, either wholly or in part, of any substance which may render the article injurious to health, dangerous or offensive; or when it contains any foreign substance or matter. [25]

Now long forgotten, Australia was in the midst of its own horse-beef substitution scandal when in 1981, 'US officials found horse meat in Australian beef shipped to a San Diego plant … Australian officials then discovered horse and kangaroo meat in boxes of beef bound for the United States from a Melbourne export company'.[26] The 1982 Royal Commission into the Australian Meat Industry investigated 35 meat companies, revealing serious breaches of substitution, false description, false production dating, and a perceived tolerance for malpractice by the meat industry and a failure of inspectors to enforce regulations.[27] The revelations provided another catalyst for widespread changes in Australian food law, increased sample testing, increase in penalties for substitution offences and changes in the responsible government bodies.[28]

In a rare piece of critical literature on Australian food laws from the 1980's, at a time when federalised uniformity was the dominant objective, market orientated deregulation advocate and economist Peter Swan criticised the 'unnecessary burden of highly specific and detailed regulation', in particular the emphasis on consumer protection compared with food safety outcomes.[29] In his 1987 review of the legal framework for food, which was made up of multiple compositional commodity standards with extensive prescriptions and prohibitions, Swan concluded:

> [T]he food laws do not have a great deal to do with protecting health of food consumers, although where a clear-cut health or medical reason exists a particular prohibition may well be justified. Much of the legislation is really concerned with protecting consumers, who are implicitly regarded as largely incompetent, against fraud and deception. While this may be a worthwhile objective, it is far from clear that compulsory compositional requirements, detailed 'recipes', and specific proscriptions and prescriptions are cost-effective means of achieving this objective. In fact, the likely consequences, as we have seen, are increased costs resulting from the imposition on manufacturers of almost incomprehensible quantities of minutiae and a reduction in the options available to consumers in terms of quality, taste, innovative products and price. [30]

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25 *Model Food Act 1980* s 13(a).

26 Anon, 'Australian Meat Substitution', (*The Victorian Advocate*, 9 October 1981).

27 Hon Justice AE Woodward Commissioner, 'Report of the Royal Commission into Australian Meat Industry Appendix H Cases Investigated' (Royal Commission Report, Australian Government Publishing Service, September 1982) <https://www.dpmc.gov.au/sites/default/files/foi-log/foi-2011-144.pdf>.

28 Peter Grabosky, 'Meat Substitution Scandal of 1981' in Peter Grabosky and Adam Sutton (eds), *From Stains on a White Collar: Fourteen Studies in Corporate Crime or Corporate Harm* (The Federation Press, 1989) 60-91 < https://www.anu.edu.au/fellows/jbraithwaite/_documents/Articles>.

29 Peter Swan, 'The Pure Food Laws and Regulations: Burdensome Laws in Search of Meaningful Objectives?' (Policy Monograph, Centre for Independent Studies, 1987), ix.

30 Ibid 46.

Swan advocated introducing voluntary compositional guidelines coupled with mandatory ingredient disclosure requirements and simplified labelling, relaxing proscriptions such as with prescribed names, removing bans on likening food to standardised food, and subjecting food businesses to the overarching 'general prohibition on deceptive or misleading labelling…under the Commonwealth Trade Practices Act and general state consumer protection legislation'.[31] Swan's analysis was described as placing more focus on 'judicial enforcement and interpretation of general prohibitions and guidelines. … He upholds the role of markets and judge-made law against the rigidities of technocratic regulation'.[32]

The MFA 1980 prohibition on adulteration of food operated alongside the controls and compliance requirements for labelling and advertising,[33] and continued until 2000. In 1995, governments of Australia and New Zealand agreed to embark on another review of the food regulatory system. In the years following Swan's analysis leading to the 2000 reform, food policy development benefited from enhanced knowledge of applied microbiological awareness and the success of well operated food safety management systems (specifically, Hazard Analysis and Critical Control Point (HACCP)). The *Escherichia coli* haemolytic uremic syndrome-causing contaminated Garibaldi Smallgoods,[34] and Hepatitis A contaminated Wallis Lake oysters,[35] were tragic and avoidable foodborne illness outbreaks that also influenced the changes in food legislation.

B *2000 to a modern-day global food supply*

In 2000 all jurisdictions agreed at the Council of Australian Governments ('COAG') to the Inter-Governmental Agreement on Food ('Food Regulation Agreement'). The Food Regulation Agreement gives effect to a national approach to food regulation and, inter alia, to the establishment of the Australia and New Zealand Food Regulation Ministerial Council (now referred to as the Food Regulation Form ('the Forum')) (see Chapter 3).

FSANZ scientists involved in the 2000 reform report removing standards that applied idiosyncratic rules to a limited number of highly controlled foods in favour of standards that

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31 Ibid 47.

32 Ibid viii.

33 *Model Food Act* 1980 cll 8 (prohibition on preparation of certain food), 9 (false labelling of certain foods), 10 (false packaging and labelling); 11 (false advertising).

34 See, eg, Loukas Founten 'Garibaldi food poisoning legal fight ends', (*ABC News* (online), 22 November 2011). In 1995 pathogenic Escherichia coli contaminated mettwurst and salami caused an outbreak of acute haemolytic uremic syndrome in 24 persons, including the death of a four-year-old child. Many of the victims developed life-long injuries requiring serious treatments including blood transfusions and organ transplants. The failures led to mandatory implementation of HACCP in prioritized high-risk food processing. See also Fletcher Doherty, 'A look back at Garibaldi: A preventable epidemic', (*On the Record University of South Australia* (online), www.ontherecord-unisa.com.au, 13 October 2014).

35 See *Ryan v Great Lakes Council* [1999] FCA 177 (Wilcox J); *Graham Barclay Oysters Pty Ltd v Ryan* [2000] FCA 1099 (Lee, Keifel and Lindgen JJ) *Graham Barclay Oysters Pty Ltd v Ryan; Ryan v Great Lakes Council; State of NSW* [2000] HCA 54 (Gleeson CJ, McHugh, Gummow, Kirby; Hayne and Callinan JJ); For a good summary of the events and consequential litigation see Warren Pengilley, 'The Wallis Lake Oyster Litigation: Appellate Proceedings in Relation to Gallimaufry of Product Liability claims' (2003) 10 *James Cook University Law Review* 143.

applied generic principles, providing flexibility for industry innovation.[36.] However, generic food standards alone were insufficient to meet the objectives, including protecting safety and public health and preventing fraud and deception.[37] The ANZFSC therefore retains compositional standards for certain products. For example, as meat and meat products are important components of an antipodean diet, measures to resolve ambiguities, maintain nutritional integrity and 'address potential fraud and deception concerns',[38] compositional ratios and minimum fat declarations are prescribed for compliance monitoring and enforcement by state food regulators.[39] For Swan's policy position to succeed, well-designed strategies for effective compliance and enforcement of the consumer protection prohibitions is essential in achieving the safety and public health goals.[40]

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36 Jim Gruber, Simon Brooke-Taylor, Jon Goodchap and D McCullum, 'Regulation of Food Commodities in Australia and New Zealand' (2003) 14 *Food Control* 367.

37 Ibid 369.

38 Ibid 369.

39 See, eg, *ANZFSC* Standard 2.2.1 cl 2 provides meat pie means a pie containing no less than 250g/kg of meat flesh.

40 Neil Gunningham, 'Strategizing compliance and enforcement: responsive regulation and beyond' in Christine Parker and Vibeke Nielsen (eds) *Explaining Compliance: Business Responses to Regulation* (Edward Elgar Publishing, 2011), 199; Ibid 216 argues there is no 'magic bullet' for achieving the goals of social legislation and enforcement, strategies must be tailored to the regulatory context to function efficiently and effectively in achieving regulatory goals; For research on regulatory enforcement strategy design see Neil Gunningham, 'Compliance, Deterrence and Beyond' (RegNet Research Paper No. 2015/87, Australian National University, 2015) 4, that indicates the research shows separate compliance and deterrence strategies have limited effectiveness. Gunningham argues most regulatory theorists advocate blending both coercion and persuasion is the optimal approach to meet regulatory goals; Natalie Schell-Busey, Sally Simpson, Melissa Rorie and Mariel Alper, 'What Works? A systematic review of corporate crime deterrence' (2016) 15(2) *Criminology and Public Policy* 387, 387 is a meta-analysis of corporate crime deterrence strategies that suggests regulatory policies engaging consistent inspections along with an educational component aimed towards industry 'may have a substantial impact on corporate offending'. But also the mix of regulatory interventions and strategies responsive to the variety of offenders and behaviours is important.; For literature about how compliance can be maximised, see generally Ian Ayes and John Braithwaite, *Responsive Regulation: Transending the Deregualtion Debate* (Oxford University Press, 1992); Julia Black and Robert Baldwin, 'Really Responsive Risk-Based Regulation' (2010) 32(2) *Law and Policy* 181 in which the authors state there is the need for a revised, nuanced conception of risk-based regulation; Robert Baldwin and Julia Black, 'Really Responsive Regulation' (LSE Law, Society and Economy Working Papers 15/2007, London Schoool of Economics and Political Science, 2007) builds on the works of *Responsive Regulation* to show for regulatory straegies to be responsive, the approach is responsive to compliance performance as well as other factors including the attitudes of the regulated and institutional environments; Julie Black and Robert Baldwin, 'When risk-based regulation aims low: a strategic framework' (2012) 6(2) *Regulation and Governnance* 131 provides a strategic framework for regulators to deal with low level risks based on the nature of the risk and the nature of the regulatee; See Neil Gunningham and Darren Sinclair, 'Designing Smart Regulation' in Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy* (Oxford University Press, 1998) where the authors identify five core principles for regulatory design in maximising compliance to achieve policy goals.

In 2000 the regulation of food adulteration stopped. In lieu, regulation of the sale of unsafe,[41] unsuitable,[42] and misleading or deceptive conduct,[43] including false description of food, commenced. Each state and territory eventually adopted[44] Annex A of the *Model Food Act 2000* (Cth) with the objects:

a) to ensure food for sale is both safe and suitable for human consumption,
b) to prevent misleading conduct in connection with the sale of food,
c) to provide for the application in this State of the Food Standards Code.[45]

In place of the adulteration definition, *Model Food Act 2000* (Cth) retains definitional aspects of the adulteration concept articulated as examples of 'false descriptions of food'[46] (see Part III (below)). In turn, falsely describing food, or selling falsely described food became the central legal offences to protect consumers from the potential harms of consuming diluted and substituted foods and ingredients or food otherwise subject to a kind of fraud and misrepresentation with respect to its true nature or substance.[47]

After over 17 years following the 2000 reform, food authenticity for safety and public health has surfaced (again) as a policy goal and research topic for international food safety governance bodies and research institutions.[48] Internationally, Codex committees commenced

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41 *Model Food Act 2000* (Cth) s 6(1) provides food is unsafe at a particular time if it would be likely to cause physical harm to a person who might later consume it, assuming: (a) it was, after that particular time and before being consumed by the person, properly subjected to all processes (if any) that are relevant to its reasonable intended use, and (b) nothing happened to it after that particular time and before being consumed by the person that would prevent its being used for its reasonable intended use, and (c) it was consumed by the person according to its reasonable intended use. (2) However, food is not unsafe for the purposes of this Act merely because its inherent nutritional or chemical properties cause, or its inherent nature causes, adverse reactions only in persons with allergies or sensitivities that are not common to the majority of persons.

42 *Model Food Act 2000* (Cth) s 7(1) provides food is unsuitable if it is food that: (a) is damaged, deteriorated or perished to an extent that affects its reasonable intended use, or (b) contains any damaged, deteriorated or perished substance that affects its reasonable intended use, or (c) if the product of a diseased animal, or an animal that has died otherwise than by slaughter, and has not been declared by or under another Act to be safe for human consumption, or (d) contains a biological or chemical agent, or other matter or substance, that is foreign to the nature of the food.

43 *Model Food Act 2000* (Cth) s 14(1) A person must not, in the course of carrying on a food business, engage in conduct that is misleading or deceptive or is likely to mislead or deceive in relation to the advertising, packaging or labelling of food intended for sale or the sale of food. (2) A person must not, for the purpose of effecting or promoting the sale of any food in the course of carrying on a food business, cause the food to be advertised, packaged or labelled in a way that falsely describes the food. (3) A person must not, in the course of carrying on a food business, sell food that is packaged or labelled in a way that falsely describes the food.

44 *Food Act 2001* (ACT); *Food Act 2004* (NT); *Food Act 2003* (NSW); *Food Act 2006* (Qld); *Food Act 2001* (SA); *Food Act 2003* (Tas); *Food Act 1984* (Vic); *Food Act 2008* (WA).

45 *Model Food Act 2000* s 1 (objects of the Act).

46 *Model Food Act 2000* (Cth) s 19.

47 *Model Food Act 2000* (Cth) s 14.

48 See generally Iran, Canada and the Netherlands for the Joint FAO/WHO Food Standards Programme Codex Committee on Food Import and Export Inspection and Certification Systems, *Discussion Paper on Food Integrity and Food Authenticity* (2017), 2; Christopher Elliott, 'Keynote address on Food Integrity/Food Authenticity An overview from food quality and safety perspective in the framework of Codex', Joint FAO/WHO Food Standards Programme FAO/WHO Coordinating Committee for Near East ((Ninth Session (Rome) 15-19 May 2017 CX/NE 1709/02)); Christopher Elliott, 'Elliott Review into the Integrity and Assurance of Food Supply Networks – Final Report A National Food Crime Prevention Framework' (Independent Review Report, Department for Environment Food and Rural Affairs (DEFRA), July 2014), 12 ('*Elliott Review*'); Jeffrey Moore, John Spink and Markus Lipp, 'Development and Application of a Database of Food Ingredient Fraud and Economically Motivated Adulteration from 1980 to 2010' (2012) 77(4) *Journal of Food Science* 118, 119; Marina

work with representatives of member countries and observers to clarify legally applied terms, reviewing international food standards and guidance texts for gaps, impacts, and opportunities for mitigation of potential threats to safety and public health from food fraud.[49] Nationally, in 2011 the independent Blewett Review raised the importance of food authenticity (without enlisting the word). The panel recommended '*accuracy* as well as the presence of labelling information' (emphasis added) be considered when monitoring compliance with the ANZFSC.[50] The panel also recommended a national Food Labelling Bureau is required 'if food labelling is to be taken seriously'.[51]

The next section outlines the range of food authenticity-related labelling issues categorised by scientists in the EU and referenced with Australia's food and consumer law offences. Part III then introduces the Australian food legislation offence architecture with reference to the Food Protection Matrix designed by John Spink and Douglas Moyer (Figure 1). Thorough protection of public health and safety in a modern-day food supply requires that regulators appreciate the range of laws relating to food authenticity issues.

C *Food authenticity related law in modern-day Australia*

A wide range of legal provisions in food and consumer legislation are available to regulators in pursuit of controlling food authenticity. The purpose of this section is to show the scope of issues aligned with Australia's food offence framework. Substantive legal analysis of the food offence framework is presented in Part III, below.

Carcea, Paul Breeton, Rachel Hsu, Simon Kelly, Nelson Marmiroli, Francesca Melini, Christos Soukoulis and Ding Wenping, 'Food Authenticity Assessment: Ensuring Compliance with Food Legislation and Traceability Requirements' (2009) *Quality Assurance and Safety of Crops and Foods* 93, 94; Interregional Crime and Justice Research Institute, 'Illicit Pesticides, Organized Crime and Supply Chain Integrity' (Research Report, United Nations, 2016), 40-45; John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* 157, 158; Karen Everstine, John Spink and Shaun Kennedy, 'Economically Motivated Adulteration (EMA) of Food: Common Characteristics of EMA Incidents' (2013) 76(4) *Journal of Food Protection* 723, 730; Renée Johnson, 'Food Fraud and "Economically Motivated Adulteration" of Food and Food Ingredients' (Research Report, 7-5700 R43358, Congressional Research Service, United States Congress, 10 January 2014), 17; United States Government Accountability Office, 'Food and Drug Administration Better Coordination Could Enhance Efforts to Address Economic Adulteration and Protect the Public Health (GAO-12-46)' (2011), 2.

49 Report of the U.S. Delegate, 23rd Session, Codex Committee on Food Import and Export Inspection and Certification Systems (May 1-5, 2017) Mexico City, Mexico provided the following conclusion on the *Discussion Paper on Food integrity and Food Authenticity* (2017), 'The Committee agreed to establish an electronic working group, chaired by the Islamic Republic of Iran and co-chaired by Canada and European Union. The revised discussion paper will include: (1) clarification of the definitions of food integrity, food authenticity, food fraud and EMA; (2) delineation of the scope for the preliminary assessment of CCFICS texts; (3) a preliminary assessment of existing CCFICS texts to identify possible gaps and the impact, whether positive or negative, of those texts in mitigating potential problems; and (4) recommendations regarding any potential need for new work.'

50 Neal Blewett, Nick Goddard, Simone Pettigrew, Chris Reynolds and Heather Yeatman, *Labelling Logic: Review of Food Labelling Law and Policy* (Independent Review Report, Commonwealth of Australia, 2011) ('*Blewett Review*'), 7-15.

51 Ibid, 8. The Blewett Review panel argued, 'If food labelling is to be taken seriously by governments, a new entity, which for the purposes of this Review is called the Food Labelling Bureau (the Bureau), should be established to advise Australian and New Zealand Ministers on all aspects of labelling policy. Resources for this Bureau must reflect the high profile of food labelling as the most public face of food policies, standards and laws.'

Scientists at the Food Authenticity Working Group of the EU Network of Excellence ('Mon-iQA') categorise food authenticity-related issues into four types: '(1) Economic adulteration of high value foods; (2) Mis-description of the geographical, botanical or species origin; (3) Non-compliance with the established legislative standards; and (4) Implementation of non-acceptable process practices'.[52] Each of the four types potentially evokes all three food safety risk-based categories of Australia's food labelling regulatory issues – consumer issues, preventative health and food safety information – as prioritised in the Hierarchy (discussed below).

In modern-day Australia, the range of offences within the food regulatory framework available for regulating the authenticity of food information used to promote its sale is wide in scope. To demonstrate the range of offences relevant to food authenticity, the headings adopted by Mon-iQA are used here and respective Australian regulatory offences listed below (1-4).

1 *Economic adulteration of high value foods*

(a) Non-compliance with mandatory food safety labelling prescribed in the ANZFSC with respect to ingredients,[53] allergens,[54] name or description of the true nature of the food.[55]
(b) The *Model Food Act 2000* (Cth) prohibitions on 'misleading or deceptive conduct'[56] and the false description[57] of food 'represented as being of a particular nature or substance'[58] where the food is represented as being the commodity but non-compliant with a corresponding ANZFSC commodity standard,[59] the food is diluted with a substance significantly diminishing the commercial value,[60] the food has substances or properties wholly or partly removed,[61] and where words or statements create a false impression as to the nature or substance or commercial value of the food in the mind of a reasonable person.[62]
(c) The Australian Consumer Law ('ACL') provides offences for false or misleading representations,[63] and conduct that is 'misleading or deceptive or is likely to mislead or deceive'.[64]

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52 Marina Carcea, Paul Breeton, Rachel Hsu, Simon Kelly, Nelson Marmiroli, Francesca Melini, Christos Soukoulis and Ding Wenping, 'Food Authenticity Assessment: Ensuring Compliance with Food Legislation and Traceability Requirements' (2009) *Quality Assurance and Safety of Crops and Foods* 93, 94.
53 *ANZFSC* Standard 1.2.4.
54 Ibid 1.2.3.
55 *Model Food Act 2000* (Cth) ss 17(1)-(4).
56 Ibid ss 14(1)-(2).
57 Ibid ss 14(2)-(3).
58 Ibid ss 18(1)(a)-(e).
59 Ibid s 18(1)(a).
60 Ibid ss 18(1)(b)-(c).
61 Ibid s 18(1)(d).
62 Ibid s 18(1)(e).
63 *Competition and Consumer Act 2010* (Cth) Schedule 2 *Australian Consumer Law* s 29 ('*ACL*').
64 *ACL* s 18(1).

2 *Mis-description of the geographical, botanical or species origin*

(a) Non-compliance with mandatory food safety labelling prescribed in the ANZFSC[65] with respect to botanical ingredient,[66] allergen declarations,[67] name or description of the true nature of the food.[68] ANZFSC prohibitions on prohibited and restricted plants and fungi.[69]

(b) The *Model Food Act 2000* (Cth) prohibitions on 'misleading or deceptive conduct'[70] and the false description[71] of food 'represented as being of a particular nature or substance'[72] where the food is represented as being the commodity but non-compliant with a corresponding ANZFSC commodity standard,[73] the food is diluted with a substance significantly diminishing the commercial value,[74] the food has substances or properties wholly or partly removed,[75] and where words or statements create a false impression as to the nature or substance or commercial value of the food in the mind of a reasonable person.[76]

(c) Specific country of origin labelling in the ANZFSC.[77]

(d) The ACL provides offences for non-compliance with Country of Origin Food Information Standard in the ACL[78] and, false or misleading representations,[79] including the 'place of origin of goods' in the trade of goods by incorporated food businesses.[80]

3 *Non-compliance with legislative standards*

(a) As at (1) (a) and (b) above. Also, commodity standards of the ANZFSC may prescribe the ratio or define the minimum amount of a characterising component in the composition of food labelled cereals and cereal products,[81] meat and meat products,[82] egg and egg products,[83] fish and fish products,[84] jam,[85] edible oils and spreads,[86] milk,[87] cream,[88] fermented milk products,[89] cheese,[90] butter,[91] ice cream,[92] dried milk, evaporated milk and condensed milk,[93] fruit juice and vegetable juice,[94] formulated caffeinated beverages,[95] labels for alcoholic

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65 *ANZFSC* pt 1.2.
66 *ANZFSC* Standard 1.2.2 (name of food sufficient to indicate the true nature of the food).
67 Ibid 1.2.3.
68 *Model Food Act 2000* (Cth) ss 17(1)-(4).
69 *ANZFSC* Standard 1.4.4.
70 *Model Food Act 2000* (Cth) ss 14(1)-(2).
71 Ibid ss 14(2)-(3).
72 Ibid ss 18(1)(a)-(e).
73 Ibid s 18(1)(a).
74 Ibid ss 18(1)(b)-(c).
75 Ibid s 18(1)(d).
76 Ibid s 18(1)(e).
77 *ANZFSC* Standard 1.2.11.
78 *Country of Origin Food Information Standard* (Cth) 2016.
79 *ACL* s 29.
80 *ACL* s 29(1)(k).
81 *ANZFSC* Standard 2.1.1.
82 Ibid 2.2.1.
83 Ibid 2.2.2.
84 Ibid 2.2.3.
85 Ibid 2.3.2.
86 Ibid 2.4.1-2.4.2.
87 Ibid 2.5.1.
88 Ibid 2.5.2.
89 Ibid 2.5.3.
90 Ibid 2.5.4.
91 Ibid 2.5.5.
92 Ibid 2.5.6.
93 Ibid 2.5.7.
94 Ibid 2.6.1.
95 Ibid 2.6.4.

beverages and food containing alcohol,[96] beer,[97] fruit wine vegetable wine and mead,[98] wine and wine product,[99] spirits,[100] sugar and sugar products,[101] honey,[102] infant formula products,[103] food for infants,[104] formulated foods,[105] vinegar,[106] salt,[107] chewing gum,[108] and definitions provided for chocolate,[109] cocoa,[110] coffee,[111] decaffeinated coffee and tea,[112] gelatine,[113] instant coffee and tea,[114] peanut butter[115] and tea[116]. Nutrition, health and related claims are voluntary, but if used, compliance with ANZFSC requirements is mandatory (for example, claims of gluten free, low cholesterol, excellent source of dietary fibre, high in protein, low fat, low salt, no added sugar, good source of vitamin C, free of trans fatty acids etc.). Voluntary Healthy Star Ratings applied to the front-of-pack of labels are monitored under a co-regulatory system.[117]

(b) The *Model Food Act 2000* (Cth) prohibitions on 'misleading or deceptive conduct'[118] and the false description[119] of food 'represented as being of a particular nature or substance'[120] where the food is represented as being the commodity but non-compliant with a corresponding ANZFSC commodity standard,[121] the food is diluted with a substance significantly diminishing the commercial value,[122] the food has substances or properties wholly or partly removed,[123] and where words or statements create a false impression as to the nature or substance or commercial value of the food in the mind of a reasonable person.[124]

(c) The ACL provides offences for false or misleading representations[125] in the trade of goods by incorporated food businesses.

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96 Ibid 2.7.1.
97 Ibid 2.7.2.
98 Ibid 2.7.3.
99 Ibid 2.7.4.
100 Ibid 2.7.5.
101 Ibid 2.8.1.
102 Ibid 2.8.2.
103 Ibid 2.9.1.
104 Ibid 2.9.2.
105 Ibid 2.9.3-2.9.6.
106 Ibid 2.10.1.
107 Ibid 2.10.2.
108 Ibid 2.10.3.
109 Ibid 2.10.4 cl 2.
110 Ibid.
111 Ibid.
112 Ibid.
113 Ibid.
114 Ibid.
115 Ibid.
116 Ibid.
117 Ibid.
118 *Model Food Act (2000)* (Cth) ss 14(1)-(2).
119 Ibid ss 14(2)-(3).
120 Ibid ss 18(1)(a)-(e).
121 Ibid s 18(1)(a).
122 Ibid ss 18(1)(b)-(c).
123 Ibid s 18(1)(d).
124 Ibid s 18(1)(e).
125 *ACL* s 29.

4 *Implementation of non-acceptable process practices*

(a) ANZFSC non-compliance with declarations required for food produced using gene technology[126] and irradiated food.[127] ANZFSC permissions for novel foods or ingredient use,[128] and use of substances added to food (for example, food additives[129] and processing aids[130]).

(b) ACL prohibits the making of false representations 'that goods are of a particular standard, quality, value, grade, composition, style or model or have had a particular history or particular previous use';[131] and conduct 'that is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose or the quantity of any goods".[132]

(c) Industry voluntary certification schemes operate to support standards (for example, Australian Standard 6000-2009 Organic and biodynamic products) and representations (for example, organic). Industry codes and voluntary standards may operate in food ingredient sectors (for example, olive oil, Manuka honey).

III Food Fraud Offence Architecture In Australian Food And Consumer Laws

At common law, historically misleading statements were conceptualised as a form of 'fraud' and victims could seek remedies (including damages and injunctions) in tort law (e.g. tort of deceit).[133] Yet, even though the term 'food fraud' is not explicitly used by food policy-makers in Australia, state food Acts[134] and the ACL[135] prohibit this type of conduct through prohibitions on false representations, misleading or deceptive conduct in the sale and advertising of food specifically, and in the trade of goods, respectively.[136] The principles of both regimes broadly align with Spink and Moyer's policy definition of food fraud (Chapter 1). The main consideration is that food fraud is defined as deliberate and intentional acts involving food for sale. Due to the safety and public health nature of the food and consumer law offences, when identifying alleged food

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126 *ANZFSC* Standard 1.5.2.

127 Ibid 1.5.3.

128 Ibid 1.5.1.

129 Ibid 1.3.2.

130 Ibid 1.3.3.

131 *ACL* s 29(1)(a).

132 Ibid s 33.

133 Common law fraud initially required proof that the maker of a statement knew it was untrue. See, eg, *Alati v Kruger* (1955) 94 CLR 216. US courts have made it clear that 'deceptive or misleading commercial speech can still be considered a form of fraud, undue influence, over-reaching, or other vexatious conduct', *Obralik v Ohio State Bar Association*, 436 US 447, 462 (1978) cited in Lawrence Gostin, *Public Health Law: Power, Duty, Restraint* (University of California Press, 2000) 160.

134 *Model Food Act 2000* (Cth) s 1(b) provides one of the Act's three objects is 'to prevent misleading conduct in connection with the sale of food'. The objects and Annex A provisions are adopted in *Food Act 2003* (NSW); *Food Act 1984* (Vic); *Food Act 2008* (WA); *Food Act 2006* (Qld); *Food Act 2001* (SA); *Food Act 2003* (Tas); *Food Act 2001* (ACT); *Food Act 2004* (NT).

135 *ACL* s 18(1) where a breach of the prohibition gives rise to civil remedies. See Chapter 4 of the ACL for criminal liability for certain breaches. Under the ACL, a graduated series of sanctions are provided for misleading or deceptive conduct, as opposed to civil penalties and remedies. The prohibitions are replicated in fair trading legislation in each State and Territory as part of the ACL; See also *Fair Trading Act 1987* (NSW) s 28; *Fair Trading Act 1989 (*Qld) s 16; *Fair Trading Act 1987* (SA) s 14; *Australian Consumer Law (Tasmania) Act 2010* (Tas) s 6; *Fair Trading Act 1999* (Vic) s 9; *Fair Trading Act 2010* (WA) s 11; *Fair Trading (Australian Consumer Law) Act 1992* (ACT) s 7; *Consumer Affairs and Fair Trading Act 1990* (NT) s 27.

136 *Food Act 2003* (NSW) ss 18, 22; *Food Act 2006* (Qld) ss 37, 40; *Food Act 2001* (SA) ss 18, 22; *Food Act 2003* (Tas) ss 18, 22; *Food Act 1984* (Vic) ss 13, 17A; *Food Act 2008* (WA) ss 16, 19; *Food Act 2001* (ACT) ss 15, 24; *Food Act 2004* (NT) ss 17, 21.

fraud activities, regulators do not require proof a food businesses intended to falsely describe, mislead or deceive, although proof of intentions can be relevant when courts are sentencing offenders.[137]

The prohibitions on misleading or deceptive conduct are similarly drafted in both food and consumer law statutes.[138] False description of food is specifically proscribed in state food Acts, with examples of falsely described foods including misrepresentation of nature or substance and mixing or diluting premium foods with cheaper ingredients with less commercial value (see below and Table 1).[139] The ACL generally prohibits the making of false representations 'that goods are of a particular standard, quality, value, grade, composition, style or model or have had a particular history or particular previous use';[140] and conduct 'that is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose or the quantity of any goods'.[141]

Table 1 depicts the *Model Food Act 2000* (Cth) adopted in NSW food legislation.[142] The food laws apply to all food businesses. A food business is a business, enterprise or activity involving the handling of food[143] intended for sale.[144] Food offences are organised in a three-staged graduated model of penalties distinguished by fault elements.[145] All food offences are strict liability offences. However, all state and territory food Acts provide two categories of food offences – serious food offences and other food offences. The two types are separated by whether there is proof the offender knows the conduct is likely to cause harm to health. In the NSW food Act, the serious offences are further separated by proof of actual or constructive knowledge.[146]

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137 For a discussion on how intention has been dealt with by the courts when determining sentencing, see Felicity Lee, 'False or Misleading Credence Claims: What's the Harm and Why Should Businesses Care?' (2014) 22(1) *Australian Journal of Competition and Consumer Law* 5. See also *ACCC v Homeopathy Plus! Australia Pty Limited* (2014) FCA 1412, [116]-[125] (Perry J).

138 *ACL* s 18(1) provides 'A person must not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive'; *Food Act 2003* (NSW) s 18(1) provides 'A person must not, in the course of carrying on a food business, engage in conduct that is misleading or deceptive or is likely to mislead or deceive in relation to the advertising, packaging or labelling of food intended for sale or the sale of food.'

139 *Food Act 2003* (NSW) s 18(2)-(3) and s 22 (examples of falsely described food).

140 *ACL* s 29(1)(a).

141 Ibid s 33.

142 *Food Act 2003* (NSW) s13-18.

143 *Food Standards Australia New Zealand Act 1991* (Cth) s 5(1) provides, 'food includes (1) any substance or thing of a kind used, or capable of being used, or represented as being for use, for human consumption (whether it is live, raw, prepared or partly prepared); (2) any substance or thing of a kind used, capable of being used, or represented as being for use, as an ingredient or additive in, or any substance used in the preparation of, a substance or thing referred to in list item (1) above; (3) chewing gum or an ingredient or additive in chewing gum or any substance used in preparing chewing gum; or (4) any other substances declared to be food under *Food Standards Australia New Zealand Act 1991* (Cth), despite whether the item is in a condition fit for human consumption. *Food Standards Australia New Zealand Act 1991* (Cth) s 5(2) provides 'food' does not include a therapeutic good within the meaning of the *Therapeutic Goods Act 1989* (Cth). See also *Food Act 2001* (ACT)) s 8; *Food Act 2004* (NT) s 7 *Food Act 2003* (NSW) s 5; *Food Act 2006* (Qld) s 12; *Food Act 2001* (SA) s 5; *Food Act 2003* (Tas) s 5; *Food Act 1984* (Vic) s 4A; *Food Act 2008* (WA) s 9.

144 *Food Act 2001* (ACT) s 11(1); *Food Act 2004* (NT) s 9(1); *Food Act 2003* (NSW) s 7(1); *Food Production (Safety) Act 2000* (Qld) s 11(1); *Food Act 2001* (SA) s 7(1); *Food Act 2003* (Tas) s 7(1); *Food Act 1984* (Vic) s 4C(1); *Food Act 2008* (WA) s 11(1).

145 Abu Noman MA and SM Solaiman, 'Food Safety Offenses in New South Wales, Australia: A Critical Appreciation of Their Complexities' (2014) 13 *Comprehensive Reviews in Food Science and Food Safety* 91, 91.

146 *Food Act 2003* (NSW) ss 13(2), 14(2), 15(2) and (4) (constructive knowledge).

Knowledge (*mens rea*) is the presence of a guilty mind. The effort (*actus reas*) to handle[147] or sell[148] unsafe or falsely described[149] food are the other proof requirements. The express language of the legislation, the public health and safety[150] objectives of the food Acts,[151] and the desire for enforcement efficiencies[152] displace the requirement to prove *mens rea* in the (strict liability) 'other offences' relating to food. So, if a person operating a food business commits a 'serious offence' that causes physical harm and they should have known (constructive knowledge of harm) or did know (actual knowledge of harm) greater penalties are available. In those cases where actual knowledge is proven, up to two years imprisonment or 1000 penalty units (or both) is available for an individual, and 5000 penalty units[153] for a corporation.[154] Proof of constructive knowledge (that is, the offender ought reasonably to have known it was likely a consumer would suffer harm) attracts a non-custodial sentence of mid-range penalties.[155] For all offences, onus is on the prosecution to prove the food offence beyond reasonable doubt.[156] Defendant food businesses may avail any statutory defences for all offences.[157] For example, the defence of due diligence is available where another person's act or omission caused the contravention.[158] In most jurisdictions the food Acts expressly exclude the defence of honest and reasonable mistake.[159] Officers of corporate entities managing the operations of food businesses are personally liable for the offences of the corporate entity, in certain circumstances.[160]

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147 *Model Food Act 2000* (Cth) s 9(1) (serious offence - handle food in manner know will render food unsafe).

148 Ibid s 10(1) (serious offence - sell food the person knows is unsafe).

149 Ibid s 11(1) (serious offence - cause false description of food when know a consumer relying on description will suffer physical harm) and (2) (serious offence sell food falsely described when suffering physical harm is known). See *Food Act 2003* (NSW) s 15(2) and 15(4) provides for constructive knowledge in the false description of food when likely physical harm ought reasonably should be known.

150 *Electrix Pty Ltd v Humphrys* (2001) 159 FLR 348; (2001) VSC 45.

151 *Model Food Act 2000* (Cth) s 1 'The objects of the Act include the following (a) to ensure food for sale is both safe and suitable for human consumption, (b) to prevent misleading conduct in connection with the sale of food, (c) to provide for the application in this jurisdiction of the Food Standards Code.'

152 *Sherras v de Rutzen* (1895) 1 QB 918 in dictum at 921; (1895-9) All ER Rep 1167 at 1169; 11 TLR 369, said 'There is a presumption that *mens rea*, an evil intention, or a knowledge of the wrongfulness of the act, is an essential ingredient in every offence; but that presumption is liable to be displaced either by the words of the statute creating the offence or by the subject matter with which it deals, and both must be considered'. The High Court held in *He Kaw The v The Queen* (1985) 157 CLR 523; 60 ALR 449; 59 ALJR 620; BC8501099, the presumption that Parliament intended *mens rea* be proven can be displaced by the assessment of criteria, specifically, the express language, the subject matter (whether serious), and whether status as strict liability aids efficacy in enforcement.

153 *Crimes (Sentencing Procedure) Act 1999* (NSW) s 17 (penalty unit equals $110).

154 *Model Food Act 2000* (Cth) ss 9(1), 10(1) and 11(1).

155 Ibid ss 12 (handling), 12(2) (sell unsafe food), 13(1) (handling unsuitable food), 13(2) (sell unsuitable food).

156 *Food Act 2003* (NSW) s 122(3).

157 See, eg, *Food Act 2003* (NSW) ss 24 (advertisement), 25 (food for export), 26 (due diligence), 28 (destroyed or disposed of the food), 29 (equipment), 123 (personal supervision), 126 (correct statement).

158 *Food Act 2001*(ACT) s 30; *Food Act 2004* (NT) s 24; *Food Act 2003* (NSW) s 26; *Food Act 2006* (Qld) s 44; *Food Act 2001* (SA) s 26; *Food Act 2003* (Tas) s 26; *Food Act 1984* (Vic) s 17E; *Food Act 2008* (WA) s 27; See also *ACL* s 208(1)(b).

159 All food Acts except ACT and WA state the defence is not available. See *Food Act 2004* (NT) s 25; *Food Act 2003* (NSW) s 27; *Food Act 2006* (Qld) s 45(2); *Food Act 2001* (SA) s 29(5)(a); *Food Act 2003* (Tas) s 29; *Food Act 1984* (Vic) s 17F. In the ACT, the Criminal Code applies; See, eg, *Stedman v Zeiffrelli Pizza Restaurant Pty Limited* (Unreported, Australian Capital Territory Magistrate's Court, 5 September 2016), 9.

160 In some jurisdictions an officer of a corporate food business can be deemed to have contravened the food offences breached by the corporate entity; See *Food Act 2001* s 128(1); *Food Act 2001* (SA) s 98(1); *Food Act 2003* (Tas) s 106(1); *Food Act 2008* (WA) s 128; In the Northern Territory, New South Wales, Queensland and Victoria the provisions which render directors liable are specified and require the prosecution to prove beyond a

Food fraud offences without *proof* of knowledge (actual or constructed) and without causing physical harm are hence strict liability offences. Although not expressed as 'food frauds', state and territory food Acts prohibit false description of food and provide examples that align with the Spink and Moyer content-based collective term of food frauds.[161] Specifically including deliberate acts of dilution and substitution of food and ingredients, leading to falsely described food:

> (a) the food is represented as being of a particular nature or substance for which there is a prescribed standard under the Food Standards Code and the food does not comply with that prescribed standard,[162]
> (b) the food is represented as being of a particular nature or substance and it contains, or is mixed or diluted with, any substance in a quantity or proportion that significantly diminishes its food value or nutritive properties as compared with food of the represented nature or substance,[163]
> (c) the food is represented as being of a particular nature or substance and it contains, or is mixed or diluted with, any substance of lower commercial value than food of the represented nature or substance,[164]
> (d) the food is represented as being of a particular nature or substance and a constituent of the food has been wholly or partly removed so that its properties are diminished as compared with food of the represented nature or substance,[165]
> (e) any word, statement, device or design used in the packaging or labelling of the food, or in an advertisement for the food, would create a false impression as to the nature or substance of the food, or the commercial value of the food, in the mind of a reasonable person,[166]
> (f) The food is not of the nature or substance represented by the manner in which it is packaged, labelled or offered for sale.

The ACL prohibits misleading or deceptive conduct, or conduct that is likely to mislead or deceive, and the use of false or misleading representations[167] in trade or commerce (including the sale of food). Prohibitions are replicated in fair trading legislation[168] of each State and Territory. Intention (and honesty) of the person engaging in the alleged offending conduct under a breach of the ACL is, like the food offences, not required to successfully prove commission of the offence. However, unlike the food legislation, honest mistake can be a defence.[169] Nonetheless, 'deliberateness' is relevant in quantifying an appropriate penalty in misleading conduct cases under the ACL.[170]

In adjudicating consumer protection cases, the courts apply four to five interrelated principles in determining whether conduct is misleading or deceptive.[171] Like the offences under the food Acts, these principles broadly align with Spink and Moyer's definition of food fraud. First,

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reasonable doubt elements including knowledge and failure to take reasonable steps to prevent the offence; See, eg, *Food Act 2003* (NSW) s 122 provides executive liability offences are ss 13, 14, 15, 16, 17(1) or (2), 18(1), (2) and (3), 19(1), 20, 21(1), (2), (3) and (4), 35, 64, 104(1), (2), (3) and (4), 122A (accessory), 122B (evidence as to state of mind of corporation); *Food Act 2003* (NSW) s 122(2).

161 *Model Food Act 2000* (Cth) s 18(1)(a)-(f).

162 Ibid s 18(1)(a).

163 Ibid ss 18(1)(b)-(c).

164 Ibid.

165 *Model Food Act 2000* (Cth) s 18(1)(d).

166 Ibid s 18(1)(e).

167 *ACL* s29.

168 *Fair Trading Act 1987* (NSW) s 28; *Fair Trading Act 1989* (Qld) s 16; *Fair Trading Act* 1987 (SA) s14; *Australian Consumer Law (Tasmania) Act 2010* (Tas) s 6; *Fair Trading Act 1999* (Vic) s 9; *Fair Trading Act 2010* (WA) s 11; *Fair Trading (Australian Consumer Law) Act 1992* (ACT) s 7; *Consumer Affairs and Fair Trading Act 1990* (NT) s 27.

169 *A*CL s18(1). See also *Parkdale Custom Built Furniture Pty Ltd v Puxu Pty Ltd* (1982) 42 ALR 1, 5 (Gibbs CJ).

170 Lee, above n, 137.

171 *ACCC v Homeopathy Plus! Australia Pty Limited* [2014] FCA 1412, 116 (Perry J).

to characterise conduct as misleading or deceptive, the courts apply an objective test[172] where proof of an intention to mislead is not essential, although as already indicated above, proof of intention may be relevant to sentencing. Consideration is given to whether the conduct 'viewed as a whole has a tendency to lead a person into error', and whether there is 'sufficient causal link between the conduct and the error on the part of the persons exposed to it'.[173] The tendency to lead consumers to error can arise due to the placement and selection of words emphasised in advertisements.[174] Courts consider literal truths must not create false impressions.[175] A representation may be misleading although not strictly a false representation extending its capture to, at times, advertising puffery.[176]

Secondly, as proof of actually being misled or deceived is not essential, the inclusion of 'likely' to mislead or deceive in both food law and ACL prohibitions extends the protections to a 'real or not remote chance or possibility, regardless of whether it is less or more than 50 per cent', adding 'the word is equivalent to "prone", "with a propensity" or "liable"'.[177] However, the protections do not extend to conduct that is merely confusing or obvious exaggerations.[178] Nevertheless, half-truths may be misleading due to the erroneous conclusion drawn from insufficient information;[179] 'context and the "dominant message" are important' in such cases.[180]

Thirdly, courts determine the effect of the representations on 'the class of persons likely to be affected and their relevant attributes [must be] identified' and includes 'the astute and the gullible, the intelligent and the not so intelligent, the well educated as well as the poorly educated.'[181]

Fourthly, the maker's belief as to the truthfulness of a representation 'is irrelevant to the question of whether the meaning conveyed by the statement is false'.[182] Finally, the question is first and foremost whether the representation viewed as a whole[183] has a tendency to lead or induce[184]

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172 *Global Sportsman Pty Ltd v Mirror Newspapers Ltd* (1984) 2 FCR 82, 87 (Bowen CJ, Lockhart and Fitzgerald JJ). The Justices stated the '[ACL s 18] is concerned with the effect or likely effect of conduct upon the minds of those by reference to whom the question of whether the conduct is or is likely to be misleading or deceptive falls to be tested. The test is objective and the Court must determine the question for itself'.

173 *Australian Competition and Consumer Commission v TPG Internet Pty Ltd* [2013] HCA 54; (2013) 250 CLR 640 at [49] (French CJ, Crennan, Bell and Keane JJ) and [39]; *Keehn v Medical Benefits Fund of Australia Ltd* (1977) ATPR 40 at 47 Northrop J held a statement was misleading 'if it would lead one ordinary member of the public, likely to read the statement or be influenced by it, into error'.

174 *ACCC v Homeopathy Plus! Australia Pty Limited* [2014] FCA 1412 at [123].

175 *Hornsby Building Information Centre Pty Ltd and Anor v Sydney Building Information Centre Ltd* (1978) 52 ALJR 392.

176 Puffery in advertising is the use of words or statements not intended to be statements of fact and therefore not a 'representation'. See, eg, *Magennis v Fallon* (1828) LR 2 Ir 167; 2 Mol 561, 588.

177 *Tillmanns Butcheries Pty Ltd v Australasian Meat Industry Employees' Union* (1979) 27 ALR 367 at 380, cited by the Full Court of the Federal Court of Australia in *Global Sportsman Pty Limited v Mirror Newspapers Ltd* (1984) 55 ALR 25, 30.

178 *Ballantyne v Raphael* (1889) 15 VLR 538 at 547; 11 ALT 34.

179 In *Australian Competition and Consumer Commission v Coles Supermarkets Australia Pty Limited* (2014) FCA 634, Allsop CJ cites *Fraser v NRMA Holdings Ltd* [1994] FCA 1397; (1994) 124 ALR 548, 563; *Tobacco Institute of Australia Limited v Australian Federation of Consumer Organisations* [1992] FCA 630; (1992) 38 FCR 1, 50.

180 *Australian Competition and Consumer Commission v Coles Supermarkets Australia Pty Limited* (2014) FCA 634, 48 (Allsop CJ).

181 *Parkdale Custom Built Furniture Pty Ltd v Puxu Pty Ltd* (1982) 149 CLR 191 at 93 (Lockhart J).

182 *ACCC v Homeopathy Plus! Australia Pty Limited* [2014] FCA 1412 at [124].

183 *Parkdale Custom Built Furniture Pty Limited v Puxu Pty Ltd* (1982) 42 ALR 1, 8 (Gibbs CJ).

184 See, eg, *R Lowe Lippmann Figdor and Franck v AGC (Advances) Ltd* [1992] 2 VR 671 at 679 (Brooking, Gobbo and Tadgell JJ) held 'Where the plaintiff's claim for damages is based on a fraudulent misrepresentation, one thing he

a consumer because of erroneous representations and not whether the representations were successful to induce the entering into a contract, such as a private food transaction.[185] Courts assess the general impression of an advertisement along with considering the truth of the composite parts, and a breach of 'misleading or deceptive conduct' provisions can be established from the overall impression from the impugned conduct, independent of finding a specific statement 'misleading' in itself.[186]

must prove is that the defendant made the representation with the intention that it be acted upon by the plaintiff or by a class of persons which will include the plaintiff citing *Peek v Gurney* (1873) LR 6 HL 377; *Bradford Third Equitable Benefit Building Society v Borders* [1941] 2 All ER 205, at 211; *Commercial Banking Company of Sydney Ltd v RH Brown and Co* (1972) 126 CLR 337.

185 *Australian Competition and Consumer Commission v TPG Internet Pty Ltd* [2013] HCA 54; (2013) 250 CLR 640 at [48] and [49].

186 *Campbells v Backoffice Investments Pty Limited* (2009) HCA 25 French CJ cited Gibbs CJ in *Parkdale Custom Built Furniture Pty Limited v Puxu Pty Ltd* (1982) 42 ALR 1.

CHAPTER 2 TABLE 1: NSW food offence architecture

***Food Act* 2003 (NSW) Offences relating to food**		**STRICT LIABILITY** 500 (individual) and 2500/2000 penalty units (corporation) 400 penalty units (individual) and 2000 penalty units (corporation)	**CONSTRUCTIVE KNOWLEDGE** 750 penalty units (individual) and 3750 penalty units (corporation)	**ACTUAL KNOWLEDGE** 1000 penalty units or imprisonment for 2 years, or both (individual) and 5000 (corporation)
Serious offences	Render food unsafe	Render food unsafe (s 16(1))	Ought reasonably to know is likely to render the food unsafe (s 13(2))	Knows will render the food unsafe (s 13(1))
	Sell unsafe food	Sell unsafe food (s 16(2))	Ought reasonably to know is unsafe (s 14(2))	Knows is unsafe (s 14(1))
	Cause food to be falsely described (harm)		Ought reasonably to know a consumer who relies on description is likely to suffer physical harm (s 15(2))	Knows that a consumer of the food who relies on the description will, or is likely to, suffer physical harm (s 15(1))
	Sell falsely described food (harm)		Ought reasonably to know is falsely described and is likely to cause physical harm to a consumer who relies on the description (s15(4))	Knows is falsely described and will or is likely to, cause physical harm to the consumer of the food who relies on description (s 15(3))
Other offences	Render food unsuitable	Handle food that will render, or likely to render, food unsuitable (s 17(1))		
	Sell unsuitable food	Sell unsuitable food (s 17(2))		
	Misleading or deceptive conduct	Engage in misleading or deceptive conduct in relation to the advertising, packaging or labelling of food (s 18(1))		
	Cause food to be falsely described (no harm)	Food is falsely described when: (s 22) (1) (a) The food is represented as being of a particular nature or substance for which there is a prescribed standard under the ANZFSC and the food does not comply, (b) The food is represented as being of a particular nature or substance and it contains, or is mixed or diluted with, any substance in a quantity or proportion that significantly diminishes its food value or nutritive properties as compared with food of the represented nature or substance, (c) The food is represented as being of a particular nature or substance and it contains, or is mixed or diluted with, any substance of lower commercial value than food of the represented nature or substance, (d) The food is represented as being of a particular nature or substance and a constituent of the food has been wholly or partly removed so that its properties are diminished as compared with food of the represented nature or substance, (e) Any word, statement, device or design used in the packaging or labelling of the food, or in an advertisement for the food, would create a false impression as to the nature or substance of the food, or the commercial value of the food, in the mind of a reasonable person, (f) The food is not of the nature or substance represented by the manner in which it is packaged, labelled or offered. (2) Without limiting the application, s 18 (2), food is falsely described for the purposes of s 18 (2) if it is supplied in response to a purchaser's request for a particular type of food, or a food that does not contain a particular ingredient, and the food is not of that type or contains that ingredient.		
	Sell food that is falsely described (no harm)			
	Not what purchaser demanded	Supply food not of the nature or substance demanded (s19(1))		

	ANZFSC compliance	Must comply with ANZFSC (s 21(1))	
		Must not sell food non-compliant with ANZFSC (s 21(2))	
		Must not sell or advertise food that is labelled in a non-compliant manner (s 21(3))	
		Must not sell or advertise food in manner that is non-compliant with ANZFSC (s 21(4))	

IV Food Fraud and Related Concepts

Part III conceptualises and discusses food fraud, food crime and the related concept 'food labelling non-compliance' within the Australian food offence architecture. First, developing terminology used in food fraud policy discourse is discussed. Second, a definition for food fraud coherent with the Australian food offence architecture is presented.

In discussing food fraud, it is useful to conceptualise the relationship between four food offences relevant to food protection systems based on the human behavioural elements behind offending: motivations and intentions. John Spink and Douglas Moyer first presented their Food Protection Matrix distinguishing food fraud, food defence, food safety, food quality issues based on intentions and motivations.[187] Figure 1 adapts the matrix with the NSW food Act offences, the definition of Lord et al discussed in the next part and also conceptualises where threats to safety and public health are present. This adaption follows Manning and Soon adapting the matrix with reference to food crime (see also Chapter 6).[188] Food fraud and food defence related offences are *intentional acts*, motivated by efforts to obtain either an economic benefit or commit harm, respectively.[189] Food safety and food quality related offences are unintentional acts, offenders are not motivated to commit the food offences to harm or cause food to deteriorate or become unsuitable.[190] Offences that result in food safety and quality offences follow *unintended acts* of contaminating food by failing to control traditional hazards. Each of the four issues in the food protection matrix may result in a food crime.[191]

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[187] John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* 157, 160.

[188] Louise Manning and Jan Mei Soon, 'Food Safety, Food Fraud and Food Defense: A Fast Evolving Literature' (2016) 81(4) *Journal of Food Science* R823, 828.

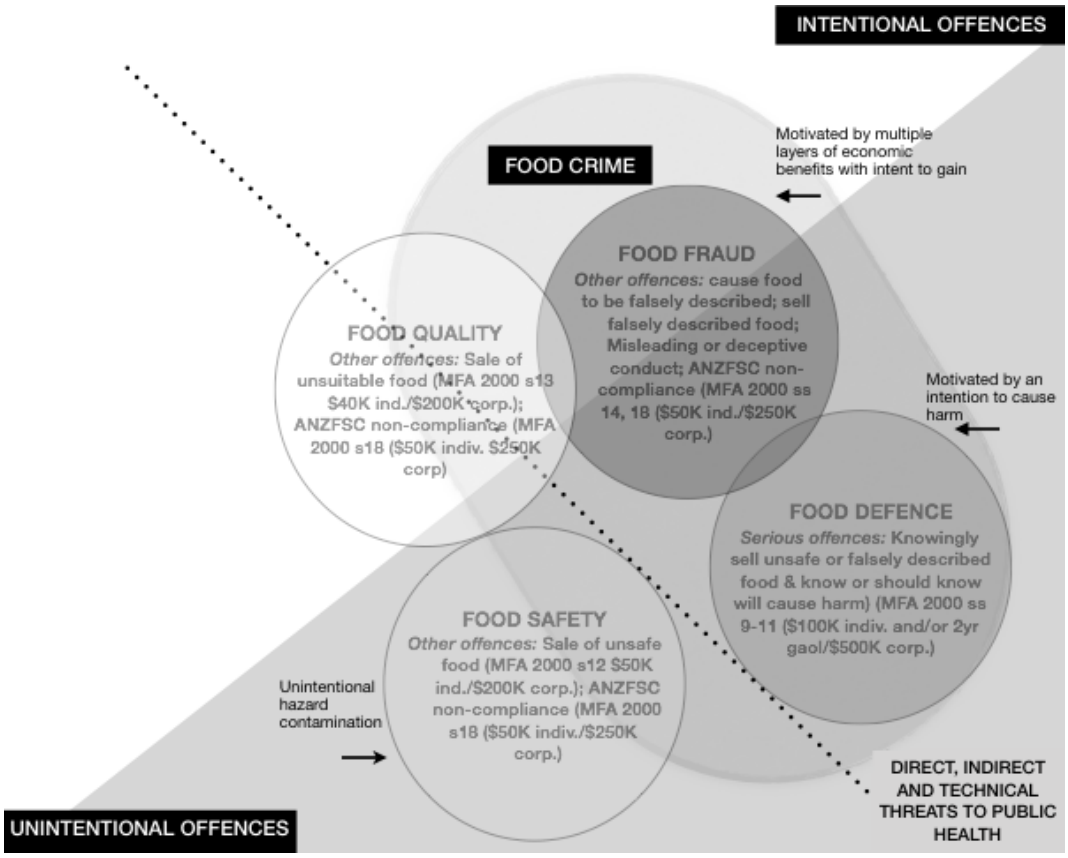
[189] Spink and Moyer, above n 187, 157.

[190] Manning and Soon, above n 188, 828.

[191] Ibid.

CHAPTER 2 FIGURE 1: Adapted Food Protection Matrix

Food issues requiring control as first conceptualised by Spink and Moyer,[192] adopted by the GFSI[193] and adapted by Manning and Soon.[194] Figure 1 adapts the Food Protection Matrix to include Australia's *Model Food Act 2000* offence architecture and introduces the conceptualisation of offending causing potential direct, indirect and technical threats to safety and public health.



A *The evolving literature on food fraud as a crime*

Offenders illegally acquire the property of their victims in two ways: (i) Forcing illegal possession (theft); or, (ii) Tricking victims to voluntarily part with their property (fraud).[195] The term 'fraud' encompasses the various means motivated offenders trick, deceive and mislead victims with false statements or representations to erroneously enter commercial transactions.[196] John Spink and Douglas Moyer's food fraud definition introduced in chapter 1 is now ubiquitous in academic literature and the policy discourse engaged by industry, governments and non-governmental organisations. For ease, it is repeated here, explaining:

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192 Spink and Moyer, above n 187.

193 Global Food Safety Initiative, 'GFSI Position on Mitigating the Public Health Risk of Food Fraud' (Policy Statement, Consumer Goods Forum, 2014), 2.

194 Manning and Soon, above n 188, 828

195 Michael Levi, *Regulating Fraud*: White-collar crime and the criminal process (Tavistock Publications, 1987).

196 See, eg, Michael Levi, *Phantom Capitalists, The Organisation and Control of Long-Firm Fraud* (Routledge, Revised Edition, 2016); David Whyte and Jorg Wiegratz, 'Neoliberalism, Moral Economy and Fraud' in David Whyte and Jorg Wiegratz (eds), Neoliberalism and the moral economy of fraud (Taylor and Francis, 2016) 15. See also *Parkdale Custom Built Furniture Pty Limited v Puxu Pty Limited* (1982) 42 ALR 1, 5 (Gibbs CJ).

> Food fraud is a collective term used to encompass the deliberate and intentional substitution, addition, tampering, or misrepresentation of food, food ingredients, or food packaging; or false or misleading statements made about a product, for economic gain. [197]

Criminologists have used this definition to investigate the nature and relationship of factors contingent in the commission of the crime. This definition describes the *types* of food frauds society is experiencing.[198] Lord et al argue the definition is an artefact of compliance and enforcement activity data on types of food frauds, and fails to refer to actual behaviours for regulatory control purposes.[199] Content-based descriptions like this do not recognise the roles and motivations, relations and behaviours constituting food frauds.[200] Application of the definition in policy discourse and development therefore illuminates *what* food fraud is, but analytically based definitions are preferred when trying to understand *how* food frauds are organised, so we can move beyond the *what food fraud is* to *how food fraud is prevented* so we can implement effective preventative controls (see Chapter 6).[201]

As John Spink and Douglas Moyer provide in their definition, the goal of food fraud is economic gain.[202] Lord, Elizondo and Spencer comment the financial motivations actually exist in multiple, heterogeneous layers of economic motivations and advantages.[203] Lord et al argue food frauds are 'situated actions' influenced by the presence or absence of necessary conditions that create (or prevent) the crime opportunity, which is also shaped by contingent enterprise and market-based conditions that can explain why the decisions of actors to opportunistically offend become rational (see Chapter 6).[204] Accordingly, a study of legitimate actors in a food supply network following the bulk sale of end-of-date drinks and subsequent tampering of best before dates informed their analytical definition for food fraud. Lord et al's definition captures the types

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197 Spink and Moyer, above n 187, 158.

198 See Spink and Moyer, above n 187, 157 (seven types of food fraud). See also Hans Marvin, Yasmine Bouzembrak, Esmee Janssen, Ine van der Fels-Klerx, Esther van Asselt and Gijs Kleter, 'A Holistic Approach to Food Safety Risks: Food Fraud as an Example' (2016) 89 *Food Research International* 463, 464 where leading European and US databases provide types of food frauds as, (i) improper, fraudulent, missing or absent health certificate; (ii) illegal or unauthorised importation, trading or transportation; (iii) adulteration, tampering, substitution, counterfeiting, artificial enhancement, transhipping, intentional distribution of contaminated product, dilutions; (iv) improper, fraudulent, expired or missing import permits, declarations or analytical reports; (v) expiry dates; (vi) mislabelling country of origin labels; and (vii) theft and resale; Another construct of food fraud based on type is the UK Food Crime Unit categorisation of food crime types as 'pure, indirect, or cyber-enabled…Pure food crime is defined as serious criminal activity in which the intention is to compromise the authenticity or safety of food'. The definition includes four (of seven) food fraud types described by Spink and Moyer - adulteration, substitution, diversion and misrepresentation; See also Manning and Soon, above n 188, R826. See also , Global Food Safety Initiative, 'GFSI Position on Mitigating the Public Health Risk of Food Fraud' (Policy Statement, Consumer Goods Forum, 2014), which defines food fraud as 'deception of consumers using food products, ingredients and packaging for economic gain and includes substitution, unapproved enhancements, misbranding, counterfeiting, stolen goods and others'. As is argued elsewhere, the making of false health claims to promote the sale of food is another type of food fraud, see Chapter 7 of this thesis.

199 Nicholas Lord, Jon Spencer, Jay Albanese and Cecilia Flores Elizondo, 'In Pursuit of Food System Integrity: The Situational Prevention of Food Fraud Enterprise' (2017) *European Journal on Criminal Policy and Research*, 3.

200 Nicholas Lord, Cecilia Flores Elizondo and Jon Spencer, 'The Dynamics of Food Fraud: The Interactions between Criminal Opportunity and Market (Dys)Functionality in Legitimate Business' (2017) January *Criminology and Criminal Justice* 1.

201 Lord, Elizondo and Spencer, above n 201, 1.

202 See John Spink and Douglas Moyer, 'Understanding and Combatting Food Fraud' (2013) 67(1) *Food Technology* 30; Douglas Moyer, Jonathan DeVries and John Spink, 'The Economics of a Food Fraud Incident - Case Studies and Examples Including Melamine in Wheat Gluten' (2017) 71 *Food Control* 358.

203 Lord, Elizondo and Spencer, above n 201, 2

204 Lord et al, above n 200.

of fraud explicit in the Spink and Moyer definition whilst highlighting food frauds involve legitimate 'processes, behaviours, relations and actors' within the legitimate food system.[205] That definition is:

> The abuse or misuse of an otherwise legitimate business transaction and an otherwise legitimate social economic relationship in the food system in which one or more actors undertakes acts or omissions of deception or dishonesty to avoid legally prescribed procedures (process) with the intent to gain personal or organizational advantage or cause loss/harm (outcome). [206]

Internationally, academics are categorising white collar and corporate crimes involving food offences as 'food crime'.[207] Regulatory actors in the UK distinguish food fraud from food crime by a measure of 'seriousness', based on factors including scale, complexity and potential harms. For example, the UK National Food Crime Unit (UK Food Crime Unit), part of the UK Food Standards Agency established to give greater focus to enforcement against food fraud, states:

> Food crime is dishonesty relating to the production or supply of food which is either complex or likely to result in serious detriment to consumers, businesses or the overall public interest … when the scale and potential impact of the activity is considered to be serious … the activity has cross-regional, national or international reach, that there is significant risk to public safety, or that there is a substantial financial loss to consumers or businesses. [208]

Also, according to the UK Food Crime Unit:

> Food fraud is a dishonest act or omission, relating to the production or supply of food, which is intended for personal gain or to cause loss to another party. [209]

The UK Food Crime Unit was established following recommendations in the *Elliott Review into the Integrity and Assurance of Food Supply Networks: Final Report – a National Food Crime Prevention Framework* ('Elliot Review')[210] (see Chapter 4 Part V). Establishment of the specialist unit followed the European horse meat as beef scandal where 27 per cent[211] of tested hamburger 'beef' sold in supermarkets throughout Europe was positive for equine DNA.[212] To place the needs of consumers first, 'where food fraud or food crime is concerned, even minor dishonesty must be discouraged and the response to major dishonesty deliberately punitive', Elliott also remarks:

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205 Lord, Elizondo and Spencer, above n 201, 7.

206 Ibid.

207 Hazel Croall, 'Conceptualizing White Collar Crime' in *Understanding White Collar Crime* (Open University Press, 2001), 39-40. According to Croall, white-collar crimes include: theft at work, fraud, corruption, employment offences, consumer offences, food offences (food frauds, food labelling offences and food poisoning), and environmental crime. See also Hazel Croall, 'Food Crime: A Green Criminology Perspective' in Nigel South and Avi Brisman (eds), *Routledge International Handbook of Green Criminology* (Routledge, 2013); Alison Gray and Ron Hinch, 'Agribusiness, Governments and Food Crime: A Critical Perspective' in Ragnhild Aslaug Sollund (ed), *Green Harms and Crimes - Critical Criminology in a Changing World* (Palgrave Macmillan UK, 2015) 97. But see Lisa Jack, 'The term 'food crime' needs to be used with care says Professor Lisa Jack', (*The Grocer* (online), 13 September 2014).

208 National Food Crime Unit, 'Food Crime Annual Strategic Assessment: A 2016 Baseline', (Food Standards Agency and Food Standards Scotland, 2016), 9 <https://www.food.gov.uk/enforcement/the-national-food-crime-unit/what-is-food-crime-and-food-fraud>.

209 Ibid 55.

210 *Elliott Review*, above n 48.

211 Ten out of 37 samples tested positive.

212 Food Safety Authority of Ireland, 'FSAI Survey Finds Horse DNA in Some Beef Burger Products' (Press Release, 15 January 2013) <http://www.fsai.ie/news_centre/press_releases/horseDNA15012013.html>.

> Food fraud becomes a food crime when it no longer involves random acts by 'rogues' within the food industry but becomes an organized activity by groups which knowingly set out to deceive, and or injure, those purchasing food. [213]

The UK Food Crime Unit, as a consequence, conceptualises the relationship between food fraud and food crime as to whether organised crime exists. Fraud because of regulatory non-compliance is defined by the unit as 'more common – at their most serious, and where there is dishonesty, these may also constitute food crime' and food crime 'predominately consists of serious and complex food fraud'.[214] Attempts at distinguishing food fraud and food crime are ripe for criticism. To conceptually separate food crime from food fraud is arguably artificial, confusing and unhelpful. To do so suggests the definition is convenient for regulatory prioritisation of recourses, arguably based on limited government funding. As Figure 1 shows, all food frauds can be conceptualised as food crime, but not all food crimes are food frauds. According to accountant and current leader of the Food Fraud Group for the Centre of Counter Fraud Studies Portsmouth, Professor Lisa Jack:

> The definitions of "food crime' and "food fraud" used in the [Elliot Review] are interesting, to say the least. In the review, food fraud is committed by "rogues" and food crime by "organised criminals" infiltrating food supply chains. But crime is any act prohibited by law with penal consequences. Fraud is a crime and so are certain breaches of the *Food Act 1990*, for example. The newly coined phrases of food fraud and food crime needs to be used with care. The Elliot Review sets out excellent recommendations for dealing with organised crime in food – which could be termed organised food crime. Mislabelling, substitution, adulteration and counterfeiting are fraud by whoever carries them out, and this may be individuals or companies as well as gangs, and are not always opportunistic. Contamination whether malicious or negligent can be a crime. Food businesses need to build up resilience to fraud from wherever. Food crime should be the umbrella terms rather than the narrow term used in the review to justify certain courses of action.[215]

Diffusion of this food fraud versus food crime definitional policy, based on a narrowing of the scope for regulatory convenience, should be resisted and care taken in using the food fraud and food crime terms.[216] Attempts that are not strategically holistic (not capturing all types of food fraud offences before proportionate responses can apply in any follow up regulatory action), impede not empower effective and systematic food fraud monitoring strategies and other preventive controls. An analysis of food fraud and food crime discourse in business literature shows the artificial distinctions are 'oppressing accountability, authenticity and traceability'.[217] Building resilience across food supply chains to prevent food frauds of all types is the aim. As Chapter 1 introduced, researchers have identified seven different types of fraud offences using foods for sale.[218] This thesis adds an eighth type – fraud and misrepresentation of preventative health food information (see Chapter 7). Controlling the range of threats of harms from the range of types of fraud and misrepresentation in the sale of food requires appropriate responses for all levels of seriousness. The various acts of fraud require nuanced regulatory management by food regulators. Applying the graduated approach to penalties as agreed to in Parliament and provided in food legislation, is an appropriate starting position for Australia's food policy-makers when

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[213] *Elliott Review*, above n 48, 6.
[214] National Food Crime Unit, above n 209, 10.
[215] Lisa Jack, 'The term 'food crime' needs to be used with care says Professor Lisa Jack', (*The Grocer* (online), 13 September 2014).
[216] Ibid.
[217] Liam Fassam and Samir Dani, 'A Conceptual Understanding of Criminality and Integrity Challenges in Food Supply Chains' (2017) 119(1) *British Food Journal* 67, 70.
[218] Spink and Moyer, above n 187.

considering compliance and enforcement priorities.

All Australian food frauds manifest from breaches of food legislation, including non-compliance with mandatory food labelling requirements, prohibitions and permissions: Food labelling non-compliance. Food fraud and regulatory non-compliance are not mutually exclusive concepts. Chapter 5 of this thesis discusses monitoring food labelling non-compliance. Food labelling non-compliance offences can be intentional or non-intentional. Chapter 5 shows national and state enforcement policies make ad hoc mention of controlling intentional 'serious misleading conduct' in the sale of food, without any guidance for audits and inspectors to actually be able to identify the intentional act. As a content-based term covering a wide range of breaches, 'food labelling non-compliance' is an outcome. Use of the term provides no space to appreciate the complex mix of roles, motivations, networks and behaviours constituting the acts of non-compliance. Conceptual arguments over what is a crime and what is food labelling non-compliance in this highly regulated space involving strict liability offences takes the focus off the objective to protect safety and public health. A critique of what amounts to intentional and serious misleading conduct for systematic monitoring of food labelling compliance and enforcement with reference to direct, indirect and technical threats to safety and public health is seriously lacking in Australian food policy discourse.

B *A food fraud definition coherent with Australian food law*

An Australia-centric definition for local policy discourse is recommended and presented here. It is conceived by following the works of John Spink and Douglas Moyer, Lord et al and aligning the Australian legal architecture, specifically the false description of food adopted in state and territory food Acts:

> Food fraud is the intentional and deliberate misuse or abuse of a legitimate food business transaction and economic relationship where one or more actors engage in deliberate acts or omissions to mislead or deceive and avoid legally prescribed processes motivated by multiple personal and organisational layers of advantage. Examples of the strict liability food fraud offences, include but are not limited to, misleading or deceptive conduct, using ANZFSC non-compliant, or falsely described food, in a legitimate sale, or otherwise causing food to be represented as a particular nature or substance when, (i) a ANZFSC standard exists, and the food does not comply, (ii) food contains any other substance or ingredient in a proportion that significantly diminishes the food's represented value or nutritive properties, (iii) an ingredient or constituent of the food has been wholly or partly removed, or substituted, (iv) a word, statement, device or design used to promote the food creates a false impression as to the nature or substance, or the commercial value of the food, (v) not of the nature or substance represented by the manner in which it is packaged, labelled or offered for sale. If there is actual knowledge, or if the person ought reasonably should have known the act was likely to cause physical harm, greater penalties apply.

V CONCLUSION

Chapter 2 shows food authenticity and preventing fraud as a historical regulatory driver of food legislation in Australia (and the UK) in the interest of safety and public health. The chapter shows Australia's legal framework changed significantly in 2000, resulting in a regulatory gap to be filled with strategic approaches targeting the proactive and effective control of fraud and

misrepresentation for safety and public health. After 2000, legislation in the Australian food regulatory framework shifted from explicitly regulating food authenticity via prohibiting the adulteration of standardised food to a self-regulatory approach. The new approach places more responsibility on food businesses to comply with mandatory requirements whilst legislation proscribes the false description of food. The concept of authenticity was supported by compositional food standards regulating the use of food names in the sale of food. Over 3000 food standards defined food names and prescribed compositional ratios and conditions for their commercial use. After 2000, standards mandating food information for safety and public health and the prohibition of false description across all foods became the dominant mechanism for regulating food authenticity and preventing fraud and misrepresentation. The shift arguably loosened the capacity for regulatory control of food authenticity and preventing fraud and misrepresentation. The legislative change shifted the onus onto food businesses to manage their own food labelling controls when processing and marketing food compliantly and not falsely describing food. The 2000 shift demands a lot from regulatory programs monitoring and identifying non-compliance, fraud and misrepresentations and enforcing prohibitions to protect safety and public health in a globalised food supply.

A range of offences are available within the food and consumer law offence architecture to control food authenticity. Fraud and misrepresentation, including non-compliance with ANZFSC food labelling requirements impact food authenticity, introducing technical, indirect and direct threats to safety and public health. Figure 1 adapted John Spink and Douglas Moyer's Food Protection Matrix of food issues requiring control to align with Australia's model food offences architecture. It presents intentional and unintentional offences as a dichotomy and conceptualises where the threats to direct, indirect and technical threats are present. Chapter 2 reveals fraud and misrepresentation offences in food legislation are strict liability offences. Accordingly, regulators do not need to prove a food business intended to defraud or misrepresent when enforcing the food labelling compliance requirements and prohibitions in state and territory food Acts. Law makers deemed food offences strict liability offences in the 2000 reform of food legislation. Food legislation has a safety and public health purpose, justifying the strict liability. In the event a regulator has proof a food business operator had actual or constructive knowledge that any substituting, diluting or otherwise misrepresenting the nature or substance of food or ingredients would, or likely, cause physical harm, higher penalties are available to a court. Strategic and distinct approaches are required to proportionately control the highest risks of physical harm from the fraud and misrepresentation of food information.

Next, Chapter 3 describes the key government bodies, agencies, and legal and strategic policy instruments comprising the modern-day Australian food regulatory framework for food labelling regulation, compliance and enforcement. The next chapter also introduces the Hierarchy driving the risk-based approach to food labelling regulation, compliance and enforcement.

CHAPTER 3: AUSTRALIAN FOOD REGULATORY FRAMEWORK AND FOOD FRAUD PREVENTION

I INTRODUCTION

Chapter 3 follows Chapter 2's modern history account of food safety legislation in the UK and Australia, revealing fraud and misrepresentation of food for sale as a regulatory driver for food safety governance over the last two centuries. Prohibiting frauds and controlling the authenticity of foods were principal mechanisms by which historical food safety governance systems operated to protect safety and public health. Chapter 3 describes the key government bodies, agencies, legal and strategic instruments comprising the modern-day Australian food regulatory framework for food labelling regulation, compliance and enforcement.

Part II examines the legal instruments and strategies operating within Australia's framework,[1] detailing the roles and objectives of key statutory bodies and legal instruments. Wherever possible, relevant data from Australian and international sources are used to illustrate operation of the framework in respect to preventing fraud and misrepresentation. Part III introduces the Hierarchy as the risk-based approach to food labelling regulation and compliance monitoring for enforcement.

II AUSTRALIA'S FOOD REGULATORY FRAMEWORK

As resolved by the United National (UN) General Assembly, national food control regulatory frameworks must adopt the operating policies of the Food and Agriculture Organisation (FAO) and World Health Organisation (WHO).[2] The principle, aiming to 'protect public health by reducing the risk of food-borne illness (and) protect consumers from unsanitary, unwholesome, mislabelled or adulterated food' guides Australia's food regulatory system.[3] Accordingly, the overarching goal of Australia's framework is to protect public health and safety, along with the aim of preventing misleading or deceptive conduct.[4]

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1 As at 30 June 2018.

2 United Nations General Assembly, *Consumer Protection: Guidelines for Consumer Protection,* GA Res 39 248, UN GAOR, 2nd Comm, 39th Meeting, Agenda Item 12, UN DOC A/RES/39/248 (16 April 1985), 39.

3 Food and Agriculture Organisation and World Health Organisation, *Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems* (Joint FAO/WHO Publication, Rome, 2003), 4.1 <http://www.fao.org/docrep/006/y8705e/y8705e04.htm#bm04.1>; See also, Codex Alimentarius, *Principles and Guidelines for National Food Control Systems* (CAC/GL 82, 2013). <http://www.codexalimentarius.org/download/standards/13358/CXG_082e.pdf>.

4 See Anon 'Overarching Strategic Statement for the Food Regulatory System' (Strategy Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2008, updated 2012) ('*Overarching Strategic Statement*'); See also *Food Standards Australia New Zealand 1991* s 18(1) that provides FSANZ is to develop regulatory measures in the a descending order of priority, (a) the protection of public health and safety; and (b) the provision of adequate information relating to food to enable consumers to make informed choices; and (c) the prevention of misleading or deceptive conduct; *Model Food Act 2000* (Cth) s 1(a) provides objects of state and territory food Acts are 'to ensure food for sale is both safe and suitable for human consumption; (b) to prevent misleading conduct in connection with the sale of food; and (c) to provide for the application in this State of the *ANZFSC*;

A *Overarching Strategic Statement for the Food Regulatory System*

The protection of public health and safety is the overriding objective of Australia's food regulatory system. The Overarching Strategic Statement for the Food Regulatory System ('Overarching Strategic Statement') provides:

> The primary goal of the regulatory system is to protect the health and safety of consumers of food – in other words, to protect Australians and New Zealanders from preventative health risks associated with the consumption of food. This means:
> Helping to prevent people becoming sick or dying as the result of the consumption of unsafe food; and
> Providing consumers with information so that they can choose appropriate food and remain healthy over time.
> The food regulatory system aims to reduce risks related to food by:
> Reducing foodborne illness
> Reducing the risk of contamination of food
> Reducing other health risks associated with the consumption of certain foods or food additives. [5]

The Overarching Strategic Statement, does not articulate the prevention of food frauds for reasons of safety and public health as a strategic regulatory aim in Australia. Operation of the framework is instead limited to reducing foodborne illness and the risks of contamination. There is no articulation of controlling fraud vulnerabilities to reduce the potential harms to safety from frauds and misrepresentation. Where reference is made to 'with information' presumably the reference is about food labelling requirements provided in ANZFSC. According to this Overarching Strategic Statement, the primary goal is achieved by providing consumers with information so that they can choose appropriate food to eat. Certainly, as is shown in Chapter 7, in an age of 'healthism', others have suggested that consumers are increasingly made responsible for choices about what they eat for their own self-care.[6]

However, protecting the health and safety of consumers means more than providing consumers with information so that they can choose food to remain healthy over time. Uncontrolled fraud opportunities are present throughout food supply chains up to and including the information provided on a label displayed to consumers at retail. Controlling fraud and misrepresentation of food and ingredients is not about informing consumers or enabling their right to choose at the retail shelf. At the end of the supply chain, retail food consumers are the least perfectly informed. Yet there is no strategic focus expressed in the framework on ensuring the authenticity of critical information for safety and health throughout food and ingredient supply chains. Consumers are usually unaware when made a victim of food fraud.[7] An asymmetric

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See also Commonwealth Government of Australia, states and territories, 'Inter-Governmental Agreement on Food Regulation' (Regulation Agreement, 2008) ('*Food Regulation Agreement*') objectives are, (a) providing safe food controls for the purpose of protecting public health and safety, (b) reducing the regulatory burden on the food sector, (c) facilitating the harmonisation of Australia's domestic and export food standards and their harmonisation with international food standards, (d) providing cost effective compliance and enforcement arrangements for industry, government and consumers, (e) providing a consistent regulatory approach across Australia through nationally agreed policy, standards and enforcement procedures, and (f) recognising that responsibility for food safety encompasses all levels of government and a variety of portfolios, and supporting the joint Australian and New Zealand efforts to harmonise food standards. The Food Regulation Agreement contains the model food provisions – Annex A and B. Annex A is adopted in all state and territory food Acts.

5 *Overarching Strategic Statement,* above n 4, 8-9.

6 See Chapter 7, Tier two food labelling issues.

7 National Food Crime Unit, 'Food Crime Annual Strategic Assessment: A 2016 Baseline', (Report, Food Standards Agency and Food Standards Scotland, 2016), 5.

information dynamic exists between the consumer and food processing actors in supply chains. Systematically monitoring and certifying the authenticity of information is an important means of correcting market failures from the asymmetric information dynamic.[8] The Overarching Strategic Statement fails to acknowledge how the system steers the responsibilities and requisite powers of regulators to proactively ensure the information consumers rely on is true and correct in the interest of safety and public health.

The priorities of Australia's food regulatory system for 2017-2021 are to reduce foodborne illness caused by common food pathogens *Campylobacter* and *Salmonella spp*; to support the public health objectives to reduce chronic disease related to obesity; and maintain a strong, robust and agile food regulation system that gives confidence to consumers that their food is safe, and that the system can manage new and innovative industry approaches.[9] The current priorities do not capture proactive control of direct, indirect and technical threats to safety and public health from fraud and misrepresentation. Australian strategies and priorities do not reflect international food policy developments at the Codex committees now discussing options on how to assure food authenticity for safety and public health.

B *Australia and New Zealand Ministerial Forum on Food Regulation*

Australia's food regulatory system is actually a binational one, where both Australia and New Zealand share food regulatory policy development at the Australia and New Zealand Ministerial Forum on Food Regulation ('the Forum'). The Forum is comprised of state and federal Health Ministers, a Minister from New Zealand, Ministers from the Primary Industries portfolios (New South Wales, Queensland, Victoria, Western Australia and South Australia) and a representative from the Australian Local Government Association. The Forum develops the food policy for FSANZ, which is responsible for developing food standards for the ANZFSC. FSANZ is to have regard to any written policy guideline adopted by the Forum when developing or reviewing food regulatory measures.[10]

A committee of the Forum, the Food Regulation Standing Committee ('FRSC'), comprises of senior officials responsible for food, health and fair-trading, with the CEO of FSANZ observing deliberations. FRSC 'coordinates policy advice from state jurisdictions to the Forum to achieve a nationally consistent approach in the implementation and enforcement of food standards'.[11] Established under the auspices of FRSC is the Implementation Sub-Committee for Food Regulation ('ISFR'), which comprises of representatives of all jurisdictions administering food legislation within Australia (and New Zealand). Responsible for authoring risk-based policies and

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8 Jill Mccluskey, 'A Game Theoretic Approach to Organic Foods : An Analysis of Asymmetric Information and Policy' (2000) 1(April) *Agribusiness* 1, 1.

9 Australia and New Zealand Ministerial Forum on Food Regulation (Forum), 'Communique of outcomes from the Australia and New Zealand Ministerial Forum on Food Regulation meeting 28 April 2017', (Media Release, 28 April 2017).

10 *Food Standards Australia New Zealand Act 1991* (Cth) s 18(2)(e).

11 Food Regulation Sub-Committee (FRSC), 'Operating Procedures for the Australia and New Zealand Food Regulation Ministerial Council and the Food Regulation Standing Committee' (Procedure Document, Australia and New Zealand Ministerial Forum on Food Regulation, 25 October 2005).

food labelling compliance strategies and enforcement policies examined elsewhere in this thesis (Chapters 4 and 5), ISFR promotes the 'consistent, bi-national approaches to implementation and compliance with the Australian New Zealand food regulation system'.[12] Appropriately, ISFR developed responses to the Blewett Review recommendations[13] ultimately approved by the Forum. ISFR accordingly documented Australia's food labelling compliance and enforcement policies and strategic approach. Chapter 5 of this thesis critically examines operation and implementation of the national food labelling compliance and enforcement framework, specifically the ISFR-developed report,[14] strategy[15] and enforcement policy.[16]

C *Food Standards Australia and New Zealand*

The ability to classify events incorporating different types of data sources facilitates the analysis of patterns of food frauds, misrepresentations and adulterations.[17] In the comparative EU Rapid Alert System for Food and Feed ('RASFF'), 26 hazards are categorised in the reporting and monitoring of incidents, including 'adulteration/fraud'. [18] Further to its standard developing role, FSANZ coordinates Australia's voluntary food recalls and withdrawals with state food regulatory agencies. Collected recall data are routinely published, classified into eight categories with no defined category for threats to safety and public health caused by fraud and misrepresentation. One of the eight categories – labelling – is a tally of all recalls because of 'non-compliant labelling, incorrect food ingredients on the ingredient listings, incorrect date marking and other food

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12 Implementation Sub-Committee for Food Regulation (ISFR), 'Terms of Reference' (Policy Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2 May 2015), 1.

13 Neal Blewett, Nick Goddard, Simone Pettigrew, Chris Reynolds and Heather Yeatman, *Labelling Logic: Review of Food Labelling Law and Policy* (Independent Review Report, Commonwealth of Australia, 2011) Three of the 61 Blewett Review recommendations concern food labelling regulation, compliance and enforcement. Specifically, Recommendation 3: That once the case for a labelling standard has been established and becomes part of the *ANZFSC*, sufficient resources be allocated to ensure that it is effectively monitored and enforced; Recommendation 57: That monitoring and enforcement of food labelling requirements of the *ANZFSC* (accuracy as well as the presence of labelling information) be considered equally important as other aspects of the *ANZFSC* and the responsible agencies be given the appropriate level of resources to meet their obligations ('*Blewett Review*').

14 Joint Food Regulation Standing Committee Implementation Sub-Committee for Food Regulation (ISFR) Working Group on Food Labelling Monitoring and Enforcement, 'Report of the Bi-National Food Labelling Compliance and Enforcement Framework' (Report Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2015). ('*ISFR Labelling Report 2015*')

15 Joint Food Regulation Standing Committee (FRSC)/ Implementation Sub-Committee for Food Regulation (ISFR) Working Group on Food Labelling Monitoring and Enforcement, 'Bi-National Food Labelling Compliance and Enforcement Strategy 2015' (Strategy Document, Australia and New Zealand Ministerial Forum on Food Regulation 2015). ('*Labelling Enforcement Strategy 2015*')

16 Implementation Subcommittee for the Food Regulation Standing Committee, 'Australia and New Zealand Food Regulation Compliance, Monitoring and Enforcement Strategy 2017' (Enforcement Strategy, Australia and New Zealand Ministerial Forum on Food Regulation, 2017). ('*Enforcement Strategy 2017*')

17 Satu Tahkapaa, Riitta Maijala, Hannu Korkeala, Mari Nevas, 'Patterns of Food Frauds and Adulterations Reported in the EU Rapid Alarm System for Food and Feed and in Finland' (2015) 47 *Food Control* 175.

18 Rapid Alert System for Food and Feed, *Portal* <https://webgate.ec.europa.eu/rasff-window/portal/?event=searchForm&cleanSearch=1#>. Hazards identified for trend analysis include GMO novel food, allergens, adulteration or fraud, bio contaminants, bio toxins, chemical contamination, composition, feed additives, foreign additives and flavourings, foreign bodies, heavy metals, industrial contaminants, labelling absent or incomplete or incorrect, migration, mycotoxins, non-pathogenic micro-organisms, not determined, organoleptic aspects, packaging defective or incorrect, parasitic infestation, pathogenic microorganisms, pesticide residues, poor or insufficient controls, radiation, residues of veterinarian medicinal products.

labelling errors which may result in a food safety risk to the public'.[19] An analysis of available data from food recalls coordinated by FSANZ between 2008 and 2017 for the recall classification 'chemical/contaminant' reveals a significant spike in the years 2010 and 2011 compared to the former and later years (see Table 1 (below)). An analysis of the associated publically available data reveals, in 2010, 10 out of the total 53 FSANZ coordinated recalls were classified as 'chemical/contaminant'. Five of these recalls were coordinated to remove coffee, teas, chocolate, and jellies from the marketplace due to the safety and public health threats because of the undeclared presence of sibutramine.[20]

FSANZ's classification system does not immediately lend itself to identify an event as fraud and misrepresentation. When the data are interpreted alongside food recall notice reports, the analysis reveals at least 10 per cent of the recalls coordinated by FSANZ in 2010 were the result of a therapeutic substance intentionally added, but not declared in the ingredients list.[21] In those cases the food labels included claims of natural ingredients for weight loss. This constituted a food fraud event involving fraud and misrepresentations but was not reported as such. So, unlike the EU, Australia has no official record of recalls caused by fraud and misrepresentation of a food or ingredient.

CHAPTER 3 TABLE 1: FSANZ co-ordinated recalls 2008-2017

Number of recalls coordinated by FSANZ, by year and classification, between 1 January 2008 and 31 December 2017. Source: Food Standards Australia New Zealand, Food Recall Statistics, (© Food Standards Australia New Zealand, 2018).

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Undeclared allergen	10	17	13	24	17	16	27	39	33	34	230
Microbial contamination	15	28	14	13	25	12	26	13	20	8	174
Foreign matter	15	7	10	18	12	7	14	8	7	10	108
Biotoxin	2	1	2	4	1	2	3	15	6	4	40
Chemical/contaminant	4	1	10	5	1	0	1	0	1	1	24
Labelling	2	1	1	1	2	2	0	2	2	2	15
Other	3	0	3	2	2	3	5	4	3	10	35
Total	**51**	**55**	**53**	**67**	**60**	**42**	**76**	**81**	**72**	**69**	**626**

Table 1: Number of recalls coordinated by FSANZ, by year and classification, between 1 January 2008 and 31 December 2017.

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19 FSANZ, *Classification of recalls* <http://www.foodstandards.gov.au/industry/foodrecalls/recallstats/pages/classificationofreca5548.aspx >.

20 Sibutramine is a chemical compound marketed as Reductil by Abbott Australasia as a Sch 4 prescription pharmaceutical indicated for weight loss. Abbott Australasia ceased supply on 9 October 2010 due to adverse events in post market surveillance. See Department of Health, Therapeutics Goods Administration, *Sibutramine (Reductil)-withdrawal in Australia* <http://www.tga.gov.au/safety/alerts-medicine-sibutramine-101008.htm#.VDtl8SmSy88>.

21 FSANZ, 'Weight Loss Products – Presence of Prescription Only Mediation (Sibutramine)' (Food Recall Notice, 6 December 2010); FSANZ, 'Weight Loss Beverage – Presence of a Noncompliant Prescription Medication (Sibutramine)' (Food Recall Notice, Commonwealth Department of Health, 25 October 2010); FSANZ, 'Weight Loss Beverage – Presence of a Noncompliant Prescription Medication (Sibutramine)' (Food Recall Notice, Commonwealth Department of Health, 27 October 2010); FSANZ, 'Weight Loss Chocolate – Presence of a Noncompliant Prescription Medication (Sibutramine) (Food Recall Notice, Commonwealth Department of Health, 25 October 2010).

The FSANZ recall data reveals that incorrect labelling, mainly undeclared allergens, cause the majority of all Australian recalls over a ten-year period (37 per cent attributed to undeclared allergen labelling).[22] This is compared to 28 per cent of recalls being attributed to microbial contamination over the same period. Recalls because of labelling non-compliance has risen from 38 per cent in 2013 to 49 per cent in 2017. Over the same period, recalls caused by microbial contamination dropped from 29 per cent to 12 per cent. A 2016 root cause analysis of FSANZ co-ordinated allergen-related recalls identifies four reasons an allergen is not declared, (i) lack of skills and knowledge of labelling requirements, (ii) supplier verification issues (for example, manufacturer purchased a raw ingredient containing an undeclared allergen), (iii) packaging errors and (iv) accidental cross contamination.[23] Fraud and misrepresentation in supply chains is not specifically mentioned as a potential reason for the recalls. Yet, international research has found undeclared allergens are a common theme in food fraud events that risk safety and public health.[24] These results show an overall lack of food authenticity control of foods and ingredients traded in supply chains. When the most direct, acute, immediate threat to health is present, the dominant regulatory response is for FSANZ to co-ordinate a reactive recall (in association with the home jurisdiction and other state and territory enforcement agencies where required). Relying on reactive recall responses to control Tier one food labelling issues ignores the seriousness of the direct threats to safety and public health. Harms from misleading or deceptive conduct with critical food safety information are potentially limited but not prevented through reactive recalls; some consumers are exposed to the potential harm. Chapter 5 discusses potentially proactive roles and strategies of the states and territories in the monitoring of food labelling non-compliance for enforcement.

FSANZ exercises its statutory function to develop regulatory measures in reference to risk analysis using the 'best available scientific evidence'.[25] Reiterating its full statutory objectives,[26] FSANZ, in its 2014 public document *Risk Analysis in Food Regulation* defines 'hazard' as 'a chemical (including nutrient), microbiological or physical agent in food with the potential to cause an adverse health effect'. [27] The term risk 'in relation to food relates to the likelihood and severity of an adverse effect from exposure to a hazard'.[28] Chapter 4 examines the food safety risk-based

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22 The FSANZ recall data does not include all recalls in Australia over a period. Only recalls coordinated by FSANZ are included. Food businesses may co-ordinate their own trade level recall, without involving FSANZ. See FSANZ, *Food Recall Statistics*, <http://www.foodstandards.gov.au/industry/foodrecalls/recallstats/Pages/default.aspx> Table 1 'Number of recalls coordinated by FSANZ, by year and classification, between 1 January 2008 and 31 December 2017'.

23 FSANZ, '2016-2017 Annual Report' (Annual Report, Commonwealth Department of Health, 2017), 15. FSANZ reviewed 26 allergen-related recalls to determine the four categories. No further information is provided on which of the four categories is the most common, based on this sample.

24 Karen Everstine, John Spink, Kennedy S, 'Economically Motivated Adulteration (EMA): Common Characteristics of EMA Incidents' (2013) 6(4) *Journal of Food Protection* 723, 729-731.

25 *Food Standards Australia New Zealand Act 1991* s 18(2)(a).

26 Ibid s 18(1).

27 FSANZ, *Risk Analysis in Food Regulation* (Commonwealth Department of Health, Canberra, 2014) <http://www.foodstandards.gov.au/publications/riskanalysisfoodregulation/Documents/risk-analysis-food-regulation-full-pdf.pdf>.

28 Ibid 2.1; See also Codex Alimentarius Commission, 'Definitions of Risk Analysis Terms Related to Food Safety' *Codex Alimentarius Commission Procedural Manual* (Joint FAO/WHO Food Standards Programme, Rome, 2011). <http://www.codexalimentarius.org/procedures-strategies/procedural-manual/>.

policies operating within the framework before highlighting the need for modernisation in a globalised food supply. FSANZ notes it:

> [H]a[s] a slightly higher risk appetite in relation to fulfilling our other objectives that relate to providing adequate information and preventing misleading or deceptive conduct. In discharging our duties relating to these two objectives, we adopt a more managed approach, balancing risk, benefits and costs with more tolerance for residual risk. [29]

Therefore, as reflected in the Overarching Strategic Statement, FSANZ prevents misleading or deceiving conduct by requiring that food businesses declare the Tier one food labelling information in the sale of food. The role of food enforcement agencies to monitor compliance is critical to achieve the overarching objectives and prevent safety and public health harms (see Chapter 5).

The risk of harm from fraud and misrepresentation with Tier one food labelling information, including ingredients and allergen declarations (see Chapter 8) therefore relies on reactive recalls that occur only after the food is distributed and has caused actual harm or likely to cause physical harm.[30] An analysis of 2070 registered food recalls in the USA, UK and Ireland between 2004 and 2010 revealed operational hazards, rather than biological and chemical hazards were the 'most frequent recall type within the agri-food industry' at 55 per cent (n = 2070), compared to 36 per cent because of biological hazards and 9 per cent due to chemical hazards.[31] Operational hazards dominating the study data at a rate of 78 per cent includes incorrect labelling, undeclared ingredients and production contamination.[32] Food fraud, incorrect ingredient amounts, production and packaging defects make up the remaining types of operational hazards.[33] The researchers state:

> The root cause of many operational hazards occurs when production managers, procurement managers, and professional buyers fail to declare an ingredient that is present within the product, inadvertently source an unauthorized ingredient from a supplier, or allow the wrong ingredient level to be used during production. Other causes included production defects, food fraud, packaging defects, foreign bodies, spoilage, incorrect ingredient levels and unauthorized ingredients, which represent only a small proportion of operational product recalls.[34]

Most significantly, the data from the researched seven-year period revealed a significant proportion of food hazards are identified by consumers, retailers and distributors *reactively* for regulator action after the potential harm has been caused. The traditional food safety management programs are not routinely *preventing* the harms from these operational hazards. Instead, product sampling, product testing, complaints and inspections are identifying the harms.[35] In Australia,

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29 FSANZ, above n 27, 4.3.3.

30 See, eg, David Demortain, 'Standardising through Concepts: Scientific Experts and the International Development of the HACCP Food Safety Standard' (CARR Discussion Papers, DP 45. Centre for Analysis of Risk and Regulation, London School of Economics and Political Science, 2007).

31 Antony Potter, Jason Murray, Benn Lawson and Stephanie Graham, 'Trends in Product Recalls within the Agri-Food Industry: Empirical Evidence from the USA, UK and the Republic of Ireland' (2012) 28(2) *Trends in Food Science and Technology* 77, 81.

32 Ibid, 82.

33 Ibid.

34 Ibid.

35 Ibid 80. The researchers also reviewed the data to identify how hazards were detected to trigger the recall. The researchers report, 'using data from 1046 product recall announcements (representing 51 per cent of the total number of product recalls) which provide this information, we see that product sampling was the most

although microbial contamination is assessed as the greatest risk of harm with food processing (see Chapter 4), rates of food recalls because of labelling non-compliance are rising and rates of recalls caused by microbial contamination are dropping. Data support the fact that microbial contamination risk is relatively controlled in Australia compared with the uncontrolled potential threats of safety and public health harm from fraud and misrepresentation of Tier one food labelling issues.

D *Australian New Zealand Food Standards Code*

FSANZ develops and reviews food standards for the ANZFSC according to an explicit descending order of priority:

> (a) the protection of public health and safety,
> (b) the provision of adequate information relating to food to enable consumers to make informed choices, and
> (c) the prevention of misleading conduct.[36]

Accordingly, FSANZ develops the mandatory food labelling information standards of the ANZFSC[37] for information deemed essential for food safety and public health. Many[38] ANZFSC compliance requirements are the food authenticity-related laws presented in the four EU categorises of food authenticity issues (Chapter 2) and prioritised in three tiers of the Hierarchy (discussed below). Government labelling compliance-related strategies[39] (examined at Chapter 5) expressly articulate that true statements of ingredients[40] and allergen declarations[41] are essential information for controlling the direct, acute and immediate threats to health.[42] These are Tier one food labelling issues.[43] Other information critical to consumer food safety include accurate declarations of the true name or description of food,[44] characterising ingredients and

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frequently used method of detecting hazards (43 per cent), followed by product testing (26 per cent), consumer/customer complaints (16 per cent), and inspections (9 per cent)'.

36 *Food Standards Australia New Zealand 1991* (Cth) s 18(1).

37 See, generally, *ANZFSC* Part 1.2.

38 The other issues are regulated by the false, misleading or deceptive conduct prohibitions of state and territory food acts.

39 *Labelling Enforcement Strategy 2015*, above n 15, 4; *Enforcement Strategy*, above n 16, Appendix 1.

40 *ANZFSC* Standard 1.2.4 provides a statement of ingredients must list each ingredient in the food for sale. Standard 1.2.4 cl 4 provides (a) in the case of offal as per Standard 2.2.1 cl 6 or (b) in any other case, using any of (i) a name by which the ingredient is commonly known; or (ii) a name that describes the true nature of the ingredient; or (ii) a generic name for the ingredient that is specified in Schedule 10, in accordance with any conditions specified in that Schedule; Standard 1.2.4 cl 5 provides ingredients to be listed in descending order or ingoing weight; Standard 1.2.4 cl 7 requires the declaration of substances used as food additives. Standard 1.2.4 cl 8 provides for the declaration of vitamins and minerals added to food.

41 *ANZFSC* Standard 1.2.3 provides for mandatory advisory statements, warnings and at 1.2.3-4 (1) the mandatory declarations of certain foods or substances in foods (a) added sulphites in concentrations of 10mg/kg or more; (b) any of the following foods, or products of those foods (i) cereals containing gluten, namely wheat, rye, barley, oats and spelt and their hybridized strains other than those exempted (A-C) (ii) crustacean; (iii) egg; (iv) fish (except for isinglass derived from swim bladders and used as a clarifying agent in beer or wine); (v) milk, other than alcohol distilled from whey; (vi) peanuts; (vii) soybeans (exceptions); (viii) sesame seeds; (ix) tree nuts, other than coconut.

42 See *Enforcement Strategy 2017*, above n 16, Appendix 1, 3.

43 Ibid; *Labelling Enforcement Strategy 2015*, above n 15, 7.

44 *ANZFSC* Standard 1.2.2.

components,[45] date marks,[46] Australian supplier details,[47] lot identifications[48] and country of origin.[49] 'Preventative health'[50] labelling issues such as the voluntarily applied nutrition and health claims discussed in Chapter 7,[51] and mandatory nutrition information, must be accurate and compliant due to associated 'indirect, long term impacts on health'. These are Tier two food labelling issues.[52] Also, see below for 'consumer value issues', the Tier three food labelling issues. Tier three labelling issues are not regulated by specific standards in the ANZFSC but via administration of the ACL, reflecting the order of regulatory priorities prescribed under the FSANZ Act.[53]

When developing standards for the ANZFSC, FSANZ must have regard to the promotion of consistency with international standards. International food standards include Codex guidelines, principles, and codes. Codex develops standards for different foods, which are sometimes referred to as commodity standards.[54] For example, desiccated coconut,[55] and labelling standards for defined categories of food such as foods for special medical purposes.[56] Commodity standards reflect the history of regulating the authenticity of staple foods by prescribing compositions when particular foods names are used to promote the sale of food. With the overarching aim of the Australian food regulatory framework to reduce prescriptiveness and to promote innovation most Australian food commodity standards regulating individual foods were replaced in 2000 with standards that apply horizontally across all foods.[57] The majority of commodity standards[58] developed by Codex are no longer adopted in the ANZFSC. Nonetheless, the ANZFSC contains the compositional requirements for honey,[59] milk,[60] cream,[61] butter,[62] ice cream,[63] sugars,[64] fruit and

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45 Ibid 1.2.10.
46 Ibid 1.2.5.
47 Ibid 1.2.2 cl 4.
48 Ibid 1.2.2 cl 3.
49 *ANZFSC* Standard 1.2.11 was repealed on 1 July 2018. The *Country of Origin Food Information Labelling Standard 2016* (Cth) prescribes the requirements in declaring country of origins on foods for sale at retail.
50 *Labelling Enforcement Strategy 2015*, above n 15, 4.
51 *ANZFSC* Standard 1.2.7.
52 *Labelling Enforcement Strategy 2015* above n 15, 7.
53 *Food Standards Australia New Zealand 1991* (Cth) s 18(1).
54 Ibid s 18 (2)(b).
55 Codex Alimentarius, *Codex Standard for Desiccated Coconut,* 1991, 177-1991 <http://www.codexalimentarius.org/download/standards/261/CXS_177e.pdf>.
56 Codex Alimentarius, *Codex Standard for the Labelling of and Claims for Foods for Special Medical Purposes*, 1991, 180-1991. <http://www.codexalimentarius.org/download/standards/294/CXS_180e.pdf>.
57 Jim Gruber, Simon Brooke-Taylor, Julie Goodchap, Dean McCullum, 'Regulation of Food Commodities in Australia and New Zealand' (2003) 14(6) *Food Control* 367. The general policy principles behind the reviews were to (i) reduce prescriptiveness, (ii) replace standards regulating individual foods with standards applying to all foods, (iii) developing definitional standards for benchmarking in appropriate cases, (iv) retaining standards only when consistent with objectives, and (v) redrafting to improve readability and use.
58 Codex Alimentarius, *International Food Standards* <http://www.codexalimentarius.org/standards/list-of-standards/>.
59 *ANZFSC* Standard 2.8.2.
60 Ibid 2.5.1.
61 Ibid 2.5.3.
62 Ibid 2.5.5.
63 Ibid 2.5.6.
64 Ibid 2.8.1.

vegetable juices,[65] meat and meat products,[66] eggs,[67] fish,[68] jam,[69] fermented milk products,[70] edible oils and their spreads,[71] vinegar,[72] salt and salt products,[73] fruit and vegetables,[74] chewing gum,[75] beer,[76] wine,[77] and spirits.[78] Additional standards regulate the compositional and labelling requirements for special purpose formulated foods.[79] Authorised officers of state food enforcement agencies have the statutory powers to assess compliance with the relevant commodity standards through sampling food for laboratory analysis.[80] New risks and threats to the global food supply from food fraud has reignited discussions on controls, including revisiting options for regulatory measures to enhance food authenticity in modernising food control systems (see, Chapter 4).[81]

The ANZFSC sets 'outcome-based' standards for the processing of safe and suitable food for sale. The standards do not direct how a food is to be produced. The onus is on the manufacturer to control contamination of known hazards and on state regulators to monitor compliance.[82] The key legal definitions steering the food regulatory framework are introduced here before further analysis and discussion in Chapter 8 using real food fraud event data. Specifically, unsafe food, for the purpose of the ANZFSC and *Model Food Act 2000* (Cth), is food:

> likely to cause physical harm to a person who might later consume it, assuming it was after that time and before being consumed by the person, properly subjected to all processes (if any, 'including storage and preparation'[83]) that are relevant to its reasonable intended use and consumed by the person according to its reasonable intended use, (and) nothing happened to it after that particular time and before being consumed by the person that would prevent its being used for its reasonable intended use. [84]

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65 Ibid 2.6.1.
66 Ibid 2.2.1.
67 Ibid 2.2.2.
68 Ibid 2.2.3.
69 Ibid 2.3.2.
70 Ibid 2.5.3.
71 Ibid 2.4.1 and 2.4.2.
72 Ibid 2.10.1.
73 Ibid 2.10.2.
74 Ibid 2.3.1.
75 Ibid 2.10.3.
76 Ibid 2.7.2.
77 Ibid 2.7.3 and 2.7.4.
78 Ibid 2.7.5.
79 Special Purpose Foods include infant formula products (*ANZFSC* Standard 2.9.1), foods for infants (*ANZFSC* Standard 2.9.2), formulated meal replacements and formulated supplementary foods (*ANZFSC* Standard 2.9.3), formulated supplementary sports foods (*ANZFSC* Standard 2.9.4) and food for special medical purposes (*ANZFSC* Standard 2.9.5).
80 See generally Glenn Taylor, *Forensic Enforcement: The Role of the Public Analyst* (RSC Publishing, 2010).
81 See, eg, Geoffrey Annison, 'In the Shadows of APEC, a Light Shines on Food Authenticity' (2018) 70(1) *Food Australia* 23; Iran Canada and the Netherlands for the Joint FAO/WHO Food Standards Programme Codex Committee on Food Import and Export Inspection and Certification Systems, *Discussion Paper on Food Integrity and Food Authenticity* (2017), 2; Christopher Elliott, '*Keynote address on Food Integrity/Food Authenticity An overview from food quality and safety perspective in the framework of Codex*', Joint FAO/WHO Food Standards Programme FAO/WHO Coordinating Committee for Near East ((Ninth Session (Rome) 15-19 May 2017 CX/NE 1709/02))
82 See generally Liza Szabo, William Porter and Craig Sahlin, 'Outcome based Regulations and Innovative Food Processes: An Australian Perspective' (2008) 9(2) *Innovation and Food Science Emerging Technologies* 250.
83 *ANZFSC* Standard 3.1.1 cl 2(3).
84 Ibid cl 2(1).

> …However, food is not unsafe merely because its inherent nutritional or chemical properties cause, or its inherent nature causes, adverse reactions only in persons with allergies or sensitivities that are not common to the majority of persons.[85]

The ANZFSC and *Model Food Act 2000* (Cth) provide, food is unsuitable if the food:

> (a) is damaged, deteriorated or perished to an extent that affects its reasonable or intended use,
> (b) contains any damaged, deteriorated or perished substance that affects its reasonable intended use, or
> (c) is the product of a diseased animal or an animal that has died otherwise than by slaughter, and has not been declared by or under another Act to be safe for human consumption, or
> (d) contains a biological or chemical agent, or other matter or substance, that is foreign to the nature of the food. [86]
>
> Food is not unsuitable, merely because, [87]
> (a) it contains an agricultural or veterinary chemical in an amount that does not contravene the Food Standards Code, or
> (b) it contains a metal or non-metal contaminant (within the meaning of the Food Standards Code) in an amount that does not contravene the permitted level for the contaminant as specified in the Food Standards Code,[88] or
> (c) it contains any matter or substance that is permitted by the Food Standards Code.

The ANZFSC's processing requirements to achieve safe and suitable food are based upon the principle 'that food safety is best ensured through the identification and control of hazards in the production, manufacturing and handling of food as described in the HACCP system, adopted by Codex, rather than relying on end product standards alone'.[89] The hygienic processing controls in the ANZFSC sets out specific requirements for food businesses 'that, if complied with, will ensure food does not become unsafe or unsuitable'.[90]

One of the main findings of this thesis is that no comparative 'outcome-based' standard is set for food businesses that, if complied with, will ensure food does not become falsely described. This is true even for the food labelling regulatory issues prioritised as most serious for food safety – ensuring authentic names of food, ingredient and allergen declarations (Tier one). Moreover, FSANZ has not been directed by the Forum to develop unenforceable guidance materials as is the case when implementing Standard 1.2.7 Nutrition, health and related claims (Tier two). This stark oversight is examined further elsewhere in this thesis (Chapters 5 and 8)

E *State food regulators and Model Food Act 2000 (Cth)*

The Food Regulation Agreement[91] provided the delivery of the *Model Food Act 2000* (Cth) to enable the effective and consistent nation-wide administration and enforcement of the ANZFSC and *Model Food Act 2000* (Cth) by responsible government counterparts. As discussed in Chapter 2, food offences are arranged in a three staged model of *mens rea* with prescribed penalties commensurate with the level of culpability and distinguished by fault elements.[92] Imprisonment for up to two years is the available maximum penalty for the most serious offences in the *Model*

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85 Ibid 3.1.1 cl 2(2).
86 *Model Food Act 2000* (Cth) s 7; *ANZFSC* Standard 3.1.1 cl 2(4).
87 *ANZFSC* Standard 3.1.1 cl 2(5).
88 Ibid 1.4.1 (contaminants and natural toxicants).
89 Ibid 3.2.1 (Purpose).
90 Ibid (Purpose).
91 *Food Regulation Agreement*, above n 4.
92 Abu Noman MA Ali and S M Solaiman, 'Food Safety Offenses in New South Wales, Australia: A Critical Appreciation of Their Complexities' (2014) 13 *Comprehensive Reviews in Food Science and Food Safety* 91.

Food Act 2000 (Cth): Unsafe handling of food,[93] sale of unsafe food,[94] false description of food,[95] or sale of falsely described food, when it is known, or reasonably should have been known the food would cause harm, and when *mens rea* is proven.[96] The prohibition on selling falsely described food, or causing the false description of food is the primary mechanism to control fraud and misrepresentation of food.[97] It is immaterial whether the food is safe or unsafe.[98] The *Model Food Act 2000* (Cth) gives examples of food falsely described for the purpose of the Act (see Chapter 2 Table 1 and Figure 1).[99]

With the Forum making food policy and FSANZ developing the ANZFSC, state and territory food enforcement agencies administer and enforce food legislation in each jurisdiction. Employed by responsible food enforcement agencies, authorised officers are appointed under state food Acts empowering them to enter and inspect food premises, examine food intended for sale, examine equipment used to process food, examine labelling or advertising equipment, take samples and request the production of documentation or other evidence relating to the sale of food.[100] Food safety auditors may also be employed by a food enforcement agency, or appointed as third party auditors operating within state food safety schemes implementing and auditing HACCP in higher food safety risk sectors (see Chapter 4).

Responsible enforcement agencies monitor compliance and initiate enforcement actions according to the Overarching Strategic Statement, strategies and policies approved by the Forum. The responsible agencies include the Departments of Health in Western Australia (WA), Northern Territory (NT), Australian Capital Territory (ACT), and South Australia (SA). The Departments of Health and Human Services in Tasmania (Tas) and Victoria operate alongside separate authorities regulating higher food safety risk industries in that state food safety scheme, the Tasmanian Dairy Industry Authority and Dairy Food Safety Victoria and PrimeSafe respectively. In SA, Biosecurity SA, Department of Primary Industries (Meat Hygiene Unit) and Dairy Authority South Australia collectively regulate food businesses registered in that state. The Health Protection Service is the responsible agency in the ACT. The NSW Department of Primary Industries, Food Authority (NSWFA) is the first and only wholly integrated food-specific agency administering the food legislation from paddock to plate. NSW therefore does not have any

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93 *Model Food Act 2000* (Cth) s 11(1) A person must not handle food intended for sale in a manner that the person knows will render, or is likely to render, the food unsafe. Maximum penalty 1000 penalty units or imprisonment for 2 years, or both, in the case of an individual and 5000 penalty units in the case of a corporation.

94 *Model Food Act 2000* (Cth) s 12(1) A person must not sell food that a person knows is unsafe. Maximum penalty 1000 penalty units or imprisonment for 2 years, or both, in the case of an individual and 5000 penalty units in the case of a corporation.

95 *Model Food Act 2000* (Cth) s 13(1) A person must not cause food intended for sale to be falsely described if the person knows that a consumer of the food who relies on the description will, or is likely to, suffer physical harm. Maximum penalty is 1000 penalty units or imprisonment for 2 years, or both, in the case of an individual and 5000 penalty units in the case of a corporation.

96 *Model Food Act 2000* (Cth) s 13(3) A person must not sell food that the person knows is falsely described and will or is likely to cause physical harm to the consumer of the food who relies on the description. Maximum penalty 1000 penalty units or imprisonment for 2 years, or both, in the case of an individual and 5000 penalty units in the case of a corporation.

97 *Model Food Act 2000* (Cth) s 14(2) and (3).

98 *Model Food Act 2000* (Cth) s 15(2).

99 *Model Food Act 2000* (Cth) s 18(1)(a)-(f).

100 See, eg, *Food Act 2003* (NSW) s 37 (powers).

adjunct authorities regulating higher food safety risk food sectors, as in Victoria with its PrimeSafe agency enforcing state-based food legislation prescribing meat food safety requirements. State food agencies also manage partnerships with local government councils. For example, the NSWFA works in conjunction with 128 councils across the state as part of its Food Regulation Partnership.[101] Local councils appoint authorised officers and environmental health officers (EHOs) with powers from the *Model Food Act 2000* (Cth) who then conduct inspections at food businesses considered low risk to food safety (see Chapter 5). Additionally, the Commonwealth Department of Agriculture and Water Resources (DAWR) exercises enforcement powers at Australia's border, regulating the importation and export of food. FSANZ provides risk assessment advice to DAWR to operate the risk-based imported food inspection scheme. This thesis does not include DAWR in the scope of the analysis. The research focuses on operation of the food regulatory framework domestically.

Across the country evidence of food labelling-related enforcement action by state food regulators is minimal. Some states publish enforcement data online. A Register of offences operates in NSW, publishing for a limited time the details of penalty notices following food offences, and outcomes of any court prosecutions. Analysis of that state's Register of offences indicates 0.02 per cent (39/1458) of penalty notices issued between December 2015 and May 2017 in NSW were in response to food labelling non-compliance.[102] The remaining majority of penalty notices follow non-compliance with food hygiene standards regulating unintentional hazard contamination.

F *Australian Competition and Consumer Commission and Australian Consumer Law*

The ACCC administers the Australian Consumer Law (ACL) prohibiting corporate conduct that is 'misleading or deceptive, or is likely to mislead or deceive';[103] the making of false representations 'that goods are of a particular standard, quality, value, grade, composition, style or model or have had a particular history or particular previous use';[104] or, the 'place of origin of goods';[105] and, conduct 'that is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose or the quantity of any goods'.[106] The Hierarchy (described below) provides for the ACL to have the oversight of Tier three consumer value issues.

In recent years the ACCC has taken a role in enforcement against food fraud by prioritising misleading 'credence claims, particularly those in the food industry with the potential to have a significant impact on consumers or the competitive process'.[107] A credence claim has been defined

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[101] NSW Department of Primary Industries, NSW Food Authority, *Food Regulation Partnership* <http://www.foodauthority.nsw.gov.au/rp/food-regulation-partnership>.

[102] NSW Department of Primary Industries, NSW Food Authority, *Penalty Notices,* < http://www.foodauthority.nsw.gov.au/penalty-notices/>.

[103] *ACL* s 18(1).

[104] Ibid s 29(1)(a).

[105] Ibid s 29(1)(k).

[106] Ibid s 33.

[107] See generally Commissioner Sarah Court, 'Enforcement Priorities at the ACCC' (Speech delivered at the Commonwealth Club of Adelaide, 24 September 2013) <http://www.accc.gov.au/speech/enforcement-

as 'a representation that creates the impression that a particular product has an added benefit which cannot be readily observed or verified by the consumer at the point of sale or after consumption'.[108] ACCC Chairman Rod Sims remarks:

> When credence claims are misused, the damage is done in three ways: first, consumers are misled into paying more for a premium feature that doesn't exist; second, competitors who can legitimately make a credence claim unfairly lose their competitive advantage; and third, and perhaps most important, innovation suffers when consumers and businesses lose trust in the integrity of claims. [109]

What constitutes a credence claim used in the sale of food 'with the potential to have a significant impact on consumers or the competitive process'[110] for prioritisation by the ACCC for investigation and enforcement are questions outside the food regulatory system and the application of its risk-based strategies.[111] But other activities of the ACCC in this regulatory space highlight complexities in the food regulatory system when considering food fraud, especially when considering threats to safety and public health. As revealed in Chapter 2 Table 1, charges of misleading conduct under the ACL may signal non-compliance with the food legislation and the associated failure of food enforcement agencies to monitor and enforce food labelling requirements.

The ACCC has taken strong enforcement action in a number of instances of food fraud including misleading uses of the terms organic, free range and free to roam (see Chapter 6).[112] The ACCC is a highly effective enforcement agency and the publication of its enforcement activities may deter some would-be food fraudsters.[113] The ACCC is not a complaint handling body that seeks to investigate and resolve all complaints reported to it. It is the food regulatory system, not the consumer law system that is designed to regulate the use of information to promote sales of food in the interest of safety and public health. The ANZFSC is the mode of regulatory action for Tier one and Tier two food labelling issues prioritised in the Hierarchy (see below). Higher risk food labelling information at Tiers two and one is often technological and scientific in nature, sometimes requiring sophisticated techniques to verify the authenticity of statements and declarations.

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priorities-at-the-accc>; See also Australia Competition Consumer Commission, 'ACCC Enforcement Guidance – Free Range Hen Egg Claims' (Guidance Document, ACCC, 5 October 2015).

108 Felicity Lee, 'False or Misleading Credence Claims: What's the Harm and Why Should Businesses Care?' (2014) 22(1) *Australian Journal of Competition and Consumer Law* 5, 5.

109 Rod Sims, 'Food and Grocery and Australia's competition law" (Speech delivered at the Australian Food and Grocery Council Industry Leaders Forum, Canberra, 1 October 2014) <http://www.accc.gov.au/speech/food-and-grocery-and-australia%E2%80%99s-competition-law>.

110 Australia Competition Consumer Commission, 'ACCC and AER Annual Report 2012-2013' (Annual Report 2012-2013, Commonwealth of Australia, 2013) 2.1 ('*ACCC*').

111 *ACCC*, above n 110 at 2.1 provides the ACCC has the discretion 'to direct resources to the investigation and resolution of matters that provide the greatest overall benefit for competition and consumers'.

112 See, eg, *Australian Competition and Consumer Commission v Pirovic Enterprises Pty Ltd* [No 2] (2014) ATPR 42-483 (23 September 2014); *Australian Competition and Consumer Commission v RL Adams Pty Ltd* [2015] FCA 1016 (11 September 2015); *Australian Competition and Consumer Commission v Turi Foods Pty Ltd* [No 2] [2012] FCA 19 (23 January 2012); *Australian Competition and Consumer Commission v Turi Foods Pty Ltd* [No 4] [2013] FCA 665 (8 July 2013); *Australian Competition and Consumer Commission v Pepe's Ducks Ltd* [2013] FCA 570 (14 June 2013).

113 See generally Christine Parker and Vibeke Lehmann Nielsen, 'The Fels Effect' (2011) 20(1) *Griffith Law Review* 91; Christine Parker and Vibeke Lehmann Nielsen, 'Deterrence and the Impact of Calculative Thinking on Business Compliance with Competition and Consumer Regulation' (2011) 56(2) *The Antitrust Bulletin* 377.

Since courts are 'ill-equipped' to resolve scientific controversy,[114] it is preferable for food legislation protecting safety and public health be prescriptive. Courts should only be called on to adjudicate in cases of breach. Hence, the ANZFSC operates nationally to provide a uniform set of food information requirements. The ACCC has a very broad remit to take enforcement action in relation to all anti-competitive or unfair trading activity in Australia and must necessarily be selective and reactive in its approach. That is, it takes enforcement action in only a small proportion of cases that it becomes aware of and only does so after the conduct has already occurred and caused harm. By contrast, the ANZFSC provides the food labelling compliance requirements including scientific proof thresholds when making claims (for example, Tier two preventative health claims at Chapter 7).

The Overarching Strategic Statement explains that regulatory action for the Hierarchy's Tier three consumer value issues would 'usually' be under consumer protection laws administered by the ACCC.[115] There are deficiencies in this current operation of the system. The Australian food regulatory system does not formally integrate the ACCC and state fair trading agencies through permanent membership of FRSC, ISFR and other working groups. Any strategic involvement by the ACCC and fair trading departments in Australia's food control system is through ad hoc invite to inter-agency national meetings on specific issues, or the referral of complaints.[116] Furthermore, competing statutory powers and responsibilities, priorities, investigative skills and enforcement capabilities between FSANZ, the ACCC and state and local enforcement agencies make responding to an allegation of fraud and misrepresentation complex.[117] Transparent protocols such as a memorandum of understanding (MOU) between FSANZ and the ACCC, but most importantly, including state enforcement agencies as parties, are absent. Historically, a MOU existed between FSANZ and the ACCC. In 2018, a publically available MOU between FSANZ and the ACCC, including state food enforcement agencies as parties, or not, remains outstanding.[118] An official articulation of the nature and extent of the ACCC's role in Australia's food control system is required to resolve the complexities if the ACCC is indeed strategically operating to achieve relevant objectives set for national food control systems.

III FOOD LABELLING REGULATORY GOVERNANCE

This section introduces the risk-based approach to both food labelling regulation and compliance monitoring for enforcement. Chapters 6, 7 and 8 use case studies to show operation of the regulatory framework in controlling each of the food labelling issues. The chapters are presented in the ascending order of the graduated approach to preventing safety and public health

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114 *Tobacco Institute of Australia Ltd v Australian Federation of Consumer Organisations* (1992) 38 FCR 1, 48 Hill J states, 'At the end of the day, the question of the relationship between environmental tobacco smoke and disease is a matter for scientists trained in the area, it is not a matter for a court of law which is ill-equipped to determine it and to make the skilled judgments upon which such a question depends'.

115 *Overarching Strategic Statement*, above n 4, 10.

116 Ibid.

117 See, eg, Department of Health Victoria, 'Blewett Review Submission' (Submission, Department of Health, Victoria, 2010), 6.

118 On 29 April 2004 a Memorandum of Understanding (MOU) to facilitate cooperation and coordination between the ACCC and FSANZ was entered into. The document is no longer operating and a replacement has not been announced. No date or explanation for its removal or future commitment is available to the public.

threats. Chapter 5 examines implementation and operation of the risk-based approach in food labelling compliance monitoring, using the NSWFA as a case study.

A *Food Labelling Issues Hierarchy*

In 2011 the Blewett Review made recommendations for policy reform and legislative change to improve the regulation of food labelling compliance for safety and public health (emphasis added, see discussion in Chapter 5):

> Recommendation 3: That once the case for a labelling standard has been established and becomes part of the ANZFSC, sufficient resources be allocated to ensure that it is *effectively monitored* and enforced;
> Recommendation 57: That monitoring and enforcement of food labelling requirements of the ANZFSC (*accuracy* as well as the presence of labelling information) be considered equally important as other aspects of the ANZFSC and the responsible agencies be given the appropriate level of resources to meet their obligations; (emphasis added) and,
> Recommendation 58: That the Model Food Provisions and the food acts of the jurisdictions be amended to allow a more versatile range of enforcement provisions, such as the power to make orders or require user-paid compliance testing consequent on a breach or impose enforceable undertakings in relation to non-compliant labelling. [119]

In response to the Blewett Review recommendations, the Forum established a working group to report on and document how food labelling compliance and enforcement is managed within the food regulatory framework (Chapter 5 submits the Labelling Framework to analysis). The Forum accepted the ISFR Working Group Report position, 'existing policy and regulatory approaches to the administration of food labelling regulation should not be amended' but there was the need to articulate how the system applies the risk-based, proportionate approach to labelling compliance and enforcement.[120] In announcing this the Forum remarked:

> Food regulators take a risk-based approach to compliance and enforcement of food legislation by giving priority to investigating issues that may give rise to public health and safety. This leaves restricted capacity to monitor and enforce labelling standards that do not involve direct health risks. Further, food regulators that are health agencies (including local government health departments) may not give priority to the enforcement of laws aimed at consumer information, as this is (or may be perceived to be) outside their agency's core purpose and remit… In reality, enforcement of regulations, especially regulations that do not address direct risks to health and safety, is allocated a lower priority. This approach is consistent with the [Hierarchy]. [121]

The Blewett Review presented the Food Labelling Issues Hierarchy as 'a basic guide to an overall food labelling policy' and a guide to current and future labelling interventions.[122] In 2012 the Forum adopted the Hierarchy for determining both food labelling regulatory interventions and prioritising compliance and enforcement. The Hierarchy reflects the descending order of prioritisation in the FSANZ Act for the development of regulatory measures in the ANZFSC.

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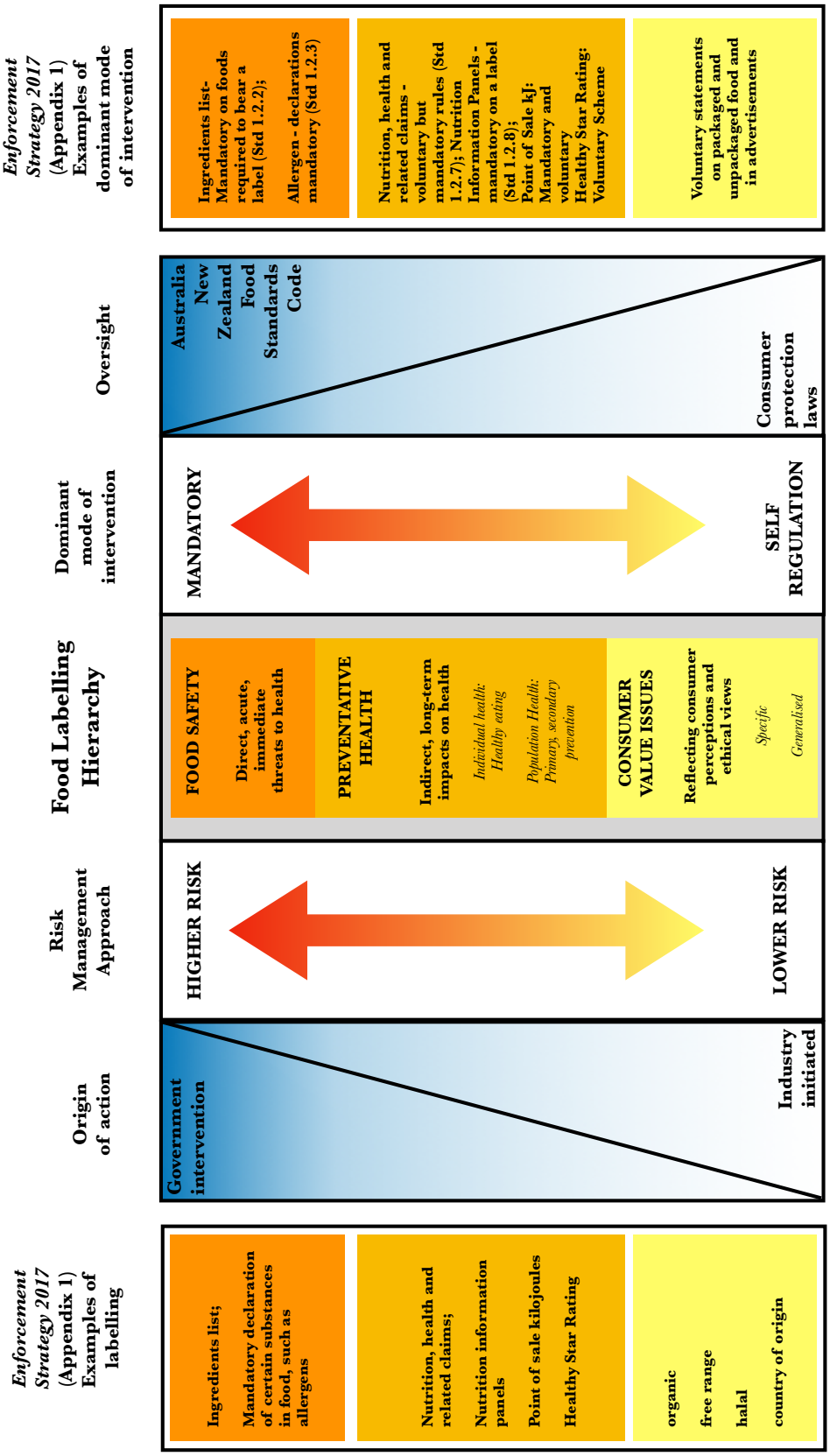
[119] *Blewett Review*, above n 13, 7-15.
[120] *ISFR Labelling Report 2015* above n 14, 1.
[121] Australia and New Zealand Ministerial Council Forum on Food Regulation, 'Response to the Recommendations of Labelling Logic: Review of Food Labelling Law and Policy' (Report Document, Australia and New Zealand Ministerial Council Forum on Food Regulation, 2011), 56.
[122] *Blewett Review*, above n 13, 3.8.

Figure 1 of this chapter depicts the Form-adopted Hierarchy.[123] Figure 1 presents the three-tier food labelling hierarchy based on risk alongside examples of labelling elements provided in the Australia New Zealand Food Regulation Compliance Monitoring and Enforcement Strategy 2017 ('Enforcement Strategy 2017').

[123] *Overarching Strategic Statement*, above n 4.

CHAPTER 3 FIGURE 1: Adapted Food Labelling Issues Hierarchy

Food Labelling Issues Hierarchy (middle five columns) is adapted to include examples of labelling elements and modes of intervention as provided in the *Australia New Zealand Food Regulation Compliance Monitoring and Enforcement Strategy 2017* (Appendix 1 – Application of the Strategy to Food Labelling)



The following paragraphs briefly introduce each food labelling issue tiered in ascending order of graduated risks to safety and public health. Chapter 6, 7 and 8 further examine issues at each tier, using available data to answer a specific research question about operation of the food regulatory framework to prevent technical, indirect and direct harms to safety and public health. The graduated risk-based approach taken by Australian food policy makers is conceptually similar to Spink and Moyer's assessment of threats to safety and public health from acts of food fraud (Chapter 1). The food authenticity issues presented in Chapter 2 demonstrates the extent of issues in law and how extensive and availing the legal offence architecture is to capture the range of offences if regulators are monitoring compliance and conducting enforcement.

1 *Tier three – Consumer values information*

Consumer value issues are claims reflecting consumer perceptions and ethical values that typically expand beyond threats of direct and indirect safety and public health. The claims present the least threat of harm to safety and public health. With reference to the conceptualisation of potential threats of harms from food fraud by Spink and Moyer – technical, indirect and direct - Tier three food labelling issues present technical threats.[124] Most technical harms to safety and public health exists in this space because of the lack of traceability and inability to recall foods subject to fraud and misrepresentation simply because the ability to trace and recall the falsely described food, in the event a health risk manifests, has been lost.

Tier three of the Hierarchy includes at claims of environmental impacts and processing methods such as claims of organic, or animal welfare standards used in the production of meat, and country of origin.[125] The claims have regulatory oversight via industry initiation of self-regulatory schemes of certification and the ACL. According to the ACCC its scope of oversight includes premium and credence claims including 'health claims and other benefits, premium claims, animal welfare claims, environmental and organic claims and country and place of origin claims'.[126]

Labelling food with consumer value issues is generally initiated by industry in response to consumer demands and 'usually, any regulatory action would be under consumer protection law rather than food regulation'.[127] The ACCC provides guidance to food businesses marketing foods with credence claims on how to avoid misleading conduct and what its enforcement priorities are.[128]

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124 John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* 157, 158.

125 The information requirements for country of origin labelling (CoOL) was prescribed in *ANZFSC* Standard 1.2.11 until its repeal by *Food Standards (Proposal P1041 – Removal of Country of Origin Labelling Requirements) Variation* (the Variation, made under *Food Standards Australia New Zealand Act* 1991 s 92. Clause 3 of the Variation provides the variation commences on 1 July 2018 following the commencement of the *Country of Origin Food Labelling Information Standard 2016*, to be administered by the ACCC.

126 *ACCC*, 'Marketing claims that require extra care' (Guidance Document, ACCC, 2014) <https://www.accc.gov.au/publications/advertising-selling/advertising-and-selling-guide/marketing-claims-that-require-extra-care-premium-and-credence-claims>.

127 *Overarching Strategic Statement*, above n 4, 10.

128 *ACCC*, above n 125.

2 *Tier two – Preventative health information*

Preventative health includes the indirect, long-term impacts on health and particularly includes chronic disease. Labelling for these issues may be initiated by government, or with stakeholders and industry.[129] Examples of preventative health labelling include nutritional information panels (NIPs) on labels, point-of-sale Kilojoule (energy) declarations in eligible chain restaurants, Healthy Star Ratings and voluntary ANZFSC Standard 1.2.7 Nutrition, health and related claims.[130] The level of intervention 'will be informed by government's health priorities, public health research and the effectiveness or otherwise of co-regulatory measures'.[131]

ISFR provides guidance on how regulators will enforce,[132] and how food businesses can comply[133] with Standard 1.2.7.

3 *Tier one – Food safety information*

The Hierarchy prioritises food safety, including direct, acute, immediate threats to health. The *Overarching Strategic Statement* notes, '[food safety] particularly relates to poisoning and communicable disease'.[134] The *Enforcement Strategy 2017* provides a food's ingredients list and allergen declarations are examples of labelling information at this top level of the Hierarchy.[135]

Labelling in relation to food safety is initiated by the government. No industry initiatives concern this food information. FSANZ sets the mandatory food labelling requirements. As expressed in the *Overarching Strategic Statement*, these 'labelling requirements are important to inform consumers about the safety of food - either the safety of the food generally, for example use by dates, or for them as individuals, for example, allergen labelling. This falls under the objective of protecting the health and safety of consumers.'[136]

Unlike the previously described food labelling information levels, ISFR provides no guidance on how food businesses systematically control the authenticity of this critical Tier one food safety information in labelling food for sale. Moreover, as is discussed in Chapter 8, ANZFSC does not provide outcome-based standards to support food businesses in ensuring the Tier one food information used is compliant with ANZFSC labelling requirements and not falsely described.

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129 *Overarching Strategic Statement*, above n 4, 10.
130 *Enforcement Strategy 2017*, above n 16, Appendix 1, 3.
131 *Overarching Strategic Statement*, above n 4, 10.
132 Implementation Subcommittee for Food Regulation, 'Health Claims and Enforcement — How Regulators Will Enforce the Nutrition and Health Claims Standard' (Guidance Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2015).
133 Implementation Subcommittee for Food Regulation, 'Getting your claims right – A guide to complying with the nutrition, health and related claims standard of the Australia New Zealand Food Standards Code' (Guidance Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2014).
134 *Overarching Strategic Statement*, above n 4, 10
135 *Enforcement Strategy 2017*, above n 16.
136 *Overarching Strategic Statement*, above n 4, 9.

V CONCLUSION

Chapter 3 describes the Australian food regulatory framework with reference to the roles and responsibilities of key government bodies making food policy and responsible agencies administering legal and strategic instruments. Publicly available data on the activities of responsible agencies reveal deficiencies in the regulatory control and enforcement of food labelling compliance for safety and public health. Year on year, recalls are occurring more often because of threats to safety and public health from food labelling compared to threats to safety and public health from traditional hazards. With less than one per cent of penalty notices in NSW issued for food labelling non-compliance (not hygienic processing offences), the cause of harms to food safety from microbial hazards, in particular appears controlled compared to the uncontrolled acts of fraud and misrepresentation.

Three types of food labelling issues are prioritised in the Hierarchy: Tiers one, two and three. Regulatory interventions and oversight are graduated to the level of the threat: direct, indirect or technical threats of safety and public health. The thesis critically evaluates the operation of this Hierarchy in preventing threats to safety and public health when food labelling issues are subject to fraud and misrepresentation. The Food Labelling Issues Hierarchy is the central risk assessment tool and steering mechanism for food labelling regulation in Australia's food regulatory framework. The Hierarchy determines the appropriate mode of regulatory intervention for the three categories of food labelling issues. Moreover, the Forum approved the Hierarchy for prioritising and justifying compliance monitoring and enforcement decisions of state food regulators. Its significance to food labelling regulation warrants close examination of the operating food safety risk-based approach to food labelling related harms from frauds and misrepresentations.

Next, Chapter 4 examines the Australian food control framework's risk-based policies and approaches. Chapter 4 explains food safety related harms from food label fraud and misrepresentation are different from traditional food safety foodborne illness related harms. This distinction has implications for how the Hierarchy operates in effectively achieving the overarching strategic objectives.

CHAPTER 4: AUSTRALIA'S RISK-BASED APPROACH TO FOOD SAFETY AND PUBLIC HEALTH

I INTRODUCTION

Chapter 3 examined the Australian food regulatory framework of government bodies, laws and agreed policies, highlighting the statutory objectives and policy aims relevant to food labelling regulation. It introduced the Hierarchy as the Australian policy steering food labelling regulation, compliance monitoring and enforcement. Now, Chapter 4 examines Australia's risk classification and prioritisation schemes operating within the overall modern-day food regulatory framework.

Food labelling is regulated within the same framework controlling traditional food risks causing foodborne illness. The same legal instruments and national framework of government departments, roles and responsibilities operating to control agents of foodborne illness are also responsible for preventing health-related harms from food labelling non-compliance, fraud and misrepresentation. The same framework manages competing risks to food safety and public health: Traditional hazard contamination risks of harm (resulting in foodborne illness) and non-traditional risks of harm (resulting in allergenic reactions, sensitivities, nutrition deficiencies or other illnesses not caused by a traditional hazard contamination). Fraud and misrepresentation can cause both traditional and non-traditional risks of harm. The risks of harms of foodborne illness are well-characterised, compared with the range of harms, and types of risks, caused by falsely described foods.

Part II examines the framework's overarching objective to protect safety and public health in the context of foodborne illness and food labelling harms. Section A discusses the nature of foodborne illness and the traditional food safety approach to controlling contamination of hazards. Section B looks at the nature of the threats to food safety and public health from food fraud. It uses examples of food fraud events to illustrate the public health significance of the four types of food authenticity issues listed in Chapter 2. Part III presents Australia's priority classification scheme of risk-profiling food industry sectors. Part IV argues globalisation of the food supply introduces new factors and risks to consider when aiming to protect food safety and public health. The chapter concludes that modernisation is required for a globalised 21st century food supply with a different overall risk profile for safety assessments. This requires approaches that respond to the real nature of all the risks. Food fraud is underestimated as a risk requiring strategic and proactive responses to prevent food safety and public health harms. This chapter shows, the control of food labelling non-compliance, fraud and misrepresentation requires policies and strategies be responsive to a new concept in safety and public health assessments: Vulnerabilities not risks.

II PROTECTING FOOD SAFETY AND PUBLIC HEALTH

Preventing foodborne illness is and should be the principal aim to achieve public health and safety. However, it is not all that should be done. A gap exists in the public health literature in respect to controlling harms that flow not from contamination agents of foodborne illness, but from false declarations caused by fraud and misrepresentation. Part II examines the two aetiologies of harm to food safety and public health captured in food legislation. Section A discusses controlling food contamination for food safety to prevent foodborne illness. Section B introduces controlling fraud vulnerabilities for food safety to prevent direct, indirect and technical health harms. Section C then discusses obligations to protect public health and safety regardless of the traditional microbial risk profile of the food and the cause of harm.

B *Food contamination hazard threats to food safety and public health*

Foodborne illness is well prioritised and articulated as a food safety and public health harm for control in the Australian food regulatory framework. Avoiding foodborne illness food safety harms involves manufacturing food whilst systematically controlling contamination from food safety hazards:[1] The pathogenic bacteria, viruses, parasites and infectious prions known as the 'agents of foodborne illness'. [2]

Identifying the cause of an illness as foodborne demands the application of multiple tools in order to trace potential sources and batches across complex supply chains. These tools include epidemiology or advanced molecular epidemiology, retrospective food consumption questionnaires, surveys, investigation, longitudinal studies and cluster identification. The challenges mean many incidents of physical harm – acute or chronic – from the consumption of food are unknown. Traditional food safety methodology to prevent physical harm targets known microbiological, chemical or physical hazards. Risk assessments applied by food authorities conclude microbiological risks are 'the key concern' and present 'more significant risk' than the other known targeted chemical and physical hazards.[3]

Food safety in the context of foodborne illness is therefore about avoiding contamination with known, unintentionally introduced agents of harm. The controlled production and sale of safe food for human consumption has been a triumph of properly implemented scientific developments used to systematically prevent contaminating foods with the agents of foodborne illness. Temperature control and refrigeration, pasteurisation and other processing techniques to control the agents of foodborne illness have converged to control *known* direct, acute, and immediate threats to health.

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1 *ANZFSC* Standard 3.1.1 cl 2 provides a hazard is 'a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect in humans'.

2 *FSANZ*, *Agents of Foodborne illness* <https://www.foodstandards.gov.au/publications/pages/agentsoffoodborneill5155.aspx>. The agents are *Bacillus cereus*, *Campylobacter* spp, *Cyclospora cayetanensis*, Hepatitis A, *Listeria monocytogenes*, Norovirus, Prions, *Salmonella* spp, Shiga-toxin producing *Escherichia coli*, *Shigella* spp, *Staphyloccus aureus*, and *Toxoplasma gondii*.

3 NSW Food Authority, 'Food Safety Risk Assessment of New South Wales Food Safety Schemes' (Policy Document, NSW Department of Primary Industries, March 2009) 1.

The ANZFSC food safety hygiene standards 'aim to lower the incidence of foodborne illness'[4] caused by food contamination.[5] Each year in Australia illnesses following the consumption of food include an estimated 4.1 million cases of foodborne gastroenteritis (vomiting and diarrhoea), 5140 cases of non-gastroenteritis (for example, hepatitis) and 35840 cases of long-term health effects (for example, irritable bowel syndrome, reactive arthritis or death).[6] Critically though, these national data fails to identify the aetiology of the majority (80 per cent) of the cases of foodborne illness. The current risk-based food safety regulatory system does not adequately address the majority of causes of foodborne illness. Epidemiology tells us 20 per cent of the incidents are attributed to 4 species of pathogenic organisms: Norovirus, *Salmonella* spp., *Campylobacter* spp., and *Listeria monocytogenes*.[7] The substance or agent causing the other 80 per cent of foodborne illness under study is unknown.[8] The US has the same majority rate of unknown causes.[9] Potentially *unknown* agents – including intentionally introduced food, ingredients and substances used to substitute and dilute and enhance ingredients – are contributing to food safety and public health harms.

C *Fraud and misrepresentation threats to food safety and public health*

While foodborne illness is well characterised and articulated for routine control in the Australian food regulatory framework, causes of harm to food safety and public health from fraud and misrepresentation are not. Food safety harms from fraud and misrepresentation of food and ingredients have different risk profiles and aetiology. A different suite of risk factors causes the potential threats of harm, requiring a different suite of tools for prevention. Controlling fraud and misrepresentation is about controlling *intentional* acts of fraud and misrepresentation that may or may not introduce agents of harm. The agents of harms are not contamination hazards, in the traditional sense of foodborne illness, but vulnerabilities for fraud and misrepresentation. Leading food fraud academic researchers claim food fraud 'threats are potentially more risky than other types of food risks because there are a near infinite number of unconventional adulterants and

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4 *FSANZ*, *Food Safety Standards* <www.foodstandards.gov.au/industry/safetystandards/Pages/default.aspx>.

5 See *FSANZ*, 'Agents of Foodborne illness- A technical series summarising key information on microorganisms associated with foodborne illness' (Technical Report, Second Edition, June 2013, Canberra) <http://www.foodstandards.gov.au/publications/Documents/FSANZ_FoodborneIllness_2013_WEB.pdf>; Martyn Kirk, Kathryn Glass, Laura Ford, Kathryn Brown and Gillian Hall, 'Foodborne illness in Australia: Annual incidence circa 2010' (National Centre for Epidemiology and Population Health, Australian National University, 2014) < http://www.health.gov.au> defines 'foodborne illness' as 'any illness resulting from the consumption of contaminated food, pathogenic bacteria, viruses or parasites that contaminate food'; Safe Food Australia 'A Guide to the Chapter 3 Food Safety Standards (Australia only)' (Commonwealth Department of Health, Second Edition, 2001) 83 states, 'Food-borne disease means a disease that is likely to be transmitted through contamination of food.'

6 Martyn Kirk, Kathryn Glass, Laura Ford, Kathryn Brown and Gillian Hall, National Centre for Epidemiology and Population Health, Australian National University, 'Foodborne illness in Australia: Annual incidence circa 2010', (Commonwealth Department of Health, 2014) 7.

7 Ibid 21.

8 Elaine Scallan, Patricia Griffin, Frederick Angulo, Robert Tauxe, Robert Hoekstra, 'Foodborne illness acquired in the United States-unspecified agents' (2011) 17(1) *Emerging Infectious Diseases* 16, 16 states 'additional illnesses are caused by 'unspecified agents, including known agents with insufficient data to estimate agent-specific illness, known agents not yet recognized as causing foodborne illness, substances known to be in food but of unproven pathogenicity and unknown agents'.

9 Ibid 16.

contaminants'.[10] Researchers in both the US and the UK argue the undeclared presence of an ingredient, additive, substance or food component – compromising the represented nature or substance – should always be considered a potential risk to the health of consumers unless proven otherwise.[11] Accurately representing the nature or substance of food and ingredients is essential because 'it is possible for a person to have an allergy to any food at all'.[12]

Cases of fraud and misrepresentation in supply chains reveal harms caused by 'key ingredients [replaced] with cheaper or lower quality alternatives'.[13] Food fraud prevention and control concerns identifying vulnerabilities for assessment as opposed to risks.[14] According to a group of EU government scientists researching pathways to achieve food and nutrition security, food safety risk-related research must attend to food authenticity, specifically the intentional substitution of food and ingredients, targeting:

> attention throughout the supply chain from 'plough to plate'. There are risks associated with chemical contamination of products (e.g. some use of pesticides), or contaminated ingredients (sometimes substituted for economic reasons), spoilage, microbial contamination, and adulteration (as a form of fraud, or even bioterrorism). Identifying risks and mitigation actions can take many forms, technological, regulatory or social (e.g. better understanding of food storage and labelling). Food safety requires transparent supply chains, and labels that consumers trust to ensure authentic, unadulterated and uncontaminated food…Ensuring safety requires significant regulation and the development of food preparation, transport and logistics, which are safe and transparent, coupled with enhanced testing for adulteration or contamination. Safety also requires better education about risks. [15]

Authentic[16] information about a food for sale is essential to avoid the threats of potential physical harms. Falsely described food is inauthentic food. Assuring food authenticity also controls potential safety and public health threats from fraud and misrepresentation. Protecting food safety and public health in the context of food labelling information is therefore about avoiding direct, indirect and technical harms to health caused by a consumer being misled into making an erroneous decision about what to eat. The consumer is misled when declared ingredients are substituted or diluted for something else, ultimately rendering the food falsely described and not

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10 John Spink and Douglas Moyer, 'Understanding and Combatting Food Fraud' (2013) 67(1) *Food Technology* 30.

11 Christopher Elliott, 'Elliott Review into the Integrity and Assurance of Food Supply Networks – Final Report A National Food Crime Prevention Framework' (Independent Review Report, Department of Environment Food and Rural Affairs (DEFRA), July 2014) 16 ('*Elliott Review*'); John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* 157, 157.

12 Angela Corpes, 'Food Fraud and Allergen Management' (2015) 135(4) *Perspectives in Public Health* 172.

13 European Parliament, 'European Parliament Resolution of 14 January 2014 on the Food Crisis, Fraud in the Food Chain and the Control Thereof' (European Parliament Resolution 2013/2091(INI), 2014) 7 ('*European Resolution*').

14 John Spink and Douglas Moyer, 'Introducing the Food Fraud Initial Screening Model (FFIS)' (2016) 69 *Food Control* 306, 307; Saskia van Ruth, Wim Huisman and Pieternel A Luning, 'Food Fraud Vulnerability and Its Key Factors' (2017) 67 *Trends in Food Science and Technology* 70;

15 EU Scientific Steering Committee, 'The Role of Research in Global Food and Nutrition Security Discussion Paper' in EXPO 2015 Milano Feeding the Planet, Energy for Life' (2015), 11.

16 *Collins English Dictionary* defines authentic, 'that can be believed or accepted; trustworthy; reliable; this is in fact as represented; genuine; real'. The International Food Authenticity Assurance Organisation (IFAAO), a not-for-profit organisation with Observer status at Codex Alimentarius provides the definition, 'food authenticity is the process of irrefutably proving that a food or food ingredients is in its original, genuine, verifiable, and intended form as declared and represented', <https://www.ifaao.org/faq>; National Food Crime Unit defines authenticity, 'the degree to which a food, drink or feed product conforms to consumer expectations (by way of labelling, composition or name) around provenance, safety and quality' see National Food Crime Unit, 'Food Crime Annual Strategic Assessment: A 2016 Baseline', (Food Standards Agency and Food Standards Scotland, 2016) 53.

of its represented true nature or substance. A food's safety profile and capacity to cause physical harm when consumed depends not only on the absence of known agents of foodborne illness following controlled hygienic preparation. A food's safety profile is also dependent on the authenticity of a food, in that all ingredients are accurately and truthfully declared, have not been diluted, substituted or otherwise mixed with illicit, non-food or food substances of a lesser value or otherwise misrepresented as to nature or substance.

This section discusses four examples of potential food authenticity-related safety and public health harms in food supply chains. The examples are provided under the same four headings used by EU food authenticity scientists and presented in Chapter 2. In Chapter 2 the headings demonstrated the scope of legal offences available to control authenticity. Now, in this Chapter, examples of food fraud events illustrate the public health significance of the four types of food authenticity issues. Provided under the heading *Economic adulteration of high value foods* the case of Chinese food actors using a plasticiser, melamine, to mask illicit dilution and substitution of dairy and wheat in global supply chains is discussed. The melamine example demonstrates the importance of a 21st century shift to a more holistic food safety management paradigm incorporating fraud vulnerability assessments discussed at Part V. The second example under the heading *Mis-description of the geographical, botanical or species origin* reveals the threats from fraud and misrepresentation of fish species names and farming origins. Thirdly, to demonstrate how *Non-compliance with legislative standards* may impact safety and public health, mandatory allergen declarations is discussed. Fourthly, *Implementation of non-acceptable process practices* is discussed with reference to a NSWFA prosecution of a drinks manufacturer misrepresenting the true nature and substance of a food in a technically complex manufacturing process.

1 *Economic adulteration of high value foods - melamine*

The best example to demonstrate the safety-related importance of shifting towards the strategic prevention of fraud is the 2008 discovery of melamine in dairy-based infant food formulas. Direct safety and public health threats of harm manifested when at least 6 infants died and approximately 294,000 infants suffered renal damage in China.[17] Not only is the case significant because serious harms were realised, but because melamine was a known but *uncontrolled* chemical hazard. Melamine is intentionally added to food to artificially inflate results of protein tests and mask acts of dilution and substitution. Internationally, and throughout history dairy has been vulnerable to dilution and the adding of illicit substances. Critically, the industry was aware melamine was a favoured adulterant for this purpose. In the years prior to the fraudulent activity killing and injuring infants, scientists published studies about finding melamine in cereal-based animal feed and pet food supply chains, killing juvenile pigs, dogs and cats.[18] The food safety microbial risk-based paradigm failed to prevent the event. With knowledge of its general use by motivated fraudsters dating back decades, and with recent evidence the substance was in animal foodstuffs, operating food systems failed to prevent the deaths and injuries in China.

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[17] World Health Organisation, 'Toxicological and Health Aspects of Melamine and Cyanuric acid: Report of a WHO expert meeting in collaboration with FAO Supported by Health Canada' (FAO and WHO, Geneva 2009) < http://www.who.int/foodsafety/publications/chem/Melamine_report09.pdf>.

[18] Cathy Brown, Kyu-Shik Jeong, Robert Poppenga, Birgit Puschner, Doris Miller, Angela Ellis, Kyung-Il Kang, Steffen Sum, Alexis Cistola and Scott Brown, 'Outbreaks of Renal Failure Associated with Melamine and Cyanuric Acid in Dogs and Cats in 2004 and 2007' (2007) 19 *Journal of Veterinary Diagnosis and Investment* 525.

A range of dairy-based foods tainted with melamine, including infant formula, milk powder, liquid milk, yogurt, frozen dairy foods and confectionary were ultimately traded in supply chains around the world, including Australia.[19] Australian consumers were not exposed to the most serious of harms due to import restrictions.[20] State-based dairy food safety schemes incorporating HACCP control of known microbiological,[21] physical[22] and chemical[23] hazards regulate the transportation, bottling and processing of Australian milk for sale. The controls drastically restricts Australia's potential exposure to the physical harm observed in the milk trades of developing countries such as India, Pakistan, and China (next paragraphs).[24] In Australia, to maintain its nutritional quality and safety, milk is a standardised commodity with prescribed compositional ratios for minimum milk fat, maximum water and minimum milk protein.[25] However, like is the case with other foods, Australia's food regulatory framework does not systematically monitor composition ratios for authenticity. So, when milk is collected from farms and processed at depots no routine authenticity testing verifies that the food represented as milk is milk as standardised in the ANZFSC. However, the compositional standard provides rigour to control the authenticity of this commodity for safety and public health. State regulators can test samples and enforce compositional requirements whenever required.

Outside of traditional pathogenic hazards, adding illicit substances and extending milk volumes have caused direct, indirect and technical harms in India, Pakistan and China. Before pasteurisation, milk was a dangerous commodity due to environmental pathogenic contamination and growth (for example, bovine tuberculosis) and the illicit addition of chemicals.[26] Milk diluted with food and non-food substances is implicated in 14 per cent of global food fraud incidents, second to olive oil at 16 per cent.[27] Malnutrition is documented in known cases of milk dilution. Replacement additives increasing volumes but reducing nutritional qualities disproportionally threaten the safety and public health of infants, young children, pregnant women and those with

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19 Celine Gossner, Jorgen Schlundt, Peter Embarek, Susan Hird, Danilo Lo-Fo-Wong, Jose Javier Beltran, Keng Ngee Teoh, and Angelika Tritscher, 'The melamine incident: implications for international food and feed safety' (2009) 117(12) *Environmental Health Perspectives* 1803.

20 To import foods containing greater than 10 per cent dairy to Australia, an import permit is required.

21 See above n 2.

22 Controlled physical hazards include glass, metal, plastic, insects, mites, adhesive dressings, packaging materials, and rat droppings.

23 Controlled chemical hazards include cleaning agents, agricultural and veterinary chemicals.

24 See FSANZ, *Products withdrawn in 2009* <http://www.foodstandards.gov.au/consumer/chemicals/melamine/productswithdrawn/pages/default.aspx> foods withdrawn from the Australian marketplace included various confectionary products white rabbit creamy candy, Cadbury™ eclairs, lotte koala biscuits, Kirin™ milk tea, Orion™ tiramisu Italian cake, Lovers Body Pen set (body paint), Munchy's™ mini crackers with cheese, Danco™ waffles, Four Seas™ premium cake, Mengniu™ monmilk.

25 *Codex Standard for Milk Powders and Cream Powder 207-1999* provides the compositional ratios for whole milk powder to be milkfat minimum 26 per cent and less than 42 per cent m/m with maximum water at 5 per cent and minimum milk protein in milk solids-not-fat to be 34 per cent m/m. The requirement for a 34 per cent milk protein in milk solids-not-fat are set at 34 per cent for cream, whole milk, skim and partially skimmed milk; *ANZFSC* Standard 2.5.1 provides the composition for full cream cow's milk to be no less than 32 per cent milkfat and 30g/kg of protein.

26 Peter Atkins, 'Sophistication Detected: Or, the Adulteration of the Milk Supply, 1850-1914' (1991) 16(3) *Social History* 339.

27 Jeffrey Moore, John Spink and Markus Lipp, 'Development and Application of a Database of Food Ingredient Fraud and Economically Motivated Adulteration from 1980 to 2010' (2012) 77(4) *Journal of Food Science* 118, 118.

allergies. For example, known milk frauds from around the world include fraudsters adding water,[28] vegetable oils,[29] animal fats,[30] starch,[31] glucose,[32] whey,[33] flour,[34] rice flour,[35] chalk powder,[36] machine oil,[37] to extend molecular mass, and adding substances to artificially increase nitrogen readings in protein analysis, in addition to melamine,[38] amino acids,[39] urea,[40] semi carbazide,[41] and ammonium sulphate.[42] Attempts to extend the shelf life through the addition of illicit preservatives such as hydrogen peroxide,[43] formaldehyde,[44] salicylic acid,[45] and detergent[46] are also observations made outside Australia.

2 *Mis-description of the geographical, botanical or species origin – fish*

Only the fraudster knows the true nature and substance of food and ingredients used to substitute, dilute, mix or otherwise misrepresent food and ingredients for economic gain.[47] When

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28 Ghulam Barham, Muhammad Khaskheli, Aijaz Soomro, and Zaheer Nizamani, 'Detection and Extent of Extraneous Water and Adulteration in Milk Consumed at Hyderabad, Pakistan' (2014) 2(2) *Journal of Food and Nutrition Sciences* 47 as cited at <www.foodfraud.org>.

29 Sodeif Azadmard-Damirchi and Mohammadali Torbati, 'Adulterations in Some Edible Oils and Fats and Their Detection Methods' (2015) 2(2) *Journal of Food Quality and Hazards Control* 38 as cited at <www.foodfraud.org>.

30 Jerusa Garcia, Gustavo Sanvido, Sergio Saraiva, Jorge Zacca, Ricardo Cosso and Marcos Eberlin, 'Bovine milk powder adulteration with vegetable oils or fats revealed by MALDI-QTOF MS' (2012) 131(2) *Food Chemistry* 722 as cited at <www.foodfraud.org>.

31 Barham et al, above n 28.

32 Hande Ashwini, 'Analysis of adulteration of milk from various dairies in the different area of Amravati' (2014) 3(1) *International Research Journal of Science and Engineering* 12 as cited at <www.foodfraud.org>.

33 Migel de la Fuente and Manuela Juarez, 'Authenticity assessment of dairy products' (2005) 45(7) *Critical Reviews in Food Science and Nutrition* 563 as cited at <www.foodfraud.org>.

34 Anura Bandara, *Country report of Sri Lanka Technical training on risk analysis for SAARC countries.* (Report, June 17-21) < http://www.fao.org/fileadmin/templates/rap/files/meetings/2013/130617_2.8.pdf> as cited at <www.foodfraud.org>.

35 Ghulam Barham, Muhammad Khaskheli, Aijaz Soomro, and Zaheer Nizamani, 'Detection and Extent of Extraneous Water and Adulteration in Milk Consumed at Hyderabad, Pakistan' (2014) 2(2) *Journal of Food and Nutrition Sciences* 47 as cited at <www.foodfraud.org>.

36 Shafquat Alauddin, 'Food Adulteration and Society' (2012) 1(7) *Global Journal For Research Analysis* 1 as cited at <www.foodfraud.org>.

37 Roopa Rani, Sharad Medhe, Kumar Raj and Manmohan Srivastava, 'High Performance Thin Layer Chromatography for Routine Monitoring of Adulterants in Milk' (2012) 35(4) *National Academy Science Letters* 309 as cited at <www.foodfraud.org>.

38 Laura Mecker, Katherine Tyner, John Kauffman, Arzhantsev and Connie Gryniewicz-Ruzicka, 'Selective melamine detection in multiple sample matrices with a portable Raman instrument using surface enhanced Raman spectroscopy-active gold nanoparticles' (2012) 733 *Analytica Chimica Acta* 48; Jih-Heng Li, Wen-Jing Yu, Yuan-Hui Lai and Ying-Chin Ko, 'Major food safety episodes in Taiwan: Implications for the necessity of international collaboration on safety assessment and management' (2012) 28(7) *The Kaohsiung Journal of Medical Sciences* 10 as cited at <www.foodfraud.org>.

39 Grant Abernethy and K Higgs, 'Rapid detection of economic adulterants in fresh milk by liquid chromatography-tandem mass spectrometry' (2013) 1288 *Journal of Chromatography* 10 as cited at <www.foodfraud.org>.

40 Rani et al, above n 37.

41 Grant Abernethy and K Higgs, 'Lactose semicarbazone as a marker for semicarbazide adulteration in milk' (2013) 1295 *Journal of Chromatography* 152 as cited at <www.foodfraud.org>.

42 Ghulam Barham, Muhammad Khaskheli, Aijaz Soomro, and Zaheer Nizamani, 'Risk of adulteration in milk consumed at Shaheed Benazirabad District of Sindh' (2015) 1 *International Journal of Adulteration* 31 as cited at <www.foodfraud.org>.

43 Ibid.

44 Barham et al, above n 28; Alauddin, above n 36.

45 Barham et al, above n 28.

46 Charu Bahri, 'Your Poisoned Food, Our Unending Greed' (*Indiaspend* (online) January 24, 2015) .

47 Spink and Moyer, above n 10.

the substituted or added, undeclared substances or ingredients are allergenic, cause food sensitiveness, lack nutritional qualities, perform pharmacological or nutritive functions, or are carcinogenic, the foods present direct, indirect and technical food safety and public health risks to consumers.[48] The frauds and misrepresentations occur throughout supply chains, exposing consumers to potential harms from the invisible acts.[49] Some supply chains possess more vulnerabilities to the substitution of food and ingredients, than others. The global supply chains for fish and seafood are fraught with controversy, traceability and species identification challenges.[50] This is relevant to Australians who consume an estimated 345 000 tonnes of seafood each year of which 66 per cent is sourced overseas.[51] Seafood imports for 2012-13 constituted 13 per cent of the $11.6 billion estimated food import trade to Australia.[52] In NSW, 85 per cent of consumed seafood is imported.[53] Imports mainly consist of cheaper frozen fish fillets, canned fish and frozen prawns from Thailand, China and Vietnam.[54]

According to the chairman of the Commonwealth Fisheries Association, misrepresentation of fish names is 'not common, it's rife … a systemic issue, right throughout the chain'.[55] FSANZ reports, 'most of the time fish sold to consumers is identified correctly on the label. However, mislabelling has been known to occur intentionally or accidentally. Fish may be incorrectly identified at capture or wholesale and the mistake carries on through the supply chain to consumers'.[56] A scholarly review of the literature incorporating DNA analysis estimates 30 per

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48 Ibid; Virginia Wheatley and John Spink, 'Defining the Public Health Threat of Dietary Supplement Fraud' (2013) 12(6) *Comprehensive Reviews in Food Science and Food Safety* 599.

49 See generally Liam Fassam, Samir Dani and Mils Hills, 'Supply Chain Food Crime and Fraud: A Systematic Literature Review of Food Criminality' in *Paper presented to: 20th International Symposium on Logistics (ISL 2015): Designing responsible and innovative Global Supply Chains, Bologna, Italy* (2015); Liam Fassam and Samir Dani, 'A Conceptual Understanding of Criminality and Integrity Challenges in Food Supply Chains' (2017) 119(1) *British Food Journal*; Karen Everstine, 'Supply Chain Complexity and Economically Motivated Adulteration' in Shaun Kennedy (ed), *Food Protection and Security: Preventing and Mitigating Contamination During Food Processing and Production* (Elsevier, 2016); John Keogh, 'Combatting the global crime of food fraud' (2017) May *Food Industry Asia* 8.

50 See, eg, Christopher Elliott, *Queens University Belfast Study International* (30 May 2016) <www.studyinternational.com/news/food-fraud-from-fish-to-herbs-is-anything-we-eat-what-we-think-it-is>, where the author of the Elliott Review describes the 'H and G' process on the fishing industry ships of Norway and Russia. Elliott describes, 'they take the head off and the guts out. Then they take all of those fish to another country. The vast majority of filleting of fish happens in China because they employ tens of thousands of women to fillet the fish. Next the fish is frozen into 7.5kg blocks and shipped to South Korea, because it has the world's largest cold stores … the size of Wembley Stadium. The buyers go to South Korea and traders will come and buy different amounts in different commodities of fish, and sell them on to other traders and then sell them into companies. It is after the fish is bought in those blocks that the supply chain control is lost. So, a fish that was caught 50 miles off the north coast of Scotland has been to China, has been to South Korea, and probably been to a couple of countries in between. What arrives back in port in Scotland is a 7.5kg block of fish and you're told "That's cod".'

51 Commonwealth Department of Agriculture, *Australia's seafood trade* <http://www.agriculture.gov.au/SiteCollectionDocuments/fisheries/aus-seafood-trade.pdf>.

52 Commonwealth Department of Agriculture, *Australian Food Statistics* (Commonwealth of Australia, 2012-13) 9 <http://www.agriculture.gov.au/SiteCollectionDocuments/ag-food/publications/food-stats/australian-food-statistics-2012-13.pdf>.

53 Andrew Fraser MP Electoral Office, 'Seafood labelling on the Menu' (Press Release, 1 June 2016) < http://www.andrewfraser.com.au/local/seafood-labelling-menu/>.

54 Above n 51, 29.

55 Grace Smith, *Fish Label Laws a Risk to Public Health* (15 June 2016) < https://www.foodsafety.com.au/2016/06/fish-label-laws-a-risk-to-public-health>.

56 *FSANZ*, *Fish Labelling* < http://www.foodstandards.gov.au/consumer/labelling/fish/Pages/default.aspx>.

cent of the global fish trade is subject to 'real mislabelling'.[57] Consumers are encouraged to eat fish for inherent nutritional benefits but are advised to limit consumption of specific species due to the potential for physical harm from heavy metals.[58] Accurate species identification prevents physical harm and influences the consumer's capacity to manage their known health risks. The substitution, mislabelling or otherwise swapping of one fish species for another in a food supply chain transaction on one side of the world can potentially harm the general population and vulnerable consumer groups in Australia. US conservation group Oceana reports its seafood fraud survey found over 50 per cent of the studied 180 fish species are 'imposter' species presenting species-specific health risks.[59] Species-specific health risks can include species-specific natural toxins,[60] parasites, scombroid poisoning (a toxin produced in decomposing susceptible fish species), heavy metals (for example, mercury), anti-microbials (for example, nitrofurans) and pesticides used or otherwise found in the waters of aquaculture.

Mislabelling as to wild or farmed, local or imported can also present direct, indirect and technical threats to safety and public health. The diets of farmed fish, in particular, may constitute high amounts of plant products treated with pesticides, and grown in waters treated with pharmaceutical compounds and (or) contain harmful dioxins[61] from environment pollution. The bodies of such fish may possess a higher load of these contaminants than wild fish.[62] Testing programs reflect the differences between wild and farmed. For example, Australia's Imported Food Inspection Scheme (IFIS) distinguishes farmed from wild-caught fish in its testing program at the border. Seafood is the most (16.6 per cent of all tested imported food categories) laboratory-tested food in the import program operated by IFIS.[63]

Classed as medium – high-risk food due to its microbiological risk, seafood is considered a high food safety risk due to potential contamination by agents of foodborne illness. In regard to food authenticity and labelling-related issues, FSANZ has assessed[64] contamination with

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57 Miguel Pardo, Eliza Jiménez and Begona Pérez-Villarreal, "Misdescription Incidents in Seafood Sector" (2016) 62 *Food Control* 277.

58 *FSANZ*, *Mercury in Fish* (September 2011) <http://www.foodstandards.gov.au/consumer/chemicals/mercury/pages/default.aspx>.

59 Kimberly Warner, Patrick Mustain, Sarah Green and Beth Lowell, 'Oceana Reveals Shortfalls in Proposed Traceability Rule to Address Seafood Fraud' (Research Report, Oceana, 2016) 7.

60 Craig Shadbolt, Martyn Kirk and Paul Roche, 'Editorial: Diarrhoea Associated with Consumption of Escolar (Rudderfish)' (2002) 26 *Communicable Disease Intelligence* 436. Fish species with a high wax ester content, including escolar and oil fish (also known as rudderfish, butterfish, and ruddercod) can produce gempylotoxin poisoning which produces undesirable gastrointestinal illness in some people, not all. Escolar is a commonly substituted fish in the US. See Warner above n 56, 6.

61 See, eg, *FSANZ*, 'Dioxins in Seafood from Sydney Harbour' (Technical Report No. 44, Commonwealth Department of Health, March 2007). Dioxins are chlorinated chemicals and by-products of industrial pollution that, with long half-lives, accumulate in bodily fats cells. Long term, high dose exposure has been associated with cancer and disorders of reproduction.

62 David Cole, Richard Cole, Steven Gaydos, Jon Gray, Greg Hyland, Mark Jacques, Nicole Powell-Dunford, Charu Sawhney and William Au, 'Aquaculture: Environmental, Toxicological, and Health Issues' (2009) 212 I*nternational Journal of Hygiene and Environmental Health* 369. See also Ronald Hites, Jeffery Foran, David Capenter, Coreen Hamilton, Barbara Knuth and Steven Schwager, 'Global Assessment of Organic Contaminants in Farmed Salmon' (2004) 303(5655) *Science* 226.

63 Commonwealth Department of Agriculture and Water Resources ('DAWR'), 'Imported Food Inspection Data Report for July – December 2015' (Inspection Data, Imported Food Inspection Scheme) 5.

64 FSANZ provides advice to DAWR about foods that pose a medium to high risk to public health. The department classifies these foods as 'risk category foods' under the inspection scheme.

antibiotics and agricultural compounds (fraud-relevant agents of harm) as low. Therefore, testing beyond microbial hazards applies randomly to 5 per cent of imports, not 100 per cent (as is the case for bacterial testing).[65]

Infectious disease experts are alarmed at the atrocious compliance rates of only 96 per cent, considering the tonnes of seafood imported and minimal number of tests.[66] Subsequent analysis of IFIS statistics in the following years reveals (for the purpose of this thesis) continually poor compliance rates relative to the very small number of random tests.[67] Academic research indicates Thailand's Mekong River-industrially farmed basa[68] is frequently mislabelled and commonly used in food preparations.[69] The NSWFA reports common misrepresentations often involves basa advertised as dory or perch, jewfish and tilapia fillets advertised as bream (as well as vannamei prawns or tiger prawns advertised as king prawns and imported scallops advertised as Tasmanian scallops).[70] A leading fish and chips chain-restaurant in Victoria garnered criticism[71] from representing this imported, industrially farmed fish as pacific dory (but not local dory).[72]

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65 The Australian Customs and Border Protection Service refers foods to the department for inspection. The department initially inspects and tests risk food, at a rate of 100 per cent of consignments, against a published list of potential hazards including micro-organisms and contaminants. Once five consecutive consignments have passed inspection, the inspection rate is reduced to 25 per cent; after a further 20 consecutive passes, the inspection rate is reduced to 5 per cent.

66 Melissa Fyfe and Roy Millar, 'Alarm at antibiotics in fish imports' (*The Sydney Morning Herald* (online), 30 May 2012).

67 See, eg, Commonwealth Department of Agriculture and Water Resources, 'Imported Food Inspection Data Report for January – June 2014' (Inspection Data, Imported Food Inspection Scheme, 2014) compliance rates in the first half of 2014 were 5.2 per cent (of 388 total), 1.8 per cent (166) and 1.6 per cent (63) of farmed fish and prawns samples tested positive to fluroquinolones, malachite green and nitrofurans, respectively; Commonwealth Department of Agriculture and Water Resources, 'Imported Food Inspection Data Report for July 2014 – December 2014' (Inspection Data, Imported Food Inspection Scheme, 2014) reports 5 per cent of the 302 tests performed over the 6 months tested positive to fluoroquinolones, and 1.4 and 3.7 for malachite green and nitrofurans, respectively; Commonwealth Department of Agriculture and Water Resources, 'Imported Food Inspection Data Report for January – June 2015' (Inspection Data, Imported Food Inspection Scheme, 2015) reports in the first 6 months of 2015 a total of 199 farmed fish and prawns samples were tested for agricultural compounds with fluoroquinolones detected at a rate of 1.5 per cent, malachite green detected in 1.4 per cent of the tests, and nitrofurans detected in 90.4 per cent of the 54 randomised tests; Commonwealth Department of Agriculture and Water Resources, 'Imported Food Inspection Data Report for July – December 2015' (Inspection Data, Imported Food Inspection Scheme) reveals a 97.9 per cent compliance rate for fluoroquinolones and 100% compliance for malachite green and nitrofurans in the latter half of 2015.

68 Also known as pangasius, pangas, Vietnamese river cobbler, white catfish, tra and gray sole.

69 Warner et al, above n 59, 6.

70 NSW Food Authority, 'Seafood substitution in restaurants and takeaways' (14 December 2015) < http://www.foodauthority.nsw.gov.au/rp/seafood-substitution-restaurants-takeaways>.

71 Lucy Battersby, 'Hunky Dory Fish and chips accused of serving catfish as dory' (*The Age* (online), 27 May 2016).

72 See, *Hunky Dory*, <www.hunkydory.com.au> which states, 'For the last 11 years Hunky Dory has sold the product Pacific Dory as one of our regular fish-of-the-day varieties. This product has undergone several name changes over the years including Basa, Catfish, and Mirror Dory. There is no clear industry guidelines for the label of this product and so Hunky Dory has continued to sell it under the commonly sold name of Pacific Dory. We always sell our fish-of-the-day as per market prices and have never sold this as premium local Dory. We acknowledge that this may have caused some confusion so to avoid any confusion for our employees and customers from today we will be clearly labelling our fish-of-the-day product and all our fish in store. Pacific Dory will be clearly labelled as Pacific Dory (Basa).'

Over the last decade initiatives by governments,[73] industry,[74] environmental groups[75] and consumer bodies[76] highlight the need for law reform in fish labelling requirements. In addition, the NSWFA twice prosecuted a seafood retailer for falsely describing fish.[77] The range of interest group activity in this area suggests fraud and misrepresentation of fish to be an issue in Australia. Governments have responded to the calls. For instance, the FSANZ fish identification and compliance survey[78] lead to the development of the (unenforceable) Australian Fish Names Standard (Australian Standard SSA 5300).[79] In 2014 a Senate-referred inquiry recommended mandatory country of origin declarations on restaurant menus.[80] However, the subsequent Food Standards Amendment (Fish Labelling) Bill (Cth) 2015 ultimately failed to receive required support for change.

Enhanced regulatory measures for national implementation (not only at the state-level) is required to counter the range of threats to safety and health. Product label traceability information powered by DNA testing and elemental fingerprinting identifies and quantifies food frauds in surveys of sectors, whilst also offering tools for improving control measures by introducing techniques with superior identification power.[81] John Watling and colleagues are Australian leaders in developing elemental fingerprinting techniques for supporting food traceability systems and resolve a food's provenance to state or plantation origins.[82] Innovative applications engaging ways to identify, track and trace food are needed in global supply networks. Any fraud and misrepresentation of geographical, botanical or species origin, including claims of wild and local

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73 See, eg, in NSW, Andrew Fraser MP Electoral Office, 'Seafood labelling on the Menu' Press Release, 1 June 2016 < http://www.andrewfraser.com.au/local/seafood-labelling-menu/>.

74 See, eg, Kristy O'Brien, 'Country of origin labelling should extend to restaurants, seafood industry warns' (*ABC news* (online), 30 June 2018) < http://www.abc.net.au/news/2018-06-30/hospitality-sector-exempt-from-country-of-origin-labelling/9927292>.

75 See, eg, the campaign *Label My Fish* launched by Greenpeace and the Australian Marine Conservation Society in 2014.

76 See, eg, CHOICE, 'Choice: where would we be without Choice? Choice achievements, 1996-2006' (Australian Consumers' Association, 2007) 23 states 'Choice was responsible for a campaign against the substitution of fish species with cheaper, lesser value species of fish' prompting government departments to assess the issue of seafood substitution.

77 Hon Ian McDonald, 'Shellharbour retailer fined $12,000 for fish substitution rip off' (Media Release, NSW Minister for Primary Industries, 18 April 2007).

78 *FSANZ*, *Pilot survey on the identity of fish* (Research Report, Commonwealth Department of Health, 2003) <http://www.foodstandards.gov.au/publications/pages/pilotsurveyontheidentityoffish/Default.aspx>. A total of 138 samples were analysed. The survey found 106/138 samples were correctly labelled with restaurants, cafes and takeaways revealing the lowest level of compliance with 43 out of 67 correctly described. Thirty-nine out of 44 samples from fishmongers and supermarkets were correct. Samples from wholesalers were correct 24 out of the 27 samples taken.

79 See Seafood Services Australia, *Fish Names* <www.seafood.net.au/fishnames> for Australian Fish Names Standard AS SSA 5300.

80 Report of the Senate Standing Committee on Rural and Regional Affairs and Transport, 'Current requirements for labelling of seafood and seafood products' (Senate Report, Parliament of Australia, 2014)' <http://www.aph.gov.au/~/media/Committees/rrat_ctte/seafood/report.pdf>.

81 Dana Miller, and Stefano Mariani, 'Smoke, Mirrors and Mislabelled Cod: Poor Transparency in the European Seafood Industry' (2010) 8 *Frontiers in Ecology and the Environment* 517 reveals 39 out of 156 (25 per cent) cod and haddock products, randomly selected throughout Dublin, Ireland were submitted to genetic analysis, revealing entirely different species from what was represented.

82 John Watling, Garry Lee, Cameron Scadding, Tamara Pilgrim, Rachel Green, Alex Martin, Christopher May and Jenna Valentin, 'The Application of Solution and Laser Ablation Based ICP-MS and Solution Based AES for the Provenance Determination of Selected Food and Drink Produce' (2010) 3 *The Open Chemical and Biomedical Methods Journal* 179.

on farmed and imported fish, threatens consumer safety and public health. The asymmetric information dynamic between consumers and food industry actors limits the capacity of consumers to make informed choices in the interest of their health, one of the objectives of the food regulatory framework.

3 *Non-compliance with legislative standards –allergens*

The authenticity of ingredients and allergen declarations is crucial to the 1 in 10 infants, 1 in 20 children and 1 in 50 adults living in Australia with an allergy to egg, cow's milk, peanut, tree nut, seafood, sesame, soy, fish, lupin and wheat.[83] Ingredients and substances mandated in the ANZFSC as allergens must be declared in the ingredients list, and communicated information about any trace amounts that could harm safety and public health. Using allergen ingredients or substances contaminated by allergens to substitute or dilute ingredients can mean death to an allergy sufferer, or serious physical harm.[84] Over the last decade in Australia, the UK and US, admissions to hospital for anaphylaxis have doubled generally, and for children aged one to four years increased fivefold.[85] In addition, individuals may be allergic, intolerant or sensitive to any food ingredient or substance beyond the mandated food allergens and added substance permissions provided under the ANZFSC, causing direct and indirect harms.[86] As is discussed in the food legislation definition analysis of Chapter 8, the Australian food regulatory framework explicitly excludes from the unsafe definition, foods harming sensitive or allergenic individuals because of allergenic substances. Such food is always falsely described. This exclusion from the safe and suitable definition has implications for Australia's framework and its capacity to protect all consumers from harms regardless of the cause – hazard contamination or food labelling frauds. Especially in a globalised food supply where fraud and misrepresentation is uncontrolled.

The danger of allergens for sensitive consumers exemplifies the direct food safety and public health risk of fraud and misrepresentation with ingredients. It is an example of a Tier one food labelling issue in the Hierarchy. An Australian based study found it is not rare for allergy sufferers to consume food and suffer harm because the statement of ingredients fails to declare the presence of the allergen.[87] A NSW government survey of 520 food samples selected because of 'free from' claims found 15.7 per cent tested positive to undeclared allergens (most substances

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83 Australasian Society of Clinical Immunology and Allergy, *Food Allergy Information for Patients, Consumers and Carers* (Fact Sheet (online), 2016) <www.allergy.org.au>.

84 Michael Walker and Hazel Gowland, 'Deadly Fraud – Food Allergen Substitution in the Food Chain' (2015) 5(Suppl 3) *Clinical and Translational Allergy* P137.

85 Leanne Poulos, Anne-Marie Waters, Patricia Correll, 'Trends in hospitalizations for anaphylaxis, angioedema, and urticaria in Australia, 1993-1994 to 2004-2005' (2007) 120(4) *Journal of Allergy Clinical Immunology* 878; AS Anderson AS (2008) 'Increase in hospitalisations for anaphylaxis in the first two decades of life' (2008) 121(2) *Journal of Allergy Clinicians and Immunologists* 104, 104 cited in Australasian Society of Clinical Immunology and Allergy, above n 82. Research conducted into understanding the rapid rise of food allergies in recent years is yet to identify the scientific cause.

86 Australasian Society of Clinical Immunology and Allergy, above n 83; Signe Dean, 'Yes, you can be allergic to avocado. And honey. We all know peanuts or eggs can be deadly, but food allergies are actually far more diverse' (*SBS* (online), 15 May 2017).

87 Giovanni Zurzolo, Katrina Allen, Rachel Peters, Mimi Tang, Shyamali Dharmage, Maximilian de Courten, Michael Mathai and Dianne Campbell, 'Anaphylaxis to Packaged Foods in Australasia' (2018) *Journal of Paediatrics and Child Health* 1 2018 May; 54(5): 551-555.

at trace amounts).[88] Follow-up investigations by food regulators reveal that 42 per cent of the samples testing positive to an undeclared allergen followed the food business using raw ingredients that had undeclared dairy, specifically dark chocolate. The government's data also reveals undeclared milk in non-dairy alternative products such as coconut water and sorbets is a 'common recall'.[89] The state food regulator's report discusses controlling 'unintentional allergens (through cross contamination)',[90] and does not mention that allergenic ingredients may be present in the food because of fraud and misrepresentation from intentional substituting and diluting ingredients in supply chains.

Constant surveillance and analysis of environmental trend data identifies risks of substitution in supply chains, exemplifying new proactive measures required in controlling safety and public health risks in global supply chains. The UK government is communicating public alerts on environmental incidents that increase the risks to food allergy sufferers. For example, food supply chain actors and consumers were warned on the risk of substituted walnut (with cheaper peanut), following a series of walnut crop failures in Kashmir after heavy rains decimated crops.[91] Also, consumers were warned of a potential new food scandal involving the substitution of peanut and almond for cumin seeds after unproductive harvests in India increased the demand and price for the spice commodity.[92]

4 *Implementation of non-acceptable process practices*

International initiatives recognise and advocate for enhanced specifications for food authenticity, including definitions and reliable methods for validation to enable enforcement. Often the manufacturing processes engaged in by food industry actors are highly technical and complex. The complexity and highly technical nature of food manufacturing processes can increase the opportunities for frauds and need for enforceable food authenticity standards. The following Australian prosecution reflects a sophisticated technical appreciation of what is 'apple juice' and what is not 'apple juice' when a ANZFSC standard defines fruit juices. A 2008 NSW prosecution involved offences for false description and non-compliance with the ANZFSC of apple product 'Fuze' branded drinks.[93] The case concerned the defendant using deionised juice and the preservative dimethyl dicarbonate without declaring it in the ingredients list and claiming the drink was 'preservative free'. In regard to the preservative, the defendant did not declare the

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88 NSW Food Authority, 'Allergen Survey Report' (Survey Report, NSW Department of Primary Industries, 2018) provides 79 out of the 520 samples of food testing positive to undeclared allergens consisted of 23 unpackaged samples from retail outlets. The cafes and restaurants were making 'free from' claims when in fact allergen levels were ranging from 7.1ppm to greater than 8000ppm. Of the remaining 56 packaged samples 12 had a free claim to the detected allergen (levels ranging from 9.2 to 9600 ppm), 12 had no statement about the detected allergen (ranging from 17 to 9100 ppm) 23 made a voluntary, precautionary 'may contain' statement about the detected allergen (ranging from 3.9 to 9100 ppm).

89 Ibid 6.

90 NSW Food Authority, above n 98, 21.

91 Tom Bawden, 'Peanut Allergy Sufferers "on alert" as walnut crops fail' (*The Independent* (online), 17 September 2014).

92 Tom Bawden, 'New food scandal over peanuts is "more serious" than the horsemeat crisis' (*The Independent* (online), 13 February 2015).

93 *NSW Food Authority (Officer Ian Beer) v P and N Beverages Pty Limited* (unreported) (21 July 2008) Local Court of NSW, (Magistrate GJT Hart).

substance because the chemical disperses immediately upon opening the bottle and consuming the drink. Magistrate Hart stated:

> [T]he consumer is entitled to know what has been added by the manufacturer as part of the manufacturing process. This is the relevant question. There was no basis for the Defendant to ignore that statutory obligation and to instead focus on a different issue, namely what additive is continuing to have a chemical presence and a chemical impact at the time the product is purchased'.[94]

Not part of a routine inspection or audit, the NSWFA's investigation followed a Supreme Court taxation that exposed food offences under the state food Act.[95] The company pleaded guilty to 11 charges[96] for representations the drinks were of a particular nature or substance - 99 per cent juice and preservative free - when the drinks consisted of a watered down concentrate from de-ionised juice.[97] The juice presented indirect health impacts because of the lower nutritive properties compared to an '99 per cent juice' as standardised.[98] The drink was marketed as relatively healthy compared with soft drinks and well stocked in school canteens. [99] Magistrate Hart states:

> An offence against these provisions carries penalties, which include fines of up to $275,000.00. Such huge fines should clearly convey the attitude of the legislature. The message should be very clear to manufacturers of food products that untrue statements in labelling, or words which are carefully selected to hide the true nature of the contents of the product, or matters relevant to the manufacturing process, will not be tolerated. It is clear that in many cases there will be a potential risk to health and safety if this high standard is departed from. A manufacturer simply cannot know the state of health or the dietary needs of every potential customer. Truth and accuracy in labelling is an essential first step in ensuring the health and safety of consumers. [100]

Critically, the direct, indirect and technical harms from fraud and misrepresentation exemplified in these four examples of food authenticity related issues were not systematically prevented by undertaking traditional food safety risk assessments to control known hazards of foodborne illness. Actually, the research shows motivated fraudsters design their actions to evade the dominating traditional food safety hazard risk-based approach.[101] John Spink and Douglas

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94 Ibid, Magistrate Hart, paragraph 14. Magistrate Hart concluded at paragraph 16: 'I am satisfied that for marketing purposes the Defendant adopted a stratagem of failing to identify DMDC as a preservative on the label, and aggravated the offence by describing the product as "preservative free" in circumstances where a preservative had been added to the product at the time of manufacture which gave the product a shelf life of up to six months.'

95 *P and N Beverages Australia Pty Limited v FC of Taxation* [2007] NSWSC 338.

96 Although no change was made in relation to the offences committed, on a District Court appeal on sentencing, *P and N Beverages Australia Pty Limited v NSW Food Authority* (2008/12/1204), the Court ordered the fines imposed by the Local Court (total of $76 000) be set aside, imposing a new total of $60 500 in fines for the eleven charges: one charge for the sale of 'Fuze Brand Sparkling Apple Juice' products in contravention of *Food Act 2003* (NSW) s 18(3), false description of food arising from use of deionised apple juice concentrate with a fine of $5 500; six charges in contravention of s 21(3) of the *Food Act 2003* (NSW) arising from use of deionised apple juice concentrate in the sale of 'Fuze Sparkling Apple and Orange Juice', 'Fuze Sparkling Apple and Lemon Juice', 'Fuze sparkling Apple Juice (99%) with Cola', 'Fuze Sparkling Apple Juice with Cola', 'Fuze Sparkling Apple Juice with Cola', 'Fuze Sparking Apple and Orange Juice', 'Fuze Sparkling Apple and Lemon Juice' each sentenced to $5 500 fine; three s 21(3) *Food Act 2003* (NSW) charges relating to non-compliance with the *ANZFSC* in the claims of vitamin C content; and, one charge for the non-disclosure of the preservative dimethyl dicarbonate in breach of *Food Act 2003* (NSW) s 21(3) for contravention of the *ANZFSC*. <http://www.foodauthority.nsw.gov.au/_Documents/corporate_pdf/Minuite_of_order_DC_Judgement.pdf>.

97 Above n 93, paragraph 5.

98 Ibid paragraph 3.

99 Vanda Carson, 'Juice-maker to face court over labelling' (*Sydney Morning Herald* (online), 25 April 2008).

100 Above n 93, paragraph 17.

101 Karen Everstine, John Spink and Shaun Kennedy, 'Economically Motivated Adulteration (EMA) of Food: Common Characteristics of EMA Incidents.' (2013) 76(4) *Journal of Food Protection* 723, 723.

Moyer therefore promote a shift from reacting and intervening after the fraud event,[102] to focusing on the cause and motivations to strategically block opportunities and prevent fraud events.

When it comes to protecting safety and public health from fraud and misrepresentation, it is not about assessing foodborne illness risks but about assessing fraud vulnerabilities. As is detailed further in the analyses below and in the case study of Chapter 8, the foods most vulnerable to food fraud globally are olive oil, coffee, fruit juice, honey, saffron, fish, milk, spices, palm oil, rice, cheese and others.[103] Of these 11 vulnerable foods all but two are classified as high food safety risk under Australia's Priority Classification System discussed next in Part III. This means the higher food safety oversight – the requirement for food safety programs implementing HACCP, audit, inspection and regulator monitoring – explained in Part III (also, see Chapter 5) do not necessarily apply to the foods known to be vulnerable to fraud and misrepresentation. Any consideration of risk to safety and public health under the priority classification system concerns microbial risk. Potential harms to safety and public health because of frauds and misrepresentations are under estimated and under controlled.

III AUSTRALIA'S PRIORITY CLASSIFICATION SYSTEM

Part III explains the application of the food safety risk-based classification system within Australia's food regulatory framework. The degree of government intervention into food manufacturing is commensurate with 'the level of risk' determined, in part, by the risk profiling of industry sectors.[104] Risk assessments and profiling are used to determine the likelihood and severity of adverse health effects occurring from exposure to a hazard added to or naturally occurring in foods.[105]

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[102] Spink and Moyer, above n 11, 160.

[103] Moore et al, above n 27, 118.

[104] Food Regulation Standing Committee, 'Ministerial Policy Guidelines on Food Safety Management in Australia: Food Safety Programs (2003)' (Ministerial Policy, Australia and New Zealand Food Regulation Ministerial Council (as it then was), 2003); Food Regulation Standard Committee, 'Ministerial Policy Guideline on Food Safety Management for General Food Service and Closely Related Retail Sectors' (Ministerial Policy, Australia and New Zealand Ministerial Forum on Food Regulation, 2011).

[105] See FSANZ, *Food Safety: The priority classification system for food businesses* <http://www.foodstandards.gov.au>; See also Food Regulation Secretariat, *Food Safety Management in Australia: Food Safety Programs* <http://www.foodregulation.gov.au>; See also NSW Food Authority, *Priority Classification System* <http://www.foodauthority.nsw.gov.au/_Documents/scienceandtechnical/priority_classification_system.pdf>; In Victoria, food premises may be classed according to the nature of activities and specific inspection frequencies for a particular class, excluding some from inspection monitoring. See *Victoria Gazette* S232 (Victoria Parliament, 22 June 2010) and *Food Act 1984* (Vic) ss 19C(1)-(2); In WA, levels of risk determine the actual requirements for food safety programs. See *Food Act 2008* (WA) s 100.

Four priority classifications (Priority 1 – 4) represent the highest to lowest food safety risks. Foods are assessed as high[106], medium[107] or low[108] risk-based on the potential to contain pathogenic microorganisms, chemicals and or the capacity to support microbial growth (water activity and level of pH in the food).[109] 'Potentially hazardous food'[110] must be maintained at certain temperatures to minimise the growth of any pathogenic microorganisms present in the food or to prevent the formation of toxins in the food. For instance, due to the risk of ubiquitous environmental pathogens *Listeria monocytogenes*, *Campylobacter jeuni* and *Salmonella* spp. threatening the safety of chicken produce and susceptibility for growth in processed raw chicken, poultry abattoirs and processors are classified Priority 1. Canned foods processers, which operate systems that support, but can also effectively control the microbial growth of anaerobic pathogens, for example, *Clostridium botulinum*, hold Priority 2 classifications. Priority 1 operations present additional risk enhancing factors, compared to Priority 2, that increase the likelihood of introducing a pathogen into the supply chain and impact from a foodborne illness outbreak. Priority 3 food businesses handle low risk or medium risk foods. Priority 4 food business sectors are considered to present negligible risk of causing food borne illness from pathogenic exposure due to only handling low-risk foods. Priority 3 and 4 businesses are generally not required to implement a HACCP plan (explained below), although they may be subject to regulatory inspection programs administered by state agencies or local government compliance officers. Generally, Priority 3 and 4 businesses are required to notify state agencies of their existence and register for prioritised inspections.

All food businesses determined by the appropriate state or territory food regulator to be within a Priority 1 or 2 classification[111] of food business must implement a Food Safety Program ('FSP') according to HACCP principles,[112] for auditing at a frequency determined by the priority

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106 High-risk foods may contain and can support growth of pathogenic microorganisms and the formation of toxins and include, as eg, raw meat, poultry and fish, unpasteurised milk, oysters, tofu, fresh filled pasta, salami, cooked rice and meat pies.

107 Medium-risk foods may contain harmful natural toxins or chemicals introduced at earlier steps in the process, or may contain pathogens but the food does not support the growth (low water activity and unsuitable pH) of pathogens or unlikely to contain pathogens following processing but may support growth (high water activity and suitable pH) of pathogens and include, as eg, fresh fruits and vegetables, juices, pasteurised milk, canned meats, pasteurised milk and dairy products, peanut butter and milk-based confectionary.

108 Low-risk foods are unlikely to contain pathogenic organisms and do not support the growth of pathogens (low water activity and unsuitable pH), and assessed as unlikely to contain harmful chemicals or foreign matter include, as eg, grains, cereals, bread, carbonated beverages, fats and oils and alcohol.

109 FSANZ (as the Australia New Zealand Food Authority), *Food Safety: The Priority Classification System for Food Businesses - A Risk-Based System Designed to Classify Food Businesses into Priority Ratings Based on the Risk They Present to Public Health and Safety* (Commonwealth Department of Health, 2001), 11.

110 *ANZFSC* Standard 3.2.2 cl 1.

111 See NSW Food Authority, 'Priority Classification System (Version 4)' (NSW Department of Primary Industries, 2010), 5-6 for the list of priority classifications of types of food businesses licensed by the NSWFA and required to operate food safety programs implementing HACCP.

112 *ANZFSC* Standard 3.2.1 cl 2(2); *Food Act 2001* (ACT) s 152(2); *Food Regulation 2002* (ACT) Pt 3; *Food Act 2004* (NT) s 134(2); *Meat Industries Act 1996* (NT) s 11 *Food Act 2003* (NSW) s 102; *Food Regulation 2015* (NSW) Pt 7; *Food Act 2006* (Qld) ss 98-99; *Food Regulation 2016* (Qld) ss 5, 99(1)(e); *Food Production (Safety) Act 2000* (Qld) Pt 4; *Food Production (Safety) Regulation 2014* (Qld) ss 64, 97, 113, 119, 187; *Food Production (Safety) Act 2000 (*Qld) s 39; *Food Act 2001* (SA) s 113(2); *Primary Produce (Food Safety Schemes) Act 2004* (SA) s 11(2); *Primary Produce (Food Safety Schemes) (Meat Industry) Regulations 2006* (SA) reg 11; *Primary Produce (Food Safety Schemes) (Dairy Industry) Regulations 2005* (SA) reg 17; *Primary Produce (Food Safety Schemes) (Plant Products) Regulations 2010 (SA)*; *Primary Produce (Food Safety Schemes) (Egg) Regulations 2012 (SA)*; *Primary Produce (Food Safety Schemes) (Citrus Industry) Regulations 2005* (SA); *Primary Produce (Food Safety Schemes) (Seafood) Regulations 2006* (SA) reg 4A; *Food Act 2003* (Tas) s 127(2); *Dairy*

classification system.[113] Primary production and processing of seafood,[114] poultry meat,[115] meat,[116] dairy products,[117] eggs and egg products,[118] seed sprouts[119] and (in NSW) food service to vulnerable persons[120] are Priority 1 and 2 activities under Food Safety Schemes in state food regulations. HACCP requirements require the systematic examination of all handling operations to identify potential hazards that may reasonably be expected to occur, control identified hazards as critical control points (CCP), document and comply with the Food Safety Program, record the monitoring of CCPs, verify controls, provide for and apply corrective actions when Food Safety Programs found not to be under control, retain the Food Safety Program on the premises, review the Food Safety Program and provide for the auditing of the Food Safety Program. Qualified regulatory auditors must audit the Food Safety Program at the determined frequency.[121] Compliance obligations are provided in the state food regulations.[122] Offences for breaches are provided in the food Acts.[123]

Manufacturers and wholesalers are subject to notification requirements and inspections specific to the jurisdiction's application of the Classification System. Inspections against ANZFSC requirements are the criteria for manufacturing and wholesaling businesses not subject to a high-risk Food Safety Scheme under food regulations, but may operate a Food Safety Program because of the prioritisation as 1 or 2 under the Classification System, that is also inspected for compliance. The frequency of inspections depends on the prioritisation and may occur every 12 or 24 months or following complaints or survey investigating an identified food safety issue.[124] For example, medium risk foods (such as pasteurised juices, or tofu are classified as Priority 1 or 2 and operate Food Safety Programs to monitor and control systematically identified hazards for critical control.

Industry Act 1994 (Tas); *Dairy Industries Regulations 2014* (Tas); *Tasmanian Code of Practice for Dairy Food Safety 2002* (Tas) std 2D; *Primary Produce Safety Act 2011* (Tas) ss 10, 54, 56; *Primary Produce Safety (Seed Sprouts) Regulations 2014* (Tas) Pt 2; *Primary Produce Safety (Seafood) Regulations 2014* (Tas) Pt 2; *Primary Produce Safety (Meat and Poultry) Regulations 2014* (Tas) Pt 2; *Primary Produce Safety (Egg) Regulations 2014* (Tas) Pt 2; *Food Act 1984* (Vic) ss 19C(2), 19D-19F, 19DC, 19DD, 38A(6); *Meat Industry Act 1993* (Vic) s 10A; *Dairy Act 2000* (Vic) s 38; *Food Act 2008* (WA) ss 99-100.

113 See, eg, *Food Act 2003* (NSW) s93.

114 *ANZFSC* Standard 4.2.1.

115 Ibid 4.2.2.

116 Ibid 4.2.3.

117 Ibid 4.2.4.

118 Ibid 4.2.5.

119 Ibid 4.2.6.

120 Ibid 3.3.1.

121 *Food Regulation 2002* (ACT) ss 9, 12; *Food Act 2004* (NT) ss 134(2)(e)(i), 134(2)(f); *Food Act 2003* (NSW) ss 87, 87A, 93, 96; *Food Act 2006* (Qld) Chs 5-6; *Food Production (Safety) Act 2000* (Qld) ss 40(1)(e), 41, Pt 6; *Food Act 2001* (SA) ss 73, 78; *Food Act 2003* (Tas) ss 83G, 83H, 83I; *Food Act 1984* (Vic) ss 19D, 19H, 19K, 19O; *Food Act 2008* (WA) ss 94, 99, 100.

122 See, eg, *Food Regulation 2015* (NSW), *Food Production (Safety) Regulation 2014* (Qld); *Primary Produce (Food Safety Schemes) (Meat Industry) Regulations 2006* (SA); *Meat Industry Act 1993* (Vic) adopt Australian Standards.

123 See, eg, *Food Act 2003* (NSW) s 104.

124 Chapter 5 discusses NSW Food Authority Manufacturer and Wholesaler Food Inspection Program.

All enterprises involved in the handling[125] of food intended for sale – wholesale or retail – are 'food businesses' subject to the minimum food safety hygiene regulatory controls.[126] Food businesses operating in Australia, regardless of the Priority Classification must comply with ANZFSC Chapter 3 Food Safety Standards as a minimum.[127] Specific responsibilities apply to both food businesses and food handlers in relation to health and hygiene. When handling food for sale food businesses must 'when processing food take all necessary steps to prevent the likelihood of food being contaminated' and, where required, reduce any pathogens that may be present in the food using a process that is reasonably known to achieve the microbiological safety of the food.[128] Temperature control of potentially hazardous foods is prescribed.[129]

The next Part IV argues that the globalised food supply has increased fraud opportunities introducing potential threats of harms to food safety and public health. Food fraud threats of harm are underestimated and hence under controlled in Australia.

IV Food Safety and Public Health Harms in a Globalising Food Supply

Fraud and misrepresentation of food are not new threats to public health and safety nor a novel interest of public health laws. However, the rising complexity and lengthening of food supply chains is relatively new.[130] As discussed in Chapter 8, an Australian consumer association, not regulators, is exposing the silent and invisible food safety risks from herbs traded in global food supply chains.[131] A concert of factors inherent to global trade competition, the diverse and longer food supply and production chains forming 'global supply mazes',[132] demands of growing urban populations, remoteness and anonymity enabling criminal activity, commodity price differences, value added premium foods with positive attributes, online trading, non-specific testing and limited

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125 *ANZFSC* Standard 3.1.1 provides handling includes the making, manufacturing, producing, collecting, extracting, processing, storing, transporting, delivering, preparing, treating, preserving, packing, cooking, thawing, serving or displaying of food.

126 *Model Food Act 2000* (Cth) s 3 provides a food business is a business, enterprise or activity that involves: a) the handling of food intended for sale, or (b) the sale of food, regardless of whether the business, enterprise or activity concerned is of a commercial, charitable or community nature or whether it involves the handling or sale of food on one occasion only.

127 *ANZFSC* Standards 3.1.1, 3.2.2, 3.2.3.

128 Ibid 3.2.2 cl 7(1)(b)(ii).

129 Ibid 3.2.2 cl 7(3).

130 See, eg, Commonwealth Department of Agriculture Fisheries and Forestry, 'Resilience in the Australian Food Supply Chain' (Research Report, Commonwealth of Australia, 2012) vii, Australian-based research that assessed the lengthening and complexity of food supply chains operating in Australia for resilience in the case of a disaster. The complexity of distribution systems have increased vulnerabilities from 'cyber-attack, computer viruses, industrial espionage and other sources of system breakdowns'. The project involved desktop research and interviews with key industry players covering the retail distribution and manufacture of food in Australia. The key question was whether the food supply could be maintained in the event of a disaster. Food fraud (nor, ingredient substitution) was not in the scope of the research, or identified as a reason for enhanced food supply resilience ('*DAFF*').

131 See, eg, CHOICE Australia, 'Does your spice rack contain fake oregano?' (CHOICE, online, 5 April 2016).

132 Alan Reilly, 'Food Crisis Management Implications for Regulators: Lessons learnt from the EU-wide horsemeat scandal', (Speech delivered at the Ministry of Primary Industries, Food Protection Forum, Auckland, 12 October 2015). Alan Reilly, the CEO of the Food Safety Authority of Ireland at the time of the horsemeat scandal, coined the phrase 'global supply maze' to use in place of 'global food supply chain'. He suggests the use of the word chain implies a 'line-of-sight from start to finish', which is not a true characterisation of trading food systems.

authenticity validation methods are amongst the factors representatives of Iran, Canada and EU at Codex suggest are contributing 'to the dramatic increase in food fraud'.[133]

The globalised food supply presents threats of harm that cannot be controlled by identifying known microbial, physical and chemical hazards alone.[134] Honesty is a presumed element of traditional food safety management schemes. This is a challenge when consumers and industry are reliant upon the honesty of actors operating in locations both inside and outside of Australia. Australia's food supply chains encompass 'production areas, processors, manufacturers and retailers – many thousands of participants, ranging from highly sophisticated international companies to local sole traders'.[135] Australian food manufacturers acquire many 'ingredients, additives and packaging materials' from the global food supply.[136] Global sourcing food and ingredients has changed the features of some food-related incidents and introduced new sources of risks and impacts. Researchers reveal increasingly long and complex food supply chains is a common factor increasing fraud opportunities,[137] ultimately reducing the authenticity of the represented nature or substance of food. The modern processing of multiple-ingredient foods, such as an 11-ingredient cheeseburger relies on supply chains where ingredient substitution at any three points in the complex maze can create an estimated two million permutations and combinations of scenarios causing health threats and economic losses.[138] A mug of hot chocolate has a supply chain with an estimated 31 vulnerabilities for fraud.[139] Even before the 2013 horsemeat scandal, surveyed UK food businesses considered the ease of food and ingredient substitution in the food supply chain one of the four risks challenging food manufacturing systems.[140]

To counter fraud opportunities, food supply chains require transparency.[141] Yet reports suggest that transparency is now at its most opaque (least transparent) compared to the last 24 years.[142] According to the Institute of Food Technologists launching the Global Food Traceability Center, 'product tracing has emerged as a critical tool for increasing the transparency of the

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133 Iran, Canada and the Netherlands for the Joint FAO and WHO Food Standards Programme Codex Committee on Food Import and Export Inspection and Certification Systems, 'Discussion Paper on Food Integrity and Food Authenticity' (CX/FICS 17/23/5, 2017), 3. See also Joint FAO/WHO Food Standards Programme Codex Alimentarius Committee on Food Import and Export Inspection and Certification Systems, *Twenty-Second Session, Other Business and Future Work, Agenda Item 11 Comments of Islamic Republic of Iran*, CAC/38 CRD/29' (2016).

134 See, eg, Alexia Brunet Marks, 'The Risks We Are Willing to Eat: Food Imports and Safety' (2015) 52(1) *Harvard Journal on Legislation* 126, 132-133; Gabriel Scally, 'Adulteration of Food: What It Doesn't Say on the Tin' (2013) 346 *British Medical Journal* f1463, fl463. Francesca Lotta and Joe Bogue, 'Defining Food Fraud in the Modern Supply Chain' (2015) 1 *European Food and Feed Law Review* 114, 115.

135 *DAFF*, above n 130, iv.

136 Ibid vii.

137 Everstine, Spink and Kennedy, above n 101; See also Christopher Elliott, 'Does it matter where our food comes from?' (Speech delivered at the City Food Lecture, London, 21 February 2017).

138 Shaun Kennedy, 'Emerging Global Food System Risks and Potential Solutions' in Wayne Ellefson, Lorna Zach and Darryl Sullivan (eds), *Improving Import Food Safety* (John Wiley and Sons, 2012) 1, 4-6.

139 Richard Evershed and Nicola Temple, *Sorting the Beef from the Bull* (Bloomsbury, 2016).

140 Lisa Jack, Juan Ramon-Jeronimo and Raquel Florez-Lopez, 'Performance Measurement and Risk Management in Intermediary Food Chain Businesses' (Working Paper, Chartered Global Management Accountant, 2012) 6 < https://www.cgma.org/Resources/Reports/DownloadableDocuments/cgma-performance-measurement-and-risk-management.pdf>.

141 Keogh, above n 49.

142 Charles Pauka, 'Global supply chain risk at its highest level in 24 years', (*Transport and Logistics News* (online) 16 March 2017).

attributes and origin of food products – from farm processing to retail and food service, or to the family table'.[143] Research on the capacity of third-party certification schemes to trace products and ingredients in globalised supply chains reveal 'certifiers lack the ability to track product contents and processes back to their origins; the opportunities for error or fraud are many'.[144] Traceability is a critical weak link in the entire certification process requiring new technologies such as genomics and proteinomics that enlist molecular level identifiers to improve strategic oversight.[145] In a review of the traceability frameworks across 21 Organisation for Economic Co-Operation and Development (OECD) countries, Australia is ranked average compared to other OECD countries.[146] Although strong cattle identification systems operate in Australia 'more advanced traceability systems for other domestic and imported products' as requirements 'to trace and track most foods from farm to fork are still absent'.[147] Researchers conclude:

> although many countries lack specific legislation on food traceability, the global tracking and tracing is being achieved (often with difficulty) through manual record keeping, lot identification, labelling laws and requirements for exporting countries to meet the standards of domestic industries in those countries [and that global markets would benefit from] interoperable and uniform global traceability system by following examples of the EU, and developing uniform requirements for electronic identification, database systems, and interoperability coupled with and supported by globally recognised identification standards and auditing schemes.[148]

Australia's regulatory 'one step up and one step back' approach[149] to traceability is therefore outdated in a global food supply maze. It is estimated 1.3 billion tonnes of food is lost without trace, annually.[150] The corollary is that food businesses cannot always be confident of the authenticity of ingredient inputs in food manufacturing.[151]

In a globalised food supply network the 'increasing pace and volume with which products are shipped around the globe will virtually guarantee that food fraud will continue to increase in

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143 Institute of Food Technologists, 'Institute of Food Technologists Launches Global Food Traceability Center' (Media Release, 14 July 2013).

144 Sally Eden, *The Work of Environmental Governance Networks: Traceability, Credibility and Certification by the Forest Stewardship Council* (2009) 40 *Geoforum* 83, 384 cited in Andrea Migone and Michael Howlett, 'From Paper Trails to DNA Barcodes: Enhancing Traceability in Forest and Fishery Certification' (2012) 52(Fall) *Natural Resources Journal* 421, 424; See also Kari Tove Elvbakken, Per Lægreid and Lise Helleb Rykkja, 'Regulation for Safe Food: A Comparison of Five European Countries' (2008) 31 *Scandinavian Political Studies* 125.

145 Andrea Migone and Michael Howlett, 'From Paper Trails to DNA Barcodes: Enhancing Traceability in Forest and Fishery Certification' (2012) 52(Fall) *Natural Resources Journal* 421, 424.

146 Sylvain Charlebois, Brian Sterling, Sanaz Haratifar, and Sandi Kyaw Naing, 'Comparisons of Global Food Traceability Regulations and Requirements' (2014) 13 *Comprehensive Reviews in Food Science and Food Safety* 1104. The aggregate scores were 'superior, average or poor' on food traceability in a review of the comprehensiveness of regulations (as to food types).

147 Ibid 1121.

148 Ibid.

149 *ANZFSC* Chapter 3.2.2 5 and 12. In Australia, *ANZFSC* food handling controls provide, for each food on the premises, food businesses are required to know the food name and name and business address of supplier ('one step back'). For food businesses engaged in wholesaling, manufacturing and importation, a documented recall plan is required, including details of distributors the food has been sold to enabling the 'one step forward'.

150 Christian Nelleman, Monika MacDevette, Ton Manders, Bas Eickhout, Birger Svihus, Anne Gerdien Prins and Bjorn Kaltenborn, 'The environmental food crisis: The environment's role in averting future food crises' (UNEP rapid response assessment, United Nations Environment Program, 2009) cited in Liam Fassam and Samir Dani, 'A Conceptual Understanding of Criminality and Integrity Challenges in Food Supply Chains' (2017) 119(1) *British Food Journal* 67, 69-70.

151 Liam Fassam and Samir Dani, 'A Conceptual Understanding of Criminality and Integrity Challenges in Food Supply Chains' (2017) 119(1) *British Food Journal* 67, 70.

scope, scale and threat'.[152] Food supply chain researcher John Keogh argues fraud flourishes in supply chains from a 'blind trust' that adequate laws exist and operate to protect consumers, but where in reality 'blatant food fraud goes unchecked daily in every country'.[153] Research identifies a divergence of understanding among academic, business and media views on the nature and extent of food fraud in supply chains.[154] Yet, food safety and public health threats are potentially more significant following the development of a globalised food supply network. The challenges of globalisation are great. One act of selling a falsely described food ingredient in bulk can impact numerous lines of manufactured food, potentially threatening the public health and safety of consumers across the globe.

Food industry scientists and food regulators responsible for controlling harms to food safety and public health do not, traditionally, use skills related to human behavioural science and criminological theory. The next Part discusses the skills required to strategically and systematically identify fraud opportunities in supply chains.[155] Modernising food safety management systems requires the application of knowledge and skills about fraud vulnerabilities, the types of foods most vulnerable and provide easy access to fraud prediction and prevention tools.[156]

V Modernising and Enhancing Risk-Based Approaches

New proactive approaches that deal with threats to safety and public health outside the traditional hazard contamination risk-based paradigm are being implemented around the world. Protecting consumers from harm from fraud and misrepresentation involves different tactics - controlling fraud vulnerabilities, not controlling risks.[157] Part V illustrates modernisation efforts by governments and industry initiatives around the globe. Outside of Australia, governments are introducing new legal requirements and establishing food crime units to investigate the most serious of food fraud offending. Also, private food standard benchmarking initiatives are taking preliminary steps so that food safety management schemes include proactive plans to identify vulnerabilities and mitigate threats to health caused by fraud and misrepresentation.

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152 John Spink, 'Defining Food Fraud and the Chemistry of the Crime' in Wayne Ellefson, Lorna Zach and Darryl Sullivan (eds), *Improving Import Food Safety* (John Wiley and Sons, Inc and the Institute of Food Technologists, first, 2013), 195.

153 Keogh, above n 49.

154 Fassam, Dani and Hills, above n 49.

155 Spink and Moyer, above n 11, 160-161; John Spink and Douglas Moyer, 'Introducing the Food Fraud Initial Screening Model (FFIS)' (2016) 69 *Food Control* 306, 307.

156 See, eg, NSF Safety and Quality UK Ltd, 'Risk Modelling of Food Fraud Motivation – "NSF Fraud Protection Model" Intelligent Risk Model Scoping Project' (Research Report FS 246004, NSF International, Food Standards Agency, 2014).

157 See generally John Spink, David Ortega, Chen Chen, Felicia Wu, 'Food fraud prevention shifts the food risk focus to vulnerability' (2017) 62 *Trends in Food Science and Technology* 215; Saskia van Ruth, Wim Huisman and Pieternel Luning, 'Food fraud vulnerability and its key factors' (2017) 67 *Trends in Food Science and Technology* 70; Saskia van Ruth, Pieternel Luning, Isabella Silvis, Y Yang and Wim Huisman, 'Differences in fraud vulnerabilitites in various food supply chains and their tiers' (2018) 84 *Food Control* 375; Isabelle Silvis, Saskia van Ruth, Ine van der Fels-Klerx and Pieternel Luning, 'Assessment of Food Fraud Vulnerability in the Spices Chain: An Explorative Study' (2017) 81 *Food Control* 80.

In traditional food safety management systems honesty is presumed. The intentional nature of food fraud and associated efforts to hide the deception creates new factors for risk assessors to incorporate in risk profiling. Prevention requires food safety management systems to also apply behavioural science and criminological theory and identify vulnerabilities to protect health.[158] Obviously microbial risk-based strategies are appropriate for controlling microbial risk-based threats and must remain within a holistic framework achieving the safety and public health objectives. Nothing in this thesis should be interpreted as arguing for less microbial controls, only enhanced controls appropriate to the nature and extent of risks facing regulators and consumers in a 21st century globalised food supply.

Part V concludes this Chapter by arguing both government strategies, policies and the legal obligations on food businesses require modernisation. This includes incorporating food fraud vulnerability assessments with monitoring compliance strategies and enforcement policies proportionate to the threats food frauds present. One of the central conclusions of this thesis is that by following leading initiatives around the world in at least two ways, Australia's food regulatory framework can be effectively enhanced to meet all of its overarching objectives. First, the Forum can modernise the risk-based approach and Priority Classification System to also assess, as an adjunct to it, fraud vulnerabilities of a food and sector, using known vulnerability data to appropriately monitor compliance by the food industry. Second, the Forum can develop Ministerial policy to require that FSANZ develop an outcome based ANZFSC standard for food authenticity, requiring food businesses control food authenticity including the implementation of Food Fraud Vulnerability Assessments and Mitigation plans. The following paragraphs provide a background on the development and implementation of the emerging fraud and misrepresentation controls for holistic food safety management strategies.

Triggered in 2013 by the great geographical scope and high volume of beef products substituted or diluted with horse meat and the associated public outrage, EU governments commenced enquiries and funded research initiatives to enhance food controls to include proactively controlling food fraud.[159] On 14 January 2014, the European Parliament adopted the *Resolution on the Food Crisis, Fraud in the Food Chain and the Control Thereof* ('EU Resolution').[160] Unanimously supported by the member states, the EU Resolution stresses 'official controls should focus not only on food safety issues, but also on preventing fraud and the risk of consumers being misled'.[161] The EU Resolution notes concerns of 'signals indicating that the number of cases is rising and that food fraud is a growing trend reflecting a structural weakness within the food chain'.[162] Calling to stimulate 'the research into technological methods used to detect food fraud' such as 'sensor technology, data analysis and the fingerprinting of products and to facilitate the

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158 Spink and Moyer, n 11, 160-161; Spink, above n 152.

159 See, eg, Jenny Avery, 'Fighting Food Fraud' (Briefing Note 130679REV1, European Parliamentary Research Service, 2014) <http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/130679/LDM_BRI(2014)130679_REV1_EN.pdf>.

160 Environment, Public Health and Food Safety Committee, European Parliament, European Parliament Resolution on the Food Crisis, Fraud in the Food Chain and the Control Thereof, T7-0011/2014 (2013/2091 (INI) 14 January 2014) ('*EU Resolution*').

161 Ibid 30.

162 Ibid 9.

commercial availability of tests in the short term',[163] the EU Resolution stresses controls should be (emphasis added):

> Risk-based and include development of *risk profiles and vulnerability assessments* for each supply chain and food product.[164]

Accordingly, food authenticity scientists are collaborating with criminologists to define the elements of new risk-based profiles and vulnerability assessments. Tactically, vulnerability assessments focus on *preventing* food fraud by understanding where fraud vulnerabilities exist and blocking the opportunity for fraud and misrepresentation. The focus is not on detecting food fraud for reactive responses.[165] The focus is on understanding human behaviours and blocking opportunities. Human behaviour is already in sharp focus when working to establish and maintain a 'food safety culture'[166] to prevent physical harm from foodborne illness. Ultimately, it is the hygiene-based skills and compliance behaviours of food business operators that influence whether a food or manufacturing process is vulnerable to contamination by a biological, chemical or physical hazard. To support this, ANZFSC provides the outcome-based standards for food hygiene and contamination control compliance. In considering food fraud, the vulnerabilities that cause food to be falsely described because of fraud and misrepresentation can be similarly identified for control.

As is examined in Chapter 6, the crime triangle[167] and the 'chemistry of the crime'[168] are essential concepts for understanding the nature of criminal conduct. Fundamentally, food fraud is a 'crime of opportunity'[169] where the root cause or motivation is economic gain (see Figure 1 Chapter 2).[170] A notable challenge in combating food fraud is that fraudsters are 'clandestine, stealthy, resilient, intelligent, creative and actively seek to avoid detection', often making food fraud a silent and invisible deliberate act.[171] Chapter 6 applies the foundational criminological routine activity theory to describe the crime opportunity structure of a specific type of food fraud for the purpose of identifying opportunity reducing techniques.

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163 Ibid 55.

164 Ibid 54. See generally Daniel Grannato, Daniel Cozzolino and Saskia van Ruth, 'Special Issue: Authenticity, Typicality, Traceability and Intrinsic Quality of Food Products' (2014) 60 *Food Research International* 1.

165 John Spink and Douglas Moyer, 'Food Fraud Prevention - beyond Adulterants and to Decision-Making' (2014) 17(5) *New Food* 18; Louise Manning, 'Food Fraud: Policy and Food Chain' (2016) 10(2) *Current Opinion in Food Science* 16, 16.

166 See, eg, Frank Yiannas, *Food Safety Culture – Creating a behaviour based food safety management system* (2009, Springer).

167 Spink and Moyer, above n 10, 34 states 'The Crime triangle is a tool to deconstruct the fraud opportunity into the core characteristics of victims, fraudsters and guardians/hurdles. Each characteristic plays a role in contributing to, or reducing a fraud opportunity. Food fraud victims are consumers, retailers, manufacturers, or governments getting cheated. As brands grow (victims), the fraud opportunity grows. The fraudster is anyone cheating ... Guardians are the professionals who are trying to protect products through study, inspection, testing, or investigation. Hurdles are the countermeasures the guardians use to increase the risk of the fraudster getting caught or to increase the cost of perpetrating the fraud. It is important to note that the countermeasures do not need to be perfect or invincible. In many cases, simply changing standard operating procedures can reduce vulnerabilities. Even a minor countermeasure hurdle can cause potential fraudsters to move on to another target'.

168 Spink and Moyer, above n 11, 160; Spink, above n 157, 204-207.

169 Spink and Moyer, above n 10, 33.

170 Spink, above n 157, 200. Moore, Spink and Lipp, above n 27; Everstine, Spink and Kennedy, above n 101.

171 Douglas Moyer, Jonathan DeVries and John Spink, 'The Economics of a Food Fraud Incident - Case Studies and Examples Including Melamine in Wheat Gluten' (2017) 71 *Food Control* 358, 359.

New opportunity factors increasing the incidence include, but are not limited to 'expanded global marketplace, tighter economic conditions, rising power of the internet, more sophisticated perpetrators, added value systems in certain markets, and a silent global food crisis'.[172] The Elliot Review (discussed below) states to control the risks to food safety through supply chains:

> The [UK] Government should encourage the food industry to ask searching questions about whether certain deals are too good to be true; work with industry to ensure that opportunities for food fraud, food crime and active mitigation are included in company risk registers; support the development of whistle blowing and reporting of food crime; urge industry to adopt incentive mechanisms that reward responsible procurement practice; encourage industry to conduct sampling, testing and supervisions of food supplies at all stages of the food supply chain; provide guidance on public sector procurement contracts regarding validation and assurance of food supply chains and encourage the provision of education and advice for regulators and industry on the prevention and identification of food crime. [173]

An assessment of the factors affecting a food and food sector's vulnerability is the first step towards fraud prevention and the mitigations of harms to safety and public health. A practical tool conceptualised by Saskia van Ruth et al[174] is available for food businesses to systematically identify and control food fraud vulnerabilities: Food Fraud Vulnerability Assessments. Van Ruth et al provide for three food fraud vulnerability elements – opportunities, motivations and control measures – and over 31 fraud vulnerability factors when considering fraud vulnerability in various food supply chains.[175] Each of the three elements is discussed in the following paragraphs, noting some common vulnerability factors. Pricewaterhouse Coopers (PwC) automated the approach designed by the collaborating food safety scientists and criminologists into an online tool with a total of 50 questions – nine questions about opportunity, 20 on motivations and 21 on the available control measures.[176]

Firstly, the opportunity factor is further subdivided to technical opportunities and opportunities in time and place. For technical opportunities, the form of a food is assessed for how hard it is to dilute, substitute and falsely describe. For example, liquids and powders can be easily diluted so are more vulnerable. The requirement for complex analytical methods to detect any dilution or substitution increases vulnerability. Opportunities in time and place include legitimate access to the food processing, storage and distribution. Increases in complexity and supply chain lengths creates mazes and decreases transparency, increasing vulnerabilities and opportunities for fraud.

Secondly, motivations are subdivided into economic drivers and cultures and behaviours. For instance, economic drivers include the availability of supply and prices, value adding attributes, the economic health of competitors and financial strains. Culture and behaviours such as business

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172 ATKearney, 'Consumer Product Fraud: Deterrence and Detection' (Grocery Manufacturers Association, Science and Education Foundation, 2010), 4-6.

173 *Elliott Review,* above n 11.

174 Saskia van Ruth, Wim Huisman and Pieternel A Luning, 'Food Fraud Vulnerability and Its Key Factors' (2017) 67 *Trends in Food Science and Technology* 70; Saskia van Ruth et al, 'Differences in Fraud Vulnerability in Various Food Supply Chains and Their Tiers' (2018) 84 *Food Control* 375.

175 Ibid.

176 PwC and SSAFE, 'Food Fraud Vulnerability Assessment and Mitigation' (Information Document, Pricewaterhouse Coopers, 2016), 1; Global Food Safety Initiative (GFSI), 'Tackling Food Fraud Through Food Safety Management Systems' (GFSI Benchmarking Standard Version 7, 2018).

strategies, ethical cultures, history of offending, level of corruption in a country and any victimisation by other supply chain actors. Thirdly, the control measure factors include both technical measures (hard controls) and managerial measures (soft controls). Hard controls include sampling plans and testing strategies, specific fraud detection methods and verification tools, demanding detailed product specification and authenticity enhancing documents from suppliers and requiring mass balance controls and documented traceability systems. Soft controls for food business managers include codes of conduct, employee integrity screenings, systems of whistleblowing, self-regulatory guidance, and last, but not least, regulatory compliance monitoring and enforcement.

Deterrence and prevention of food fraud cannot rely upon laboratory, molecular and other authenticity scientific-based tests to detect fraud. Fraud controls can also be found in three rather less glamorous tests: management controls, forensic accounting and information processing', suggesting the solutions exist in reviews of supplier prices against commodity prices and traceability exercises, responses that place a high demand on data, data analysis and data management.[177]

Certainly, in explaining the relationship between fraud and safety, Spink and Moyer advocate there is a continuum of controls across the four food protection issues (see Chapter 2 Figure 1 Food Protection Matrix). Food safety-specific standard operating procedures within management systems, and the regulatory tools of inspections, audits and food safety monitoring based on microbial risk, can be enhanced with specific methodologies, such as enhanced data accounting and processing aimed at food fraud prevention. [178]

From 2018 the *Food Safety Modernisation Act 2011* (US)[179] and private food safety certification systems implementing and auditing Global Food Safety Initiative[180] (GFSI) benchmarked standards require food business to implement Food Fraud Vulnerability Assessments and Mitigation Control plans.[181] Of note is that food fraud vulnerabilities with the potential for *direct threats to safety and public health*[182] are identified for prescriptive control. This means

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[177] Lisa Jack, 'Food fraud is still hard to detect – so follow the money' (*The Conversation* (online), 5 September 2014).

[178] John Spink, *EMA Submission to FDA* (FDA Correspondence, Michigan State University Food Fraud Initiative, 2014)< http://foodfraud.msu.edu/wp-content/uploads/2014/12/MSU-FFI-FRN-FSMA-EMA-submission-12-15-2014-v4-FINAL.pdf>.

[179] FDA, US Food and Drug Administration (2015). Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventative Controls for Human Food, Department of Health and Human Services (DHHS); 21 CFR Parts 1, 11, 16, 106, 110, 114, 117, 120, 123, 129, 179, and 211; Docket No. FDA-2011-N-0920, Action: Final Rule.

[180] The Global Food Safety Initiative (GFSI) is an initiative of the Consumer Goods Forum, that brings together main food industry actors to 'collaboratively drive continuous improvement in food safety management systems around the world'. GFSI sets the benchmarking standards for the private food safety certification bodies auditing and certifying food processing systems to control food safety and public health. See <www.mygfsi.com>.

[181] The GSFI provides the benchmarks for certification schemes including Safe Quality Food (SQF), British Retail Consortium (BRC)-Global Standard for food and/or International Food Standard (IFS).

[182] GFSI, 'Tackling Food Fraud through Food Safety Management Systems' (Guidance document on Food Fraud Mitigation, The Consumer Goods Forum, 10 April 2018) provides, 'Food Fraud is the collective term encompassing the intentional substitution, addition, tampering or misrepresentation of food/feed, food/feed ingredients or food/feed packaging, labelling, product information or false or misleading statements made about a product for economic gain that *could impact consumer health'* (emphasis added); See also John Spink and Douglas

eligible international food business operators are starting to implement controls that systematically target the authenticity of Tier one food labelling issues. The freely available PwC online tool supports implementation of the new regulatory requirements in the US and GFSI benchmarked private food safety certification systems. Other researchers are improving the capacity of these approaches to support the identification, classification and categorisation of fraudulently used hazardous substances potentially threatening direct safety and public health threats.[183] The US Pharmacopeial advocates food businesses implement strategies that test foods for what should be there, not what should not be there.[184] Scientific technologies, strategies and methods require quick commercialisation to verify the authenticity of representations relevant to the global supply of food.[185]

In the UK, following the EU horsemeat crisis, the Elliott Review makes eight recommendations to governments about food regulation and the enforcement of food fraud.[186] In summary, Elliot argues food regulatory frameworks should be modernised with strategic plans articulating the following elements: (i) Prioritising the needs of consumers; (ii) Zero tolerance of food fraud and food crime with government working with industry to include the illegal activity in company risk registers for management; (iii) Intelligence gathering and sharing of data; (iv) Laboratory services; (v) Audits with additional audit modules for food fraud prevention and detection incorporating forensic accountancy and mass balance checks; (vi) Government support with a model for co-ordination of high profile investigations and enforcement zero tolerance; (vii) Clear leadership and co-ordination of investigations and prosecutions relating to food fraud and food crime, recognising the public interest by active enforcement and significant penalties for serious food crimes, creation of a new Food Crime Unit; and (viii) Crisis management mechanisms must deal effectively with any serious food safety and (or) food crime incident, ensuring that all incidents are regarded as a risk to public health until there is evidence to the contrary.

Researchers are providing the evidence and support governments require to modernise prioritisation systems for managing risks in the context of fraud and misrepresentation. The UK Food Standards Agency commissioned development of the NSF Fraud Protection Model to not only assist food retailers but also help regulators anticipate the *relative* likelihood of fraudulent attack on various foods.[187] The NSF Fraud Protection Model recommends that once food businesses and regulators have an assessment of fraud susceptibility the control-type interventions should include:

Moyer, 'Food fraud Vulnerability Assessment and Prefilter for FSMA, GFSI and SOX Requirements' (2017) March *Food Safety Magazine* 1.

183 Karen Everstine, Eileen Abt, Diane McColl, Bert Popping, Sara Morrison-Rowe, Richard Lane, Joseph Scimeca, Carl Winter, Andrew Ebert, Jeffery Moore and Henry Chin, 'Development of a Hazard Classification Scheme for Substances Used in the Fraudulent Adulteration of Foods' (2018) 81(1) *Journal of Food Protection* 31.

184 Moore, Spink and Lipp, above n 27.

185 See, eg, Susanne Esslinger, Janet Riedl and Carsten Fauhl-Hassek, 'Potential and Limitations of Non-Targeted Fingerprinting for Authentication of Food in Official Control' (2014) 60 *Food Research International* 189.

186 *Elliott Review*, above n 11, 7-10.

187 NSF Safety and Quality UK Ltd, above n 156. The model 'delivers a working framework by which the technical and/or food safety teams in food businesses or in regulatory bodies can begin to better anticipate which product lines are most/least likely to be targeted by fraudsters and why, whether or not they have been attacked previously'.

> Increased detection likelihood by increasing the frequency of or forensic quality auditing; changing the nature of routine third party auditing to focus more effectively on fraud or introducing new Fraud Specific Audits; enhanced frequency or sophistication of sampling and testing regimes; and making the insertion or replacement into the supply chain more difficult by enhanced security measures.[188]

In relation to enforcement policies and sanctions for food fraud (see Chapter 5), the abovementioned EU Resolution:

> Welcomes the Commission proposal to strengthen penalties in order at least to offset the estimated economic advantage sought through the violation, but considers that this is not dissuasive enough; believes that the Member States should set penalties for food fraud which are at least double the estimated amount of the economic advance sought through the fraudulent activity; deems it necessary, as an extra deterrent, that Member States set even higher penalties, including criminal law penalties, for fraudulent cases in which public health is deliberately endangered, or in cases of fraud involving products aimed at vulnerable consumers; proposes, furthermore, that in the event of repeated offences the food business operator's registration be withdrawn. [189]

The European Parliament is 'convinced that a change of attitude is needed within the competent authorities, moving from an administrative and veterinary approach towards a policing approach'.[190] Certainly GFSI recognises 'the consumer's health risk of food fraud often occurs through negligence or lack of knowledge on the fraudster's part and can be more dangerous than traditional food safety risks because the contaminants are unconventional'.[191] The unconventional and criminal nature of the activity places a higher burden on the food regulatory framework to possess the capacity to conduct essentially criminal investigations, in addition to routine food safety audits and inspections. Following the EU horsemeat scandal, Chief Executive for the Food Safety Authority of Ireland, Alan Reilly, remarked:

> Criminal intent or opportunity and intentional violation of the law must be taken into account when assessing risk. Food inspectors have to learn the ways of the criminal and the criminal investigator.[192]

Therefore, in Australia, in addition to introducing new regulatory measures to support food labelling authenticity in food processing, such as the FFVA introduced in the US, the Overarching Strategic Statement should be amended to incorporate the control of fraud vulnerabilities as a food related risk. State food enforcement agencies need to update their risk-based profiling and introduce suitable food fraud vulnerability assessments so they can proportionately control associated risks of harm throughout supply chains. Based on international modernisation initiatives, enhanced systemic controls in the Australian food regulatory framework could, for example include:

a) Responsible governments raising the general awareness of food fraud vulnerabilities in global food supply chains through education and enhance fraud related complaint reporting;
b) Responsible governments and industry associations identifying food fraud as a food safety issue for specific control by enhanced food safety management systems; and

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188 Ibid 6.
189 *European Resolution*, n 160, 63.
190 Ibid 53.
191 Global Food Safety Initiative (GFSI), 'GFSI Position on Mitigating the Public Health Risk of Food Fraud' (Policy Position, The Consumer Goods Forum, 2014).
192 Food Safety Authority of Ireland, *Newsletters* (May/June 2014) 2 <http://www.fsai.ie/uploadedFiles/News_Centre/Newsletters/Newsletters_Listing/vol16i3.pdf>.

c) Responsible governments introducing specific food fraud audit modules and inspection programs according to a risk-based, proportionate approach to fraud, including but not limited to, traceability verification and mass-balance analysis of ingredients.

VI CONCLUSION

The limited framing of food safety as targeting known hazards to prevent foodborne illness potentially presents challenges in the overall framework's response to prevent physical harms from frauds and misrepresentation. Where a food is falsely described, the potential public health threat cannot be predicted by an assessment of microbial risk. The Hierarchy refers to Tier one food labelling issues as food safety labelling issues. The direct food safety threats from labelling are not the traditional food safety threats of foodborne illness targeted for control in established food safety programs and hazard contamination controls. The traditional food safety risk-based approach fails to predict and prevent fraud and misrepresentation in all foods, regardless of whether classified low or high food safety risk profile.

Globalisation of the food supply presents new factors to consider when preventing threats of harm to safety and public health. The ever-increasing pace, volume and complexity of a globalised food supply with a network of opaque supply chains and limited traceability means opportunities for food frauds and potential safety and health threats will also increase in rate and impact. The range of threats from fraud and misrepresentation cannot be ignored, nor controlled with traditional HACCP approaches. Protecting consumers from harm from fraud and misrepresentation involves different tactics – controlling fraud vulnerabilities, not controlling risks. Internationally, governments are introducing new legal requirements and establishing specialist food crime units to investigate the most serious of fraud and misrepresentation with food. Private food standard certification benchmarking initiatives of industry are also requiring steps towards holistic approaches to food safety management systems by introducing fraud vulnerability assessments. Sound evidence is emerging the new tactics must be incorporated into overall food safety management programs. Governments are advised to enhance regulatory frameworks beyond the microbial-risk-based paradigm, assessing the opportunities fraud and enhancing audits and inspections to target fraud and misrepresentation.

Chapter 5 goes on to examine Australia's food labelling compliance monitoring and enforcement framework.

CHAPTER 5: MONITORING AND ENFORCEMENT OF FOOD LABELLING COMPLIANCE

> It stands to reason that non- or under enforcement against [food fraud] undermines the credibility of government agencies entrusted to ensure the integrity and authenticity of food. This erosion of authority contributes to a growing cynicism of the modern food system and likely encourages further malfeasance and inappropriate risk-taking with food.
>
> Michael Roberts and Whitney Turk[1]

> A coordinated approach is needed at the national and international level to ensure food integrity. Containment of food fraud is complex and requires a range of strategies and activities on the part of relevant authorities, including inspection and certification, traceability and enforcement of control measures in the food chain. Building on a strong regulatory foundation, uncovering fraudulent practices requires communication and intelligence, strategic regulatory programs, robust laboratory methodology, and effective enforcement practices.
>
> Christopher Elliott[2]

> The results of OPSON (December 2017 – March 2018 across 67 countries) demonstrate what can be achieved to protect consumers worldwide when law enforcement agencies join their efforts and perform coordinated actions. It is a threat which requires such cooperation across borders, taking into account the increased integration and globalisation of supply chains. All countries face this threat and it is the duty of law enforcement agencies to make sure what consumers get in their plate is genuine and safe.
>
> Jari Liukku[3]

I INTRODUCTION

Effective compliance monitoring and enforcement of legislation is pivotal in achieving the policy outcomes and objectives of risk-based regulatory systems.[4] As introduced in Chapter 3, the overarching goals of Australia's food regulatory framework include objectives to 'protect the health and safety of consumers by reducing risks related to food' and 'preventing them from being misled'.[5] State food regulators co-ordinate through sub-committees at the Forum (see Chapter 3) to achieve the goals of the regulatory system. Along with local councils, state regulators are

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1 Michael T Roberts and Whitney Turk, 'The Pursuit of Food Authenticity' (White Paper, Resnick Program For Food Law and Policy, UCLA, 2017) 16.

2 Joint FAO/WHO Food Standards Programme FAO/WHO Coordinating Committee for Near East, 'Keynote Address on Food Integrity/Food Authenticity - An Overview from Food Quality and Safety Perspective in the Framework of Codex (Agenda Item 2, CX/NE 19/09/02 May 2017, Rome, Italy)'.

3 Jari Liukku, 'Fraud on a Plate: Over 3600 tonnoes of dangerous food removed from consumer market' (Press Release, European Commission, 25 April 2018) states 'OPSON VII … resulted in the total seizure of more than 3620 tonnes and 9.7 million litres of either counterfeit or substandard food and beverages as a result of more tyhan 41000 checks carried out at shops, markets, airports, seaports and industrial estates. In total ssome 749 people were arrested or detained with investigations continuing in many countries'. <https://www.europol.europa.eu/newsroom/news/fraud-plate-over-3-600-tonnes-of-dangerous-food-removed-consumer-market>.

4 Neil Gunningham, *Compliance, Deterrence and Beyond* (Edward Elgar Publishers, 2015), 1; Bridget Hutter and Tola Amodu, 'Risk Regulation and Compliance: Food Safety in the UK' (Research Report, London School of Economics and Political Science, University of London, September 2008), 7; See generally, Anon, 'Submission to the Food Labelling Review Panel on the Issues Consultation Paper' (Submission, CHOICE, 17 May 2010);

5 Anon, 'Overarching Strategic Statement for the Food Regulatory System' (Strategy Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2008, updated 2012) ('*Overarching Strategic Statement* ').

implementing Forum agreed national policies and strategies for compliance monitoring and enforcement of labelling requirements on foods for sale. This chapter examines the compliance monitoring and enforcement of the food labelling requirements presented in Chapter 2, in the context of the overarching objectives.

The Chapter is structured in two parts. Part II describes the national strategies and policies comprising the food labelling compliance and enforcement framework ('Labelling Framework') before examining implementation of that Labelling Framework in one state of Australia, NSW, Australia's most populous state. Part II is separated into two sections (A and B). Section A sets out Australia's Labelling Framework comprising the Hierarchy, *Australia and New Zealand Food Regulation Compliance, Monitoring and Enforcement Strategy* 2017 ('Enforcement Strategy 2017') and the food labelling compliance and enforcement continuum[6] ('Continuum'). Section B critically examines implementation of the Labelling Framework, including operation of the Continuum in NSW through critical examination of the NSW Department of Primary Industries Food Authority (NSWFA) website, policies, published strategies and guidance to auditors and inspectors (see Table 2).

Part III analyses the Labelling Framework with reference to the *National Audit Office Better Practice Guide Administering Regulation* ('Administering Regulation-Better Practice Guide').[7] Part III concludes that food business offending of food legislation by causing food to be non-compliant or falsely described is treated within the overall food regulatory framework as a residual risk (discussed at Part III). Based on the case study of the NSWFA, chosen because it is the only through-chain food regulator administering food legislation from paddock to plate, this analysis shows that the authenticity of Tier one food safety information is not systematically monitored in routine regulatory food safety audits and inspections. Moreover, the intentional and deliberate nature of fraud and misrepresentation acts leading to labelling non-compliance and false descriptions is not articulated for proactive and strategic control in any strategy or policy document. As a result, the most serious of food labelling issues – naming of food, ingredients and declaring allergens – at Tier one of the Hierarchy are regulated by reactive recall activities following the realisation that potential threats of harm to food safety and public health are present on the marketplace.

The design and operation of the food regulatory system is failing to systematically monitor authenticity and *prevent* the identified direct risks to food safety and public health system from false description of food and ingredients traded from paddock to plate. The implemented approach, as evidenced in state-based food enforcement strategies (Part II.B) and enforcement activities is incongruent with the risk-based approach provided in the Hierarchy. Labelling non-compliance is

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6 Australian National Audit Office, 'Administering Regulation Achieving the right balance - Better Regulation Guide' (Commonwealth of Australia, 2014) ('*Administering Regulation - Better Practice Guide*') 41-52 guides regulators to efficiently and effectively administer regulation via the compliance and enforcement continuum of 'generating compliance, monitoring compliance and responding to non-compliance'; See also Joint Food Regulation Standing Committee (FRSC)/ Implementation Sub-Committee for Food Regulation (ISFR) Working Group on Food Labelling Monitoring and Enforcement, 'Bi-National Food Labelling Compliance and Enforcement Strategy 2015' (Strategy Document, Australia and New Zealand Ministerial Forum on Food Regulation 2015) ('*Labelling Enforcement Strategy 2015*').

7 Ibid.

recognised by the Forum as a residual risk within the whole food regulatory framework. Labelling non-compliance is accepted by the Forum as a low food safety risk compared to contamination non-compliance, which is always considered high food safety risk. This is inconsistent with the graduated approach to food offences provided in the *Model Food Act 2000* (Cth) (see Chapter 2 and Figure 1), the evidence of harm from fraud and misrepresentation in globalising supply chains (Chapter 4 Part IV), recommendations of the Blewett Review and the risks prioritised in the Hierarchy. This design failure is despite the Enforcement Strategy explicitly articulating allergens and ingredient declarations as a high-risk food safety issue.[8] Following the logic of the graduated, risk-based approach to food safety, Tier one food labelling issues demand authenticity monitoring embedded within the overall food regulatory framework to prevent the direct, immediate risks of harm to safety and public health.

II Food Labelling Compliance Monitoring and Enforcement

As detailed in Chapters 2 and 3, the *Model Food Act 2000* (Cth) provides that food for sale must be safe, suitable and not falsely described. Part II looks closely at the monitoring of this third legal concept: falsely described food and ingredients (Tier one food labelling issues).[9] Section A discusses the Blewett Review food labelling compliance and enforcement recommendations, the risk-based Hierarchy and food labelling continuum provided in key documents approved by the Forum and summarised in Table 1. Then, Section B critically examines the implementation of the Forum approved documents in the NSW case study.

A *Labelling Framework*

As discussed in Chapter 4, the level of regulatory monitoring targeted to a food business is proportionate to the level of food safety risk determined for that food business sector.[10] To recap, a scoring system classifies food business sectors into priority categories based on the likelihood of contributing to foodborne disease and the associated health impacts by pathogen

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8 Implementation Subcommittee for the Food Regulation Standing Committee, 'Australia and New Zealand Food Regulation Compliance, Monitoring and Enforcement Strategy 2017' (Enforcement Strategy, Australia and New Zealand Ministerial Fortum on Food Rgulation, 2017) Appendix 1, 2 ('*Enforcement Strategy 2017*'); *Labelling Enforcement Strategy 2015,* above n 6, 4.

9 The website of the Food Regulation Secretariat, <www.foodregulation.gov.au> was accessed and Forum approved published documents relevant to food labelling compliance monitoring and enforcement under the headings 'food policies', 'compliance, monitoring and enforcement guidance', 'industry guidelines' and 'key system documents' downloaded for examination. Compliance, monitoring and enforcement guidance documents relevant to food labelling includes 'Australia New Zealand Regulation Compliance, Monitoring and Enforcement Strategy (2017), 'National regulatory food safety auditor guideline and policy', 'Principals for inspection of food businesses', 'Principles for introducing Point-of-Sale nutrition information at standard food outlets', 'Undeclared allergen incident and investigation protocol', 'National food safety audit policy' and the 'Report of the bi-national food labelling compliance and enforcement framework (2015)'; Industry guidelines included 'Getting your claims right – Nutrition, Health and Related Claims' and Food Allergen Portal (resources, http://www.foodstandards.gov.au/consumer/foodallergies/foodallergenportal/Pages/allergenInfoForIndustry.aspx); *Overarching Strategic Statement* above n 5.

10 In 2007 FRSC endorsed the Risk Profiling Framework as the nationally agreed tool for risk profiling food businesses. The NSW Food Authority, for example, applies the framework in its priority classification of businesses as set out in Priority Classification System <http://www.foodauthority.nsw.gov.au/_Documents/scienceandtechnical/priority_classification_system.pdf>

outbreaks.[11] The Classification System is science based, applicable from paddock to plate, and classification is determined following consideration of 'food type and intended consumer use, activity of the business, method of processing and consumer base'.[12] Relevant to these considerations is assessing the likelihood that microbiological, physical and chemical hazards are in a food handling process, the potential to control the identified hazards, availability and management of pathogen reduction steps, and knowledge from historical outbreaks.[13] Not included in the Forum's compliance and enforcement strategies is an assessment of a food or ingredient's relative vulnerability to fraud and misrepresentation (see Chapter 4, Part V).

Following recommendations of the Blewett Review (see Chapter 3), the government documented the food labelling compliance monitoring and enforcement strategies in 2015:

> a bi-national, risk-based, consistent, proportionate, graduated, prompt, effective and transparent framework for the monitoring and enforcement of food labelling. It has three components: a high-level strategy; a suite of food labelling enforcement actions; and guidance for food regulators about labelling compliance, monitoring and enforcement' was comprised.[14]

Revised and released in 2017, the Enforcement Strategy provides the 'risk-based proportionate and graduated approach for food labelling administration' is based in the Hierarchy presented in Chapter 3.[15] The Enforcement Strategy 2017 provides how *all* food offences - not just food labelling-related offences - are monitored for compliance and enforcement.[16] The Enforcement Strategy 2017 reconfirms the operation of the Hierarchy and:

> establishes that risk management should be applied in the descending order of: food safety, preventative health and consumer value issues. It also established that interventions and oversight should be applied in the same descending order.[17]

Critically relevant to this discussion is what the Blewett Review recommended the government do to enhance food labelling compliance monitoring and enforcement. The three relevant recommendations of the Blewett Review presented in Chapter 3,[18] included *effective monitoring* of food labelling compliance and monitoring for *accuracy*. Accuracy is important for maintaining authenticity of food and ingredients for food safety and public health (see Chapter 8). Yet, the strategic responses approved by the Forum and analysed here fall short and side step

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11 Classifications for food businesses range from Priority 1 (P1), the highest risk to foodborne illness, through to Priority 4 (P4) which carry the lowest risk of foodborne illness.

12 FSANZ (as the Australia New Zealand Food Authority), 'Food Safety: The Priority Classification System for Food Businesses - A Risk-Based System Designed to Classify Food Businesses into Priority Ratings Based on the Risk They Present to Public Health and Safety' (Australia New Zealand Food Authority, 2001), 5.

13 Ibid 5-9.

14 Australia and New Zealand Ministerial Council Forum on Food Regulation, 'Response to the Recommendations of Labelling Logic: Review of Food Labelling Law and Policy' (Report Document, Australia and New Zealand Ministerial Council Forum on Food Regulation, 2011), vii (recommendations 3 and 57) ('*Government Response to Blewett Review*').

15 Enforcement Strategy 2017, above n 8, Appendix 1. This updated guidance material on compliance, monitoring and enforcement replaced the existing Australia and New Zealand Food Regulation Enforcement Guideline (Version 9, 2015).

16 *Enforcement Strategy 2017* above n 8, Appendix 1, 1.

17 Ibid 2.

18 Neal Blewett, Nick Goddard, Simone Pettigrew, Chris Reynolds and Heather Yeatman, Labelling Logic: Review of Food Labelling Law and Policy (Independent Review Report, Commonwealth of Australia, 2011) ('*Blewett Review*') 7-15.

articulating actual *monitoring* of Tier one food labelling issues for *accuracy*. The Forum's overall conceptualisation of accuracy with food labelling information is confined to the concern of misleading or deceptive conduct with credence claims at the level of Tier three consumer value issues.[19] Accuracy not only relates to authenticity but to achieve accuracy, or in other words, to achieve authenticity requires additional controls, including proactive attempts at verification. The test of when a verification step is required relates to the outcome of assessing a food's vulnerability for fraud and misrepresentation (see Chapter 4 Part V).

The Forum's responses to the Blewett Review are now complete, having rejected the real essence of the Panel recommendations to ramp up food authenticity controls for safety and public health. The Forum explained, 'existing policy and regulatory approaches to the administration of food labelling regulation should not be amended' but recognised it needed to formally articulate in publicly available documentation how the system applies the risk-based, proportionate approach to labelling compliance and enforcement.[20] The Forum notes state food regulators are involved in *investigating* issues that may give rise to direct risks which limits *monitoring* capacity to enforce other labelling standards:

> Food regulators take a risk-based approach to compliance and enforcement of food legislation by giving priority to investigating issues that may give rise to direct risks to public health and safety. This leaves restricted capacity to monitor and enforce labelling standards that do not involve direct health risks. Further, food regulators that are health agencies (including local government health departments) may not give priority to the enforcement of laws aimed at consumer information, as this is (or may be perceived to be) outside their agency's core purpose and remit.[21]

Most of the Forum's ultimate responses to the Blewett Review recommendations are not in question here. However, Australia's food labelling compliance monitoring system clearly falls short in regard to systematic *monitoring* of Tier one food labelling for *accuracy* (beyond present and absence based compliance checks) to protect safety and public health (see case study at Part B).

State and territory regulators with powers to monitor and enforce compliance apply the risk-based, graduated and proportionate approach to 'generating compliance, monitoring compliance and responding to non-compliance': The Continuum.[22] Food regulators conduct activities to respond to non-compliance using a risk-based, graduated and proportionate response. Under the following three headings (1-3), the Continuum is discussed with reference to Forum policies and guidance materials. The data are summarised in Table 1 (next pages).

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19 *Government Response to Blewett Review,* above n 14, 56 states, 'Also, there are general provisions of Australian and New Zealand consumer protection laws that can apply, which relate to misleading or deceptive conduct'.

20 *Labelling Enforcement Strategy 2015*, above n 6, 1.

21 *Government Response to Blewett Review*, above n 14, 56.

22 Joint Food Regulation Standing Committee Implementation Sub-Committee for Food Regulation (ISFR) Working Group on Food Labelling Monitoring and Enforcement, 'Report of the Bi-National Food Labelling Compliance and Enforcement Framework' (Report Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2015) ('*ISFR Labelling Report 2015*') provides the Continuum is 'supported by the Forum, [and] is consistent with the Food Labelling Conceptual Framework (the Hierarchy) proposed by Labelling Logic that was added to the Overarching Strategic Statement for the food regulatory system in 2012', 5.

CHAPTER 5 TABLE 1: Summarised national strategies

Document	Purpose/objective	Food fraud*	Labelling	Regulatory Priorities
Overarching Strategic Statement for the Food Regulatory System (2008, revised 2012)	Articulates collective responsibility, scope, broad objectives of the food regulatory system, the means for deciding when regulatory intervention is appropriate	Aim (2) enable consumers to make informed choices about food by ensuring that they have sufficient information and by **preventing them from being misled.**	D. **Enabling consumers to make informed choices about food** + Labelling requirements are important to inform consumers about the safety of food - either the safety of the food generally, for example "use by" dates, or for them as individuals, for example, allergen labelling. **This falls under the objective of protecting the health and safety of consumers.** **Food Labelling Conceptual Framework and Issues Hierarchy (p. 9)** + Principles-based approach for decision-making + Underpinned by a risk-based issues hierarchy: food safety ->Preventative health –> Consumer value issues.	+In pursuing these aims the overriding priority will always be protecting public health and safety. +Regulatory decisions based on sound evidence and proportionate to risk (p.17) + Where there is a risk of serious damage to public health, we (The Forum) will act quickly to implement necessary measures to reduce health risks.
Australia and New Zealand Food Regulation Compliance, Monitoring and Enforcement Strategy 2017	Australian, State and Territory and New Zealand government food regulators implement, monitor and enforce food laws. The regulatory activities of these food regulators occur in a continuum of generating compliance, monitoring and assessing compliance and responding to non-compliance. This bi-national Food Regulation Compliance, Monitoring and Enforcement Strategy covers all of [the] continuum and includes the application of the Strategy to food labelling (Appendix 1)	In taking a risk-based, graduated and proportionate approach, the harm or potential harm (as described in the objectives of the applicable legislation) associated with a food or an area of non-compliance, is a key consideration for food regulators when making decisions about food regulatory activities, alongside practices in place to manage risks, risk factors that are not controlled for, marketplace deception or product misrepresentation	Appendix 1 details how the strategy relates to food labelling law. It presents the three-tier food labelling hierarchy based on risk. It establishes that risk management, interventions and oversight should be applied in the descending order of food safety, preventative health and consumer value issues. Food safety labelling elements include the ingredients list and mandatory declarations of certain substances in food, such as allergens. The responsible food industry sectors are from paddock to plate: primary production, manufacturing, retailing and food service (allergens).	The administration of Model Food provisions in each state and territory. The scope of the regulatory functions covered by the strategy is 'generating compliance, monitoring and assessing compliance, and responding to non-compliance (enforcement)'
Principles for inspection of food businesses (2015)	Provide authorised officers, including local government environmental health officers (EHOs), with principles to guide the inspection of food businesses.	No	No consideration for food labelling non-compliance. 'Inspection of food premises is an important activity to assess compliance with the Australia New Zealand Food Standards Code (the Code) and food act provisions. Scope – Chapter 3 (food safety standards) but could also be applied to inspections conducted to assess compliance with other chapters of the Code.'	+ A risk-based approach should underpin all aspects of the food premises inspection. + **Purpose of an Inspection:** Authorised officers inspect food businesses in order to assess compliance with food safety standards of the Code. **The inspection should focus on the assessment of potential risk as a result of food handling operations, rather than compliance with prescriptive requirements**

Auditor Guidance (2006)	The regulatory food safety audit system provides an infrastructure for food regulators to monitor the compliance of individual businesses with legislative food safety requirements, through routine audit of a business's food safety arrangement. (p6)	no	No instruction to 'identify, evaluate and control food fraud risks/vulnerabilities', for example. No mention of maintaining food authenticity or truth in ingredient labelling. Explicit control to 'identify, evaluate and control food safety hazards' (eg p 14)	National units of competency for auditors: focus on 'food safety' and 'food safety hazards' explicitly referred to. No requirement that auditors have skills/trained in 'food labelling/ food fraud/ false description/'. Indeed, no mention of 'food labelling' or labelling controls or fraud or false description in 53-page doc. Auditors are assessed on ability to: + collect relevant information to the **audit scope and objectives** + Applicants must demonstrate an ability to assess the effectiveness of food safety plans and/or programs, particularly critical control points (CCP's). Applicants must further be able to assess programs to determine compliance with legislative requirements. + generate audit findings through review of audit evidence against audit criteria (p 13) + review audit findings against audit objectives
Australian & New Zealand Food Regulation Enforcement Guideline (Version 9 October 2015) [replaced by 2017 version (next cell))	(*Inter alia*) A risk based approach to compliance and enforcement activities through adoption of a graduated and proportionate response to legislative non-compliance	**Objective:** (Inter alia) Protection for consumers from inappropriate and/or misleading trade practices	[Enforcement] strategies of [states] should address a number of elements: (including, but not limited to) • **identification of inappropriate or misleading trade practices with the potential to intentionally mislead consumers;** **Proportionate response application can include factors such as** "a matter where a business is intentionally providing inappropriate or misleading information to the consumer in order to capture market share"	+ The overriding consideration in taking enforcement action should always be the protection of public health and safety. **Factors on enforcement tool selection include:** Evaluating the impact of the alleged offence; on the consumer, to competitors of the offending business, and to any profits earned by the business resulting from the offence;
Bi-National Food Labelling Compliance and Enforcement Strategy (incorporating the Food Issues Labelling Hierarchy (the Hierarchy)) (2015)	The purpose of this Strategy and Framework is to apply the above best practice objectives and principles to all the food labelling compliance and monitoring activities and enforcement actions of food regulators.	Scope: *inter alia* The objects (safe and suitable food and prevention of misleading conduct) and the definitions (label and advertisement) of the model food provisions; Even when interventions are voluntary the objectives of the model food provisions still apply and labelling must not mislead.	**Figure 1: Food Labelling Issue Hierarchy 'Conceptual Framework'** is a three-tier food labelling hierarchy in descending order of risk: food safety, preventative health and consumer values issues. **Table 2 Examples of the scope of labelling interventions and the Framework**, provide 'ingredients list' and 'mandatory declarations of certain substances in food, such as allergens' as the example of labelling at the 'Food Safety tier of food labelling hierarchy' (p.4) **A risk – based proportionate and graduated approach for food labelling administration** Food regulators apply to food labelling a compliance and enforcement continuum: generating, monitoring and responding to non-compliance.	+A risk-based proportionate and graduated approach for food labelling administration **+ Food labelling non-compliance can be effectively managed and resolved administratively through discussions, meetings or correspondence with the offending business rather than through statutory enforcement actions such as prosecution. This can achieve the desired regulatory outcomes in a timely and cost-effective manner.** (Also in October 2015 ISFR/FRSC Report) + The use of more informal administrative approaches is consistent with the ANAO Better Practice Guide

*Food fraud reference includes any explicit reference to preventing misleading or deceptive conduct and falsely described food and ingredients

1 *Generate Compliance*

To generate compliance 'education, information and advice, use of the integrated model in standards development, mediation, and public disclosure, e.g. register of prosecutions' are used.[23] FSANZ (and state governments) educate, provide information and advice on mandatory food safety labelling requirements[24] through user guidance materials on government websites.[25] FSANZ also supports initiatives by interest groups to raise awareness about serious non-compliance issues that cause death, for example food allergy awareness.[26] FSANZ has 'reminded all businesses, including importers about the need to meet mandatory allergen labelling requirements' and consumers to be 'mindful of recent recalls' following severe anaphylactic reactions and one death following the consumption of coconut products with undeclared dairy ingredients.[27] In May 2017, FSANZ promoted on its website, social media channels and YouTube that allergen labelling is 'a life and death matter' and food businesses 'need to be across the mandatory allergen labelling requirements'.[28]

2 *Monitor Compliance*

To monitor compliance 'regulators use audits and inspections, sampling and surveys, and undertake trend analysis of data'.[29] These are explained below. As is shown in Table 1, the two national guidance materials on audits and inspections do not expressly mention food labelling, food safety labelling compliance or the requirement to ensure food authenticity for food safety and public health.

Audit is a monitoring tool focused on legislative food requirements and monitors compliance with a food business' food safety arrangement such as a food safety program implementing HACCP (discussed below).[30] The National Regulatory Food Safety Auditor Guideline ('Regulatory Auditor Guideline') is the national benchmark for the requisite skill and qualification of regulatory food auditors.[31] These explicitly refer to skills and knowledge in controlling traditional food safety hazards (microbiological, physical or chemical).[32] Whereas auditors must have skills to identify, evaluate and control food safety hazards, there is no requirement to identify, evaluate and control relevant food authenticity and fraud vulnerability issues that cause food labelling non-compliance and false description of ingredients. The 53-page

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23 *Labelling Enforcement Strategy 2015* above n 6, 2.

24 See, eg, *FSANZ*, *Labelling* <http://www.foodstandards.gov.au/industry/labelling/Pages/default.aspx>; NSW Food Authority, *Food Labelling* <http://www.foodauthority.nsw.gov.au/foodsafetyandyou/food-labelling>.

25 See, eg, *FSANZ*, 'Ingredient Labelling of Foods User Guide' (2013); *FSANZ*, 'Overview and Application of Food Labelling and Information Requirements User Guide' (2011) FSANZ provides on its website information about labelling for religious, environmental, animal welfare and other consumer value issues <http://www.foodstandards.gov.au/consumer/labelling/Pages/Labelling-consumervalueissues.aspx.>.

26 See, eg, Allergy and Anaphylaxis Australia, 'Australians to be aware and show you care' (Food Allergy Week 14-20 May 2017) <www.foodallergyaware.com.au>.

27 *FSANZ*, 'FSANZ reminds importers about mandatory allergen labeling requirements' (Media Release, Commonwealth Department of Health, 23 October 2015)

28 FSANZ, 'Allergens labelling a life and death matter – reminder to food businesses' (Media Release, Commonwealth Department of Health, 8 May 2017).

29 Labelling Enforcement Strategy 2015 above n 6, 2.

30 Implementation Subcommittee for the Food Regulation Standing Committee, 'National Regulatory Food Safety Auditor Guideline' (Version 1.2, 2009), 6 ('*Regulatory Auditor Guideline*').

31 Ibid 6.

32 Ibid 7-21.

document does not mention 'labelling', 'false description' or 'authenticity'. Food auditors are assessed on their ability to collect information relevant to the audit scope and objectives and generate audit findings through review of audit evidence against the audit criteria.[33] As is detailed in the NSW case study (below), the typical audit scope does not include monitoring or verification of food labelling compliance and ingredients descriptions beyond the requirement for listing basic product descriptions and the presence of a documented traceability system in a Food Safety Program. Measures guiding how auditors are to verify this information and identify food labelling non-compliance and false description are not criteria in a regulatory audit.

The Regulatory Auditor Guideline does not prioritise the ability of food auditors, or demand the rigour required, to identify food safety labelling non-compliance, especially not intentional food safety labelling non-compliance and false description of ingredients. Similarly, there is no mention of food labelling non-compliance monitoring in the second national guidance document, the Forum-approved Principles for Inspection of Food Businesses ('Inspection Guide').[34] It directs authorised officers (including environmental health officers (EHOs)) to 'focus on food handling operations rather than compliance with prescriptive requirements'.[35] Monitoring of food safety labelling or false description of ingredients is not within the scope of such inspections. Unlike the availability of guidance on how Tier two preventative health claims are to be regulated (see Chapter 6), the Framework does not articulate best practice methods to monitor and verify Tier one food labelling compliance and fraud and misrepresentation, false description or other intentional food labelling authenticity fraud by regulators, auditors or inspectors.

Surveys are limited in their power to reduce food-related risks associated with food safety labelling non-compliance and do not *prevent* harm from misleading or deceptive conduct. The routine monitoring of food labelling compliance and, specifically Tier one ingredient authenticity from paddock to plate is not a listed priority,[36] or the subject in an applied research survey[37] or ongoing monitoring survey[38] in the food control system's Coordinated Food Survey Plan 2015-2018 ('Survey Plan')[39]. The coordination of an on-going food label monitoring survey by FSANZ has not taken place in over 10 years. FSANZ explicitly states the ongoing label monitoring surveys are not conducted for enforcement purposes as that is the responsibility of states and territories.[40]

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33 Ibid 13.

34 I*SFR*, 'Principles for the Inspection of Food Businesses' (2015) ('*Inspection Guide*').

35 Ibid 4.

36 Implementation Sub-committee for Food Regulation, 'Implementation Sub Committee for Food Regulation Coordinated Food Survey Plan (July 2015 - June 2018)' (Survey Plan, Australia and New Zealand Ministerial Council Forum on Food Regulation, 2015) ('*Survey Plan*') priorities are (i) address ISFR, FRSC and the Australia and New Zealand Ministerial Forum on Food Regulation priorities, as appropriate; (ii) align with priorities detailed in the Protocol and Strategy for the Establishment and Operation of a Coordinated Food Survey Plan; (iii) generate or compile data and other relevant information to inform the *ANZFSC* development and implementation; (iv) promote greater coordination and consistency in the testing of both imported and domestically produced food.

37 Ibid 2. (Applied research surveys include mercury in fish, 25th Australian Total Diet Survey, microbiological contamination during pre- and post-harvest activities on farm: Survey of producer's skills and knowledge, coordinated survey of nutrition health and related claims, sports food compliance).

38 Ibid 2. (The ongoing monitoring surveys of taste disturbances associated with pine nuts and coordinated survey for trans fatty acids in Australian foods).

39 Survey Plan, above n 36.

40 FSANZ, 'Food Label Monitroing Surveys: Key Labelling Issues' (Information Paper, Commonwealth Department of Health, 2006) 1.

In any case, the last FSANZ survey did not sample food to test the authenticity of statements of ingredients, but instead checked only label consistency with ANZFSC requirements.[41] The NSW case study below identifies routine and targeted sampling programs and surveys by one state regulator over the last 2 years including an allergen survey.

There is no evidence that any trend or survey data have resulted in enhanced monitoring of food labelling authenticity and fraud prevention from paddock to plate. There are limitations to relying on data trends to prevent food labelling compliance and ingredient authenticity. In short, food frauds are invisible and designed to avoid routine detection. This challenges any reliance on routine regulatory food safety audit and inspection data to inform regulators of threats from fraud and misrepresentation. International evidence shows that we cannot wait for the data to confirm what we know is happening throughout food supply chains. FSANZ-co-ordinated food recalls trend data suggest the food safety and public health threat is under controlled compared to microbial threats of harm. As is discussed in Chapter 3, recalls since 2011 are more likely to be because of a Tier one food labelling issue, usually an undeclared allergen, than microbial contamination (see reproduced FSANZ statistics in Table 1, Chapter 3). Microbial food recall notifications are usually preventative measures, and follow the systematic monitoring and identification of failures at critical control points in high risk systems operating Food Safety Programs implementing HACCP. This is very different to most allergen recalls, which follow actual direct, acute, immediate physical harms or death reported by consumers following consumption, or co-ordinated, targeted surveys following a known issue.[42]

3 *Respond to Non-compliance*

When responding to identified non-compliance, 'regulators may issue warnings, notice/order, conditions on or cancellations of registration, seizure or mandated recalls, enforceable undertakings, expiation, and, in the most serious of case, initiate a prosecution in the local or Supreme Court'.[43] Application of the risk-based, proportionate and graduated approach of the Enforcement Strategy and Hierarchy follows the identification of non-compliance. Factors that determine the appropriate enforcement tool include 'the public health and safety risk, including whether there has been illness, injury or death'.[44]

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41 AsureQuality Australia and Food Standards Australia New Zealand, 'Ongoing Food Label Monitoring Survey in Australia and New Zealand. Report on the Assessment of 2006 Labels for Key Mandatory Labelling Elements for Consistency against Labelling Provisions (Phase 2 Report)' (Evaluation Report Series No. 18, Commonwealth Department of Health, 2008).

42 Due to the monitoring and control of microbial growth control in Food Safety Programs (including but not limited to the auditing of these high-risk food processes) in food manufacturing and processing, most food borne illness outbreaks from microbial contamination do not concern labelled, packaged food, but the food served at retail food businesses on the premises, or in catering scenarios. Modern day food borne illness outbreaks are often (ref) attributed to failures in hygiene, handling, storage and temperature control of potentially hazardous foods processed at cafes, restaurants and other ready-to-eat facilities inspected by local council EHOs. These foods are not packaged and required to bear a label, or applicable to recall once a food borne illness outbreak is identified and investigated.

43 Labelling Enforcement Strategy 2015, above n 6, 2 (Table 1).

44 See, eg, *ISFR Labelling Report 2015*, above n 22, 5. Where 'relevant considerations include 'the public health and safety risk, including whether there has been illness, injury or death'.

Yet, the Enforcement Strategy 2017 minimises the potential for harm from fraud and misrepresentation, separating 'potential impact on human health, likely exposure to the harm or potential harm' from harms by 'marketplace deception or product misrepresentation'.[45] The grammatical form of words is slight and easily missed, but significant in that the government is effectively directing state based food regulators to limit operation of the risk-based approach. The Hierarchy clearly prioritises food safety risks of harms from Tier one food labelling issues yet the threats of harms from fraud and misrepresentation with this critical information, is reduced to economic losses from marketplace deception or product misrepresentation. This suggests disinclination on behalf of the Forum to acknowledge direct, indirect and technical threats to safety and public health harms caused by fraud and misrepresentation.

Moreover, in further conflict with its own risk-based approach and graduated enforcement, not only is Tier one food labelling compliance not systematically monitored to prevent safety and public health harms, Forum approved strategies directs state food regulators to characterise enforcement of all food labelling non-compliance as administrative in nature. Specifically:

> Food labelling non-compliance can be effectively managed and resolved administratively through discussions, meetings or correspondence with the offending business rather than through statutory enforcement actions such as prosecution. This can achieve the desired regulatory outcomes in a timely and cost-effective manner.[46]

This approach is presented to stakeholders without justifiable reasoning for the diversion from the Hierarchy risk-based policy. The failure to articulate anywhere what would not be considered administrative, based on clear criteria for example level of seriousness, implicitly ignores the graduated approach taken by Parliament and provided in food legislation (see Chapter 2). The administrative characterisation ignores one of the three objectives of *Model Food Act 2000* (Cth) – Preventing misleading or deceptive conduct. Parliaments have already been satisfied that breaching the ANZFSC food labelling requirements amounts to a food offence for enforcement by administrators of the *Model Food Act 2000* (Cth).

The next section presents analysis of implementation of the Continuum and other key documents by the NSWFA.

B *Case study: Framework implementation paddock to plate by the NSW Food Authority*

The regulatory infrastructure of regulatory food safety auditors, compliance officers and environmental health officers (EHOs) is managed at the state level of food enforcement agencies, in partnership with local governments. In order to understand state level implementation of the national strategies and policies this section uses NSW as a case study.[47] The NSWFA was selected

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45 *Enforcement Strategy 2017*, 6.

46 *Labelling Enforcement Strategy 2015*, above n 6, 9; *ISFR Labelling Report*, above n 22, 21-24.

47 To undertake the document analysis, the website for the state regulator was accessed. Operational documents across all three sectors 'Publications – Resources' section was accessed and available documents downloaded. Website pages under 'Food Labelling' <http://www.foodauthority.nsw.gov.au/foodsafetyandyou/food-labelling> were also included in the cases study Documents selected are directly related to the management of

as it is the only through-chain, paddock to plate, state food regulator in the Australian food regulatory framework.[48]

NSWFA states in public websites it is responsible for enforcing the provisions of the ANZFSC and administers the labelling requirements of the *Food Act 2003* (NSW), which includes preventing misleading or deceptive conduct in the sale of food.[49] Table 2 is a summary of NSWFA policies and strategies to achieve these goals. None of the implementation documents refer to food fraud, food authenticity or ingredient authenticity. The NSW DPI Biosecurity and Food Safety Compliance Policy ('NSWFA Compliance Policy') and NSW DPI Biosecurity and Food Safety Enforcement Policy ('NSWFA Enforcement Policy') surprisingly also make no mention of food labelling non-compliance or the Continuum. The goal 'to protect consumers from inappropriate and (or) misleading trade practices' is mentioned in the NSW Enforcement Policy but without the guidance or support materials offered in the administration of other food-related breaches (for example, typical hygiene breaches are illustrated in photos and methods to identify non-compliance). The NSW DPI Food Authority's Guidance on Audits, Guidance on Manufacturers and Wholesalers Inspection Program, and the Food Regulation Partnership Food Premises Assessment Report do not articulate methods and system-based approaches to enable auditors and authorised officers to identify inappropriate or misleading trade practices with the potential to intentionally mislead consumers. Moreover, the origin and meaning of the word inappropriate[50] when considering trade practices in the sale and advertising of food are unclear. The word is not used in the *FSANZ Act 1991* (Cth) or the *Model Food Act 2000* (Cth), or the Overarching Strategic Statement. All legal instruments and Forum strategies articulate 'prevent misleading conduct' as one of the three regulatory objects to reduce risks and ensure safe and suitable food. The *FSANZ Act 1991* (Cth) provides FSANZ, when developing, reviewing or varying food regulatory measures, must (also) have regard to 'the promotion of fair trading in food'.[51]

The lack of specific fraud and misrepresentation audit criteria, a publicly articulated operational strategy, advice to food businesses (and consumers) to support food safety auditors, compliance inspectors and EHOs from paddock to plate to know what to look for to identify intentional food safety labelling non-compliance is surprising. It is in stark contrast to the proactive guidance materials in the safe handling, hygiene, handling, temperature control of hazardous foods

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food safety labelling compliance and enforcement within the national food regulatory framework and include guidance to approved regulatory auditors, inspectors and environmental health officers in the exercise of their functions as authorised officers enforcing the Food Act 2003. The policies, guides and Food Safety Programs (FSP) under analysis are summarised in Table 2.

48 The NSW Department of Primary Industries ('*DPI*') Biosecurity and Food Safety branch performs the functions of the Food Authority as provided in the *Food Act 2003* (NSW). See *Food Act 2003* (NSW) s 108(2) (functions).

49 NSWFA, *Our role* <http://www.foodauthority.nsw.gov.au/foodsafetyandyou/food-labelling/labels-and-the-law/our-role>.

50 The meaning and application of 'inappropriate' in the context of the food regulatory system is unclear. The term is used without definition in the previous enforcement policy, ISFR, 'Australian and New Zealand Food Regulation Enforcement Guideline' (Enforcement Strategy, Australia and New Zealand Ministerial Forum on Food Regulation, 2009). The terminology is adopted without explanation in the NSW DPI Biosecurity and Food Safety Compliance Branch, 'Biosecurity and Food Safety Compliance Policy' (Compliance Policy, NSW Department of Primary Industries, 28 March 2017), 1 and NSW DPI Biosecurity and Food Safety Compliance Branch, 'Biosecurity and Food Safety Enforcement Policy (Enforcement Policy, NSW Department of Primary Industries, 28 March 2017),1.

51 *Food Standards Australia New Zealand Act 1991* (Cth) s 18(2)(d).

and the control of contamination with known pathogens. Moreover, a search of the NSWFA website fails to identify any general education or information to advise food businesses on how to prevent food safety labelling authenticity fraud in supply chains. A simple list of the foods most vulnerable to food safety labelling authenticity fraud is not supplied to warn businesses and consumers of risks to food safety. This type of information is publicly shared in the UK, for instance.

The next paragraphs present an analysis of NSWFA strategies and policies summarised in Table 2 (next pages) in operation at the three points along the Continuum. The analysis (discussed at C, below) reveals deficiencies in the implementation of the Hierarchy in the graduated, risk-based approach in food safety labelling compliance and enforcement from paddock to plate to prevent food safety labelling authenticity fraud.

Document	Date	Purpose/objective	Food fraud*	Labelling	Regulatory Priorities
NSW Department of Primary Industries, Food Authority 'Manufacturing and Wholesale Inspection Program Information Pack'	January 2017	The information provided in this pack relates to businesses within the NSW Food Authority's Manufacturing and Wholesale Inspection Program (MWIP). + All food businesses must comply with the relevant parts of the Food Standards Code, including: • Standard 3.2.2 Food Safety Practices and General Requirements • Standard 3.2.3 Food Premises and Equipment • **Part 1.2 Labelling and other information requirements.**		**DECLARING ALLERGENS** The food industry plays a major role in helping to manage food allergies. This factsheet has been developed for all food manufacturers, food retailers and food importers to help them understand their obligations about declaring allergens to ensure it is safe for customers.	Authorised officers will focus on a number of areas to ensure compliance with legislation: • cleaning and sanitising of food contact surfaces • temperature control (e.g. temperature of stored and displayed foods) hygiene of food handlers (e.g. hand washing) • pest control • construction and maintenance of the premises • maintaining a food recall program • food handling practices (e.g. minimising cross contamination), and • sale of food that is safe and suitable.
Guidance on Manufacturer and Wholesaler Inspection Program	December 2015			**Specific labelling checks include:** Recall / traceability procedures documented; Labelling compliance system in place; Complies with additive permissions of the FSC (1.3.1); Importers' business details labelled stating physical street address; Appropriate date mark used; English language prominent; **Allergen declarations:** For ID & traceability 'business required to provide the name, address, manufacturer, packer, importer details when requested' No requirements for verification of authenticity etc. **Labelling: Three tiers of breaches**: Minor: name/description of food missing; characterising ingredients omitted; best before omitted; CoOL absent; Nutrition Information Panel (NIP) omitted; illegible labelling; NIP non-conformance; storage conditions omitted Major: Ingredients list omitted/incorrect/HLHC breach/ Batch lot code omitted Critical: Mandatory advisory/ warning statements omitted/ no use by date/ misleading false description storage conditions (critical for potentially hazardous food) Allergens: not identified/declared;	**Provides:** An inspection is a 'snapshot' in time of the overall processing and hygiene practices for that premises. Authorised officers will focus on a number of areas to ensure compliance with legislation. These include: • cleaning and sanitising of food contact surfaces • temperature control (e.g. temperature of stored and displayed foods) hygiene of food handlers (e.g. hand washing) • pest control • construction and maintenance of the premises • maintaining a food recall program • food handling practices (e.g. minimising cross contamination), and • sale of food that is safe and suitable. **When conducting an inspection, the food safety officer must consider the following factors:** What is the food safety risk associated with the food product being manufactured? Does the manufacturer have systems in place to monitor/evaluate their food safety risks? What is the overall level of cleanliness of the facility? **Who does the facility receive ingredients/ raw materials/ food products from?** Who does the facility supply food products to?

NSW Department of Primary Industries, Food Authority, NSW Retail Meat Food Safety Program and Meat Diary	(released early 2017)	The NSW Retail Meat Food Safety Program has been prepared by the NSW Food Authority to help provide information and guidance to retail meat businesses on how to meet their regulatory requirements.	All food must be correctly identified (e.g. species, description, beef labelling) (p.18) 'Carcase meat, including full, half, or part-carcases must be stamped or rolled with appropriate identifiablefeatures (e.g. processor stamps, inspection stamps, processor tickets) and be traceable to the supplier with sufficient evidence (e.g. supplier tax invoice).' + Unlawful preservative use in meats - addition of Sulphur dioxide (SO2) 'do not spike, or over dose the meat or meal'; controlled and limited addition of nitrites and nitrates in UCFM	5. Processing Food: Receival, including 'meat must only be sourced from licensed businesses, and be traceable.' (p. 12) 'All food must be traceable from the approved supplier through your supply chain (wholesaler to your shop)' (p. 18) 13. CONTROLLING ALLERGENS | APPENDIX 3: template for Approved Supplier Register All supplies that are received by this business are purchased only from approved suppliers. Meat supplied from NSW premises are licensed with the NSW Food Authority. All approved suppliers of meat and other supplies should be recorded below. All ingredients that may contain allergens are to be separated on receival. These products should be clearly labelled to ensure there is no cross-contamination. APPENDIX 4: template to record 'Product descriptions and intended use' 'product description'; 'composition';' 'labelling (sausages: ingredients, allergens and preservatives' OR fresh sliced meat: description and/or ingredients OR frozen product: country of origin label, ingredients, allergens and preservatives OR bacon: ingredients, allergens, preservatives) Food Safety Programs (p.6) The Food Safety Program (FSP) is the document where you identify how you control the risks with food in your business. It contains information and procedures about: x **labelling: All food is correctly labelled, identifiable and traceable (p. 18)** **+Specific retail labelling applies to beef in NSW**	The format of this document is separated into key areas including: x Documentation • Keep it clean • Process control / protecting food • The facility; and • Supporting safe processing • For each key area, there are specific 'Outcomes' for activities including: • Cleaning and sanitising • Temperature control • Processing food • Design and construction of retail meat premises x Skills and knowledge of staff • Pest control
NSW Department of Primary Industries, Food Authority, Guidance on audits (for licensed high-risk food businesses)		The aim of this document is to provide authorised auditors with a consistent approach that can be used when conducting audits at licensed food businesses. • This guidance document provides information on the ratings that may be applied to non-conformances when raised as Corrective Action Requests (CAR) during audits.		**ID & Traceability Corrective Action Request** A critical defect includes (inter alia) a failure to: **b) Comply with the requirements of the Standards with regard to labelling or the trade description of food + Critical CARS:** No batch coding in place for RTE food products - Allergens not identified or declared on labelling - Date labelling altered/tampered on displayed product + **A major defect** means a failure to comply with the requirements of a Standard, Code of Practice and/or legislative requirements that is likely to result in the production of unwholesome food or **inaccurately labelled food** but is not a critical defect. e.g. No country of origin labelling on packaged product - important product information missing on packaged product (e.g. Business name and address) - No identification of ingredients and/or marinades on value added product - no Nutritional Information Panel on Value added product. No **minor defects** for ID & T	During an audit, the auditor will check: • there is a food safety program • all food handling operations have been analysed to identify any critical food safety hazards and procedures are in place to control those hazards • t**here are descriptions of all products handled by the business**; there are work instructions and procedures; monitoring forms; a maintenance and construction process in place for structural issues which may pose food safety risks; the business has designated supervisors and workers responsible for specific jobs, there is a good manufacturing process – including hygiene, chemical storage, pest control, training, product recall, internal review and customer complaint handling procedures; the food business is complying with FSP.

Food Regulation Partnership Food Premises Assessment Report		• This assessment report is based on guidance in the Safe Food Australia (2001) publication: A Guide to the Food Safety Standards. • The assessment focuses on the foodborne illness risk factors identified by the US Centres for Disease Control.		'Food labelling complies with the Food Standards Code, Part 1.2'	The key targets for inspection are: inadequate cooling and cold holding temperatures; food prepared ahead of planned service; inadequate hot holding temperatures; poor personal hygiene and infected food handlers; inadequate reheating and inadequate cleaning of equipment. 'Scores on Doors' Star ratings
NSW DPI Biosecurity and Food Safety Compliance Policy		It is the responsibility of the regulated parties, industry and community to comply with all relevant Acts and Regulations. The Branch takes a risk-based approach to compliance management.			The objective of the policy is to promote: • compliance with the objective legislative provisions of the Act • the use of regulatory tools in such a way as to best achieve our organisational objectives • a risk-based approach to compliance through adoption of a graduated and proportionate response to non-compliance. The policy promotes a cooperative and collaborative approach with businesses and the public or between jurisdictions to education and compliance, and one that does not place unnecessary impost on industry in New South Wales.
NSW DPI Biosecurity and Food Safety Enforcement Policy		- Promote compliance with New South Wales legislative provisions consistent with the objects of the Act(s)+guide decision making and action by staff in the use of enforcement options +encourage use of regulatory implements in such a way as to best achieve our organisational objectives +have a risk-based approach to compliance and enforcement activities through adoption of a graduated and proportionate response to non-compliance +have a cooperative and collaborative approach with businesses legislative compliance and does not place unnecessary impost on businesses in NSW - Protect consumers from inappropriate and/or misleading trade practices	Protect consumers from inappropriate and/or misleading trade practices.		To build a culture of voluntary compliance and enable community and industry to take responsibility for ensuring their activities do not cause unlawful harm, enforcement action is sometimes necessary. It is the goal of the Branch enforcement activities to: • achieve outcomes consistent with legislation • deter non-compliant behaviour • assertively apply consistent and proportionate enforcement action. • The overriding consideration in taking enforcement action should always be the protection of the community, plant and animal health and safety.

1 *Generate Compliance*

As stated above, 'education, information and advice, use of the integrated model in standards development, mediation, and public disclosure e.g. register of prosecutions' apply first along the Continuum.[52] A 'significant upfront investment' is reportedly directed to activities for generating compliance, yet unlike the extensive examples of 'education, information and advice' for safe handling practices to prevent food safety risks from microbial contamination, opportunities and practices to prevent food safety risks from food safety labelling authenticity fraud are not available to the public or published as resources for food businesses. For serious food safety labelling non-compliance - the non-declaration of allergens - NSWFA takes an educative[53] and reactive (not proactive) role in managing the most serious of food safety risks. Consumers are warned to 'stay safe' and read labels.[54]

2 *Monitor Compliance*

To monitor compliance 'regulators use audits and inspections, sampling and surveys, and undertake trend analysis of data'.[55] The corporate overview states the NSWFA role is:

> To monitor and evaluate: At every stage along the journey from paddock to plate, we monitor, evaluate and educate our industry partners as well as our consumers, to meet our ultimate objective – to provide certainty and confidence that food is safe in NSW.[56]

The NSW Food Safety Strategy 2015-2021 ('Food Safety Strategy')[57] and corporate overview fail to mention food labelling monitoring beyond the retail point of the supply chain. NSW's Food Safety Strategy explicitly mentions label monitoring at the retail end of the supply chain, and 'label interpretation' for consumers, but labelling is not identified at the other supply chain points – 'Primary production, processing and manufacture and storage and distribution'.[58] The Food Safety Strategy mission to 'monitor and evaluate to provide certainty and confidence that food is safe in NSW' does not express the legal requirement that food must also be suitable, compliant with ANZFSC requirements and not falsely described. As detailed in Chapter 8 a food

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52 *Labelling Enforcement Strategy 2015*, above n 6, 2.

53 NSW DPI Food Authority, 'Be aware and show you care this Food Allergy Week' (Ministerial Media Release (online), 15 May 2017) < http://www.foodauthority.nsw.gov.au/news/newsandmedia/ministerial/2017-05-15-food-allergy-week>; NSWFA states industry are to 'implement an effective allergen management plan, train staff in food allergen risks, management and communication, provide clear and accurate information on the allergen status of your product and manage the unintentional presence of food allergens'< http://www.foodauthority.nsw.gov.au/foodsafetyandyou/food-labelling/labels-and-the-law/declaring-allergens>. In supporting the Food Allergy Awareness week NSWFA advised awareness is everyone's responsibility and that it 'is the key front-line agency that plays a vital role in educating both industry and consumers when it comes to food allergies. In NSW, all food businesses are required to provide information about the most common allergens, gluten and sulphites through correct labelling and information'.

54 NSW Food Authority, *Stay Safe* <http://www.foodauthority.nsw.gov.au/foodsafetyandyou/food-labelling/stay-safe>.

55 *Labelling Enforcement Strategy 2015*, above n 6, 2.

56 NSW Food Authority, 'The NSW Food Authority an overview. Committing to food safety from paddock to plate' (Corporate Overview CP071/1508, NSW Department of Primary Industries, 2014) < http://www.foodauthority.nsw.gov.au/_Documents/corporate/corporate_overview.pdf> ('*Corporate Overview*').

57 NSW Government, NSW Government Food Safety Strategy 2015-2012 (Strategy Document, NSW Department of Primary Industries, 2015) < http://www.foodauthority.nsw.gov.au/_Documents/corporate/Food_Safety_Strategy.pdf> ('*Food Safety Strategy*').

58 Ibid 37; *Corporate Overview*, above n 58, 2.

that is non-compliant with food labelling requirements is not always 'unsafe' under *Model Food Act 2000* (Cth), but may cause direct acute, immediate threats to heath and risk of death in some individuals.[59]

Regulatory audits and inspections do not verify food labelling declarations and traceability systems. As identified in Chapter 4, licensees of high food safety risk classified processing facilities have additional identification traceability, integrity and record keeping requirements.[60] Food businesses engaged in the wholesale supply, manufacture or importation of food must have a documented system in place to recall unsafe food and must comply with that system in the event of a recall.[61] In addition, all food businesses must be able to trace food to its vendor, manufacturer, packer or importer – one step forward, one step back.[62] Auditors and inspectors are required to check licensed businesses have a traceability system (and for Food Safety Program operators, the Food Safety Program product descriptions for each food manufactured is listed with ingredients). However, any audit checks for the presence/absence of these systems. Auditors are not required (and generally are not skilled, see national Food Auditor Guidance, above) to verify and investigate the authenticity of the input food ingredients. Specifically, state regulatory Food Safety Scheme control measures do not include documentation requirements for the monitoring and verification of ingredients, for example mass-balance of ingredient inputs versus outputs and ingredient label trace-backs through supply chains. Supermarket retailers may require their suppliers to meet additional quality assurance requirements that include additional checks and submit to audits under private contracts. But any information on food fraud activity uncovered under private quality assurance schemes is not necessarily subject to mandatory reports to food regulators for investigation and enforcement. Information obtained about fraud and misrepresentation is not shared between governments and stakeholders.

The NSWFA operates a Manufacturers and Wholesalers Inspection Program. Manufacturers and wholesalers are a group of supply chain actors including ingredient brokers, distributors, storage operators, packers etc. trading in food ingredients before retail. The Manufacturing and Wholesale Inspection Program prioritises compliance with ANZFSC Food Safety Standards.[63] In regard to labelling food businesses are informed of their general compliance duties. For allergen compliance, food businesses are simply advised, 'the food industry plays a major role in helping to manage food allergies. This factsheet has been developed for all food manufacturers, food retailers and food importers to help them understand their obligations about declaring allergens to ensure it is safe for customers'.[64] No practical processing guidance is

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59 Definition of unsafe food is food that will cause physical harm and does not include allergens, or sensitivities – namely from the omission of ingredient on food labels.

60 See, eg, Australian Standard for the Hygienic Production and Transportation of Meat and Meat Products for Human Consumption AS 4696 (2007) cl 16.4

61 *ANZFSC* Standard 3.2.2 cl 12.

62 Ibid cl 5(2).

63 *ANZFSC* Standard 3.2.1 (specifically, cleaning and sanitising of food contact surfaces, temperature control, hygiene of food handlers, pest control, construction and maintenance of the premises, maintaining a food recall program and food handling practices).

64 NSW DPI Food Authority, 'Manufacturer and Wholesaler Inspection Program Information Pack' (Information Document, NSW Department of Primary Industries, (undated)) < http://www.foodauthority.nsw.gov.au/_Documents/industry/MWIP_information_pack.pdf>; See also NSW Food Authority, 'Manufacturer and Wholesaler Food Inspection Program' (Information Document, NSW

provided beyond stating the legal obligation. As Table 2 summarises, the only guidance document observed in the case study of the NSWFA to particularise specific food labelling requirements in an inspection is within this program.[65]

To achieve the statutory objects under the *Food Act 2003* (NSW), NSWFA appoint local government councils as enforcement agencies to monitor and respond to non-compliance in food businesses operating at retail (including cafes and restaurants).[66] Smith, Ross and Whiley state achieving the goals of Australia's food regulatory framework is difficult due to the dependence on local councils implementing the framework.[67] A local council was selected for this analysis, namely, Canada Bay Council and its Food Safety Surveillance Strategy ('Council Strategy') was reviewed for label monitoring activities at food businesses.[68] The Council Strategy advises, 'complex labelling or advertising matters e.g. issues about nutrition information panels, ingredient lists or health claims, almost any issue other than "no label" on locally made products, is investigated by the NSW Food Authority'.[69] Inspections conducted by environmental health officers are performed using the NSW Food Regulation Partnership Food Premises Assessment Report ('FRAR').[70] In an inspection, FRAR requires one check for labelling compliance, compared with 41 checks for food hygiene and handling compliance. Key targets for inspection are inadequate cooling and cold holding temperatures, food prepared ahead of planned service, inadequate hot holding temperatures, poor personal hygiene and infected food handlers, inadequate reheating and inadequate cleaning of equipment. The checklist includes, as the final section 'Miscellaneous: Food labelling complies with the Food Standards Code, Part 1.2', requirements for compliance with nutritional kilojoule labelling if the food business is eligible and 'food business is aware of its obligations regarding allergens'.[71] Whereas the FRAR food safety inspection is supported by explanations and detailed examples of breaches to determine non-compliance with food handling

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Department of Primary Industries, (undated)) < http://www.foodauthority.nsw.gov.au/_Documents/industry/manufacturer_wholesaler_food_inspection.pdf>.

65 NSW Food Authority, 'Guidance on Manufacturer and Wholesaler Inspection Program' (Information Document, NSW Department of Primary Industries, December 2015) 10 < http://www.foodauthority.nsw.gov.au/_Documents/industry/guidance_on_manuf_wholesale_inspection_program.pdf>.

66 *Food Act 2003* (NSW) s 94.

67 James Smith, Kirsten Ross and Harriet Whiley, 'Australian food safety policy changes from a "command and control" to an "outcomes based" approach: Reflection on the effectiveness of its implementation' (2016) 13 *International Journal of Environmental Research and Public Health* 12, 6-10.

68 City of Canada Bay, 'Environmental Health Policy, Food Safety Surveillance Strategy' (Environmental Health Policy, 1 July 2016) 6, identifies the types of low food safety risk food businesses the council is responsible may include, 'airport lounges art galleries, backpacker accommodation, bakery shop, beauty parlour, bed and breakfast, biscuit shop, boarding school, onsite kitchen, bookshop cafe, bottle shop, bowling alley, bread shop, cake shop, canteen, caravan park, takeaways, caterer, charity function offsite, child party centres, childcare centre cinemas, coffee shop, confectionery shop, correctional centre, delicatessen, doughnut shop, farmer's markets, fitness or health clubs, floating restaurants, food home delivery service, funeral parlour, green grocer, hairdressers, health food shop, holiday recreational camp onsite kitchen, hostel, hotel and motel, ice cream parlour, juice bar, kiosk, licensed club, mobile food van, museum, newsagency, nightclub, nurseries, pharmacy, poultry shop, pub and tavern, restaurant, school camp, school canteen, seafood shop, service stations, sushi shop, swimming pools, takeaway shop, theatres, tour operators, tourist attraction takeaways, train services, variety stores, vending machine'.

69 Ibid 3.

70 Food Regulation Partnership, 'Food Premises Assessment Report FPAR V.6' (Inspection Report, NSW DPI Food Authority, January 2018) <http://www.foodauthority.nsw.gov.au/_Documents/scoresondoors/FPAR.pdf>.

71 Ibid.

and hygiene matters, the only published guidance within the partnership to help local council EHOs assess food labelling compliance is a note on the NSWFA website that food labelling be 'accurate and sufficient'.[72]

NSWFA annual food testing reports[73] provide information on sampling for microbiology, chemistry[74] and allergens. Samples are obtained in audits, compliance investigations, food incident responses, survey program and verification programs. Between October 2014 and June 2015, of the total 3,265 samples sent to the laboratory for compliance testing three samples representing 0.00092 per cent of the total number of samples were submitted for allergen declarations,[75] 327 for chemistry[76] and 2935 for microbiology. The testing of allergens (59 samples) for the period between July 2015 to June 2016 reportedly concerned one project of imported coconut waters following the death[77] of a 10-year old boy who consumed coconut water with undeclared dairy.[78] NSWFA commenced a general survey of allergens in packaged and unpacked foods and released its results in 2018 (see Chapter 4).[79] A 2017 national published investigation protocol directs regulators on how to react and investigate incidents of undeclared allergens in the sale of food at retail, in manufacturing and imported foods.[80]

The NSWFA Compliance Policy indicates that risk-based systems rely heavily on historical non-compliance information. Food fraud is, however, about vulnerabilities, traditional data based on microbial risk assessments do nothing to elucidate when a food is at risk of food labelling

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72 NSWFA, *Inspections* <http://www.foodauthority.nsw.gov.au/rp/inspections>.

73 NSW Food Authority, 'Annual Food Testing Report 2014-2015' (NSW Department of Primary Industries, 2016); NSW Food Authority, 'Annual Food Testing Report 2015-2016' (Report, NSW Department of Primary Industries, 2017).

74 Preservatives including sulphur dioxide in meats and kilojoule declarations on menu boards.

75 Allergen testing took place as part of food incident responses from complaints and investigations. Further information such as positive or negative for allergens and compliance enforcement information was not reported.

76 Chemistry testing included kilojoule testing, sulphur dioxide presence in mince and non-compliant levels in sausages, presence of starch and meat speciation. Kilojoule (kJ) declaration survey involved 27 fast food restaurant chains and 91 food products. The survey identified 36% of the sampled foods had a discrepancy of over 20 per cent between claimed and actual kJ values. Further sampling revealed 25.6 per cent of original foods still had content discrepancies beyond 20 per cent. 'All issues identified were discussed directly with the quick service restaurant's head office and rectified', with no further enforcement action reported by NSWFA. Included in the reported 327 chemistry tests, 26 samples were tested for meat speciation verification. No further information beyond the general statement for all sampling work, 'investigation and/or enforcement action was instigated for non-compliance samples' elucidate compliance and enforcement action. The 18 food samples tested for starch as an ingredient is reported with no additional information on compliance. A survey in 2013-2014 that continued throughout 2014-2015 tested 29 samples for SO2 in mince (presence) and sausages (maximum limits). From October 2014 to June 2015, Food Safety Auditors conducted presence/absence field tests, with positive samples submitted for confirmation lab testing. Of the 61 samples, 43 were confirmed as non-compliant and 14 food businesses issued with penalty notices. Negative histamine tests (19 samples) followed a fish foodborne illness outbreak investigation.

77 Tim Barlass, 'Child aged 10 dies after drinking coconut drink as importer admits label charges' (*Sydney Morning Herald* (online), 4 October 2015).

78 FSANZ website, *October 2015* <http://www.foodstandards.gov.au/consumer/safety/Pages/Coconut-milk-drinks.aspx>; Commonwealth Department of Water Agriculture and Resources, 'Imported Food Inspection Data January - June 2016' (2016), 2.

79 NSW Department of Primary Industries Food Authority, 'Annual Food Testing Report 2015-2016' (Report, NSW Department of Primary Industries, 2017).

80 ISFR, 'Undeclared Allergen Incident and Investigation Protocol Guidelines and checklists for allergen investigations at retail/foodservice, manufacturing and food import businesses' (Investigation Protocol, Australia New Zealand Ministerial Forum on Food Regulation, August 2017).

authenticity fraud and misrepresentation. The additional proactive measure of trend analysis of compliance data must be very limited when the primary tools for collecting data – audit reports, inspection checklists – contain limited means to collect data relevant to the prevention of fraud and misrepresentation. Regulatory compliance researchers identify challenges in the use of regulator data for their own compliance research, such as the 'incomplete and unreliable'[81] nature of 'shaky and biased data' following 'subjective assessments of behaviour', 'contested' and 'plural conceptualisations of compliance'.[82] Further, there is lack of understanding of the nature, extent, and pervasiveness of fraud and misrepresentation when designed as an invisible act to evade detection by established systems. The failures of the Food Safety Program audit identification and traceability requirements to prevent fraud and misrepresentation are well demonstrated.

Smith, Ross and Whiley's research analysis is critical of the over dependence on local councils implementing food safety strategies controlling foodborne illness.[83] The researchers argue Australia's implementation of the Forum approved ISFR strategies in over 600 local councils is complex and significantly challenging to the successful implementation of nationally set food safety policies. The research did not consider how councils are implementing any food labelling compliance goals. The researchers point out that local councils are not signatories to the Food Regulation Agreement. Considering the challenges in implementing the focused primary goals of the food regulatory framework (controlling contamination hazards) across all councils, similar if not more challenges must also apply when implementing food labelling compliance goals by local councils and their environmental health officers. The researchers argue critical mechanisms formalising how ISFR communicates down to local councils is required. Considering states and territories are responsible for the activities of local councils, formalising and reports and communication between government entities appears warranted.

3 *Respond to Non-compliance*

Indicated earlier in Chapter 3, available disclosure data on the NSWFA Register of offences indicate 0.02 per cent (39/1458) of penalty notices issued between December 2015 and May 2017 were in response to food labelling non-compliance.[84] So, following identification of food labelling non-compliance, the NSWFA is clearly implementing the Forum's guidance on actions for food regulators responding to non-compliance to be 'administrative' action only.[85] The Forum guides regulators to encourage compliance and either take no action, give advice (general or compliance advice), give warnings (verbal and written), mediate or give enforceable undertakings (where states have that power), before direct statutory responses including seizure, injunctions, license actions, penalty notices and prosecutions. Regulators may issue penalty notices in the event of continuing non-compliance by a food business, but as the enforcement data reveal, recalls because of

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81 Neal Shover and Andrew Hochstetler, *Choosing White-Collar Crime* (Cambridge University Press, 2006), 13. As cited in Christine Parker and Vibeke Nielsen, 'The challenge of empirical research on business compliance in regulatory capitalism' (2009) 5 *Annual Review of Law and Social Sciences* 45, 61.

82 Parker and Nielsen, above n 83, 64.

83 James Smith, Kirsten Ross and Harriet Whiley, 'Australian food safety policy changes from a 'command and control' to a 'outcomes-based' approach: Reflection on the effectiveness of its implementation' (2016) 13 *International Journal of Environmental Research and Public Health* 1218.

84 NSW Food Authority, *Register of penalty notices* <www.foodauthority.nsw.gov.au>.

85 Above n 48.

undeclared allergens are not followed by penalty notices or prosecutions. Again, the approach is reactive and not consistent with the level of risk to safety and public health.

The Better Practice Guide (discussed below) 'suggests using lower level responses (such as encouragement, education, warnings and engagement) while reserving more punitive measures for serious non-compliance or for when lower level responses fail to achieve the desired regulatory outcomes'.[86] This is based on Ian Ayres and John Braithwaite's enforcement pyramid.[87] Ayres and Braithwaite advocate for a legitimate threat to exist at the top of the pyramid to promote responsiveness and encourage compliance. They argue 'regulatory agencies are often best able to secure compliance when they are benign big guns. That is, regulators will be more able to speak softly when they carry big sticks (and crucially, a hierarchy of lesser sanctions)'.[88] When the rates of issuing lesser sanctions (penalty notices) in NSW sit at less than 1 per cent, this suggests a legitimate threat of enforcement of labelling non-compliance is absent in Australia.

III FOOD LABELLING NON-COMPLIANCE AS RESIDUAL RISK

Australia's food regulatory framework is not proactively and strategically monitoring the authenticity of food labelling non-compliance, fraud and misrepresentation. The NSW case study analysis indicates operation of the Continuum with respect to monitoring Tier one food labelling non-compliance (ingredients and allergens) 'fall[s] short [and] additional regulatory measures should be pursued; this is consistent with best practice regulation'.[89] Operation of the food regulatory framework is treating food labelling non-compliance, fraud and misrepresentation - in and of itself – a residual risk. This is because the dominating Classification System (see Chapter 4) measures microbial risk and prioritises the regulatory control based on assessments of that risk.[90]

Treating food labelling non-compliance as a residual risk is a regulatory monitoring and enforcement blind spot leaving consumers at risk of a range of harms.[91] Currently, regulatory decisions along the Continuum to generate, monitor and respond to non-compliance, for example, audit or inspection of food businesses, the frequency rates and audit criteria are not made based on the risk of fraud and misrepresentation, but traditional foodborne illness from microbial contamination risk profiling. As criminologist Nicolas Dorn says, 'When all regulators utilize the same conceptual frameworks, models and data, this common agenda-setting results in common 'blind spots' and hence, potentially, vulnerability to systemic crisis'.[92] In our modern-day food

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86 *Administering Regulation - Better Practice Guide*, above n 6, 45.

87 Ibid 46 cited Ian Ayres and John Braithwaite *Responsive Regulation: Transcending the Deregulation Debate* (Oxford University Press, 1992) 35.

88 Ian Ayres and John Braithwaite *Responsive Regulation: Transcending the Deregulation Debate* (Oxford University Press, 1992) 19.

89 *ISFR Labelling Report 2015*, above n 22.

90 See generally *Administering Regulation - Better Practice Guide*, above n 6, 45

91 Nicholas Dorn, 'The Governance of Securities Ponzi Finance, Regulatory Convergence, Credit Crunch' (2010) 50(1) *British Journal of Criminology* 23, 24.

92 Ibid. In his assessment of the regulatory failures leading to the financial crisis of 2008, Dorn argues 'an absence of democratic oversight of financial market regulators permitted their thinking to develop purely within closed, international, technocratic and 'independent' (of oversight) networks, with direct consequences in terms of systemic market risk. Within this world, a particular cultural and intellectual climate developed, within which

supply, this food labelling compliance monitoring and enforcement blind spot by food regulators responsible for the oversight at Tier one presents significant challenges. The blind spot is arguably creating the systemic crisis in the unprecedented rate of reactive food recalls because of Tier one food labelling issues. The food regulatory framework exhibits an '(over) emphasis' on the targeted control of known microbiological hazards just like in the EU before the horsemeat scandal.[93]

The Forum approved documents and promoted policies analysed here are guided by the ANAO Better Practice Guide that promotes developing a monitoring strategy based on an assessment of risks that give stakeholders confidence regulatory risks are appropriately managed and the level of residual risk is acceptable. The Better Practice Regulation concept of residual risk within the management of different types of food labelling and authenticity issues generally is unclear. The risk of food labelling authenticity fraud and impact to food safety from related direct, acute immediate threats to health have *not* been assessed as have the risk of microbes. The frequency and criteria of regulatory audits and inspections are not based on risk of food labelling non-compliance, fraud and misrepresentation in supply chains. The allocation of resources by regulators is not dependent on these risk assessments. The conduct is therefore not appropriately monitored and enforced. Different risk assessments, tools and tactics are required to enhance monitoring programs that strategise risk-based responses based on relevant food fraud vulnerabilities in the interest of protecting the health and safety of all consumers.[94]

The Forum's presentation of the Continuum as having frequent audits and inspections monitoring food labelling non-compliance, without mentioning that microbial risk drives these food safety audits and inspections (and criteria), appears (respectfully submitted) disingenuous. The lack of systematic monitoring of food labelling non-compliance at Tier one is in the shadow, competing with well-characterised and understood traditional threats of harm. The Blewett Review showed consumers do not accept food labelling authenticity risks to safety and public health are only residual risks to be minimised in the overall operation of the food regulatory framework. The uncontrolled potential for harm is repeatedly played out in the case of allergens, and potential threats to health from false statements of ingredients and food names. Yet an over reliance on education, information and advice is the dominating regulatory response to this serious non-compliance threatening food safety and public health of consumers in Australia.

IV Conclusion

The food regulatory framework is so focused and designed to respond to threats of harm from microbial hazards that the strategies have tunnel vision. Preventing food fraud and

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regulators throughout the world (1) found it 'natural' to utilize common models and datasets (largely developed by private interests), sidelining questions of systemic risk, and (2) failed to discern the continuities between, on the one hand, the 'innovative' financial products and markets within their purview and, on the other hand, Ponzi schemes. When all regulators utilize the same conceptual frameworks, 'models' and data, the common agenda-setting results in common 'blind spots' and hence, potentially, vulnerability to systemic crisis'.

93 Catherine Barnard and Niall O'Connor, 'Runners and Riders: The Horsemeat Scandal, EU Law and Multi-Level Enforcement' (2017) 76(1) *The Cambridge Law Journal* 116.

94 See generally John Spink, Douglas Moyer and Cheri Speier-Pero, 'Introducing the Food Fraud Initial Screening model (FFIS)' (2016) 69 Food Control 306 .

systematically monitoring authenticity of food safety information is not articulated in any of the national strategies. The duty to prevent misleading conduct is a high-order principle yet unsupported by practical guidance for auditors and inspectors to identify and act on potential fraud and misrepresentation with Tier one food labelling issues. In contrast, Forum approved guidance materials are provided for compliance monitoring of preventative claims (Tier two issues, namely nutrition, health and related claims and point-of-sale nutrition information at standard food outlets) and the ACCC provides instruction on compliance expectations and its strategic approach to enforcing false credence claims (Tier three issues, namely consumer value issues). There is no guidance to industry, consumers nor food safety regulatory auditors and inspectors on how to control and identify misleading, deceptive conduct and prevent fraud and misrepresentation to ensure authenticity with these most serious of food labelling issues. As Chapter 8 shows, key definitions of safe and suitable food are also working to limit the scope and operation of the framework. This leaves consumers comparatively vulnerable to harms from falsely described food, ingredients and allergens.

The analysis in this chapter reveals that not only are specific fraud and misrepresentation controls absent, but the Australian food regulatory framework treats food labelling non-compliance as a residual risk within the whole food regulatory system. The risk of traditional hazard-caused harms is a competing rival essentially pitted against the risks of food label fraud and misrepresentation-caused harms. Both of the kinds of harm present real threats to safety and public health and consumers deserve proactive control of serious harms, regardless of aetiology. It is inconsistent with the intent of the *Model Food Act 2000* to consider food labelling non-compliance as a residual risk of the food regulatory system. Consumers have no power to control food labelling non-compliance, fraud and misrepresentation in supply chains. The risk of food labelling non-compliance in supply chains requires proper assessment and appropriate management by food regulators who are entrusted and empowered with the requisite legislative powers and tools to protect consumers.

According to the logic of the application of the risk-based approach espoused by the Hierarchy, based on the analysis and case study, consumer value issues do not affect food safety directly and therefore no mandatory requirements are provided in the ANZFSC. The ACCC is managing these lower food safety risk issues by reactive, deterrent enforcement of the ACL at a higher rate than the food regulators are administering the direct, acute, immediate threats to safety and public health at Tier one.[95]

It is incongruous for food regulators to predominately and overwhelmingly mediate food labelling non-compliance as an administrative issue when the ACCC is issuing enforcement orders, penalty notices and conducting prosecutions on credence claims at Tier three where the threat to safety and public health is overwhelmingly technical and (or) indirect in nature (see also Chapter 6). As Australia, in 2018, reaches record highs in food recalls due to Tier one food labelling non-compliance, compared to the rate of recalls due to traditional hazards now at record lows, there is

[95] This argument is based on the lack of systematic monitoring of Tier one food labelling authenticity in audits and inspections and the fact only 0.02 per cent of penalty notices issued across the state in an eighteen-month period were for food labelling non-compliance.

much evidence to suggest the risk-based approach espoused in the Hierarchy and *Enforcement Strategy 2017* [96] must be fully and properly implemented. Implementation of the risk-based approach to Tier one should involve embedding into the operational food labelling compliance monitoring strategies systematic monitoring of authenticity. Where food labelling non-compliance is identified, the Hierarchy's graduated approach to enforcement indicates actions are to be proportionate to the harms to food safety and public health. Examples of embedded approaches include enhancing audits, inspections and other regulatory programs to monitor food authenticity of Tier one and proactively prevent these direct threats of safety and public health harms.

Next, we turn to consider each of the three tiers of food labelling issues. The last three chapters, Chapter 6, 7 and 8 each consider a type of food labelling issue in the graduating order of priority. Chapter 6 examines Tier three related consumer value issues using enforcement data to describe the crime opportunity structure of a particular type of crime – false descriptions of premium value meats. Chapter 7 then moves up the Hierarchy and turns to examine nutrition and health claim regulation in Australia. A case study of imported açai berry products advertised with anti-ageing related health claims is used to assess the capacity of the framework to prevent fraud and misrepresentation with Tier two preventative health related food labelling issues. Chapter 8 uses data from the Food Fraud Database[97] to examine the regulatory control of the most serious of food labelling issues – Tier one food safety information to control direct, immediate harms to safety and public health. The data are applied to the safe and suitable definitions to identify whether the definitions work to support or restrain regulators in the proactive control of direct, immediate harms to health from fraud and misrepresentation of Tier one food labelling issues.

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96 *Enforcement Strategy 2017*, above n 8, Appendix 1, 3.

97 As of 2018, the (US Pharmaceopedia established) Food Fraud Database is owned by Decernis and accessed at <https://decernis.com/solutions/food-fraud-database/>.

CHAPTER 6: TIER THREE FOOD LABELLING ISSUES

I INTRODUCTION

Previous chapters have outlined the food regulatory framework of laws, policies, strategies and risk-based approaches to classification and prioritisation, compliance monitoring and enforcement. This is the first of three chapters each examining a food labelling issue. It analyses publicly available data from regulators enforcing food and consumer legislation in the regulation of Tier three consumer value food labelling issues. With mostly technical and maybe indirect threats to food safety and public health harm, consumer value issues are not prioritised for oversight in the ANZFSC. Chapters 7 and 8 examine the regulation of ANZFSC prescribed Tier two and Tier one food labelling requirements, respectively. The ascending order of the issues in the Hierarchy and these chapters reflect the graduated, risk-based approach to food labelling regulation and compliance enforcement.

First, Part II reviews the emerging literature of criminologists studying the organisation of food frauds.[1] Second, Part III uses situational crime prevention logic, a criminological approach to analyse publicly available case study data from known enforcement actions following a specific type of food fraud – premium value meat claims of farming production processes, geographical locations and names of food. It then articulates the crime opportunity structure present in such cases. Situational crime prevention logic is based in rational choice theory – fraudsters assess the situation of a crime to weigh up whether committing the crime is worth any risk of detection. Preventative measures are therefore intended to change relevant environmental settings and provocations with the aim of reducing opportunities to commit the crime. The five characteristics of the crime opportunity structure for food fraud commission in the sale of premium value meats are: minimum effort to commit, low risk of detection, high rewards, existence of situational provocations and plentiful rationalisations/excuses. Enforcement case cross-study data are used in analysing each of the five elements. Potential opportunity-reducing techniques in the studied arena are then identified.

The chapter analysis shows state-operated food safety controls – regulatory food safety audits – are not systematically detecting (and preventing) food fraud activity. The cross-study analysis reveals a pattern of repeated, systematic, parasitical and illegitimate fraudulent activities

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[1] See, eg, Nicholas Lord, Cecilia Flores Elizondo and Jon Spencer, 'The Dynamics of Food Fraud: The Interactions between Criminal Opportunity and Market (Dys)functionality in Legitimate Business' (2017) (January) *Criminology and Criminal Justice* 1; Nicholas Lord, Jon Spencer, Jay Albanese and Cecilia Elizondo, 'In Pursuit of Food System Integrity: The Situational Prevention of Food Fraud Enterprise' (2017) *European Journal on Criminal Policy and Research*; Nicholas Lord, Jon Spencer and Elisa Bellotti, 'A Script Analysis of the Distribution of Counterfeit Alcohol across Two European Jurisdictions' (2017) *Trends in Organized Crime* (online); Louise Manning, Robert Smith and Jan Mei Soon, 'Developing an Organizational Typology of Criminals in the Meat Supply Chain' (2016) 59 *Food Policy* 44; Robert Smith, 'Documenting Entrepreneurial Opportunism in Action A Case Study of Sheep Theft in the UK from a Food Supply Chain Perspective' (2017) 119(1) *British Food Journal* 105; Saskia van Ruth, Wim Huisman and Pieternel A Luning, 'Food Fraud Vulnerability and Its Key Factors' (2017) 67 *Trends in Food Science and Technology* 70; Pamela Kerschke-Risch, 'The Ideal Victims? Consumers and Economically Motivated Food Fraud' (2016) 9 *Ernaehrungs Umschau International* 192.

on legitimate meat processing systems.[2] This has taken place over long periods even whilst subject to regulatory food safety audits. The predatory acts exploit the 'blind spots' conceptualised in Chapter 5,[3] specifically, the lack of systematic monitoring of food authenticity. Moreover, the findings suggest the domination of the microbial-risk paradigm of the food regulatory framework. In particular food safety auditing in the high-risk safety sectors causes the framework to not only fail to detect frauds and misrepresentation in routine systems but also to provide a level of camouflage for criminal behaviours.

II THE ORGANISATION OF FOOD FRAUD OFFENDING

Criminologists collaborating with regulatory theorists are working to understand food fraud through theoretical, conceptual and empirical criminological methods and analysis. By drawing attention to detailed accounts of known food fraud events, including the behavioural routines of rational, purposive goal-orientated actors, opportunities emerge to implement prevention strategies based on the crime situation. Recent empirical research reiterates the importance of opportunity and legitimate actors within (or 'endogenous' to) the food supply chain in the organisation of food frauds.[4] Food fraud is a white collar and corporate crime of significance.[5] The nature of white collar and corporate crime is ambiguous when compared to traditional notions of street crime.[6] Controlling corporate behaviours is complex and controversial, complicating the temptation to neatly classify the acts as 'crimes' or 'not crimes'.[7] Nevertheless, Edwin Sutherland, the scholar who coined the terminology used by modern-day criminal theorists, includes breaches of regulatory and administrative requirements as 'crimes in relation to business'.[8]

Research indicates a significant proportion of white collar and corporate crimes are opportunistic in nature, not intentionally designed.[9] Importantly, as explained in Chapter 2, evidence of an intention to defraud with food is in any case irrelevant to proving the strict liability food offence. Accordingly, from a criminological perspective it is more fruitful and important to understand the situations that allow food fraud to occur and how to prevent the situations, than to try to understand whether particular individuals had criminal intent. Understanding the nature

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2 Michael Benson, Tamara Madensen and John Eck, 'White-Collar Crime from an Opportunity Perspective' in Sally Simpson and David Weisburd (eds), *The Criminology of White-Collar Crime* (Spinger, 2009) 175, 185.

3 Nicholas Dorn, 'The Governance of Securities Ponzi Finance, Regulatory Convergence, Credit Crunch' (2010) 50(1) *British Journal of Criminology* 23, 24; See Chapter 5 of this thesis.

4 Lord, Elizondo and Spencer, above n 1, 2; Hazel Croall, 'Food, Crime, Harm and Regulation', above n 1, 16.

5 See, eg, Hazel Croall, 'Conceptualizing White Collar Crime' in *Understanding White Collar Crime* (2001) 1, 8; Hazel Croall, 'Food Crime' in Piers Beirne and Nigel South (eds), *Issues in green criminology: confronting harms against environments, humanity and other animals* (Taylor and Francis, 2007); Hazel Croall, 'Food, Crime, Harm and Regulation' (2012) December(90) *Criminal Justice Matters*; Hazel Croall, 'Food Crime: A Green Criminology Perspective' in Nigel South and Avi Brisman (eds), *Routledge International Handbook of Green Criminology* (2013); Alison Gray and Ron Hinch, 'Agribusiness, Governments and Food Crime: A Critical Perspective' in Ragnhild Aslaug Sollund (ed), *Green Harms and Crimes - Critical Criminology in a Changing World* (Palgrave Macmillan UK, 2015), 97.

6 Nelken *Oxford Criminology Handbook* (Oxford University Press, 2012), 627.

7 Hazel Croall, 'Conceptualizing White Collar Crime' in *Understanding White Collar Crime* (2001) 1, 17.

8 Edwin Sutherland, 'White-Collar Criminality' (1940) 5(1) *American Sociological Review*, 1.

9 Christine Parker 'Criminalisation and compliance: The gap between rhetoric and reality' in Caron Beaton-Wells and Ariel Ezrachi (eds) *Criminalising Cartels A Critical Interdisciplinary Study of an International Regulatory Movement* (Hart Publications, Oxford, 2011) 239-262.

of the opportunity is essential to this, alongside traditional studies to understand the intentions, dispositions and motivations of offenders.[10]

Situations and legitimate actors - the employees and officers of corporations within the food system – can cause food frauds.[11] Food fraud and food crime discourse in Australian media,[12] as in the UK,[13] however, often employs the 'organised-crime fallacy', attributing food crimes or food frauds to criminal conspiracies.[14] This is not supported in the research of criminologists.[15] The Australian Crime Commission fails to mention food is a target for organised criminals.[16] The UK Food Crime Unit reported in 2016, 'the evidence does not currently suggest that organised crime group activity is a major component of food crime'.[17] There is no reason that the position in Australia would differ from that in the UK. Any inaccurate characterisations conceal the fact that it is legitimate corporate actors engaged in routine food supply chain activities who usually commit food fraud and food crimes. It can be a type of 'criminal entrepreneurship'[18] where entrepreneurs and corporations operating legitimate food businesses engage in fraudulent and illegal behaviours that are concealed within lawful and legitimate market processes, to achieve an advantage.[19]

Accordingly, the study presented in the next Part of this chapter focuses on the nature of the opportunity for food fraud. The opportunity structure almost always relates to a legitimate business activity.[20] Depending on how legitimate processes are organised, opportunities for crime are either created or blocked.[21] For example the transformation of a live animal or carcass to packaged meats for retail sale engages routine processes. An operator of a licensed food business purchases raw inputs, which it stores, processes, packages and labels for sale. The storing, processing, packaging and labelling of the food are all routine processes involved in the legitimate business. Many alternate, cheaper ingredients and adulterants are available to substitute, mix, and dilute represented foods and food ingredients. These routine processes are subverted causing

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10 Hazel Croall, above n 1 *Food Crime, Harm and Regulation*, 16; Lord, Elizondo and Spencer, above n 1, 2. Michael Levi and Nicholas Lord, 'White-Collar and Corporate Crime' in Alison Liebling, Shadd Maruna and Lesley McAra (eds), *The Oxford Handbook of Criminology* (Oxford University Press, Sixth ed, 2017) 722, 722.

11 See, eg, Lord, Spencer and Bellotti, above n 1; Lord, Elizondo and Spencer, above n 1. See also, Manning, Smith and Soon, above n 1.

12 See, eg, Alex Sampson, 'Food fraud: High roller of the crime scene' (*The Weekly Times* (online) 29 May 2017).

13 See, eg, Jamie Doward and Amy Moore, 'Cartels and organized crime target food in hunt for riches', (*The Guardian* (online), 3 May 2014); Anon, 'Food Crime A la cartel – organized gangs have a growing appetite for food crime', (*The Economist* (online) 15 March 2014).

14 Marcus Felson and Rachel Boba, 'Nine Falicies about Crime' in *Crime and Everyday Life* (SAGE Publications, 4th ed, 2010), 11.

15 National Food Crime Unit on behalf of the Food Standards Agency and Food Standards Scotland, 'Food Crime Annual Strategic Assessment: A 2016 Baseline' (2016), 22 states '[l]ittle intelligence suggests organised crime groups have made substantial in-roads into the food economy'.

16 See Australian Crime Commission, *Organised Crime in Australia* (Commonwealth of Australia, 2015).

17 National Food Crime Unit, Food Standards Agency/Food Standards Scotland 'Food Crime Annual Strategic Assessment', (2016), 9.

18 See, eg, Robert Smith, Louise Manning and Gerard Mcelwee, 'Critiquing the Inter-Disciplinary Literature on Food Fraud' (2017) 3(2) *International Journal of Rural Criminology* 250, 251; See generally Lord, Spencer, Albanese and Elizondo, above n 1.

19 Lord, Spencer, Albanese and Elizondo, above n 1.

20 Benson, Madensen and Eck, above n 2.

21 Ibid 185.

unknown impacts on human health.[22] In an era where globalisation is presenting new challenges, and fraud opportunities are increasing with lengthening mazes of food supply chains, the impacts of food fraud are felt globally, and require a range of effective controls aiming for prevention.[23]

III SITUATIONAL FOOD FRAUD PREVENTION

This Part III first sets out the theoretical framework of situational crime prevention (SCP) and grounding theories. The methodology for data analysis is explained before presenting findings from that analysis to outline the five characteristics of the crime opportunity structure of a specific type of food fraud: sale of meats (falsely) described as premium value. Potential opportunity reducing prevention strategies are then identified. Premium value meats for the purpose of this study are meats represented as being of a particular nature or substance, quality or commercial value.

A *Theoretical Framework*

Traditional criminological opportunity theories offer a set of useful conceptual tools to explain compliance not only with street crimes but also business regulation laws.[24] The opportunity theories encapsulated in the SCP is a particularly fruitful approach.[25] The main aim of SCP is to identify elements in a crime situation to target disruption techniques and effectively paralyse the crime.[26] Criminologist Ronald Clarke contributed significantly to SCP in 1983 when he defined the core of the theory as comprising measures (i) directed at highly specific forms of crime (ii) that involve the management, design or manipulation of the immediate environment in as systematic and permanent way as possible (iii) so as to reduce the opportunities for crime and increase risks in its commission.[27]

Each crime type displays a particular criminal opportunity structure or 'chemistry of the

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22 Karen Everstine, John Spink and Shaun Kennedy, 'Economically Motivated Adulteration (EMA) of Food: Common Characteristics of EMA Incidents.' (2013) 76(4) *Journal of Food Protection* 723, 724-729; Jeffrey Moore, John Spink and Markus Lipp, 'Development and Application of a Database of Food Ingredient Fraud and Economically Motivated Adulteration from 1980 to 2010' (2012) 77(4) *Journal of Food Science* 118; Ibid; Virginia Wheatley and John Spink, 'Defining the Public Health Threat of Dietary Supplement Fraud' (2013) 12(6) *Comprehensive Reviews in Food Science and Food Safety* 599.

23 Christopher Elliott, 'Elliott Review into the Integrity and Assurance of Food Supply Networks – Final Report A National Food Crime Prevention Framework' (Independent Review Report, Department of Environment Food and Rural Affairs (DEFRA), July 2014) 12 ('*Elliott Review*'); United States Government Accountability Office, 'Food and Drug Administration Better Coordination Could Enhance Efforts to Address Economic Adulteration and Protect the Public Health' (GAO-12-46, United States Government Accountability Office, 2011) 2 provides 'The FDA Commissioner has said that globalization presents huge and growing challenges and that economic adulteration remains a public health threat'.

24 Toni Makkai and John Braithwaite, 'Criminological Theories and Regulatory Compliance' (1991) 29(2) *Criminology* 191, 213.

25 Benson, Madensen and Eck, above n 2, 175.

26 Marcus Felson and Ronald Clarke, 'Comments on the Special Issue' (2012) 15 *Trends in Organised Crime* 215.

27 Ronald Clarke, 'Situational Crime Prevention: Its Theoretical Basis and Practical Scope' (1983) 4 *Crime and Justice* 225. See also Ronald Clarke, 'Situational Crime Prevention' (1995) 19 *Crime and Justice* 91, 93.

crime'.[28] Cohen and Felson's routine activity theory[29] assumes three elements in a criminal opportunity structure: motivated offenders, availability of suitable targets and absence of capable guardians against violation of the law.[30] Similarly, John Spink adapted Felson and Boba's three elements represented in their Crime Triangle[31] of routine activity theory, which clarifies specific elements in the commission of food fraud as: Fraudster, target/victim and guardian/hurdle gaps.[32] In conventional crimes, a target may be the coveted car, or a victim targeted in an assault. In white collar and corporate crimes, the fraudster has access to the target by virtue of their occupation.[33] Brantingham and Brantingham's crime pattern theory draws on routine activity theory to explain that criminal opportunities and crimes are not random, are complex, and offenders become aware of the opportunities as they engage in their normal activities.[34] All of the above theories work to describe opportunity characteristics and structures, rather than how the crimes emerge. Theoretically, removing any one of the three mentioned intersecting elements of routine activity theory prevents commission of the white-collar crime, including food fraud. A task much easier said than done.

Derived from Cornish and Clarke's rational choice theory, which says offenders weigh the costs and benefits of committing an offence,[35] SCP theory links these costs and benefits to the five characteristics of crime (introduced below). The aim is to identify the most promising ways to block commission of the relevant offence. The facts and features of cases are collected and, as described by Benson, Madensen and Eck, are 'examined to see whether they have a particular independent variable derived from, say routine activity theory'.[36] Specifically, as described by Cornish and Clarke[37] cases are analysed with respect to:[38]

1. Effort required to offend,
2. Risks of detection associated with offending,
3. Rewards gained from committing the offence,
4. Situational conditions that may encourage or provoke criminal action,
5. Excuses and neutralisations used to justify the offence, and
6. Opportunity-reducing prevention strategies.

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28 See Marcus Felson and Rachel Boba, 'Chemistry for Crime' in *Crime and Everyday Life* (SAGE, Fourth Ed, 2010). See also John Spink, 'Defining Food Fraud and the Chemistry of the Crime' in Wayne Ellefson, Lorna Zach and Darryl Sullivan (eds), *Improving Import Food Safety* (John Wiley and Sons and Institute of Food Technologists, 2013) 195-197.

29 Lawrence Cohen and Marcus Felson, 'Social Change and Crime Rate Trends: A Routine Activity Approach' (1979) 44 *American Sociological Review* 588.

30 Ibid, 589.

31 Felson and Boba, above n 28, 29.

32 Spink, above n 28, 204.

33 Benson, Madensen and Eck, above n 2, 185.

34 Paul Brantingham and Patricia Brantingham, *Patterns in Crime* (Macmillan Publishing Company, 1984).

35 Derek Cornish and Ronald Clarke, 'Introduction' in Derek Cornish and Ronald V Clarke (eds), *The Reasoning Criminal Rational Choice Perspectives on Offending* (Spinger-Verlag, 1986).

36 Benson, Madensen and Eck, above n 2, 190.

37 Derek Cornish and Ronald Clarke, 'Opportunitites, Precipatators and Criminal Decisions: A Reply to Wortley's Critique of Situational Crime Prevention' (2003) 16 *Crime Prevention Studies* 41, 90.

38 Wim Huisman and Judith van Erp, 'Opportunitites for Environemntal Crime A test of Situational Crime Prevention Theory' (2013) 53 *British Journal of Criminology* 1178, 1181.

This chapter uses these variables in the analysis leading to describe the crime opportunity structure in the type of fraud and misrepresentation.

B *Methodology*

Difficulties in accessing fraudsters and ethical limitations in the research of criminal activities make food fraud a difficult topic of research. The nature and extent of food crimes and their organisation in food supply chains in Australia is hence relatively unknown. This study applies the methodology of Wim Huisman and Judith van Erp in applying the SCP approach to environmental crimes in the Netherlands,[39] to a cross-case analysis[40] of 14 enforcement actions in the premium meat sector by Australian regulators.

A cross-case analysis methodology provides the necessary structure to systematically produce generalised theories.[41] The typical small *n* aspect of mostly exceptional cases forming data sets has, however, invoked criticism.[42] Nevertheless, Benson, Madensen and Eck argue case studies are especially appropriate to study opportunity structures of white collar and corporate crime. They argue that to produce the detail required, data sets are best limited to relatively few cases that provide rich data. Small *n* case analyses enable detailed review of the processes related to a crime. Because the focus is on the how and not the why, crime occurs, corporate processes are under the microscope.[43]

The methodology concentrates on the situational determinants of offending and, accordingly, does not require the identification of any corporate offender accused or convicted of a crime.[44] The websites of the ACCC and the NSWFA were accessed and additional keyword Google searches performed to identify all enforcement activity over the last ten years with the dependent variable: false, misleading or deceptive conduct in the sale of premium value meats. This produced 14 cases, all of which are studied here. The NSWFA is the NSW state based farm-to-fork food regulator.[45] The ACCC is the national consumer protection regulator.[46] The ACCC initiated the enforcement action of 12 of the 14 studied cases. The ACCC prioritises enforcement of these offences, as explained in Chapter 3.[47]

Additional Google searches using keywords and reviews of food regulator websites failed to identify enforcement activity by the other seven state-based food enforcement departments.

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39 Ibid. The researchers responded to the call in Benson, Madensen Eck, above n 2, 175.

40 Kathleen Eisenhardt, 'Building Theories from Case Study Research' (1989) 14(4) *The Academy of Management Review* 532.

41 Ibid.

42 Robert Yin, 'The Case Study Crisis: Some Answers' (1981) 26(1) *Administrative Science Quarterly* 58, 63.

43 Benson, Madensen and Eck, above n 2, 189.

44 Derek Cornish and Ronald Clarke, 'Opportunitites, Precipatators and Criminal Decisions: A Reply to Wortley's Critique of Situational Crime Prevention' (2003) 16 *Crime Prevention Studies* 41, 89.

45 See NSW Food Authority, <www.foodauthority.nsw.go.au>.

46 See ACCC, *About us* <www.accc.gov.au>.

47 See Commissioner Sarah Court, 'Enforcement Priorities at the ACCC' (Speech delivered at the Commonwealth Club of Adelaide, 24 September 2013) <http://www.accc.gov.au/speech/enforcement-priorities-at-the-accc>.

The ACCC, NSWFA and other state-based food regulators may have identified offences that satisfy the crime-specific focus of this analysis and mediated a successful compliance outcome without recourse to penalties. In those circumstances, materials are not made available to the public. The majority of the documents under review are available for download from the ACCC and Federal Court websites. The NSWFA Local Court judgments are no longer published on the NSWFA public register of offences. The documents from this source and subject to the analysis here were previously downloaded by the author and stored before expiry of the 24-month publication period.[48] Only publically available local court and Federal Court judgments, statements of agreed facts, court enforceable undertakings, and media reports have been used to inform the study. To supplement and enhance the cross-case study, four interviews with premium value local meat supply chain actors provided expert opinions on the general situational conditions in the promotion of premium value meats and known opportunities for food fraud.

The 14 cases of white collar and corporate food fraud crime offences under study are summarised at Table 1 (next page). NSWFA cases 1 and 2 are tier one food Act 'other offences', not 'serious offences' because no harm to health flowed from the commission of the offences. Cases 3-14 involve enforcement of the ACL prohibitions by the national consumer regulator, ACCC, rather than state food legislation.

A list of themes including basic facts, profile of company, how the offence was detected (complaint, audit, investigation or survey), length of offence period, penalties awarded, internal control system, company response, excuses and situational conditions was marshalled for each of the 14 cases discussed below.

[48] The author was an authorised officer investigating case one. Only details in the judgment were relied upon to obtain the facts used in the analysis.

CHAPTER 6 TABLE 1: Situational crime prevention theory analysis case summaries

GROUP *citation*	CASE #	REPRESENTATIONS / TRUE NATURE	OFFENCE	OFFENCE PERIOD/S	PENALTY
1 'NSW Food Authority Cases' *NSW Food Authority v P and M Quality Smallgoods Pty Ltd t/as Primo Smallgoods* (2010) 2010/20035260/09/2	ONE	100% Australian pork; Australian Grown / Imported Pork	Pleaded guilty claiming mistake, denying intention. 46 offences *Food Act 2003* (NSW) s18(1) 18 offences *Food Act 2003* (NSW) s104(1) (Meat Food Safety Scheme)	6 January 2008 - 31 January 2008; 5 January 2008 - 30 January 2008	$200 000
NSW Food Authority Officer David Gothard) v Tolsat Pty Ltd t/as Eversons Food Processors (2010) 2010/121447	TWO	Lamb / Hogget	Found guilty denying 33 offences *Food Act 2003* (NSW) s 18(2); 33 offences *Food Act 2003* (NSW) s104(1) (Meat Food Safety Scheme)	3051 hoggets rolled as lambs over 33 offence dates 2 October 2007 - 15 January 2008	$66 000
2 'ACCC inadequate traceability cases' ACCC, *Barossa Farm Produce Pty Ltd,* 13 June 2014, *CCA 2010* (Cth) s 87B Court Enforceable Undertaking	THREE	'Free range'; 'Heritage Black Pig' / Inadequate traceability system to verify representations	Acknowledged conduct may be contravened *TPA 1974* s 52; *ACL* ss 18, 29(1)(a)	Various offence periods from 2008 - 2013	Court Enforceable Undertaking, no monetary penalty
3 'ACCC geographical location cases' *ACCC v King Island Meatworks and Cellars Pty Ltd* [2013] FCA 48	FOUR	Prized geographical provenance (King Island) / Not from King Island	Court found director knew the conduct contravened *TPA 1974* ss 52(eb), 52; *ACL* ss 18, 29(1)(k)	At least June 2008 - February 2013	$50 000
ACCC v Hooker Meats Pty Ltd [2012] FCA 888	FIVE	Prized geographical provenance (King Island) / Not from King Island	Admitted conduct contravened *TPA 1974* ss 52(eb), 52; *ACL* ss 18, 29(1)(k)	July 2007 - February 2011	$50 000
4 'ACCC higher animal welfare cases' *ACCC v Turi Foods Pty Ltd (No 5)* [2013] FCA 1109 (Turi Foods)	SIX	'Free to roam in large barns' meat chickens / Space equivalent to an A4 paper	Defendants accepted statements were false, misleading or deceptive. *TPA 1974* ss 52, 53(a), 55; *ACL* ss 18, 29(10(a)	June 1998 - March 2011	$100 000
ACCC v Turi Foods Pty Ltd (No 5) [2013] FCA 1109 (Baiada Poultry)	SEVEN	'Free to roam in large barns' meat chickens / Space equivalent to an A4 paper	ACCC accepted conduct not deliberate. *TPA 1974* ss 52, 53(a); ACL ss18, 29(10(a)	2010 - 2011	$400 000 (combined)
ACCC v Turi Foods Pty Ltd (No 5) [2013] FCA 1109 (Barrter Enterprises)	EIGHT	'Free to roam in large barns' meat chickens / Space equivalent to an A4 paper	ACCC accepted conduct not deliberate. *TPA 1974* ss 52, 53(a); *ACL* ss 18, 29(1)	2010 - 2012	$400 000 (combined)
ACCC v Turi Foods Pty Ltd (No 5) [2013] FCA 1109 (Australian Chicken Meat Federation)	NINE	'Free to roam in large barns' meat chickens / Space equivalent to an A4 paper	ACCC accepted conduct not deliberate. *TPA 1974* s 53(a); *ACL* ss 18 and 29(1)(a)	April 2010 - September 2011	$20 000
ACCC v Pepe's Ducks Ltd [2013] FCA 570	TEN	'Open range', 'Grown Nature's Way' ducks with pictorials of ducks and lakes / Ducks inside sheds with no bodies of water	No denial of deliberateness nor submissions excusing contravention of *TPA 1974* ss 52; *ACL* ss 18 and 29(1)(a); *TPA 1974* s 53(a)	2004 - 2012	$375 000; ACL Compliance Training; Corrective Advertising
ACCC v Luv-A-Duck Pty Ltd [2013] FCA 1136	11	'Range Reared and grain fed' in the 'spacious Victorian Wimmera Wheatlands' ducks / Never outside	Denied intention to contravene *TPA 1974* ss 52, 53(a), 55; *ACL* ss 18, 29(1)(a), 33; *TPA 1974* s 55	2006 - 2012	$360 000; ACL Compliance Training; Corrective Advertising
P and M Quality Smallgoods Pty Ltd (t/as Primo Smallgoods) *CCA*	12	'Free range' pork	Acknowledged conduct may have contravened *ACL* ss 18, 29(1)(a)	December 2009 - July 2015	ACL Compliance training;

2010 s 87B Undertaking (24 July 2015)					Corrective Advertising
Pastoral Pork Company Pty Ltd (t/as Otway Pork) *CCA 2010* s 87B Undertaking (2 September 2015)	13	'Bred free range' pork	Acknowledged conduct may have contravened *ACL* ss 18, 29(1)(a)	July 2000 - December 2014 (RSPCA from May 2011)	ACL Compliance training; Corrective Advertising
George Weston Foods Ltd (t/as KR Castlemaine) *CCA 2010* s 87B Undertaking (2 September 2015)	14	'Bred free range' pork	Acknowledged conduct may have contravened *ACL* ss 18, 29(1)(a)	2008 - September 2015	ACL Compliance Training; Corrective Advertising

C *Findings*

Section B presents the findings from the analysis of cases against each of the five characteristics. Table 2 summarises potential opportunity reducing techniques.

1 *Effort to Commit Food Fraud*

The first step of the analysis is to consider the efforts of offenders. This includes the tasks and necessary tools, capabilities and access to networks, required to commit the crime.[49] Overall, the tools, capabilities and access to networks to commit the crimes are easy to access and apply. All 14 cases engaged routine systems of work, contemporaneous recording of processes and marketing-related decision-making processes in the normal course of food businesses.

The 14 cases are organised into four groups conceptually aligned with this first element of analysis. Benson et al conceive white collar and corporate crime at the intersection of legitimate and illegitimate processes, where a parasitical and illegitimate process exploits a legitimate process.[50] The cross-case analysis reveals offences unfolded because of parasitical conduct on routine processes operated in legitimate food businesses subject to private and regulatory food safety audits.

Huisman and van Erp found that the application of SCP theory suits illegal acts but not omissions.[51] Most environmental crimes in their study consisted of omissions. If positive and prescriptive action required by regulations was not taken, they concluded SCP was less applicable. By contrast the food crimes under study here flow from the commission of a prohibited act or acts. The crimes are primarily predatory acts.

Table 1 (previous page) shows the case studies in the four discrete groups. Group one 'food authority cases' initiated by NSWFA incurred charges of false or misleading conduct in the labelling of food as well as additional and secondary charges for failure to adhere to food safety scheme regulatory obligations for monitoring and traceability. The ACCC initiated 'inadequate traceability case' in Group two and 'geographical location cases' in Group three. 'Higher animal

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49 Michael Levi, 'Combating Identity and Other Forms of Payment Fraud in the UK: An Analytical History' in Megan McNally and Graeme Newman (eds), *Perspectives on Identity Theft* (Criminal Justice Press, 2008) 111. Lord, Elizondo and Spencer, above n 20.

50 Benson, Madensen and Eck above n 2.

51 Huisman and Erp, above n 38, 1195.

welfare cases' compiled in Group four all used words, pictures and other representations to promote the sale of the food.

In the Group one cases, monitoring records of elaborate documented food safety systems were falsified, which evidenced acts to circumvent controls in the use of legally defined words: country of origin/provenance and age of sheep (hogget or lamb). In Groups two to four, it was found that the nature or substance, quality or source of food for sale were falsely described. ACCC actions followed.

Group one offences occurred in documented routine processes requiring elaborate meat processing equipment with production designs, where employees are operating along rapid and complex production webs with confusing frameworks of traceability over long periods of offending conduct. The offences in Groups two to four were not evidenced in monitoring documentation. Instead, on a case-by-case basis, the ACCC identified contested representations made in the sale and promotion of food and assessed whether an overall impression was capable of inducing error.[52] Significantly longer periods of offending are observed in the ACCC cases (Groups two to four), compared to the NSWFA cases (Group one).

Meat processing is the most regulated activity in Australia's food control system. Yet, regulatory focus is on HACCP critical control points relating to food safety, not controlling the authenticity and therefore the labelling of food. Many routine activities involve authenticity-related labelling issues. Employees are identifying, describing, naming, branding, recording, monitoring, tracing, packaging, etc. in systems of work that, ultimately, serve to support or not support the accurate labelling and advertising of the food. In other words, it is the organisational control in the management of the routine processes that is influencing whether the provision of information on food is at risk of being misleading, deceptive or falsely described. Staff possessing all levels of capacity and responsibility, from a yardman filling out a 'kill sheet' to an executive director authorising an advertising campaign that falsely represents vertically integrated animal production systems, are complicit (with or without actual knowledge of potential harm) in the commission of the crimes.

Cases one and two (Group one) involve the inaccurate recording of information directly relevant to the naming of the true nature of food. More specifically, case one involves the largest smallgoods manufacturer in Australia processing imported Danish or Canadian sourced bacon and labelling final packaged product as Product of Australia, '100% Australian Made' and 'Meat Content 100% Australian'. The company in case one pleaded guilty to 46 misleading conduct offences[53] and 18 contraventions of the meat food safety scheme for licensed meat producers, specifically the identification, traceability and integrity and record keeping requirements in the production of specific bacon products.[54] To meet regulatory compliance obligations, the system of work for the company in case one was that for each bacon packaging line, a daily packaging form was produced ('Form 71'). In the month of the offending, a Form 71 would record the

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52 *Parkdale Custom Built Furniture Pty Limited v Puxu Pty Limited* (1982) 42 ALR 1, 5 (Gibbs CJ).

53 *Food Act 2003* (NSW) s 18(1) from 6 January 2018 to 31 January 2008.

54 *Food Act 2003* s 104(1); *Food Regulation 2004* (NSW), Australian Standard 4696:2007 Parts 16 and 18, over the offence period (5 January 2008 to 30 January 2008).

importation meat code (provided by authorities upon importation) of the product only if processing and packaging imported meat. If the meat was sourced locally, rather than recording a meat code, the relevant column headed IMP (for imported) was left blank. Committing the offence required minimum effort by workers using a pen to record or not record a code on a processing document. At the targeted trace-back inspection following the anonymous complaint, officers observed imported pork entering the line,[55] without staff recording that the meat was imported and the imported pork was packaged with the before mentioned provenance claims of its label. The Magistrate for case one stated:

> Failures were systematic…Aspects of the procedures, which made such failures more likely, such as the Form 17 provisions that local meat be represented by omission and the apparently casual storage of the records.[56]
>
> Mislabelling compounded by the failure to keep adequate records… [meant the company] could produce no records that would enable a recall of the product where a problem arose with the source of meat.[57]

Similarly, the efforts in case two relate to the ease of recording falsities and non-compliance with a processing requirement in a state food safety scheme. In this case two, worker failure involved non-compliance with the meat food safety scheme requirement to systematically *verify* age and classification of sheep as lamb or hogget on 33 separate instances over a three-month period.[58] Fingers are placed into a sheep's mouth to detect the number of back molar teeth, and therefore whether the sheep is lamb or hogget, according to legislation.[59] Stock and station agents classify mobs of sheep sold in saleyards. Sales documentation records the classification and the wool painted to indicate the agent's classification. Within one to two days sold mobs are transported to an abattoir operated by the defendant company before the pen worker systematically records lamb or hogget on key traceability documents, the kill sheets.

The facts of the sole case (three) in Group two also concern the inadequacy of a traceability system to verify and substantiate value added representations. In this case, labels stated free range heritage Berkshire/Black Pig and provenance statements over a three-and-a-half-year period, and similar representations were made on its websites over six months.

The two geographical indicator cases in Group three (cases four and five) concern misleading conduct in the source of food. The two businesses concerned were trading (four years and ten years, respectively) under a business name with a geographical indicator, yet did not source their meat, or sourced only a minimal proportion, from the prized beef rearing geographical location nominated in that indicator.

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55 Once the sides of bacon are cooked, the produce moves to the bacon slicing and packaging area on trees, which has attached a label that records the relevant meat code and shows by its colour whether the bacon is sourced from imported or local meat. Each bacon-slicing machine leads to a packaging line where the bacon is manually sorted and assembled into lots of the appropriate weight and type.

56 *NSW Food Authority v P and M Quality Smallgoods Pty Ltd t/as Primo Smallgoods* (2010) (unreported 2010/20035260/09/2).

57 Ibid.

58 *Food Regulation 2004* cl 60 (as it then was) 'lamb' means an ovine animal that has not cut a permanent incisor tooth. 'Hogget' means an ovine animal that has cut at least one, but no more than two, permanent incisor teeth.

59 Dentition is performed to ensure the correct prescribed branding is applied to each carcass in compliance with the definition of 'lamb' in *Food Regulation 2004* (NSW) cl 60. *Food Regulation 2004* (NSW) Part 5 Division 13 and Schedule 8 (as it then was) provides prescriptions for the use of brands rolled with paint marking the animals as 'hogget' or 'lamb' accordingly, in preparation for sale.

All nine higher animal welfare cases in Group four involved the use of undefined words and phrases to, in essence, create the (false) overall impression of higher animal welfare. Each case represents the sale of poultry or pork labelled as 'free range' or words of similar import. The largest poultry and pork producers in Australia are represented in this group. All companies were either found guilty in the Federal Court for misleading or deceptive conduct, or provided enforceable undertakings (without fines) that they would cease making such claims. The offences in the cases in Group four applied across product lines and spanned up to 14 years of offending.

2 *Risk of Detection of Food Fraud*

The next characteristic relevant to an offender's choice to commit crime is the perceived risk of detection. As indicated in Chapter 4, all meat-processing businesses are licensed and subject to frequent food safety audits of implemented HACCP programs.[60] Nevertheless, a regulatory food safety auditor detected the food fraud crimes in only one (case two) of the 14 cases. In many of the cases, the parasitic or exploitative behaviour on routine systems took place for years without action by a regulator despite being subject to ongoing food safety controls and audits over that time (see Table 1). Authorities report food crimes are often silent, invisible and generally lacking in vocal victims.[61] Since consumers are generally unaware when victims of fraud, many cases are probably not detected following purchase and consumption. Ultimately, an aim of SCP is to increase the perceived risk the crimes will be detected.

Hazel Croall remarks food crimes[62] take place within a 'quasi-criminal' jurisdiction.[63] Certainly the powers of authorised officers to monitor and detect food businesses' non-compliance and conduct enforcement in food regulatory systems are akin to those exercised by state and territory civil police officers in conventional crime control of natural persons. State food agencies and authorised officers[64] have far-reaching investigative powers[65] to monitor and enforce corporate compliance with state food Acts and regulations.[66] Food regulators can issue penalty or court

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60 Conducted under private supplier contracts and regulatory food safety schemes.

61 National Food Crime Unit, 'Food Crime Annual Strategic Assessment: A 2016 baseline' (Food Standards Agency and Food Standards Scotland, 2016), 3; See also John Dennis and Simon Kelly, 'The Identification of Sources of Information Concerning Food Fraud in the UK and Elsewhere (Q01R0025)' (Report, DEFRA and Food Authenticity Branch, 2013), 22.

62 Croall, *Food Crime* above n 1. See also Hazel Croall, 'Food Crime: A Green Criminology Perspective' in Nigel South and Avi Brisman (eds), *Routledge International Handbook of Green Criminology* (2013).

63 Hazel Croall, above n 1, 16.

64 All jurisdictions except Queensland define 'authorised officer' as an appropriately qualified officer or employee of the relevant authority, or an employee of local government. *Food Act 2001* (ACT) Dictionary; *Public Health Act 1997* (ACT) s 12A(2); *Legislation Act 2001*(ACT) Pt 19.3; *Food Act 2004* (NT) ss 6, 37; *Food Act 2003* (NSW) ss 4(1), 114; *Food Act 2001* (SA) ss 4(1), 94; *Food Act 2003* (Tas) ss 4(1), 101; *Food Act 1984* (Vic) ss 4(1), 20(1); *Food Act 2008* (WA) ss 8, 122.

65 See, eg, *Food Act 2003* (NSW) s 37 (powers of authorized officers).

66 *Food Act 2001* (ACT) Pts 4 (Minister, chief health officer), 5 Div 5.2 (powers of authorised officers); *Food Act 2004* (NT) ss 30-32 (chief health officers), 33-36 (enforcement agencies), 37-39 (authorised officers); *Food Act 2003* (NSW) Pt 9 (NSW Food Authority, enforcement agencies, authorised officers, Food Regulation Forum); *Food Act* 2006 (Qld) Ch 1 Pt 4 (roles of the State and local governments), Ch 7 (appointment and powers of authorised persons, emergency powers of authorised persons, emergency powers of chief executive); *Food Act 2001* (SA) Pt 9 (Minister, enforcement agencies, authorised officers, local government); *Food Act 2003* (Tas) Pt 8 (Director of Public Health, councils, authorised officers); *Food Act 1984* (Vic) Pts IV (authorised officers), VII (emergency powers), VIII (legal proceedings), X (Food Safety Council); *Food Act 2008* (WA) Pts 4 (emergency

attendance notices when breaches are detected. But detection of food labelling non-compliance is, as Chapter 5 shows a lower priority for authorised officers than detecting food safety-related offences.[67] Chapter 5 also demonstrated that state based food safety auditors and environmental health officers inspecting food business operations focus on controlling microbial risks and are trained in food safety, not food fraud. During an interview, a retail butcher supplying higher animal welfare meat said of the NSWFA routine food safety audits:

> You should be able to produce buying records that matches what claims you are making. I'm not sure how often they join those together. Food Authority is not interested in that. Just interested in temperature, was it legal meat, how long did you keep it before you sold it? That's their investment in it.[68]

Detecting food fraud crimes is not an easy task. At a 2009 Senate Committee inquiry into meat marketing, the NSWFA submitted, '[f]or effective auditing of the lamb branding system to occur, the audits must include examination of records, going back to farm saleyard, through the abattoir, post abattoir and to wholesalers as well'.[69] Trace-back exercises to establish offences, however, are not routine features of regulatory food safety audits. Analysis of the factual circumstances in case two reveals that an auditor observed a meat inspector failing to systematically examine the mouths of the sheep to classify as lamb or hogget, following slaughter and before tagging and rolling the carcass with the prescribed lamb brand (the pink or red stain on the carcass). The food safety auditor reported his observations to the abattoir management and the NSWFA. On the report to management at the time of the audit, the Magistrate remarked:

> The lack of any evidence as to the company's response would suggest that neither [name] nor his supervisors regarded the matter as one warranting concern.[70]

An investigating enforcement officer at the NSWFA, investigated the alleged breaches observed by the food safety auditor in case two. The enforcement officer subsequently exercised statutory powers[71] to demand the production of sales documents from a number of actors in the supply chain from farm to abattoir to construct the circumstantial case and prove the offences observed by the regulatory food safety auditor. Media reports following the defended hearing in which 66 charges were proven beyond reasonable doubt suggest the abattoir operator disputed any failings in the management of the routine processes, telling journalists:

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powers), 5 (powers of authorised officers),10 (functions of the chief executive, enforcement agencies and delegation, authorised officers); (WA) *Food Regulations 2009* regs 4, 5; *Health Act 1911* (WA) s 26 (powers of local government), s 26-28 (officers of local government, appointments) ss 29-34 (Executive Director, local government, environmental health officers).

67 See also Deanne Condon-Paoloni, Heather Yeatman and Elizabeth Grigonis-Deane, 'Health-Related Claims on Food Labels in Australia: Understanding Environmental Health Officers' Roles and Implications for Policy' (2013) *Public Health Nutrition* 1; Joint Food Regulation Standing Committee Implementation Sub-Committee for Food Regulation (ISFR) Working Group on Food Labelling Monitoring and Enforcement, 'Report of the Bi-National Food Labelling Compliance and Enforcement Framework' (Report Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2015) ('*ISFR Labelling Report 2015*').

68 Anonymous interviewee 1, 1 June 2017, Sydney Australia.

69 Senate Standing Committee on Rural and Regional Affairs and Transport, Meat Marketing (Interim Report, Hansard, Department of the Senate, Parliament House, 10 June 200) 96.

70 *NSW Food Authority Officer David Gothard) v Tolsat Pty Ltd t/as Eversons Food Processors* (2010) 2010/121447.

71 *Food Act 2003* (NSW) s 37 (powers of authorised officers).

> Not at all. We have a food safety program that we are obliged to align ourselves with and comply with and we've never faulted. All our audits with the NSW Food Authority up to the period and through the period never identified any wrongdoings what so ever. It was only that last audit when everything changed.[72]

Food safety audits provide camouflage because the offender can claim they were being checked for compliance. Cases one and 12 concern food crimes by one of the largest suppliers of smallgoods in Australia. An anonymous complaint triggered case one, whereas case 12 followed an ACCC industry review. Private retailer audits and regulatory food safety audits failed to detect the misleading conduct and failures in the traceability systems.[73] Difficulties in detecting fraud and misrepresentation is noted in the case one judgment:

> The factor of general deterrence remains significant when consideration is given to the public safety aspects of the purpose of the Food Act. That significance is increased by the difficulty of detection of offences such as these.[74]

As Chapter 5 discussed, when food labelling breaches are detected by food regulators, state food regulators are directed by the Forum to respond with 'administrative [measures]…rather than through statutory enforcement actions'.[75] The peculiar characterising of responses to be administrative (discussed Chapter 5) rather than actual penalty notices and prosecutions means the risk of detecting offences for enforcement is extremely low. In the state of NSW, for instance, less than one per cent of the published penalty notices on the NSWFA online Register of Offences is for food labelling non-compliance.[76] Detection of offending conduct by the ACCC relies on complaints identifying potentially prohibited conduct on the marketplace. The ACCC receives over 160,000 general complaints per year. It investigates about 550, of which about 140 progresses to in-depth investigations before, on average, 30 actions are initiated in the Federal Court and court enforceable undertakings to cease use of the claims or other remedies, sought.[77]

ACCC investigations of complaints from animal welfare organisations providing undercover video footage led to the detection of offences in cases 2-12. The series of complaints led to a review of industry-wide labelling and marketing practices in the chicken-meat, duck, and pork industries. Cases 12 -14 followed a review of the pork industry examining the appropriateness of

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72 Kim Honan and Skye Manson, 'Company fined for mutton dressed as lamb' (*ABC News* (online), 5 February 2013).

73 The Managing Director of the smallgoods company provided evidence in an unrelated matter the plant was subjected to audits at a frequency of at least once a week. He stated, 'We have an audit at least once a week form a different authority. Every major retailer audits all our sites. We get audited from people like McDonalds, Burger King, Safeway. Every major retailer audits our factory. We have got employed in our factories roughly 50 people who are quality assurance people. These people receive an audit at least once a week, sometimes we get twice a week'. See *P and M Quality Smallgoods Pty Ltd v Seven Network (Operations) Pty Ltd* (in part redacted by order of the court made on 30 July 2010) [2010] NSWSC 841.

74 *NSW Food Authority Officer David Gothard) v Tolsat Pty Ltd t/as Eversons Food Processors* (2010) (unreported 2010/121447).

75 Joint Food Regulation Standing Committee (FRSC) and Implementation Sub-Committee for Food Regulation (ISFR) Working Group on Food Labelling Monitoring and Enforcement, 'Bi-National Food Labelling Compliance and Enforcement Strategy 2015' ('*Labelling Enforcement Strategy 2015*'), 9. See also *ISFR Labelling Report 2015*, above n 70, (iii)-(v).

76 NSWFA, *Penalty Notices* <www.foodauthority.nsw.gov.au>.

77 Commissioner Sarah Court, 'Enforcement Priorities at the ACCC' (Speech delivered at the Commonwealth Club of Adelaide, 24 September 2013) <http://www.accc.gov.au/speech/enforcement-priorities-at-the-accc>; See also Australia Competition Consumer Commission, 'ACCC Enforcement Guidance – Free Range Hen Egg Claims' (Guidance Document, ACCC, 5 October 2015).

animal production claims on the market. Detection of the four 'free to roam' chicken-meat cases (six to nine) followed a survey of the chicken market by the ACCC. In two of the cases (cases 10 and 11), the ACCC were made aware of the food crimes through illegally obtained video footage from animal welfare organisations. Credence claims such as Grown Nature's Way and Range Reared (as in case 11) and Open Range accompanying pictorial representations of lakes of water (case ten), were used to promote the sale of around 80,000 ducks per week, when ducks were actually reared in sheds without access to the outside nor any of the cartoon-depicted lakes of water.

The activities of the ACCC to detect and deter through enforcement of prohibitions are in addition to the routine food safety auditing and inspections strategies at state level.[78] As highlighted in Chapter 3, each food Act operating in state jurisdictions has three objectives one of which is misleading conduct in the sale of food. While food safety officers conducting audits and inspections must possess food safety skills and knowledge to detect food hygiene breaches in pursuit of the other two objects of the Act,[79] no equivalent capability to detect fraud and misrepresentation is demanded of the same authorised officers (see Chapter 5).

3 *Rewards of Food Fraud*

The third characteristic of the opportunity structure is the rewards or benefits to be gained from commission of the offence. Increased profits, avoidance of costs, increase of economic benefits and market share reward and motivate the commission of fraud and misrepresentation. The profit available to an offender is difficult to assess and varies from case to case. Researchers indicate the true economic impact of food fraud events are often incalculable. Analysis of high profile global events reveals the rewards in shipping one batch of falsely described food can amount to tens of thousands of dollars in illegal profit.[80] All 14 cases considered here involve food businesses claiming their foods for sale possess a particular nature or substance, or are of a commercial value or quality, or from a particular source, when that premium value does not, or is alleged not to, exist. When successfully prosecuted, pecuniary penalties are intended to provide both specific and general deterrence to the contravening conduct,[81] measured to avoid the 'cynical calculation involved in weighing up the risks of penalty against the profits to be made from contraventions'.[82] The ACCC argues that when there is no reasonable basis to claim the presence of a consumer value:

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78 Anon, 'Overarching Strategic Statement for the Food Regulatory System' (Strategy Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2008, updated 2012) ('*Overarching Strategic Statement*').

79 Implementation Subcommittee for the Food Regulation Standing Committee, 'National Regulatory Food Safety Auditor Guideline' (Version 1.2, 2009) ('*Regulatory Auditor Guideline*').

80 Douglas Moyer, Jonathan DeVries and John Spink, 'The economics of a food fraud incident - Case studies and examples including melamine in wheat gluten' 71 *Food Control* 358, 358.

81 *Singtel Optus Pty Ltd v Australian Competition and Consumer Commission* [2012] FCAFC 20; (2012) 287 ALR 249 at [41] and [62]-[64] (Keane CJ, Finn and Gilmour JJ); *Australian Competition and Consumer Commission v SMS Global Pty Limited* [2011] FCA 855 at [76] (Murphy J); *Australian Competition and Consumer Commission v Gourmet Goody's Family Restaurant Pty Limited* [2010] FCA 1216 at [10] (Jagot J); TPG Internet (No 2) at [63]-[66] (Murphy J).

82 *Singtel Optus Pty Ltd v Australian Competition and Consumer Commission* [2012] FCAFC 20; (2012) 287 ALR 249 [63] (Keane CJ, Finn and Gilmour JJ).

> This has the potential to give [company] an unfair advantage in the market, as consumers are likely to seek out and pay more for products containing specialised gourmet ingredients.[83]

Information about the welfare of animals in production systems significantly alters a consumer's willingness to pay for animal-based food products.[84] Higher animal welfare operations attract greater direct costs to the farmer, which are embedded in the cost of the food. Price premiums are needed to offset the higher production cost. By misrepresenting animal production processes, offending food businesses may be rewarded directly with an increase in profits acquired by stripping out the value meant for the value-adding producer, without the added expense. Some consumers may be willing to pay more to pay for this value and give an animal a better life in the production of its meat.

In another case (case 11), the Federal Court found use of the marketing terms Open Range and Range Reared and associated representations, although not deliberate:

> Would have been an inducement to consumers to prefer [company] products and give [company] a competitive advantage in the industry.[85]

Other adverse consequences for competition and the community are also caused by false representations. Regarding enforcement actions against Australia's three largest pork producers and processors (cases 12-14), the Chief Executive Officer of the ACCC remarked, '[w]hen claims such as free range or bred free range are misused, consumers may be misled into paying more for a product feature that doesn't exist. Competitors are also harmed as legitimate 'free range' producers unfairly lose their competitive advantage. Innovation suffers when consumers and business lose trust in the integrity of claims'. The ACCC remarks it is:

> actively focused on credence claims in primary industries, particularly those with potential to adversely impact the competitive process and small businesses … The ACCC identified practices in the pork industry at risk of becoming industry-wide.[86]

No pecuniary penalties were sought in cases three and 12-14 allowing the companies to retain any illegitimately acquired rewards. It should be noted here the pork producers agreed to cease the conduct they admitted may have been misleading or deceptive, or involving representations likely to be false, occurring over significant periods of time: 14 years (case 13), five and a half years (case 12) and six and a half years (case 14).

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83 ACCC, Saskia Beer's Barossa Farm Produce gives undertaking to ACCC for misrepresenting 'Black Pig' products (Media Release (online), ACCC, 16 June 2014).

84 See, eg, Carl Lagerkvist and Sebastian Hess, 'A Meta-Analysis of Consumer Willingness to Pay for Farm Animal Welfare' (2011) 38(1) *European Review of Agricultural Economics* 55; Fabio Napolitano Antonio Girolami and Ada Braghieri, 'Effect of Information about Animal Welfare on Consumer Willingness to Pay for Yogurt.' (2008) 91(3) *Journal of Dairy Science* 910; Fabio Napolitano, Antonio Girolami and Ada Braghieri, 'Consumer Liking and Willingness to Pay for High Welfare Animal-Based Products' (2010) 21(11) *Trends in Food Science and Technology* 537.

85 *Australian Competition and Consumer Commission v Luv-a-Duck Pty Ltd* [2013] FCA 1136 (Davis J).

86 ACCC, ACCC concludes review of 'free range' and other similar claims in the pork industry (Media Release MR 165/15, ACCC, 3 September 2015).

An estimated three per cent of the 4.8 million Australian pigs raised annually have access to the outdoors.[87] Almost 70 per cent of pork used in Australia is imported from Denmark, Canada and the US.[88] Imports set domestic prices for frozen (not fresh) pig meat, which are typically cheaper than Australian produced pork.[89] The labelling of an estimated 200 000 packages of imported pork as Australian over a discrete offence period in January 2008 (case one) most likely attracted direct profits because of this price difference. However, possibly more importantly, depending on how long the company was operating with the systemic failures,[90] the conduct may have contributed to the demise of the Australian domestic pig market. Over the last 20 years, 50 per cent of Australian pig farms have closed, leaving vertically integrated industrial-sized farms producing most domestic pork.[91] In 2014 the largest global processor of protein purchased the company in cases one and 12 for $1.45 billion, demonstrating the value of this market.[92]

The two leading Australian duck producers operated vertically integrated systems, each slaughtering around 80 000 ducks per week. They received moderate pecuniary penalties of approximately $400 000 each (case ten ($375 000 plus $25 000 costs) and case 11 ($360 000 plus $15 000 costs)).[93] From about 2006 to 2012, the duck producer in case 11 significantly increased its quantity of production to achieve a market share of 40 per cent in 2011.[94] It appears enforcement activity by the ACCC has had limited, if any, impact on the duck and chicken producers under study here. Following the 2012 ACCC action, the duck producer in case 11 has gone on to receive business and industry awards,[95] announced a $28 million injection of funds in 2014, and was listed by Hospitality Magazine as the 12th most trusted brand in Australia. The other major duck processing company (case ten) expanded over the offending 8-year period from a cottage industry-sized operation with ducks outside until 2004, to a major producer with 21 contract growers. Federal Court judgement highlights the nature of the rewards:

> [The company's] contraventions of the TPA and ACL are very serious. They had the potential to mislead a large number of consumers, to divert customers from law-abiding competitors and to generate a positive perception of the company in the market that was based on falsehoods. Of most concern is the deliberate nature of the company's conduct in misleading customers and taking advantage of consumer preferences over a lengthy period of time.[96]

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87 CHOICE, ACCC cracks down on free range labelling of pork (CHOICE (online), 4 September 2015).

88 Australian Pork Ltd, 'Submission to Foreign Policy White Paper' (White Paper Submission, Australian Pork Lts, 28 February 2017) 1.3 < https://www.fpwhitepaper.gov.au/sites/g/files/net3551/f/submission/170302-549-australian-pork-limited.pdf>

89 Karen Hamann, Garry Griffith and Stuart Mounter, 'Evaluating the Consequences of Imports on a Local Value Chain: The Case of Danish Pig Meat Exports to the Australian Market' (2015) 23 (Paper 8) *Australasian Agribusiness Review* 120.

90 P and M Smallgoods was founded in 1985 as a small plant in Sydney and became the largest bacon, ham and smallgoods manufacturer in Australia in 2009, employing 4000 people across plants throughout the country. The largest fresh meats processor, JBS Australia purchased the family owned company in 2015.

91 Hamann, Griffith and Mounter, above n 92.

92 Anon, 'Brazil's JBS snags Primo Smallgoods for $1.45b' (*Australian Financial Review* (online), 2 December 2014).

93 *ACL* s 224(3) permits a $1.1 million maximum penalty for each act or omission that constitutes misleading or deceptive conduct by a body corporate.

94 Quantities of products per month between 15 April 2010 and 31 December 2012 increased from 2199 to 33221 for the retail range packaging and 293 899 to 349 746 for whole duck packages. Between February 2011 and 31 December 2012, food service packaging production increased from 52 967 to 83 025 units.

95 Luv-a-duck *News*, 'Luv a duck wins the 2014 powercor Wimmera business awards' <http://www.luvaduck.com.au/news/luv-a-duck-wins-the-2014-powercor-wimmera-business-awards/>.

96 *ACCC v Pepe's Ducks Ltd* [2013] FCA 570.

Similarly, analysis of offending chicken companies' financial positions and market share increases during periods of misleading conduct about their chickens' freedom to roam[97] also suggests rewards can be high and penalties relatively low (cases 6-8). Case 6 involved the supplier of nine and a half per cent of meat chickens consumed in Australia. The family company, with annual revenue of $270 million in 2010, pleaded guilty and agreed to a $100 000 fine for misleading or deceptive conduct and false representations used to promote the sale of its chickens from 1998 to 2011. The two companies in cases seven and eight merged in 2009 creating the largest provider of chicken meat in Australia, processing over three million chickens a week. This merger created a market leading operation, privately owned by a family turning over $1.3 billion in revenue in 2013 with 36.5 per cent market share. The joined companies paid a combined pecuniary penalty of $400 000 for approximately 18 months of offending conduct. The promotion of meat chickens generally by a chicken industry association (case nine) with free to roam representations was also found to be offending conduct in particular circumstances, with the Federal Court ordering the association pay a pecuniary penalty of $20 000.

It is clear rewards of food fraud crimes include direct profit gains, as is well demonstrated by case 2. Around 3000 hoggets entering the abattoir on 33 separate occasions over a three-month period were falsely tagged, rolled and sold as lambs. The defendant company was fined $2000 for each offence: $1000 for each false description (of the mob of sheep) and $1000 for the failures to validate classification as lamb. The rewards for falsely describing hogget as lamb appear to far outweigh potential penalties. The interviewed retail butcher provided relevant general information on the lamb to hogget value difference and industry practice:

> We label all mutton as mutton. A big one is hogget sold as lamb. It is a bit harder to sell mutton as lamb. All the hogget is (labelled) lamb, because it loses 40 per cent of value (when sold as hogget). Because the meat is afforded less value through the commodity market system it is in everyone's interest to disguise the fact the lamb is hogget. Roller (paint) will say hogget along the back, so they break those straight away and your lamb back strap always comes from lamb (the 'lamb' brand is painted on this section of the animal in red roller paint).[98]

4 *Situational Conditions Provoking Food Fraud*

The next category of characteristics used for analysis is situational conditions that may encourage or provoke food fraud crimes. Opportunity alone does not 'make the thief' but offending is more likely when situational conditions are conducive to commission of the crime.[99] Environmental conditions such as market, structural forces and cultures within individual corporations or common to an industry can predict, as well as compound impacts.[100]

A number of regulatory conditions provoke the food fraud crimes in this study. First,

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[97] The cases concerned claims meat chickens raised in barns were inter alia 'free to roam' when in reality each chicken had available space equivalent to an A4 sheet of paper (case 6), and could not move freely because of clusters of birds impeding movement (cases 7 and 8).

[98] Anonymous interviewee 1, 1 June 2017, Sydney Australia.

[99] Marcus Felson and Ronald Clarke, 'Opportunity Makes the Thief: Practical Theory for Crime Prevention' (Police Research Series Paper 98, Home Office Policing and Reducing Crime Unit, 1998); See also Ronald Clarke, 'Opportunity Makes the Thief. Really? And so What?' (2012) 1(3) *Crime Science* 1.

[100] Louise Manning and Jai Mei Soon, 'Food Safety, Food Fraud and Food Defense: A Fast Evolving Literature' 81(4) *Journal of Food Science* 823, 825.

advertising food for sale with claims of provenance, age of animal and higher animal welfare, yields higher profits and returns. Second, food-labelling information is not systematically monitored for authenticity to reduce the risk of fraud. Third, the meanings of words used to convey impressions of higher animal welfare are often contested and marketing terms undefined. This was relevant in ten out of the 14 case studies. Consumer protection laws are set to intervene in managing industry claims of higher animal welfare.[101] Food, primary industries and animal welfare regulatory frameworks do not prescribe terms of use or define meanings for common descriptors, words and phrasings employed to promote food. This is a factor in 12 of the 14 cases (cases three to 14). Without defined meanings, words can be used to misrepresent the true nature of a food and its production. Plus, without defining meaning there is no benchmark for food regulators to investigate and enforce. The ambiguity and technical opacity reflects the market-based approach to regulating farm animal welfare in Australia.[102] In studying the financial crisis of 2007 and evaluating theories of white-collar crime, Fligstein and Roehrkasse emphasise deregulation or technical opacity as a necessary (but not sufficient) condition for widespread fraud in granting mortgages.[103] The cross-case study suggests the lack of enforceable definitions of words used to convey the nature of animal production systems is a 'necessary, but not a contingent condition',[104] provoking ten of the 14 cases. One manager of a food market that certifies locally sourced producers commented that food labelling laws 'allow' for fraud, remarking:

> Systems are set up to enable food fraud across the board because they have been developed by legal departments and marketing departments.[105]

Fourth, the farm practices represented by voluntary industry phrasing are not routinely checked in food safety regulatory audits or any other routine regulatory compliance audit. It was instead the ACCC survey of food industry conduct in a series of credence claim reviews which triggered the majority of the actions in this study. In 2013 the ACCC Commissioner declared credence claims used to promote the sale of food with the potential to impact significantly on consumers (and competition) an enforcement priority for the agency.[106] No such priority has been declared by food regulators.

Fifth, the claims are credence claims and therefore not easily verified with normal inquiry and use, reducing reporting rates by victims of crime. Certainly, an asymmetry of information exists between producer and consumer.[107] Sixth, there is a general lack of food fraud awareness, education, training in prevention and articulation as a food-related issue by responsible actors in Australia's food control system. In all cases except cases seven and eight no evidence exists of

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101 *ISFR Labelling Report 2015*, above n 70. See also *Overarching Strategic Statement*, above n 81.

102 Aaron Timoshanko, 'Limitations of the Market-Based Approach to the Regulation of Farm Animal Welfare' (2015) 38(2) *UNSW Law Journal* 514, 517.

103 Neil Fligstein and Alexander F Roehrkasse, 'The Causes of Fraud in the Financial Crisis of 2007 to 2009.' (2016) 81(4) *American Sociological Review* 617.

104 See generally Nicholas Lord and Michael Levi, 'Organizing the finances for and the finances from transnational corporate bribery' (2016) 14(3) *European Journal of Criminology* 365; Lord, Spencer, Albanese and Elizondo, above n 1.

105 Anonymous interviewee 1, 5 June 2017, Melbourne Australia.

106 Commissioner Sarah Court, above n 80.

107 See generally Joseph Stiglitz, 'Imperfect Information in the Product Market' (1989) I(1976) *Handbook of Industrial Organization (Volume 1)* 769.

food businesses training employees to avoid the offending conduct. In cases seven and eight, the companies were operating a consumer law compliance regime.

The interviews as part of this study provide some cultural insights. The retail butcher of higher animal welfare food produce stated:

> Culturally, food fraud is absolutely accepted within the industry. If you can mislabel something and get away with it, it is regarded as quite a good thing.[108]

There is no evidence that seeking to avoid red tape to save associated expenses is provoking the food fraud crimes. To the contrary, as mentioned above, food safety red tape provides cover for parasitic acts on routine systems related to food labelling. The criminogenic incentive structure of the studied food fraud crimes appears directly related to market price volatility and uncertainty.

5 *Excuses and Neutralisations*

The excuses and neutralisations that may play a part in committing an offence form the fifth element of characteristics of criminal opportunity. Two main themes emerge from the analysis. First, operators overwhelmingly deny they had the intention to mislead or deceive consumers. Second, there is a propensity of company representatives once found to have defrauded consumers, to use history of food safety compliance and having been subjected to frequent regulatory food safety audits as the basis to publically deny culpability for the proven criminal conduct.

In regards to the first identified theme, Michael Benson's research shows that compared with other types of white-collar corporate criminals, fraudsters are much more likely to deny committing any crime whatsoever.[109] He reasons that frauds are 'aggressively acquisitive' by nature and deliberate by definition, making fraudsters the most prone to lie when caught.[110] Admitting the conduct was deliberate can reveal the presence of a guilty mind (mens rea), exposing the essential element of criminality: the intent to harm others. If a fraudster admits they had an intention to harm on one occasion, according to Benson, the legitimacy of past and future economic gains may be questioned. Specifically, the analysis revealed companies had emphasised an absence of deliberateness (cases six to eight, ten, 11 to 14), suggested mistakes (case one), blamed supply chain actors incorrectly recording animal-type classifications (case two) and claimed the offending marketing platform was educating consumers to disabuse them of common misperceptions (cases seven to nine). Cases four and ten argued consumers had not complained. For example, when investigating officers in case one observed imported pig meat entering the local packing line, the National Quality Manager told investigating officers:

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[108] Anonymous interviewee 1, 1 June 2017, Sydney Australia.

[109] Michael Benson, 'Denying the Guilty Mind: Accounting for Involvement in a White-Collar Crime' (1985) 23(4) *Criminology* 583, 597.

[110] Ibid 597.

> This is obviously an error. Someone's made a mistake. I'll put the product on hold and arrange for it to be placed into quarantine. I will then get the product either repacked or relabelled. I will also rectify the matter by replacing the imported pig meat with local pig meat.[111]

A voluntary recall was conducted on a limited number of batches. When charges were laid, the company advertised in national newspapers it would vigorously defend the charges. But following the guilty plea, the company submitted in sentencing proceedings that the systemic failures were, inter alia, because:

> It has a large workforce of diverse backgrounds and that implementation and supervision of procedures is complex and demanding.[112]

Christopher Elliott, author of the Elliot Review, advises the length and complexity of food supply chains means it is hard to pinpoint complicity.[113] It is therefore possible to shift the blame onto other supply chain actors. This, for example, occurred in case two, where the defendant unsuccessfully argued the classification of sheep by supply chain actors was haphazard and unreliable, claiming it was not possible for the prosecution to prove the charges. The argument failed to convince the Magistrate.

Turning to the second theme, three defendants sought to neutralise the allegations of fraud by claiming the business was in compliance at food safety audits (two, ten to 11). One duck producer told media representatives:

> We're one of the most heavily regulated of all the poultry companies, because we do export duck and we're under surveillance and scrutiny by PrimeSafe - the Victorian authority, and we're also under scrutiny by AQIS - Australian Quarantine Inspection Services, because we export … the farms are inspected four to six times a year.[114]

Similarly, as identified in a quote above,[115] the defendant abattoir (case two) remained resolute, remarking to the media routine processes had not failed, that previous audits had not detected any breaches. The owner failed to submit evidence at the hearing to support alternate explanations for the alleged offences.[116]

6 *Opportunity reducing prevention strategies*

Finally, the SCP method moves the analysis beyond highlighting the presence of opportunities for the crime to identifying potential situational interventions that may block commission of the crime (Table 2, below). Essentially, the element identifies interventions that are the logical consequences of the previous analysis. In short, the analysis fails to lead to new opportunity-reducing techniques beyond identifying obvious changes required to macro-level, structural regulatory frameworks discussed in Chapter 5. Based on the analysis, enhancing and clarifying the guardianships available within Australia's food control system is required. This

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111 *NSW Food Authority v P and M Quality Smallgoods Pty Ltd t/as Primo Smallgoods* (2010) (unreported 2010/20035260/09/2).

112 Ibid.

113 Natalie Whittle, 'The fight against food fraud' (*Financial Times* (online) 24 March 2016).

114 Kath Sullivan, 'Duck farm shocked by calls for animal welfare investigation' (*ABC* (online), 13 July 2012).

115 Honan and Mason, above n 75.

116 *NSW Food Authority Officer David Gothard) v Tolsat Pty Ltd t/as Eversons Food Processors* (2010) (unreported 2010/121447).

requires governments to specifically articulate food fraud as a food-related issue for strategic detection and prevention.[117]

Returning to Felson's routine activity approach to street crime analysis, three elements interact in the chemistry of crime: a suitable target, a likely offender, and the absence of guardians.[118] Routine food safety regulatory audits are failing to detect the frauds over long periods of offending ranging from one month to 14 years. In the majority of these cases, the target is the subject of complex and dynamic food processing chains and systems. Hazards in food processing systems are identified for control and documented routine processes are audited for compliance with food safety schemes. The analysis suggests not only do food safety audits not detect food fraud as a matter of routine. State food safety schemes are providing great cover to the parasitic illegitimate conduct around the routine labelling of the target (food).

In regards to traditional food safety risks, the license to operate causes each meat producer to systematically examine its primary production and food handling operations to identify microbial, chemical or physical hazards, implement control measures that address those hazards, implement HACCP, and comply with the HACCP program to control known hazards (Chapter 4).[119] Certainly legitimate businesses are operating systematically analysed and controlled routine processes to reduce known risks of foodborne illness to zero. Equivalent measures to demonstrate authenticity are not prescribed. Unlike microbial risks, food regulations do not require food businesses to systematically analyse the routine processes in labelling the target and to document a plan to control risks of fraud with false descriptions and non-compliant labels. As show in Chapter 5, food safety audits involve checking that a food business has a documented traceability system, but not testing of the system for its capacity to verify labelling representations, for example. Hence, food frauds in the provision of false, misleading or deceptive food safety information, preventative health messages and consumer value issues via the target are by comparison uncontrolled, or at least not subject to the proactive monitoring demands and rigour of a traditional food safety audit. The introduction of anti-fraud audits and targeted food labelling compliance inspections with the requisite rigour could introduce capable guardianship.

Finally, the financial status and market share of companies engaging in food fraud activities as demonstrated above, suggests rewards are too great compared to the risks in getting caught. This begs questions on whether higher penalties are warranted and whether the jurisdictional limits in food legislation should rise. Further, the excuses observed in the analysis can be neutralised

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[117] See, eg, John Spink, Douglas Moyer and Cheri Speier-Pero, 'Introducing the Food Fraud Initial Screening model (FFIS)' (2016) 69 *Food Control* 306; John Spink, Douglas Moyer and Peter Whelan, 'The Role of the Public Private Partnership in Food Fraud Prevention Includes Implementing the Strategy' (2016) 10 *Current Opinion in Food Science* 68; Spink and Moyer, 'Understanding and Combatting Food Fraud' (2013) 67(1) *Food Technology* 30.

[118] Marcus Felson, 'Routine Activities and Crime Prevention in the Developing Metropolis' (1987) 25(4) *Criminology* 911.

[119] See *ANZFSC* Standard 4.2.2 *Primary Production and Processing Standard for Poultry Meat (Australia only)* cl 3 (additional requirements apply to the processing of ready-to-eat poultry and meats). State and Territory food Acts and regulations govern as part of food safety schemes, the slaughter and processing of animals for human consumption, including animals in the wild, and the preparation, packing, transportation or storage of meat or meat products. The food safety schemes require licensed operators to comply with Australia Standards including AS 4696:*2007 Hygienic Production and Transportation of Meat and Meat Products for Human Consumption* which requires the operation HACCP based Food Safety Programs to control the risks of food borne illness.

through education and raising awareness. Consumer awareness is paramount to combatting fraud.[120] Common excuses that the acts were a mistake and unintentional can be countered in campaigns[121] and educating food businesses of the positive obligation to accurately describe food for sale.

[120] Peter Grabosky and Grace Duffield, 'Red Flags of Fraud' (2001) 200 *Australian Institute of Criminoology Trends and Issues* 1, 6.

[121] See, Institute of Food Science and Technology, 'Scottish Food Crime Unit Launches Roadshow to Raise Awreness of Food Crime' (IFST(online) March 2017).

CHAPTER 6 TABLE 2: **Opportunity reducing techniques summary**

Increase effort	**Increase Risks**	**Reduce Rewards**	**Reduce Provocation**	**Remove neutralisations and excuses**
Increase data transparency, enhance monitoring and data requirements for authenticity in regulatory food safety audits	Introduce unannounced regulatory routine inspections, spot checks on authenticity, traceability, mass balance sales records	Zero tolerance – Apply statutory penalties and implement the risk-based, graduated and proportionate approach to food labelling compliance espoused in the Hierarchy.	Improve definitional clarity on common marketing terms in relation to food production	Change cultures. Governments to articulate food fraud as a food issue for industry to proactively control
Enhance certification schemes and audits	Introduce protected whistle-blower schemes for supply chain actors	Increase ease of access to remedies	Manage regulatory ambiguity and opaqueness	Government leadership - Educate industry on range of potential health and economic harms
Increase access to and knowledge of available controls for supply chains and authenticity of food and ingredients	Introduce victim consumer hotlines	Introduce positive schemes to reward food businesses with enhanced food authenticity controls	Identify and address cultural norms in accepting the activity	Consumers first perspective - Educate consumers to raise awareness of food fraud to identify and report on suspected frauds on the marketplace
Licensing schemes (for example, user pays) for the use of common marketing terms not otherwise defined in law			Introduce food compositional definitions and standardisation	Educate food businesses to clarify the parameters (limitations) of routine food safety audits
Make mandatory the compliance with emerging Food Fraud Vulnerability Assessments and Mitigation Plans				Educate on food business responsibilities and reasonable, proactive controls of food frauds

IV CONCLUSION

Understanding the nature and mechanics of fraud and misrepresentation is important if the regulation of food fraud is to be achieved. To this end, the chapter analysis of available data provides a unique picture of the 14 known cases of fraud and misrepresentation in the sale of premium value meats in Australia. None of the cases involves departure from a routine process. The repeated, systematic nature of offending was evidenced in all cases. The analysis suggests predatory entrepreneurs are exploiting gaps in monitoring and inspection systems and benefiting from the weak food labelling compliance and enforcement framework. Moreover, not only are food safety audits not checking for fraud and misrepresentation, the domination of the microbial-risk paradigm is arguably camouflaging the criminal activity on legitimate routine systems of work.

The case study analysis of this chapter suggests potential opportunity reducing techniques for this type of food fraud in meat supply chains include, but are not limited to (i) increasing the effort by enhanced data transparency, enhanced monitoring and data requirements in regulatory food safety audits and introducing Food Fraud Vulnerability Assessments and Mitigation Plans to raise awareness and control over various frauds; (ii) increasing the risk by introducing unannounced routine regulatory inspections, spot checks on authenticity, traceability, mass balance analysis of inputs and sales records, introduce whistle blower schemes for supply chain actors and introduce consumer and industry hotlines; (iii) reducing rewards from frauds and misrepresentation requires food regulators to stop treating food labelling non-compliance as a residual risk to microbial risk and administer the risk-based, graduated approach to food safety as espoused in the Hierarchy; (iv) reducing provocation by improving definitional clarity on common marketing terms and managing any ambiguity, confronting cultural norms accepting fraud in supply chains requires positive actions by food industry leaders and responsible governments to articulate food fraud as a food issue and developing harmonised food authenticity processes of verification; and (v) removing excuses for the conduct requires a change in cultural acceptance lead by governments and industry setting norms for food business conduct and countering any industry acceptance of fraud in meat supply chains, and lots of education targeting industry and consumers, especially industry education on the range of technical, indirect and direct harms to safety and public health beyond microbial risk related harms.

The next chapter moves to the next level of the Hierarchy (Tier two) and considers whether Australia's food regulatory system prevents indirect harms to safety and public health, from false, misleading or deceptive preventative health information.

CHAPTER 7: TIER TWO FOOD LABELLING ISSUES

> Açaí (Pronounced ah-SAH-ee) is a little purple berry that originated in the Amazon rainforest of Brazil. This 'wonder berry' is considered to be one of the most powerful and nutritious super foods on the planet. It contains high levels of essential fatty acids (omega 3's in particular) known for their cardio and neuro-protective and anti-inflammatory effect. It is super rich in antioxidants to reduce cholesterol, contains 19 different amino acids to optimize brain signalling pathways, is rich in minerals and vitamins (especially calcium and vitamin E) for healthy hair, skin and nails. Açai is low in sugar so it won't alter blood sugar levels and is an excellent source of dietary fiber and natural energy. So now you're probably thinking 'Surely something that good for me, can't possibly taste good.' Well, eating your own words has never been so delicious. When the berries are blended, we describe it as a fruit sorbet with hints of dark chocolate and red wine. What's not to like?[1]

I INTRODUCTION

Chapter 5 has examined the enforcement data of fraud and misrepresentation of premium-value meats to define the crime opportunity structure for that discrete type of fraud and misrepresentation of consumer value issues (Tier three food labelling issues). Chapter 6 now examines the regulatory control of fraud and misrepresentation with food labelling issues prioritised one level higher - Tier two of the Food Labelling Issues Hierarchy. To recap, the Food Labelling Issues Hierarchy provides that Tier two preventative health labelling issues are about indirect, long-term impacts on health. The mode of regulatory intervention for this type of food labelling issue is a combination of mandatory and co-regulation under the ACL and ANZFSC, respectively.[2] Accordingly, when promoting foods with Tier two claims, both the ANZFSC and the general prohibitions on misleading or deceptive conduct in the food Acts and ACL can apply. It is the ANZFSC that dominates the regulatory approach with a specific Standard 1.2.7 introduced in 2016 for compliance monitoring by state food regulators. The ANZFSC prescribes actual conditions, permissions, prohibitions, evidentiary benchmarks and substantiation processes for compliance by all food businesses using this type of food labelling information to promote the sale of food.

This chapter uses a survey of anti-ageing claims on açai berry products as a case study for comparing Australia's regulatory approach with the European and US regulatory schemes. The chapter argues that although Standard 1.2.7 is designed to prevent fraud and misrepresentation this policy intention is weakened in practice by the macro-level administration of food labelling compliance monitoring and enforcement within the food regulatory system (see Chapter 7). Certainly Standard 1.2.7 deviates from the requirements for all claims used in the EU to receive

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1 Kiss the Berry, the Açai Specialists, Brisbane Café.

2 Implementation Sub-Committee for the Food Regulation Standing Committee, 'Australia and New Zealand Food Regulation Compliance, Monitoring and Enforcement Strategy 2017' (Enforcement Strategy, Australia and New Zealand Ministerial Forum on Food Regulation, 2017), Appendix 1 ('*Enforcement Strategy 2017*'); Joint Food Regulation Standing Committee Implementation Sub-Committee for Food Regulation (ISFR) Working Group on Food Labelling Monitoring and Enforcement, 'Report of the Bi-National Food Labelling Compliance and Enforcement Framework' (Report Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2015), 7 ('*ISFR Labelling Report 2015*'). See also Chapter 3, Figure 1 (Part III.A) for an adapted 'Food Labelling Issues Hierarchy' incorporating examples of food labelling elements provided in Appendix 1 of the *Enforcement Strategy 2017*.

pre-market approval. Australia's pathway to self-substantiating some health claims, coupled with Australia's food safety risk-based approach to prioritising regulatory action exposes Australian consumers to indirect harms.

Part II (Section II.A) argues fraud and misrepresentation of food using unsubstantiated claims of food-health relationships be explicitly included as the eighth type of food fraud based on the Spink and Moyer's definition (Chapter 1). Section II.B of this chapter uses the açai berry as a case study to show that overreaching and (or) unsubstantiated health claims are observed on superfood products in Australia and that they constitute a risk to consumer protection and public health in a context of gastro-anomy (confusion over appropriate norms for eating) and healthism (individual responsibility for making healthy choices). Such claims should be prevented and controlled as examples of food fraud. The onus should lie on food businesses to ensure this information is compliant, and that it is not false, misleading or deceptive by submitting self-substantiated claims for approval by FSANZ before exposing Australian consumers in the marketplace to the claims.

Part III of the chapter critically assesses whether the ANZFSC's new Standard 1.2.7 can effectively address potential food fraud such as that observed on açai product labelling (Section III.A). Standard 1.2.7 requires a high evidential threshold for health claims in line with best practice regulation in the EU. Thus, the substance of Standard 1.2.7 is in theory capable of addressing this type of food fraud. In practice, however, the implementation and enforcement of Standard 1.2.7 relies heavily on industry self-substantiation without pre-approval from a regulatory body. This contrasts sharply with the EU where regulator pre-approval is required for all health claims on food labelling (Section III.B.1). In Australia, where implementation and monitoring of the ANZFSC occurs at state level, there is insufficient regulatory supervision of the substantiation process to remove all exaggerated and overreaching claims from the marketplace (Section III.C). This is similar to the situation in the US (Section III.B.2). Nor can consumers rely on the federal consumer protection regulator, the ACCC to monitor and supervise health claims on food. The ACCC has had some success in taking enforcement action in relation to false or misleading credence claims on food. However, without powers to enforce the ANZFSC, the ACCC is not in a position to proactively monitor food labelling and marketing for false, misleading or non-compliant health claims (discussed in Chapter 3 Section II.E). This leaves consumers vulnerable to exploitation via yet another type of food fraud, and in turn creates consumer safety and public health risks.

II Açai Berries And Anti-Ageing Health Claims: A Case Of 'Food Fraud'

A *Health claims as an eighth category of food fraud*

The John Spink and Douglas Moyer definition presented in Chapter 1 captures the 'deliberate and intentional … misrepresentation of food, food ingredients, or food packaging; or

false or misleading statements made about a product for economic gain'.[3] With reference to Spink and Moyer's content-based definition for policy discourse, this chapter introduces the intentional use of false or misleading health claims made about a food for economic gain as an eighth category of food fraud types. The introductory chapter introduced the other seven types of food fraud.[4] The EU in particular recognises the need for comprehensive food fraud control and prevention to include preventative health claims. Particularly in the wake of the horse meat substitution scandal, a 'fancy name' such as superfood cannot be used to promote food for sale unless it is accompanied by a regulated (or related) and pre-approved claim that explains why the food is good for consumers' health.[5] Similarly, in the policy development stage of Standard 1.2.7 in Australia, the risk of misleading conduct for economic gain was identified as a significant industry behavioural issue requiring prioritised control.[6]

In Australia, Standard 1.2.7 requires systematic scientific reviews of the evidence to establish causal links between a food and health effect before a health claim can be made. Thus, it seeks to proactively prevent false, misleading or deceptive claims of food-health relationships. Substantiating the 'food-health relationship' is central to the regulation of health claims in Australia and the EU. In Australia, there are two types of claims of a food-health relationship:[7] General-level health claims (GLHC)[8] and high-level health claims[9] (HLHCs). The two defined types of health claims are distinguished by whether the claim about a substantiated food-health relationship mentions a serious disease, or only a disease.[10] Mentioning a serious disease or a biomarker to a serious disease is a HLHC and such claims are prohibited without FSANZ approval and listing in the Standard 1.2.7. FSANZ has systematically reviewed the evidence of over two hundred food-health relationships.[11] Most evidence of food-health relationships is for GLHC. Food businesses can access the list in Standard 1.2.7 to devise permitted GLHCs and HLHCs in the promotion of food.

However, as is argued in Part III of this chapter, although Standard 1.2.7 sets a high and appropriate standard for the substantiation of health claims on food, the implementation processes it prescribes and Australia's food safety risk-based approach to compliance and enforcement creates significant weaknesses when aiming for preventing indirect harms. This is because unlike

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3 John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* 157, 158.

4 See Chapter 1.

5 Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on Nutrition and Health Claims Made on Foods [2006] OJ L 404/9, art 1(3) ('*Health Claims Regulation (EC) 1924/2006*').

6 FSANZ, P293 Review Report – Proposal P293, (Review Report, Commonwealth Department of Health, 2012), 49.

7 *ANZFSC* Standard 1.2.7 cl 2 provides a 'health claim means a claim which states, suggests or implies that a food or a property of food has, or may have, a health effect'. Health effect means an effect on the human body, including an effect on a biochemical, physiological, functional process or outcome; growth and development; physical or mental performance; and a disease, disorder or condition.

8 Ibid. A 'general level health claim means a health claim that is not a high level health claim'.

9 Ibid. A 'high level health claim means a health claim that refers to a serious disease or a biomarker of a serious disease'.

10 Ibid. A 'serious disease means a disease, disorder or condition which is generally diagnosed, treated or managed in consultation with or with supervision by a health care professional'.

11 Ibid Sch 4.

the EU, where regulator pre-market approval is required for all health claims, Standard 1.2.7 allows food businesses to self-substantiate some food-health relationships for GLHCs. This means, as long as the claim is not about a serious disease, businesses can self-substantiate and market the food without pre-market checks by a regulating authority. In addition, due to a second weakness, notably the monitoring and enforcement of Tier two preventative health claims (discussed in Chapter 7), without the requirement for pre-market approvals in Australia (as in the EU), consumers are at risk. State food regulators who must monitor compliance may not be sufficiently resourced. The risk-based compliance and enforcement strategies of state health and food enforcement agencies direct resources away from monitoring health claim compliance in favour of Tier one direct, acute and immediate threats of harm.[12] A pre-market authorisation process for *all* health claims, as in the EU, would ensure a more proactive and effective approach for preventing harm from this eighth type of food fraud.[13]

B *Overreaching Health Claims on Açai Berry Superfood Products*

The following numbered paragraphs illustrate the challenge of combatting misleading heath claims on food via a case study of the labelling of açai berry superfood products. Açai berries have garnered the attention and imagination of food entrepreneurs. The following analysis of the available science in support of claims used in the promotion and sale, reveals these types of food frauds with health claims may be made to induce people to buy a more expensive branded product where less expensive, unbranded fruit and vegetables would have the same health benefits. The American Dietetic Association advises that 'food and nutrition misinformation can have harmful effects on the health and economic status of consumers'.[14] The next section explains the indirect threats to safety and public health from these types of food frauds in the context of healthism and gastro-anomy.

1 *Açai Berries as a Superfood*

Açai berries come from palm trees that originally grew wild in the Amazon and have been encouraged and tended by local people who have used it as a staple food since before recorded history. The palm on which the berries grow, *Euterpe oleracea,* is considered to be among the most naturally abundant species in Amazon estuary floodplains.[15] In order to harvest and eat the berries, one must climb the palms, pull down the berries and soak them in water, and then rub the skin and flesh off the large pit (the berry is mainly seed not pulp) by hand or, now, machine.[16]

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[12] Implementation Subcommittee for the Food Regulation Standing Committee, 'Health claims and Enforcement – How Regulators Will Enforce the Nutrition and Health Claims Standard' (Guidance Document, Department of Health (Cth), 2015), 4; *Enforcement Strategy 2017*, above n 2.

[13] See, eg, Deepananda Herath, Spencer Henson and John Cranfield, 'A Note on the Economic Rationale for Regulating Health Claims on Functional Foods and Nutraceuticals: The Case of Canada' (2006) 15 *Health Law Review* 23, 26, which states that proactive regulatory approaches oriented to pre-market approvals provide reliable and verifiable information, thus transforming 'credence attributes to experience or search attributes … such that there is protection against misleading claims'.

[14] Keith-Thomas Ayoob, Roberta Duyff and Diane Quagliani, 'Position of the American Dietetic Association: Food and Nutrition Misinformation' (2002) 102(2) *Journal of the American Dietetic Association* 260.

[15] Michael Heinrich, Tasleem Dhanji and Ivan Casselman, 'Açai (Euterpe oleracea Mart.) – A Phytochemical and Pharmacological Assessment of the Species' Health Claims' (2011) 4 *Phytochemistry Letters* 10, 11.

[16] See John Colapinto, 'Strange Fruit: the Rise and Fall of Açai' (*The New Yorker* (online), 30 May 2011).

Originally used by Indigenous Amerindian and later *Caboclo*[17] groups, açai berries had become popular throughout Brazil by the early 1990s due to internal migration of these people to provincial cities from the 1970s.[18] The berries were discovered by tourists and exported to Los Angeles in the 1990s, where they became an energy drink.[19] At first, açai was 'essentially a cult phenomenon, popular mostly among young, male extreme-sport enthusiasts … skaters, surfers, snowboarders'.[20] It became more widely popular in the US after it was named as a superfood for anti-ageing in a 2003 book and an Oprah Winfrey Show appearance in 2004 by New York dermatologist and leading anti-ageing expert Nicholas Perricone.[21] By 2013, 'açai-laced products grossed nearly $200 million in the United States'.[22] By this time, açai products had spread from the US to Australia, particularly via beach lifestyle cafes and anti-ageing clinics on Queensland's Gold Coast. Açai berries are now marketed to Australian consumers in frozen pulp form sold as smoothies, as bowls with fruit, yoghurt, coconut milk and granola at cafes and music festivals, and also in powder, pill or capsule form as health foods sometimes labelled dietary supplements in health food and supplement specialty stores.

Anti-ageing entrepreneur Dr Perricone's claim that açai berry products were an anti-ageing superfood appears to have been the defining point in making açai berries popular. Indeed, the claim that a food like the açai berry is a superfood with good health, and specifically anti-ageing effects is a particularly potent means of marketing; especially in a socio-economic context in which consumers are anxious and aspirational. Jessica Loyer has found Australian consumers of superfoods focus on the apparent health benefits of these products, and although they are confused by what is on offer and what benefits these products might provide, they see them as 'extra insurance' or even 'a talismanic object … providing protection from many of the health threats of the modern world'.[23]

2 *The Potential Harm of Anti-Ageing Health Claims for Consumers and Public Health*

The combined contexts of healthism and gastro-anomy make anti-ageing superfood claims particularly attractive. Healthism was first used in 1980 to describe what sociologist Robert Crawford saw as the then prevailing anxiety among the US middle classes about the loss of status arising with increasing unemployment and lower living standards and a refocusing of attention on the body. It usefully describes the contemporary preoccupation with health as an end in itself,[24] and the transformation of health care towards individualised responsibility for one's own health

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17 An ethnically mixed Amerindian and European Portuguese settler group.

18 See Colapinto, above n 16.

19 Heinrich, Dhanji and Casselman, above n 15, 11.

20 Colapinto, above n 16.

21 Ibid. The book was Nicolas Perricone, The Perricone Promise: Look Younger, Live Longer in Three Easy Steps (Time Warner Book Group, 2004).

22 Tom Philpott, 'Are Quinoa, Chia Seeds and Other "Superfoods" a Scam? Sure, Trendy Ingredients Work Like Magic – For Industry's Bottom Line' (2013) (*Mother Jones* (online) May 2015).

23 Jessica Loyer, 'Smoothies as Talismans: the Allure of Superfoods and the Dangers of Nutritional Primitivism' (*The Conversation* (online), 21 July 2016).

24 Robert Crawford, 'Healthism and the Medicalization of Everyday Life' (1980) 10(3) *International Journal of Health Services* 365.

and disease.[25] Media and advertising have played a key role in exploiting the affluent baby-boomer market, which aspires to health, beauty and never-ending youth.[26] Anti-ageing marketing claims in particular draw on this discourse of healthism.[27]

Anti-ageing superfood claims particularly appeal to consumers in a social and cultural context of gastro-anomy.[28] Food anthropologist and sociologist Claude Fischler coined the term gastro-anomy to refer to the increasing sociocultural separation between food production and consumption resulting in consumers who do not know, who may be unaware or may simply not wish to follow traditional cultural and religious norms.[29] Fischler argues that the creation and proliferation of diverse food choices within the contemporary global market tend to confuse rather than empower the consumer,[30] leaving them in a state of gastro-anomy or 'eating normlessness'.[31] However, it might be more accurate to say that rather than being normless, eating is these days subject to so many conflicting and competing normative claims that consumers are presented with a constant series of choices. The expansion of choice provides much opportunity for experiencing a variety of food and healthy eating options, but can also become a source of 'anguish and obsession, anxiety and suspicion'.[32] For food businesses, it is an opportunity to exploit consumers who are confused and (or) anxious, with food businesses motivated by potentially multiple layers of economic advantage.

Warde suggests that a range of social mechanisms seek to help consumers choose what and when to eat in a context of expanded choice and competing norms.[33] These mechanisms include the provision of advice by nutritionists, official medicine, alternative medicine, food producers and advertising.[34] Schneider and Davis' analysis of the content of women's magazines suggests that food advertising offers up-branded products as solutions to the 'problem' of too much choice.[35] This also creates opportunities for the exploitation of consumers and the dilution of public health messages via marketing claims made for economic gain. Thus, Schneider and Davis warn that it is important to examine in whose interests and to what end recommendations

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25 Toni Calasanti, 'Bodacious Berry, Potency Wood and the Aging Monster: Gender and Age Relations in Anti-aging Ads' (2007) 86(1) *Social Forces* 335.

26 Angela McRobbie, *The Aftermath of Feminism: Gender, Culture and Social Change* (Sage Publishing, 2009); Julie Guthmann, *Weighing In: Obesity, Food Justice and the Limits of Capitalism* (University of California Press, 2011), 52-65.

27 Barbara Cardona, '"Anti-Aging Medicine" and the Cultural Context of Aging in Australia' (2007) 1114(1) *Annals of the New York Academy of Sciences* 216.

28 Claude Fischler, 'Food, Self and Identity' (1988) 27(2) *Social Science Information* 275, 290-1.

29 See also Harvey Levenstein, *Fear of Food: A History of Why We Worry about What We Eat* (University of Chicago Press, 2012); Alan Warde, *Consumption, Food and Taste* (Sage Publications, 1997) 55, arguing that 'the unprecedented range of products that are made available for sale … poses a perpetual problem of selection for consumers'.

30 Jane Dixon and Catherine Banwell, 'Re-embedding Trust: Unravelling the Construction of Modern Diets' (2004) 14(2) *Critical Public Health* 117.

31 Fischler, above n 28.

32 Claude Fischler, 'Food Habits, Social Change and the Nature/Culture Dilemma' (1980) 19 *Social Science Information* 937.

33 Warde, above n 29, 31; following Zygmunt Bauman, *Freedom* (Open University Press, 1988).

34 Ibid.

35 Tanja Schneider and Teresa Davis, 'Advertising Food in Australia: Between Antinomies and Gastro-anomy' (2010) 13(1) *Consumption, Markets and Culture* 31.

are made in food advertising, since these influences and govern consumers' sense of what they should eat.[36]

The labelling of a food (in this case açai berry products) as a superfood with health, and specifically anti-ageing, claims may be a particularly potent means of marketing a product to consumers desirous and even anxious about caring for their own health, but who face conflicting social norms and cues about how and what to eat. The involvement of food producers who export, process, brand and retail these products, at a high price, demands critical examination and regulatory attention to ensure that consumers are not exploited and that public health messages (such as the value of eating a variety of fresh fruit and vegetables) are not overwhelmed by private marketing messages (such as the value of branded and often processed superfoods). In this context, a strategic, proactive approach to preventing and controlling food frauds using false, misleading or deceptive health claims is particularly important.

3 *Analysis of Anti-Ageing Health Claims on Açai Products*

In order to conduct a comprehensive review of health claims made on açai product labelling, all the açai berry products available in Australia at a point in time were identified. Publicly available government and private databases were accessed before conducting a Google search.[37] Twenty-nine food businesses[38] were identified selling a total of 38 açai products. Freeze dried powder was the most common form in which açai was sold, with pills or capsules and drinks and juices also common (see Table 1, below).

Upon identifying each açai product advertised for sale in Australia, all words and phrases used to describe the composition of the product, processing, dose instructions, certification and claimed health benefits on the label and in descriptions were recorded through a combination of capture of online advertising and retail site visits.[39] Table 1 summarises the form of products found,

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36 Ibid 32 citing Dixon and Banwell, above n 30.

37 In Australia, açai berry products are advertised and sold online, in health food stores, pharmacies, supermarkets, cafes and gyms. All trademarks registered in Australia with the terms 'açai' or 'amazon' found on IP Australia were recorded and the Australian trademarked websites accessed. Details of açai products advertised for sale on the trademark related websites were compiled. The 'açai' term was applied in the search of the ASIC business and company names database. Entities with the word 'açai' in the name not initially identified through the use of a registered trademark were selected and searches of websites were conducted to collate details on the açai products for sale. The Australian Certified Organics ('*ACO*') database was accessed using the keyword 'açai' and a search was conducted. Company websites identified through ACO were searched and the details of further açai products available for sale compiled. Google searches using the terms 'açai' and 'buy' identified additional 'açai' products available for sale in Australia. Products were also identified in searches of Australian sellers on ebay.com.au. Those products not previously identified were added to the Excel spread sheet compilation.

38 Including one specialist café.

39 Images of packaging labels for each product available for review online were observed and information recorded. A total of five Sydney located health food stores and pharmacies were visited in a search for the pills, juices and powdered açai products identified online in an effort to record any omitted information contained on labels at retail. Not all products were observed on the shelves of the visited retail stores. For the products located, photographs were taken and information presented on labels recorded with the compiled information. One cafe and one juice bar found to be selling the two frozen pulp products, respectively, was visited in Sydney and the product information detailed on the labels were recorded along with additional information provided in advertising pamphlets at point of sale. All information provided in the advertising (online content, label information and (or) point-of-sale pamphlets) of the identified products was compiled into the Excel spread sheet to facilitate the analysis.

where they were sold, the dose or use encouraged and the type of claims made on the labels in relation to health, anti-ageing, antioxidants and the 'exotic back story' of origins in the Amazon.

All products analysed and presented in Table 1 are regulated as foods by responsible state and territory food enforcement agencies administering food Acts. The products are not regulated as therapeutic goods, or, specifically, complementary medicines. The Commonwealth agency, Therapeutics Goods Administration (TGA) regulates products meeting the definition of therapeutic good provided in the *Therapeutic Goods Act 1989* (Cth). Products ultimately meeting the definition can be registered as complementary medicines and issued a mandatory listing number for declaration on labels. The TGA's online Food-medicine Interface Guidance Tool assists industry (and the therapeutic and food regulatory officers) to determine the regulatory status of products that at first glance may exist in a regulatory grey area overlap between the two regulatory schemes. Products marketed and sold as dietary supplements in the US often exist in this grey area. Many US categorised dietary supplements are defined in Australia as foods carrying health claims.

The grey area products analysed in this study include the acai berry pills. Pills, tablets and capsules are often regulated as therapeutic goods and listed as complementary medicines. However, just because a product is presented in pill form does not automatically ensure its status as a therapeutic good (or specifically, a complementary medicine). A detailed selection criteria is applied by the Food-medicine Interface Guidance Tool and includes whether a standard for the product exists in the ANZFSC, as well as whether the goods has a tradition of use as foods. For example, the existence of a fruit and vegetables standard means the acai berry pills analysed in this case study do not meet the definition for a therapeutic good and are therefore regulated as foods (albeit in pill form).

CHAPTER 7 TABLE 1: Summary of Açai **berry products by type of food and claims**

Form of Acai	Number of foods (n=38)	Dose/Use Information (examples)	Label Claims				
			Anti-ageing	Antioxidants	Phytochemicals	'serious disease'	Exotic Backstory
Freeze dried powder	14	'2 x 5gram heaped teaspoons daily'; 'mix 1 tablespoon with juices, tea, yogurt, (soy, rice, almond) milk or sprinkle over fruit salads, ice cream or porridge'; 'mix 1-2 teaspoons (5g) daily into water, juice, smoothies, yoghurt, cereal or other foods you enjoy daily'; 'add 1 to 3 tablespoons of Acai to your favourite juice, smoothie or cereal once or twice a day'; 'add to yoghurt, smoothies, ice cream, fruit juice, water, milkshakes, muesli or even margaritas!'	7/14	14/14	10/14	4/14	7/14
Pills/capsule	8	'take six daily'; 'take 2 capsules daily'; 'take 1-2 capsules per day, or as required'; 'take 1-2 gel caps with meals'; 'can consume 1-4 capsules per day for the entire family'	2/8	6/8	2/8	3/8	3/8
Fruit juice/drink	8	'Drink 30ml to 6ml twice daily with meals'; 'add 1 part acai juice (30ml-50ml) to five parts water (150ml-250ml) or other juice. Consumer throughout the day as desired'; 'dilute 1 part (30-50ml) with 5 parts (150-250ml) water'	1/8	7/8	2/8	2/8	6/8
Frozen pulp	3	'blend two packs in smoothie daily'	1/3	3/3	1/3	2/3	2/3
Tea	2	'for maximal results, we suggest using Acai tea in conjunction with a detox (14-28 days). Consume the tea in the middle of the day'	1/2	2/2	0/2	0/2	1/2
Coffee	1	Coffee sachets with dried acai	0/1	0/1	0/1	0/1	0/1
Sports gel	1	Gel sachets	0/1	0/1	0/1	0/1	0/1
Alcohol	1	Standard drink serving	0/1	0/1	0/1	0/1	0/1
TOTALS	**38**		**12/38**	**32/38**	**16/38**	**11/38**	**20/38**

The next sections present an analysis of the observed claims used on actual labels as well as words used in online advertising, their interaction with anti-oxidant claims and the exotic back story, and critical evaluation on how well-supported the preventative health claims are. As will be explained, it is concluded that no unique evidence supports the promotion of açai berry products as a superfood over other nutrient-dense foods. Further, the promotion often represents preliminary research findings of relatively unknown properties of food, claimed as statements of fact in the context of a commercial transaction. Some of these claims, or the manner in which they are enlisted to influence purchasing choices may amount to this eighth type of food fraud (see Section II.B6).

4 *Açai Berry Labelling: Unsubstantiated Health Claims Likely to Mislead or Deceive Consumers*

As Table 1 shows, many Australian açai products claim to have particular, sometimes unique, health-giving and even 'anti-ageing' properties. The anti-ageing claims are grounded in the widely believed but not thoroughly understood or researched free radical theory of ageing.[40] According to the theory, free radicals[41] cause damage to human cellular components, contributing to life-limiting diseases such as cancer, heart disease and immune system decline. Anti-oxidants are theorised to protect cells from this damage.[42] Scientific agreement exists for claiming food-health relationships about well characterised vitamins and minerals such as beta-carotene, lycopene, vitamins A, C and E; substances found in a wide range of ordinary fruit and vegetables not marketed as superfoods.

Of the 38 açai products identified, 32 refer to 'antioxidants' and their health-giving properties including all of the powders (14/14), pulps (3/3) and teas (2/2), two thirds (6/8) of the pills, and seven out of eight of the juices.[43] Eleven of the products explicitly link this to 'anti-ageing'.[44] Similarly, 11 foods (4/14 powders; 3/8 pills; 2/8 drinks; and 2/3 pulps), 29 per cent of the sample, mention a serious disease in their labelling or advertising and thus make restricted HLHC under Standard 1.2.7.[45]

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40 Denham Harman, 'Aging: A Theory Based on Free Radical and Radiation Chemistry' (1956) 11 *Journal of Gerontology* 298. See also Denham Harman, 'The Aging Process' (1981) 78(11) *Proceedings of the National Academy of Science* 7124. This theory is supported by mammalian studies of transgenic mice. See also Samuel Schriner, Nancy Linford, George Martin, Piper Treuting, Charles Ogburn, Mary Emond, Pinar Coskun, Warren Ladiges, Normal Wolf, Holly Van Remmen, Douglas Wallace and Peter Rabinovitch, 'Extension of Murine Life Span by Overexpression of Catalase Targeted to Mitocondria' (2005) 308 *Science* 1909.

41 Ibid. Technically known as 'reactive oxygen species'.

42 National Cancer Institute (US), *Antioxidants and Cancer Prevention* (16 January 2014) <https://www.cancer.gov/about-cancer/causes-prevention/risk/diet/antioxidants-fact-sheet>. The US National Cancer Institute at the National Institute of Health defines antioxidants as 'chemicals that interact with and neutralize free radicals' (unstable molecules made by the process of oxidation during normal metabolism). Free radicals may play a part in cancer, heart disease, stroke, and other diseases of aging. Antioxidants include beta-carotene, lycopene, vitamins A, C, and E, and other natural and manufactured substances.

43 In an example from the study, Natures Goodness® Açai Power™ claims 'Açai Power™ is a potent source of antioxidants – substances which protect the body from the harmful effects of free radicals and oxidative damage …'.

44 In an example from the study, Amazon Power® Pure Açai pulp claims 'Helps you look younger and live longer! With the highest concentration of antioxidants of any berry on the plant, açai helps reduce the signs of ageing and stress'.

45 In an example from the study, Bioglan® Açai + Berry powder claims 'What: Açai Berry. Why: Originating in the Amazon these berries are packed full of nutrients, particularly antioxidants. … Antioxidants protect our body from damaging effects of inflammation, an aggravating factor in heart disease'.

The claims on these products attribute to açai berries some generally well-accepted health benefits that come from eating any of a whole range of fresh fruit and vegetables. This includes any benefits that may accrue from the antioxidant capacity of vitamins and other food components. The superfood claims, however, seek to distinguish some fruit and vegetables, such as açai, from other fresh, unbranded fruit and vegetables on the basis that a particular set of bioactive molecules (phytochemicals) are especially potent antioxidants.[46] Scientific research about the impact of particular phytochemicals on health is, however, indirect, relatively preliminary and by no means definitive.[47] There are no studies establishing a causal relationship between particular phytochemicals and human health and taking into account the form of the food, process of manufacture, bioavailability and dose.[48]

Superfood marketing platforms use selective scientific information from preliminary laboratory-based research to create overreaching health claims that potentially mislead or deceive consumers. One example is the way marketing claims appeal to the ORAC (oxygen radical absorbance capacity) scale to suggest that açai berries (and other superfoods) are uniquely health-giving and anti-ageing. [49] In 2012 the US Department of Agriculture withdrew an ORAC database from its Nutrient Data Laboratory website with the explanation that it was 'routinely misused' by

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46 Sandhya Khurana, Krishan Venkataraman, Amanda Hollingsworth and Matthew Piche 'Polyphenols: Benefits to the Cardiovascular System in Health and in Ageing' (2013) 5(10) *Nutrients* 3779, 3797–8. Specifically, it is the anthocyanins (a particular type of polyphenol) that are highly concentrated in the açai berry that is claimed to be of particular benefit. These anthocyanins are associated with the dark purple pigmentation in açai berries and are also found in cranberries, raspberries, blueberries, red grapes, red cabbage, eggplant skin and plums; See Juan Carlos Espín, Maria García-Conesa and Francisco Tomás-Barberán, 'Nutraceuticals: Facts and Fiction' (2007) 68(22) *Phytochemistry* 2986, 2987; See also Maria Elisa Schreckinger, Jennifer Lotton, Mary Ann Lila and Elvira Gonzalez de Mejia, 'Berries from South America: A Comprehensive Review on Chemistry, Health Potential and Commercialization' (2010) 13(2) *Journal of Medicinal Food* 233.

47 Joanne Lunn, 'Superfoods' (2006) 31(3) *British Foundation Nutrition Bulletin* 171, 171 points out that epidemiological studies confirm segments of the population who consume larger amounts of cruciferous vegetables (for example, broccoli), and thus glucosinolates (which break down to form isothyiocynates to induce potentially anti-carcinogenic defence mechanisms), are afforded some degree of disease protection.

48 See Laura Rubio, Alba Macia, and Maria-Jose Motilva, 'Impact of Various Factors on Pharmacokinetics of Bioactive Polyphenols: An Overview' (2014) 15(1) *Current Drug Metabolism* 62; See also Pedro Mena, Nuria Martis, Cristina Garcia-Viguera, 'Varietal Blends as a Way of Optimizing and Preserving the Anthocyanin Content of Pomegranate (*Punica granatum L.*) juices' (2014) 62(29) *Journal of Agricultural and Food Chemistry* 6936; See Susanne Henning, Yanjun Zhang, Victoria Rontoyanni, Jianjun Huang, Ru-Po Less, Amy Trang, Gloria Nuernberger and David Heber, 'Variability in the Antioxidant Activity of Dietary Supplements from Pomegranate, Milk Thilste, Green Tea, Grape Seed, Goji, and Açai Effects on in vitro Digestion' (2014) 62(19) *Journal of Agricultural and Food Chemistry* 4313 for a discussion on the variability of measured antioxidant capacities and the effects of simulated digestion of dietary supplements in vitro; Espin, García-Conesa and Tomás-Barberám, above n 46 provides that because laboratory-measured activity in vitro does not reflect the activity in the human body, such measurements 'cannot be an indicator for its 'goodness' to the human body'.

49 In an example from the study, RioLife® 100% Organic Freeze-dried Açai powder claims 'When measuring a food's antioxidant potential, scientists use a scale called ORAC (oxygen radical absorbance capacity). Using the ORAC scale, açai berries are one of the most potent sources of antioxidants you'll ever find. In fact, while fresh fruit or veggies provide you with 890 to 2500 ORAC units per serving, just one 5 gram serving of 100% Certified Organic Açai powder packs in a whopping 4,695 ORAC units … so think of the antioxidant capacity of açai berries like this: one 5 gram tablespoon of 100% Certified Organic Açai powder contains about the same amount of antioxidants as 120 blueberries.'

food businesses and that 'there is no evidence that the beneficial effects of polyphenol-rich foods can be attributed to the antioxidant properties'.[50]

Published research demonstrates that açai *may* have anti-cancer activity and *may* protect the heart due to its antioxidant profile,[51] but human clinical trials undertaken to date do not provide sufficient evidence to assert the health claims as fact.[52] Direct scientific evidence does show that a diet rich in vegetables and fruits generally has a protective effect on cancer,[53] and studies reveal an inverse association with diseases of the cardiovascular system.[54] However, the causal mechanisms for the food and health relationships remain elusive and the subject of much study. There is no conclusive scientific evidence for any unique health and anti-ageing claims in the sale of açai berry or other superfood products over other nutrient-dense foods.

5 *Açai Berry Product Labelling: Using an Exotic Backstory to Create a superfood*

Even fruits with measured polyphenol profiles comparable to açai berries,[55] such as blueberries, blackberries, blackcurrants, strawberries and cranberries, artichokes, prunes, black grapes, and red onions have not achieved the same status as undisputed superfoods as have açai berry products and other exotic, imported foods like goji berries and chia. Critical US news magazine *Mother Jones* reported that in 2013 blueberries only generated US$3.5 million, 'less than 2 percent of açai based products', and suggested that it was the 'exotic back story' that helped turn açai berries into superfoods.[56] The Australian açai products studied here suggest this may be so. Just over half (20 out of 38) of the products refer to the exotic origins of the açai berry.[57] Labelling implies that it is the mystical origins in the Amazon jungle itself that contributes to the superior properties of the açai berry. One product refers to '[o]ver 50 essential nutrients many unique to the Amazon soil' (Amazonia®, frozen smoothie packs). Another story puts together the scientific

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50 United States Department of Agriculture Agricultural Research Service, *Frequently Asked Questions: What is the Status of the USDA Database for the ORAC of Selected Foods?* (15 August 2016) United States Department of Agriculture <http://www.ars.usda.gov/Main/docs.htm?docid=6233>.

51 Heinrich, Dhanji and Casselman, above n 15.

52 Thea Magrone, Fatima de Heredia, Emilio Jirillo, Giuseppa Morabito, Ascension Marcos and Mauro Serafini, 'Functional Foods and Nutraceuticals as Therapeutic Tools for the Treatment of Diet-Related Diseases' (2013) 91 *Canadian Journal of Physiology and Pharmacology* 387, 393. The authors state that 'further and more homogenous investigations in humans are needed to identify the bioactive ingredients in food involved in the modulation of low-grade inflammation in diet-related disease'; National Centre for Complementary and Integrative Health, *Açai* (12 April 2016) <http://nccam.nih.gov/health/açai/ataglance.htm> advises there is a lack of 'definitive scientific evidence based on studies in humans to support the use of açai berry for any health-related purpose'.

53 Christina Nagle, Louise Wilson, Maria Celia Hughes, Torukiri Ibiebele, Kyoko Miura, Christopher Bain, David Whiteman and Penelope Webb, 'Cancers in Australia in 2010 Attributable to Inadequate Consumption of Fruit, Non-Starchy Vegetables and Dietary Fibre' (2015) 39 *Australian and New Zealand Journal of Public Health* 422. The review implies that 'increasing the proportion of Australians who consume the recommended intake of fruit, vegetables and fibre could prevent up to 4% of all cancers'.

54 Lus Dauchet, Phillippe Amouyel, Serge Hercberg and Jean Dallongeville, 'Fruit and Vegetable Consumption and Risk of Coronary Heart Disease: A Meta-Analysis of Cohort Studies' (2006) 136 *Journal of Nutrition* 2588.

55 See Mario Perez-Jimenez, Vos Neveu, Augustin Scalbert, 'Identification of the 100 Richest Dietary Sources of Polyphenols: an Application of the Phenol-Explorer Database' (2010) 64 *European Journal of Clinical Nutrition* S112, S114.

56 Philpott, above n 22.

57 For example, an açai berry fruit juice drink in Woolworths refers to 'The açai berry from the Brazilian rainforest' as 'the tree of life'. Another line of açai juice products from MonaVie™ suggests that, '[f]or countless centuries, the people of the Amazon have revered this unique fruit for its nutritional content and prized it as a source of health and vitality'.

and naturalistic stories to show how buying an expensive[58] supplement powder can help the consumer 'unlock the energy of the Amazon'.[59]

As explained in Section II.B.2 above, the contemporary high-income consumer is looking for a combination of self-care and social meaning in the food they buy. The labelling of açai berries and other superfoods delivers this in abundance with its combination of impressive-sounding scientific claims about the health benefits of micro-nutrients on the one hand, and the naturalism and mysticism of claims about the history of the açai berry on the other. As an in-depth *The New Yorker* article about the açai berry phenomenon, quoting anthropologist Jane Fajans' observation, this exotic backstory means that açai berry could become:

> a kind of balm for millennial anxieties … a miracle cure for, among other things, obesity, attention-deficit disorder, autism, arthritis, Alzheimer's disease, and erectile dysfunction … There are all these claims … that it takes away the toxicity of living in the First World and transports you back to the healthy, natural world of the rainforest.[60]

The exotic claims about the Amazonian origins of the açai berry may (singularly) amount to mere advertising 'puffs'.[61] Yet, confluence with overreaching, unsubstantiated health claims add potency in promoting the food. Courts have held in consumer protection matters that half-truths may be misleading, and 'context and the "dominant message" will be important' in determining whether advertising is misleading or deceptive.[62] Advertising puffery has been found to amount to a representation being misleading and therefore prohibited – any statements need not be false in meaning for the prohibition to apply.[63]

6 *Summary: Açai Berry Superfood Anti-Ageing Claims as Food Fraud*

This case study of açai berry labelling and marketing claims suggests that a category of (exotic) fresh fruit – the açai berry – has been branded, marketed and 're-classified' as a superfood

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58 The recommended retail price for 50g of açai berry powder purchased online is in the range of $15 to $20, while a kilo of powder retails at around $250.

59 In an example from the study, Bioglan® Açai + Berry Powder claims '[n]ow you can unlock the energy of the Amazon & better health every day. Açai + Berry powder delivers a powerful dose of supercharged berries to revitalize your body. A combination of berries including the superfruits Açai, Goji and Pomegranate plus Blueberry, it delivers vital nutrients, minerals and loads of antioxidants in their natural form for purer health … This antioxidant rich supplement helps protect your cells from the damaging effects of free radicals. The more colour the better! These deep blue, purple and red berries are particularly rich in antioxidants, anthocyanins and polyphenols turning them from berries to SUPERBERRIES!'.

60 Colapinto, above n 16; see also Loyer, above n 23.

61 Puffery in advertising is the use of words or statements not intended to be statements of fact and therefore not a 'representation'. See, eg, *Magennis v Fallon* (1828) LR 2 Ir 167; 2 Mol 561, 588. The legislative prohibitions on misleading or deceptive conduct make no distinction between representations and puffery; the courts decide on the basis of the facts.

62 See, eg, *Australian Competition and Consumer Commission v Coles Supermarkets Australia Pty Limited* (2014) FCA 634 ('Baked Today, Sold Today', 'freshly baked', 'baked fresh' claims on imported, par baked bread finished in store ovens) Allsop CJ cites *Fraser v NRMA Holdings Ltd* [1994] FCA 1397; (1994) 124 ALR 548, 563 stating: 'Where advertising material uses simple phrases and words evoking attractive notions, but without necessarily precise meaning, ambiguity or reasonably available different meanings may well arise. Context and the "dominant message" will be important. If one or more of the reasonably available different meanings is misleading, the conduct may well be misleading or deceptive, or false and misleading'.

63 Ibid. Further, the courts consider that 'literal truths' must not create false impressions. See *Hornsby Building Information Centre Pty Ltd v Sydney Building Information Centre Ltd* (1978) 140 CLR 216, 227. However, the protections do not extend to obvious exaggerations or conduct that is merely confusing: see *Ballantyne v Raphael* (1889) 15 VLR 538, 547; 11 ALT 34.

with health benefits, including anti-ageing properties.[64] This is done by distinguishing açai berries and other superfoods from ordinary foods using 'literal truths but false messages'[65] extrapolated out of the laboratory context to be miscommunicated to the public as fact for profit. The claims observed have not been proven to the evidential threshold provided in EU and Australian legislation that justifies the consumption of processed, branded fruit over a variety of less expensive, more available fresh, unprocessed, fruit and vegetables. Indeed, the use of 'science', and the range of scientific terms (antioxidants, phytochemicals, free radicals, polyphenols, anthocyanins etc.) in the absence of validated methods to quantify these claimed food constituents, may work to mislead or deceive the consumer.[66] The evidence from the açai product survey reveals a manipulation of scientific information from an isolated context (for example, in vitro molecular based assay studies) to create an overall impression that is arguably aimed at encouraging consumers to spend more money than is necessary or scientifically justified on foods that are often presented as a type of dietary or health supplement but are not regulated as therapeutic goods.[67]

The promotion of food with health claims or other information that has not been substantiated to the standard of proof required by law is a deliberate and intentional act amounting to food fraud. This intentional conduct may lead aspirational or anxious consumers, confused by competing claims, into error about consumption choices with an ultimate impact on their health. The activity requires proactive and effective regulatory measures to reduce the risk of harm.

III A Proactive Regulatory System For Tier Two Preventative Health Claims?

The health claims on açai product labelling discussed above were developed under the previous health claims regulation regime that ended in January 2016. In this part III, Standard 1.2.7 is analysed to assess whether it will likely address food fraud in the marketing of superfoods, such as açai berries. The likely operation of Standard 1.2.7 is then contrasted with the way the EU regulatory system has operated to – in effect – prohibit general well-being claims, such as superfood, if not accompanied by an evidence-based health claim that has been pre-market approved by the regulator.[68] Implementation of Standard 1.2.7 is also likened with failures in the US to effectively control the use of unsubstantiated 'structure/function claims'[69] claims on similar

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64 Anne Cronin, 'Regimes of Mediation: Advertising Practitioners as Cultural Intermediaries' (2004) 7(4) *Consumption, Markets and Culture* 349, 364-5, cited in Schneider and Davis above n 35, 33, makes the point that commodities, (such as the açai berry in this survey) are ordered and re-ordered by marketing, converting conventional food to a new status..

65 Terminology coined in Victor Herbert, 'Health Claims in Food Labelling and Advertising: Literal Truths but False Messages; Deceptions by Omission of Adverse Facts' (1987) 22(3) *Nutrition Today* 25.

66 See generally Joint FAO/WHO Codex Alimentarius Commission, Guidelines for Use of Nutrition and Health Claims: CAC/GL 23–1997, 8.1.3.

67 *Therapeutic Goods Act 1989* (Cth) s 3 provides the definition of therapeutic good, which excludes 'goods (other than goods declared to be therapeutic goods under an order in force under s7) for which there is a Standard (within the meaning of sub-s 4(1) of the *Food Standards Australia New Zealand Act 1991* (Cth))' or 'goods (other than goods declared to be therapeutic goods under an order in force under s 7) which, in Australia or New Zealand, have a tradition of use as foods for humans in the form in which they are presented'.

68 *Health Claims Regulation (EC) 1924*/2006, above n 5.

69 *Dietary Supplement Health and Education Act of 1994* s101.93(f).

types of foods and dietary supplements (as marketed in the US) in the absence of a proactive system requiring pre-market approval.[70]

FSANZ indicates the introduction of Standard 1.2.7 should work to 'mitigate' the likelihood of consumers being misled or deceived when food businesses use nutrition content and health claims to promote food for sale.[71] Whilst the new standard does address food fraud via misleading health claims in its substance, the system for implementation and monitoring of the new standard is not likely to be as effective as Health Claims Regulation (EC) 1924/2006 in the EU. Australia may experience compliance and enforcement challenges associated with the self-regulatory pathway of claim substantiation, as has been observed in the US system. Most significantly, if compliance with Standard 1.2.7 is not proactively and consistently monitored to ensure its enforcement by all the food regulators in Australian and New Zealand jurisdictions, health claims (general disease (GLHC) and serious disease (HLHC) claims) may remain in the market in breach of the important requirement of substantiating proof. As explained above, this may create an indirect risk to public health by misleading consumers and thereby detrimentally impacting their capacity to make informed and accurate choices required.

A *Standard 1.2.7: A New Approach to Regulating Health Claims on Food*

The full implementation of Standard 1.2.7 represents a watershed moment for Australia and New Zealand in the history of health claim policy and the regulation of food.[72] In addition to setting out conditions and permissions for the labelling of foods with nutrition content claims, Standard 1.2.7 prescribes the process to achieve an acceptable threshold level of scientific evidence of the relationship between a food and health effect.[73] The relationship is a critical scientific and regulatory concept known as the 'food-health relationship'. Standard 1.2.7 sets out two pathways for substantiating food-health relationships used for the two types of claims: Regulator pre-approval as required for HLHCs and either regulator pre-approval or, controversially, industry-based self-substantiation[74] for GLHCs. Tables 2 and 3 to this chapter summarise the types of health claims, as defined in Australia, the US and the EU. Table 2 provides the detail on claims not mentioning a disease. Table 3 presents the legal controls over claims mentioning a disease/serious disease.

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70 21 U.S.C 343(r)(6) and 21 C.F.R. 101.93.

71 *FSANZ*, above n 6, 49.

72 The control of the sale and advertising of products defined as complementary medicines remains the distinct responsibility of the Therapeutics Goods Administration ('*TGA*').

73 *ANZFSC* Standard 1.2.7 cl 2 provides 'health claim means a claim which states, suggests or implies that a food or property of food has, or may have, a health effect'; Ibid cl 20 provides how health claims are to be made.

74 Ibid s 18(3)(b) where sch 6 prescribes the elements of a systematic review.

CHAPTER 7 TABLE 2: Types of health claims no mention of a **serious disease**

	EU	USA	AUSTRALIA/NZ
Claims based on a food health relationship with **no mention of a disease** (USA and EU) or no mention of a 'serious disease' (Australia/NZ)			
Definition	'Article 13.1 health claims' other than those referring to the reduction of disease risk' where health claims described ' the role of a nutrient or other substance in growth, development and the functions of the body, or b) psychological and behavioural functions... which are included in the [EC list] may be made if based on generally accepted scientific data and well understood by the average consumer'. Article 13.5 health claims are 'new function' claims on a health benefit based on newly developed scientific evidence and/or which include request for the protection of proprietary data. 'Health claim' means any claim that states, suggests or implies that a relationship exists between a food category, a food or one of its constituents and health'.	'Structure/Function' claims describe the effect that a substance has on the structure or function of the body and do not make reference to a disease.' 101.93(f) Permitted structure/function statements. Dietary supplement labels or labelling may, subject to the requirements in paragraphs (a) through (e) of this section, bear statements that describe the role of a nutrient or dietary ingredient intended to affect the structure or function in humans or that characterize the documented mechanism by which a nutrient or dietary ingredient acts to maintain such structure or function, provided that such statements are not disease claims under paragraph (g) of this section. If the label or labelling of a product marketed as a dietary supplement bears a disease claim as defined in paragraph (g) of this section, the product will be subject to regulation as a drug unless the claim is an authorized health claim for which the product qualifies. Section 403(r)(6) of the Food Drug and Cosmetics Act does not apply to conventional food provided the effects are derived from the nutritive value of the food	'General Level Health Claim' is 'a health claim that is not a high-level health claim'. Health claim means 'a claim which states, suggests or implies that a food or a property of a food has, or may have, a health effect. Health effect means 'an effect on the human body, including an effect on one or more of the following: a) a biochemical process or outcome; b) a physiological process or outcome; c) a functional process or outcome; d) growth and development e) physical performance; f) mental performance; g) a disease, disorder or condition'
Law	Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods'.	21 U.S.C. 343(r)(6) and 21 CFR 101.93	ANZFSC Standard 1.2.7 cl 17(4)
Level of regulation	EFSA pre-approves food health relationships. EC authorises permitted health claims, including the wording, following EFSA assessment of scientific evidence. Article 13.1 and 13.5 approved health claims are listed for use in Regulation 432/2012.	Structure/function claims are not pre-approved by FDA. Section 403(r)(6) DSHEA or FDCA statements on dietary supplements are notified to FDA within 30 days of marketing. FDA checks dietary supplements for prohibited claims 'to diagnose, mitigate, treat, cure, or prevent disease'.	Two avenues: 1. Pre-approved by FSANZ and there is a list of about 212 food health relationships in ANZFSC Schedule 3. Or, 2. Not pre-approved by FSANZ - self- substantiation process with systematic review prescribed. Food health relationship notified to FSANZ. Wording of the claims must not 'alter or contradict the intention of the information'.
Scientific substantiation	Article 6: '1. Nutrition and health claims shall be based on and substantiated by generally accepted scientific data' and taking into account the totality of the available scientific data, and by weighting the evidence. EFSA's scientific criteria for evaluation similar for Art 13.1, 13.5 and Art 14 health claims.	FDA publishes unenforceable guidance documents to assist industry to substantiate their claims.	Prescribed systematic review process at ANZFSC Schedule 6 of Standard 1.2.7 with compliance monitored by state food regulators by requesting dossier of evidence when in breach.

Claims based on a food health relationship with **a reference to a disease** (USA and EU) or 'serious disease' (Australia/NZ)			
Definition	Article 14 claims: 'reduction of disease risk claim' means any health claim that states, suggests or implies that the consumption of a food category, a food or one of its constituents significantly reduced a risk factor in the development of a human disease'.	Health claim' means any claim made on the label or in labelling of a food, including a dietary supplement, that expressly or by implication, including "third party" references, written statements (e.g., a brand name including a term such as "heart"), symbols (e.g., a heart symbol), or vignettes, characterizes the relationship of any substance to a disease or health-related condition. Implied health claims include those statements, symbols, vignettes, or other forms of communication that suggest, within the context in which they are presented, that a relationship exists between the presence or level of a substance in the food and a disease or health-related condition.	High Level Health Claim' means a 'health claim that refers to a serious disease or a biomarker of a serious disease'. Serious disease is defined to mean 'a disease, disorder or condition which is generally diagnosed, treated or managed in consultation with or with supervision by a health care professional'.
Law	Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods' Article 14	21 CFR 101.14(a)(1)	ANZFSC Standard 1.2.7 cl 17(3)
Level of regulation	Food health relationship pre-approved by EFSA. EC authorise health claims for use.	Preapproved by FDA prior to use.	Food health relationship pre-approved by FSANZ and listed in Standard 1.2.7, for compliant use.
Scientific substantiation	Article 6: '1. Nutrition and health claims shall be based on and substantiated by generally accepted scientific data' and taking into account the totality of the available scientific data, and by weighting the evidence. EFSA's scientific criteria for evaluation similar for Art 13.1, 13.5 and Art 14 health claims.	Section 403(r)(3) of the Federal Food, Drug, and Cosmetic Act (the Act) (21 U.S.C. 343(r)(3)) and 21 CFR 101.14(c) ' Validity requirement. FDA will promulgate regulations authorizing a health claim only when it determines, based on the totality of publicly available scientific evidence (including evidence from well-designed studies conducted in a manner which is consistent with generally recognized scientific procedures and principles), that there is significant scientific agreement, among experts qualified by scientific training and experience to evaluate such claims, that the claim is supported by such evidence. Significant Scientific Agreement (SSA) Standard at 21 CFR 101.70 provides the petition process.	Systematic review by FSANZ of the food health relationship as provided by Standard 1.2.7 at Schedule 6, where the established food health relationship is a "reasonable conclusion of the systematic review". Same standard of evidence as required for self-substantiated general level health claims.

The new system differs from Australia's previous regime (Transitional Standard 1.1A.2 of the ANZFSC), which, until the beginning of 2016, at least theoretically prohibited the use of

'therapeutic or prophylactic action' claims, statements that could be interpreted as 'advice of a medical nature', the use of the 'name of, or reference to, any disease or physiological condition', and the word health in connection with the name of the food, in the sale of food. [75] Research shows that when Transitional Standard 1.1A.2 was in force, the online marketplace and print advertisements was littered with misleading or deceptive, false unsubstantiated claims,[76] and prohibited HLHC and therapeutic claims.[77] State regulators reportedly found Traditional Standard 1.1.A.2 difficult to prosecute due to 'ambiguities' and were therefore 'reluctant to commit scarce resources towards [enforcement] action'.[78] An industry-administered voluntary Code of Practice on Nutrient Claims in Food Labels and in Advertisements[79] ('CoPoNC') complemented the legal requirements with guidance on the making of nutrient content claims but was unenforceable by regulators. Standard 1.2.7 now reflects CoPoNC guidance for the regulation of nutrition content claims.

The new Standard 1.2.7 reflects international guidance that food labelling should be proactively regulated so that food businesses may be allowed to make health claims to consumers, but only where those health claims have been substantiated to a legal standard of scientific certainty.[80] However, as identified above, Standard 1.2.7 departs from the apparent international consensus that a regulator is best placed to review *all* types of disease related claims.[81] In Australia and New Zealand, food businesses can self-substantiate food-health relationships involving a claimed health effect on 'a disease, disorder or condition' as long as the disease is not a 'serious disease'[82] and the claims do not refer to the 'prevention, diagnosis, cure or alleviation of a disease,

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75 *ANZFSC*, Transitional Standard on Health Claims 1.1A.2 cl 3.

76 See Peter Williams, Heather Yeatman, Leisa Ridges, Annalie Houston, Jillian Rafferty, Anna Roesler, Megan Sobierajski and Bronwyn Spratt, 'Nutrition Function, Health and Related Claims on Packaged Australian Food Products – Prevalence and Compliance with Regulations' (2005) 15(1) *Asia Pacific Journal of Clinical Nutrition* 10; Peter Williams, Heather Yeatman, Sally Zakrzewski, Brooke Aboozaid, Simon Henshaw, Kendall Ingram, Alex Rankine and Sara Waleott, 'Nutrition and Related Claims Used on Packaged Australian Foods – Implications for Regulation' (2003) 12(2) *Asia Pacific Journal of Clinical Nutrition* 138 where 12.9% of 6662 products were non-complaint with Transitional Standard on Health Claims 1.1A.2.

77 See, eg, Helen Dragicevich, Peter Williams and Leisa Ridges, 'Survey of Health Claims for Australian Foods Made on Internet Sites' (2006) 63 *Nutrition and Dietetics* 139. The survey of 1068 websites found 14.5% carried a health claim where 19.7% identified were high level of claims of therapeutic action.

78 *FSANZ*, 'Proposal P293 Nutrition, Health and Related Claims Regulation Impact Statement' (Regulatory Impact Statement, Commonwealth Department of Health, 2012) 6.

79 Australian Food and Grocery Council ('*AFGC*'), *Code of Practice on Nutrient Claims in Food Labels and in Advertisements* (Code of Practice, AFGC, 1995).

80 Joint FAO and WHO Codex Alimentarius Commission, 'Guidelines for use of nutrition and health claims: CAC/GL 23–1997 (as amended) (Rome, Food and Agriculture Organisation of the United Nations 2010) recommends inter alia at para 8, health claims be based on 'current relevant scientific substantiation and the level of proof must be sufficient to substantiate the type of claimed effect and the relationship to health as recognised by generally accepted scientific review of the data and the scientific substantiation should be reviewed as new knowledge becomes available', and 'Any health claim must be accepted by or be acceptable to the competent authorities' where 'if the claimed effect is attributed to a constituent of the food, there must be a validated method to quantify the food constitute that forms the basis of the claim'.

81 Allie De Boer and Aalt Bast, 'International Legislation on Nutrition and Health Claims' (2015) 55 *Food Policy* 61, 65. The 2015 review of 28 jurisdictions revealed Barbados, Canada, Central America, Colombia, Ecuador, Europe, Indonesia, the Republic of Korea and the USA require newly established disease risk reduction claims to be positively assessed by a government authority. Argentina, Brazil, China, Japan and Singapore require approval of all disease risk reduction claims, previously approved claims included. The health foods licensing regimes in China, Japan and Singapore require marketers to seek approvals to use disease risk reduction claims.

82 *ANZFSC*, Standard 1.2.7 cl 2 provides serious disease means 'a disease, disorder or condition which is generally diagnosed, treated or managed in consultation with or with supervision by a health care professional'.

disorder or condition'.[83] Instead, the food business documents its 'systematic review'[84] of the evidence to demonstrate a causal relationship between the food or property of food and the health effect, and certify that the established food-health relationship is a 'reasonable conclusion' of the review.[85]

Scientifically substantiating the food-health relationship underpinning a health claim is the critical process of objectively evaluating the evidence for a claim, taking into consideration factors such as the existence of actual human trial data testing the food to ensure the claim is true and correct and not likely to mislead consumers. There are already about 212 food-health relationships pre-approved by FSANZ to support the making of GLHCs. This removes the uncertainty for consumers over the scientific plausibility of the listed relationships. FSANZ reports that the avenue for self-substantiation of food-health relationships is to 'minimise business risk, and in doing so it promotes innovation'.[86] It was determined that:

> while it is possible that there may be some reduction in consumer benefit arising from a perception of reduced certainty and confidence in GLHCs derived from self-substantiated food health relationships, consumers may also gain additional benefit arising from the higher incentive for industry to innovate. It is therefore the preferred option.[87]

This position, which maintains a degree of self-regulation in relation to health claims, is in contrast to the regulatory outcome in the EU, discussed below, where the system aims to 'ensure a *high* level of consumer protection, give the consumer the necessary information to make choices in full knowledge of the facts, as well as creating equal conditions of competition for the food industry' (emphasis added).[88] In contrast, the onus is on Australian and New Zealand consumers to be aware when reading labels and ensure that they understand what the scientific claims actually mean. Moreover, the application of state food regulators' statutory objectives to monitor compliance with the ANZFSC and prevent misleading or deceptive conduct in the sale and advertising of food will be critical to limit consumer exposure to this eighth type of food fraud.[89]

B *Comparison of Standard 1.2.7 with EU and US Equivalents*

1 *European Regulation of superfood and Health Claims*

The EU has, somewhat controversially, applied the precautionary principle to protect consumers from health claims not established by substantiation methods good enough to satisfy traditional medical trials, including the 'golden standard' of evidence - the randomised control trial. Only European Food Safety Authority (EFSA)-approved food-health relationships, and their

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83 Ibid cl 8.
84 Ibid sch 6.
85 Ibid cl 19(1)(d)(ii).
86 *FSANZ*, above n 78, 4.
87 Ibid.
88 *Health Claims Regulation* (EC) 1924/2006 art 1.
89 *Model Food Act 2000* (Cth) s 1(b).

authorised health and nutrition claims determined by the European Commission (EC),[90] are permitted for use in the sale of food.[91]

The application of the precautionary principle to restrict scientific evidence used in the sale of food to medical trial standards has been criticised because, 'in effect, [it] mandates obscuring scientific information from the general public that could inform about certain benefits of certain products in a much broader context of available scientific knowledge than legally defined.'[92] The threshold test of 'generally accepted scientific data',[93] and the scientific rigor applied by the EFSA Scientific NDA Panel,[94] has challenged the food industry and the basis for making many of the types of health claims observed on açai products in this survey. The EFSA Scientific NDA Panel has rejected the vast majority of health claim substantiation dossiers submitted to it,[95] after weighing assessed evidence for consistency, strength, dose-response, specificity and biological plausibility.[96]

Based on the submitted, assessed evidence, since 2010[97] EFSA has rejected all 149 attempts to substantiate food-health relationships involving the word antioxidant, and accepted only one out of 19 industry submissions regarding polyphenols.[98] The only claim permitted by the EU for polyphenols that reflects the free radical theory is that 'olive oil polyphenols contribute to the protection of blood lipids from oxidative stress'.[99] The following are examples of unsubstantiated, non-compliant food-health relationships, according to the EFSA Scientific Opinions of industry substantiation evidence:

> Fruits and 'antioxidants help strengthen our body's natural defences against oxidative stress' and 'protection of DNA, proteins and lipids from oxidative damage';[100]

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90 The EU register on nutrition and health claims permitted for use in the sale of foods can be accessed: <http://ec.europa.eu/nuhclaims/?event=register.home>.

91 *Health Claims Regulation* (EC) 1924/2006, above n 5, art 10.

92 Aalt Bast, William Briggs, Edward Calabrese, Michael Fenech, Jaap Hanekamp, Robert Heaney, Ger Rijkers, Bert Schwitters and Pieternel Verhoeven, 'Scientism, Legalism and Precaution – Contending with Regulating Nutrition and Health Claims in Europe' (2013) 6 *European Food and Feed Law Review* 401.

93 *Health Claims Regulation* (EC) 1924/2006, above n 5, art 5.1.

94 The European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies is chaired by Albert Flynn and representatives from 21 member states. It conducts the scientific assessment to evaluate health claims and publishes outcomes as scientific opinions in the *European Food Safety Authority Journal*.

95 See European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies, 'General guidance for Stakeholders on the Evaluation of Article 13.1, 13.5 and 14 Health Claims' (2011) 9 *European Food Safety Authority Journal* 2135.

96 Albert Flynn, 'Scientific Substantiation of Health Claims in the EU' (2012) 71 *Proceedings of the Nutrition Society* 120, 123.

97 Analysis valid up and until August 2016.

98 For a full understanding of all authorised and non-authorised food-health relationships, a search of the European Register on Nutrition and Health claims can be performed. See the outcome from a search using these terms at <http://ec.europa.eu/nuhclaims>.

99 European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies, 'Scientific Opinion on the Substantiation of Health Claims Related to Polyphenols in Olive and Protection of LDL Particles from Oxidative Damage' (2011) 9(4) *European Food Safety Authority Journal* 2033.

100 European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies, 'Scientific Opinion on the Substantiation of Health Claims Related to Various Food(s)/Food Constituent(s) and Protection of Cells from Premature Ageing (ID 1668, 1917, 2515, 2527, 2530, 2575, 2580, 2591, 2620, 3178, 3179, 3180, 3181, 4329, 4415), antioxidant activity, antioxidant content, and antioxidant properties (ID 857, 1306, 2515, 2527, 2530, 2575, 2580, 2591, 2629, 2728, 4327, 4365, 4380, 4390, 4394, 4455, 4464, 4507, 4694, 4705), protection of DNA, proteins and lipids from oxidative damage (ID 1196, 1211, 1216, 1306, 1312, 1440, 1441, 1666, 1668, 1692,

Vegetables 'protect you from free radicals; -protect your cells and tissues from oxidation; -antioxidants help strengthen our body's natural defences against oxidative stress';[101]
Polyphenols from processed fruits and tea: 'protection of DNA, proteins and lipids from oxidative damage';[102]
Polyphenols 'contained in this produce ensure antioxidant action; help prevent tissue oxidation; help guard against oxidation caused by free radicals; have an antioxidant effect; help mop up free radicals in cells/antioxidants';[103]
Anthocyanin 'contains naturally occurring antioxidants, which may help to protect against the damage caused by free radicals, as part of a healthy lifestyle'.[104]

The EFSA Panel determined that the required level of scientific consensus relating to the free radical theory of ageing (specifically, oxidative damage) exists for vitamins and minerals where the relationships appear entrenched in nutritional science textbooks.[105] The EFSA Panel determinations reflect the analysis in this Chapter on polyphenols, free radicals, and antioxidants, and substantiated food-health relationships. The panel opined that the available evidence of in vitro studies, referring to modelling systems and plasma-based in vitro studies used to support claims of antioxidant status, capacity and physiological effect in humans, is inadequate to establish causal conclusions between the food and a health effect. Sufficient human-based trials were absent and crucial for substantiation. Prized food components (antioxidants) and health effects such as anti-ageing were inadequately characterised for measurement because the claims were general and lacked specificity, in contravention with Health Claims Regulation (EC) No 1924/2006.

This analysis suggests that many of the claims observed in this açai berry labelling case study would not be allowed onto the market under a precautionary system like that in the EU.

2 *United States Regulation of Health Claims on Foods and Dietary Supplements*

In the US, 'health claims' on food that expressly, or by implication, characterise a relationship between any substance and a disease, or health related-condition, must be approved by the US Food and Drug Administration (FDA) before market.[106] The FDA is guided by the

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1900, 1914, 1948, 2023, 2158, 2517, 2522, 2527, 2575, 2591, 2620, 2637, 2639, 2663, 2860, 3079, 3276, 3564, 3818, 4324, 4329, 4351, 4397, 4416, 4424, 4507, 4527, 4528, 4542, 4611, 4629, 4659), and bioavailability of anthocyanins in black currants (ID 4220) pursuant to Article 13(1) of Regulation (EC) No 1924/2006' (2010) 8(10) *European Food Safety Authority Journal* 1752, 17.

[101] Ibid 18.

[102] Ibid 20.

[103] European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies, 'Scientific Opinion on the substantiation of health claims related to flavonoids and ascorbic acid in fruit juices including berry juices (ID 1186); flavonoids from citrus (ID 1471); flavonoids from Citrus paradisi Macfad. (ID 3324, 3325); flavonoids (ID 1470, 1693, 1920); flavonoids in cranberry juice (ID 1804); carotenoids (ID 1496, 1621, 1622, 1796); polyphenols (ID 1636, 1637, 1640, 1641, 1642, 1643); rye bread (ID 1179); protein hydrolysate (ID 1646); carbohydrates with a low/reduced glycaemic load (ID 476, 477, 478, 479, 602) and carbohydrates which induce a low/reduced glycaemic response (ID 727, 1122, 1171); alfalfa (ID 1361, 2585, 2722, 2793); caffeinated carbohydrate-containing energy drinks (ID 1272); and soups (ID 1132, 1133) pursuant to Article 13(1) of Regulation (EC) No 1924/2006' (2011) 9(4) *European Food Safety Authority Journal* 2082, 10.

[104] European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies, 'Scientific Opinion on the substantiation of health claims related to various food(s)/food constituent(s) and protection of cells from premature aging, antioxidant activity, antioxidant content and antioxidant properties, and protection of DNA, proteins and lipids from oxidative damage pursuant to Article 13(1) of Regulation (EC) No 1924/2006' (2010) 8(2) *European Food Safety Authority Journal* 1489.

[105] European Food Safety Authority Panel on Dietetic Products, Nutrition and Allergies, 'Scientific Opinion Guidance on the scientific requirements for health claims related to antioxidants, oxidative damage and cardiovascular health' (2011) 9(12) *European Food Safety Authority Journal* 2474, 3.2.

[106] 21 C.F.R. 101.14(a)(1)(1).

principle of 'significant scientific agreement'.[107] Following the approval of a health claim, the FDA lists the health claim for use by industry.[108] On the other hand 'structure and function claims'[109] are similar in status to self-substantiated GLHCs under Standard 1.2.7 and do not require approval or government authorisation prior to market.[110]

With the most liberal approach towards regulating health benefits claimed in the sale of food and dietary supplements (in that jurisdiction), much of the US literature argues that a revolutionary shift from the self-regulatory approach to substantiating claims, to a reforming proactive approach - as in the EU – is needed to protect consumers from misleading conduct and false representations.[111] Operation of the US regime is reportedly challenged by the ambiguity around legal terms, definitions and unenforceable substantiation requirements for claims that do not refer to a disease.[112] The FDA has issued unenforceable substantiation guidance documents,[113] whereas Standard 1.2.7 removes ambiguity as to the legal standard to substantiate a food-health relationship, listing the necessary elements for a systematic review as elements of legal compliance for local enforcement.[114] Achieving the intent and policy outcomes of Standard 1.2.7 relies on these compliance requirements being met. Success of Australia's health claim regulation scheme is dependent on monitoring compliance. Without effective compliance and enforcement by state and territory food enforcement agencies (see Chapter 5), after claims reach the marketplace, this highly commendable component of Standard 1.2.7 drafted in the interest of protecting consumers will fail to achieve the policy aim of mitigating this eighth type of food fraud.

C *Evaluation of Standard 1.2.7's Capacity to Prevent and Control Overreaching Health Claims*

With compliance mandatory from the start of 2016, full implementation of Standard 1.2.7 should see a reduction, in the marketplace, of many types of health claims observed in this case study. Any future GLHCs that relate to alleged causal relationships between polyphenols or other phytochemicals and a health effect will require self-substantiation.[115] The pre-approved food-health relationships listed in the Standard that echo the free radical theory of ageing – those that

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107 See Office of Nutrition, Labelling and Dietary Supplements, Food and Drug Administration, Guidance for Industry: Evidence-based Review System for the Scientific Evaluation of Health Claims – Final (FDA 2009) < http://www.fda.gov>.

108 See U.S. Food and Drug Administration, Health Claims Meeting Significant Scientific Agreement (SSA) (10 May 2015)<http://www.fda.gov/Food/%20IngredientsPackagingLabeling/LabelingNutrition/ucm2006876.htm#Approved_Health_Claims>.

109 *Dietary Supplement Health and Education Act of 1994* s101.93(f).

110 21 U.S.C 343(r)(6) and 21 C.F.R. 101.93.

111 See, eg, Richard Nowak, 'DSHEA'S Failure: Why a Proactive Approach to Dietary Supplement Regulation Is Needed to Effectively Protect Consumers' (2010) *University of Illinos Law Review* 1045.

112 *Dietary Supplement Health and Education Act 1994* s 343(r)(6)(B) provides a manufacturer must be able to substantiate its claims. How a claim is to be substantiated is not provided in law.

113 Food and Drug Administration ('*FDA*'), Guidance for Industry, Substantiation for Dietary Supplement Claims Made under Section 403(r)(6) of the *Federal Food, Drug and Cosmetic Act* (Guidance Document, FDA, 2008).

114 *ANZFSC* Standard 1.2.7 sch 6.

115 Ibid cl 18(3)(b) provides the food business must notify FSANZ that a food-health relationship has been established by a process of systematic review as described in Schedule 6.

refer to free radicals[116] and oxidative stress[117] - are limited to some well characterised health effects of vitamins and minerals. To date, there have been no food-health relationships established through self-substantiation and involving polyphenols (in açai or indeed any other foods) or any claimed 'anti-ageing' health effects notified to FSANZ.[118] Under Standard 1.2.7, any food-health relationships about serious diseases will pursue a 'high level health claim variation'[119] for assessment of the evidence by FSANZ before market. As identified above, Standard 1.2.7 departs from the international approach towards pre-market approval of all disease related claims, [120] introducing a defining concept that distinguishes 'disease' from 'serious disease' for GLHC and HLHC, respectively. The effect of this distinction requires future research. Indeed, the same may be said of whether state and territory-based regulators will be successful at identifying non-compliant, self-substantiated GLHCs based on the interpretation of ambiguities a 'disease, disorder or condition (or biomarker thereof) that is generally diagnosed, treated or managed in consultation with or with supervision by a health care professional'.[121].

The introduction of regulatory controls around nutrient content claims and comparative marketing will limit the to-date seemingly unfettered use of ambiguous terms in comparative nutrition content claims such as 'high in anti-oxidants', 'high concentration of polyphenols' and 'high in phytochemicals'.[122] Within the comprehensive framework however, new ambiguities may emerge to hinder its consistent implementation and therefore its effectiveness in achieving consumer protection objectives.

One such ambiguity is that definitions central to the food standard's effectiveness are seemingly incongruent with scientific proof requirements. The inclusion of '*may have* a health effect' to the definition of health claim[123] – absent from the European definition[124] – deviates from the certainty provided in the EU system and appears prima facie inconsistent with the high standard of proof demanded from the prescribed systematic review that 'a causal relationship has been established'[125] and 'the notified relationship is a reasonable conclusion of the systematic review'[126].

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116 *ANZFSC* Standard 1.2.7 sch 4 cl 5 provides copper, zinc and manganese may protect cell damage from 'free radicals'; vitamins C and E 'contributes to cell protection from free radical damage'; selenium is 'necessary for cell protection from some types of free radical damage'.

117 Ibid. The permitted food-health relationships related to 'oxidative stress' is limited to riboflavin and the heath effect: 'contributes to the protection of cells from oxidative stress'.

118 FSANZ publishes notified food-health relationships to <http://www.foodstandards.gov.au>.

119 *Food Standards Australia New Zealand Act 1991* (Cth) s 4.

120 De Boer and Bast, above n 81, 65.

121 *ANZFSC* Standard 1.2.7 s 2.

122 Ibid cl 12 sch 4 s 3. Antioxidants, phytochemicals and polyphenols (or similar) are not included in the list of properties of food to which nutrient content claims can be made. Permitted as 'presence/absence' claims such as 'contains polyphenols', where that is true and correct.

123 Ibid cl 2.

124 *Health Claims Regulation* (EC) 1924/2006, above n 5, art 2.5 provides that health claim 'means any claim that states, suggests or implies that a relationship exists between a food category, a food or one of its constituents and health'.

125 *ANZFSC* Standard 1.2.7 sch 6 cl 2(g).

126 Ibid cl 19(1)(d)(ii).

Further, unlike in the EU where the EC authorises the actual words used, nothing in Standard 1.2.7 prescribes the words a food business may use in a health claim.[127]

Challenges to regulatory enforcement of Standard 1.2.7 include the fact that there is likely to be minimal monitoring of unsubstantiated claims once products are in the marketplace (see Chapter 5 analysis). Food regulatory agencies are honed to regulating traditional threats to food safety from microbial risk.[128] Preventative health claims are prioritised at Tier two food labelling issues because the risks are indirect, not direct risks to health. State food regulators and delegated local government councils[129] responsible for monitoring compliance can demand the dossier of self-substantiated evidence.[130] However, research indicates local and state officers have limited time and skills monitoring health claims.[131]

While the new Standard 1.2.7 is an advance on the previous regulatory situation regarding the marketing of foods, industry self-regulation as a mode of regulatory intervention is limited in a context of healthism and gastro-anomy. In these 21st century social contexts, consumers are looking more at labels to choose foods in their pursuit of self-care. Regulatory supervision of industry self-regulation requires sophisticated monitoring and enforcement of self-substantiated industry claims.[132] State food regulators must therefore identify food fraud as a strategic regulatory policy aim and demonstrate how each state is effectively fulfilling the statutory objective to prevent misleading or deceptive conduct – by monitoring the use of health claims in the sale of food in the interest of public health.

IV CONCLUSION

This analysis of anti-ageing health claims about açai product labelling and advertising in Australia showed that the combination of confusing scientific terms and claims and an exotic backstory may make açai berry products particularly appealing to consumers when marketed as superfoods. Yet, many of the anti-ageing health claims made on these products are arguably false, misleading or deceptive. They exaggerate the evidence base for physiological benefits from anti-oxidants and the free radical theory of ageing, and they ignore the fact that no unique evidence

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127 Ibid cl 10. See also *ANZFSC* Standard 1.1.1 cl 8(2), which provides 'if a provision of the Code requires a statement other than a warning statement to be used, that statement may be modified' and 'any modification must not contradict or detract from the effect of the statement'.

128 See, eg, *FSANZ*, 'P293 Nutrition, Health and Related Claims Summary of Submissions to the March 2009 Consultation Paper – Preferred Options' (Submissions, Food Standards Australia New Zealand, 2009) 22, where the Department of Health, Victoria submitted, 'General Level Health Claims are marketing tools. The inclusion of a Standard to regulate marketing is a new approach; current food regulation is not designed to deal with this and proportionate enforcement tools would be needed'.

129 See, eg, *Food Act 2003* (NSW) s 109E.

130 *ANZFSC* Standard 1.2.7 cl 19(d) provides that if requested by a relevant authority, a person who notified FSANZ must provide records that demonstrate the systematic review was conducted in accordance with Schedule 6 and the notified relationship is a reasonable conclusion of the systematic review.

131 Deanne Condon-Paoloni, Heather Yeatman and Elizabeth Grigonis-Deane, 'Health-Related Claims on Foods Labels in Australia: Understanding Environmental Health Officers' Roles and Implications for Policy' (2013) 18(1) *Public Health Nutrition* 81.

132 See the discussion of what is required for effective 'meta-regulation' (that is, the government regulation of industry self-regulation) in Christine Parker, *The Open Corporation* (Cambridge University Press, 2002), 245-92.

supports the choice of more expensive superfood products based on exotic fruit when the same claimed benefits can be obtained from eating a variety of less expensive, more available fresh fruit and vegetables.

In the social context of healthism and gastro-anomy, where there is heightened anxiety about ensuring one eats healthy foods, but little clear, trustworthy guidance about what to eat and when, overreaching health claims may serve to compromise consumer choice and distort public health messages. Food industry actors often dominate the information consumers receive about health food choices through product labelling and advertising. In this context, it is an important aspect of public health promotion that Australian food policy and regulation adequately prevent and control food fraud including the making of false or misleading statements for economic gain. The Chapter shows that a consumer protection regulator, even a powerful and effective regulator like the ACCC, is not equipped to ensure that food industry actors meet appropriate and high standards of scientific evidence before making health claims on processed foods. As explained earlier in this Chapter discussion on the food-medicine interface, the TGA does not regulate products defined as foods and so does not regulate this area. Rather, it is Australia's food labelling standards regime, with standards set by FSANZ and monitored and enforced by state food authorities, that is responsible for setting appropriate standards and proactively ensuring that industry complies with those standards to prevent indirect safety and public health threats.

Australia's new Standard 1.2.7 does in substance address the need for a high and appropriate level of scientific evidence before health claims can be made in labelling and marketing. Applying this standard to the claims observed on açai superfood products suggests that a number of claims would now be inappropriate. However, unlike the EU regulation, Standard 1.2.7 allows industry self-substantiation of claims that do not mention a serious disease. Moreover, regulatory effectiveness relies on state food authorities to actively monitor compliance and take enforcement action where unsubstantiated claims are made, and it is unclear whether state food authorities are adequately resourced to monitor the compliance of labels and advertising, undertake investigations, identify breaches accurately and enforce the requirements. The ambiguity of regulatory standards and the lack of monitoring with effective enforcement allowed spurious health claims to flourish up to 2016. In the future, regulators should ensure that the onus is on business to substantiate anti-ageing health claims according to a legal standard of scientific proof before going to market so as to effectively and successfully prevent indirect threats of harms to safety and public health.

CHAPTER 8: TIER ONE FOOD LABELLING ISSUES

I INTRODUCTION

The case study analyses in chapters 6 and 7 critically examined the regulatory control of fraud and misrepresentation of food labelling issues at Tier three (technical threats to safety and public health) and Tier two (indirect threats to safety and public health) of the Hierarchy, respectively. This chapter focuses on the food labelling issues categorised as Tier one: Food names, ingredients, allergen declarations and date markings. The information is required for preventing direct, acute, immediate threats to safety and public health. According to the Hierarchy, the mode of intervention is mandatory compliance with ANZFSC and government intervention to regulate this higher risk information for food safety and public health (see Chapter 3 Part IIIA).[1]

Part II discusses how Tier one food labelling issues are the ultimate credence claims when considering fraud and misrepresentation and assuring food authenticity. This chapter ventures beyond the myopic view that regulating representations made in the sale of food is about substantiating claims of 'consumer value issues' at the retail shelf, as framed and characterised by the misleading credence claim actions of the ACCC (see Chapter 6). Certainly, Chapter 6's crime opportunity analysis shows ACCC's regulatory actions of Tier three issues dominate compliance and enforcement activity of food labelling issues within the regulatory framework. Due to a lack of systematic monitoring of authenticity of Tier one food labelling issues for enforcement by food regulators, the deliberate covering up and general invisibility of food frauds, comparably limited data are available for research and analysis. Part III therefore uses Food Fraud Database[2] incident data to examine how key definitions in Australian food legislation operates and affects proactive control of safety and public health threats from food labelling frauds and misrepresentation. Data obtained from the Food Fraud Database, supplemented by Australian media reports are used to analyse fraud and misrepresentation incidents involving foods classified as low food safety risk.

As is explained in Chapter 4, on the one hand the microbial risk classification scheme determines whether a food is at low or high risk to food safety and public health based on risk of microbial contamination. The microbial risk-based approach is relevant for prioritising regulatory activities to control foodborne illness related risks of harm from known hazards. One the other hand, because food information directly protects or threatens food safety and public health, Tier one food labelling issues are mandatory under the ANZFSC. A food authenticity and fraud risk-

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1 See Implementation Sub-Committee for Food Regulation (ISFR) 'Australia and New Zealand Food Regulation Compliance, Monitroing and Enforcement Strategy 2017' (Enforcement Strategy, Australia and New Zealand Ministerial Forum on Food Regulation, 2017), Appendix 1 ('*Enforcement Startegy 2017*'); Implementation Sub-Committee for Food Regulation Working Group on Food Labelling Monitoring and Enforcement, 'Report of the Bi-National Food Labelling Compliance and Enforcement Framework' (Report Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2015), 7 ('*ISFR Labelling Report 2015*'); See also Chapter 3, Figure 1 (Part III.A) for an adapted 'Food Labelling Issues Hierarchy' incorporating examples of food labelling elements provided in Appendix 1 of *Enforcement Strategy 2017*.

2 Established by the US Pharmacopedia ('*USP*'), the Food Fraud Database is (as of 2018) owned by Decernis and accessed at <https://decernis.com/solutions/food-fraud-database/>.

based approach is therefore logical and relevant for prioritising regulatory activities and resources to control labelling fraud-related risks of harm. The chapter asks, does the operation of Australia's legally defined concepts of safe and suitable food restrain or enable proactive control of Tier one food labelling issues for safety and public health? This chapter answers this question and suggests new regulatory measures are required if governments, (i) are serious about achieving the food regulatory framework's aims and objectives, and (ii) are to fully implement the Hierarchy and its risk-based approach to food safety and public health adopted in the Overarching Strategic Statement.[3]

II True Food Names And Ingredient Declarations For Food Safety

True statements of ingredients and mandatory allergen declarations are government-articulated examples[4] of information to control 'direct, acute and immediate threats to health' from retail sales of food (see Table 1 Chapter 3).[5] Similarly, a name of food or description sufficient to indicate the true nature of the packaged food is a mandatory food labelling requirement in 'other sales'[6] (not retail sales) from paddock to plate.[7] The truth and accuracy of this information is critical for personal safety and protecting public health, requiring verification steps to assure authenticity. Without verification, the name of food and statement of ingredients (and presence of added substances) can be credence attributes. From raw ingredients to complex processed foods, the nature of the globalised trading system and capacity for fraud and misrepresentation to take place undetected makes foods and ingredients credence goods before authenticity is verified. Certainly, assessing the truth and accuracy of this food information is beyond the power of consumers. Food industry actors know more about the true nature and substance of their manufactured foods and ingredients and are cognisant to the processes adopted through production. Consumers must rely on the information without means of verification beyond what can be gleaned through experience. This establishes a situation of asymmetric information and an 'incentive for fraud in the market for credence goods'.[8]

The inherent vulnerability of food and ingredients in global and domestic food supply chains to fraud and misrepresentation can make foods the ultimate credence goods. Ultimate because, for an allergy sufferer, a false allergen declaration can mean death. Representations made about the true nature of food and ingredient and added substance declarations are credence claims that consumers rely upon in the interests of their health and safety. As chapter 4 discussed, food

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3 Anon, 'Overarching Strategic Statement for the Food Regulatory System' (Strategy Document, Australia and New Zealand Ministerial Forum on Food Regulation, 2008, updated 2012) ('*Overarching Strategic Statement*').

4 Food Regulation Standing Committee and Implementation Sub-Committee Food Regulation Working Group on Food Labelling Monitoring and Enforcement, 'Bi-National Food Labelling Compliance and Enforcement Strategy 2015' (Strategy Document, Australia and New Zealand Ministerial Forum on Food Regulation 2015), 4. ('*Labelling Enforcement Strategy 2015*').

5 Ibid 7. See also Figure 1 Chapter 3.

6 *ANZFSC* Standard 1.2.1 cl 18(1).

7 Ibid cl 20(2)(a); Ibid cl 2 provides the name of food, other than if a prescribed name applies, is a name sufficient to indicate the true nature of the food and includes any words required to be included.

8 Jill Mccluskey, 'A Game Theoretic Approach to Organic Foods : An Analysis of Asymmetric Information and Policy' (2000) 1 *Agribusiness* 1, 5. See also Soham Baksi and Pinaki Bose, 'Credence Goods, Efficient Labelling Policies, and Regulatory Enforcement' (2006) 37(2) *Environmental and Resource Economics* 411.

safety in regard to Tier one food labelling information is not about protecting consumers from foodborne illness. It is about avoiding direct, acute and immediate harms to food safety and public health by giving consumers the information they need to make an informed choice about what food they can choose to eat.

Extending the credence argument to Tier one food labelling issues challenges the dominant characterisation within Australia's food regulatory governance that credence related, or rather, authenticity related questions arise only in regard to consumer value issues (Tier three of the Hierarchy; Chapter 6). At Tier three, the Hierarchy directs reactive (complaints-driven) regulatory action by consumer protection regulators autonomous of the food legislation. The ACCC is responsible where fraud and misrepresentation is identified at Tier three. This chapter demonstrates that Tier one issues can involve credence claims too. Certainly, recall statistics show the majority of recalls related to Tier one food labelling issues to be the majority of all recalls.

Food names and ingredient and allergen declarations are the most serious of all credence claims appearing on a food label. The Hierarchy confirms this with its food safety risk-based approach. Fraud and misrepresentation of Tier one food labelling issues is a food safety risk. Proactive and systematic responses commensurate with the prioritised placement at the top of the Hierarchy is needed. Food and ingredient authenticity is a food safety issue separate to foodborne illness. Proactive interventions rather than reactive responses are required for all Tier one food labelling issues.

III Tier One Food Labelling Issues And Low Food Safety Risk Foods

The nature and extent of known safety and public health threats from Tier one food labelling issues on low risk foods is considered with reference to the food legislation operating definitions for unsafe, unsuitable, or falsely described (Part IV).

A *Aim*

The aim is to examine available historical data to understand how the Australian food legislation definitions operate with food safety events caused by fraud and misrepresentation of Tier one food labelling issues on low food safety risk foods for sale.

Based on international incident data, most of the foods known to be vulnerable to fraud and misrepresentation are classified low food safety risk under Australia's Priority Classification Scheme discussed in Chapter 4. Frauds and misrepresentation of Tier one information on low risk foods cause direct, indirect and technical threats to safety and public health. Databases identify a wide range of foods vulnerable to fraud and misrepresentation, including olive oil, fish and seafood, milk and dairy products, grains, honey, coffee and tea, fruit juices, spices, meats, organic

foods, and clouding agents.[9] Foods classified as high food safety risk – fish, milk and meat – based on microbial risk assessments are not considered in this analysis.

Low food safety risk foods are manufactured with the least amount of government regulatory oversight. For the four food groups under review here, domestic food processors manufacturing or wholesaling may be subject to routine inspections for compliance with general food safety hygiene standards,[10] with inspection frequency dependent on the food safety classification priorities (based on microbial risk assessments) of the state jurisdiction (Chapter 4).

B *Methodology*

The analysis considers Food Fraud Database data collated under the ingredient groups of select types of 'low food safety risk' prioritised food: 'Herbs, spices and seasonings'; 'grains, rice, soy and pulses'; 'honey'; and 'oils and fats'. The Food Fraud Database is a repository of over 6000 records of food fraud incident data compiled from scientific literature, media reports, surveys by non-government organisations and enforcement activities including judicial outcomes, from around the world.[11] While it is difficult to know for sure the prevalence of fraud and misrepresentation in supply chains, collating academic, media and scientific reports of incidents in databases provides useful data about the incidents. The data are compiled from food fraud incidents around the world and is not necessarily specific to Australia.

The USP database was accessed and all incidents involving the four food types and presence of a substance 'foreign to the nature of the food … not permitted under the Food Standards Code'[12] recorded in a spreadsheet for the analysis (see Appendix 1; Table 1 summarises the data). Food ingredients or substances permitted under the ANZFSC, except for *allergenic ingredients or substances* potentially causing direct threats of harm to sensitive individuals, have been excluded from the analysis. The incidents are categorised as unsafe (as defined) and unsafe (not as defined) based on an assessment against the definition. Food is defined as unsafe if food is likely to cause physical harm. The unsafe definition excludes foods 'merely because its inherent nutritional or chemical properties cause or its inherent nature causes, adverse reactions only in persons with allergies or sensitivities that are not common to the majority of persons'.[13] Australian food legislation definitions distinguish between food likely to cause physical harm to the majority and food likely to cause physical harm to a minority. By identifying foods that are unsafe to the majority and minority of persons, the analysis reveals the proportion of foods in this sample unsafe to sensitive individuals. Each incident was then categorised as 'unsuitable' and falsely described, based on the *Model Food Act 2000* (Cth) definitions. For each incident, an assessment was recorded

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9 See generally, Food Fraud Database, above n 2; Renée Johnson, 'Food Fraud and "Economically Motivated Adulteration" of Food and Food Ingredients' (Research Report, 7-5700 R43358, Congressional Research Service, United States Congress, 10 January 2014).

10 *ANZFSC* Chapter 3 Food Safety Standards. Standard 3.1.1 Interpretation and Application; Standard 3.2.2 Food Safety Practices and General Requirements; Standard 3.2.3 Food Premises and Equipment.

11 Established by the US Pharmacopedia ('*USP*'), the Food Fraud Database is (as of 2018) owned by Decernis and accessed at <https://decernis.com/solutions/food-fraud-database/>.

12 *Model Food Act 2000* (Cth) s 7 meaning of unsuitable food.

13 Ibid s 6 meaning of unsafe food.

as to whether the false description presents a technical, indirect or direct threat to safety and public health, based on the John Spink and Douglas Moyer categorisations of types of harms from food frauds.[14]

The next section presents findings from the analysis and discusses impacts of relevant fraud and misrepresentations with each of the four types of foods under analysis. Part III then examines operation of the key safe and suitable definitions in food legislation, arguing the framework would benefit from a new regulatory measure in the ANZFSC, an outcome based approach to assuring authenticity when processing safe and suitable food.

C *Findings*

This section presents findings from analysis of the data before discussing known food fraud events with each of the four select categories of food classified as 'low food safety risk'. Out of the 112 incidents of fraud and misrepresentation with these low food safety risk foods, 74 per cent satisfies the unsafe food definition in Australian food legislation. Therefore, 26 per cent of the foods subject to the frauds are not 'unsafe' in law. Specifically, 77 per cent (34/44) of foods categorised as 'herbs, spices and seasonings' satisfy the definition for unsafe, and 23 per cent (11/44) do not meet the requirements because the risk of physical harm does not threaten the majority of persons. A majority of consumers - 100 per cent (40/40 and 7/7, respectively) – are likely to be harmed from the frauds and misrepresentation of 'grains, rice, soy and pulses' and 'honey', satisfying the unsafe food definition. In regard to the 'fats and edible oils' category, only 14 per cent (3/21) of the fraudulently labelled foods are unsafe in law, as 86 per cent (18/21) of the frauds and misrepresentation are likely to cause adverse reactions only in persons with allergies or sensitivities not common to the majority of persons.

Of the incidents with 'herbs, spices and seasonings', 89 per cent (39/44) of the foods meet the unsuitable definition. All the foods under the 'grains, rice, soy and pulses' and 'honey' categories meet the definition (40/40 and 7/7, respectively). Of the fats and edible oils, only 19 per cent (4/21) satisfy the unsuitable food definition because (as is also the case for herbs, spices and seasoning) the substituting and diluting ingredients are permitted by the ANZFSC, making the final foods not unsafe, not unsuitable but falsely described.

The analysed data across the 112 incidents reveals all incidents involved at least one of the examples of a falsely described food provided in the *Model Food Act 2000* (Cth) (see Table 1 Chapter 2). By categorising the incidents of false description using the Spink and Moyer approach – direct, indirect or technical threat to health – 12.5 per cent (14/112) of the incidents present direct risks to safety and public health, 71 per cent (80/112) are indirect and 16 per cent (18/112) technical threats. By individual category, the nature of risks in 'herbs, spices and seasoning' are 59 per cent indirect, 32 per cent technical and 4 percent direct threats of harm. In regard to honey, 57 per cent of the threats are indirect and 43% technical threats to safety and public health. Food fraud

[14] John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* 157, 158.

incidents categorised in the 'grains, rice, soy and pulses' group carry indirect risks to safety and public health in 92.5 per cent of the cases with 5 percent and 2.5 per cent direct and technical risks to health, respectively. Finally, the food fraud incidents involving fats and edible oils carry 38 and 62 per cent direct and indirect threats to safety and public health, respectively.

Overall, the significance of the findings is that the safe and suitable food definitions are not capturing all foods that carry a real risk of harm to all consumers. To be considered unsafe foods must present a risk of physical harm to the majority of persons, not only sensitive or allergenic consumers. This limitation flows from the hazard contamination paradigm (discussed in chapter 4 and in Part III, below), where all persons are susceptible to the agents of foodborne illness, hazards targeted for systematic control. The following paragraphs discuss known Australian examples and the potential threats of physical harm from the four groups of low food safety risk foods with uncontrolled hazards (allergens) and unsuitable ingredients.

CHAPTER 8 TABLE 1: Summary of Food Fraud Database data.

	n = 112	UNSAFE		UNSUITABLE	FALSE DESCRIPTION	RISK TO PUBLIC HEALTH (Spink and Moyer (2011))
Represented food		**Unsafe (i.e. likely to cause physical harm to majority of persons**	**Not unsafe (as defined, BUT likely to cause physical harm to minority of persons)**	**Unsuitable (i.e. damaged/deteriorated /perished; Illegal slaughter; or contains a biological or chemical agent or other matter or substance foreign to the 'nature of the food' and also not permitted under the ANZFSC**	**Representation as to nature or substance, but substituted with ingredients, of lower commercial value or false impression of nature or substance**	**Direct, Indirect or Technical**
Herbs, Spices and Seasoning	44	77% (34/44)	23% (11/44)	89% (39/44)	100%	59% indirect, 32% technical and 4% direct
Grains, rice, soy and pulses	40	100% (40/40)	0%	100%	100%	92.5% indirect, 5% direct and 2.5% technical
Honey	7	100% (7/7)	0%	100%	100%	57% indirect, 43% technical and 0% direct
Fats and oils	21	14% (3/21)	86% (18/21)	19% (4/21)	100%	62% indirect, 38% direct and 0% technical
TOTALS		74%	26%	80%	100%	

1 *Herbs, spices and seasonings*

Herbs, spices and seasonings are mostly traded in bulk from countries where food safety regulation is less established and (or) controlled. After the large recalls of spices in the US in 2016, UK-based food industry member organisations released guidance materials to assist in spice authentication verification methods.[15] A series of US FDA alerts and recalls followed routine government sampling that detected high levels of lead in turmeric[16] and curry powers[17] imported to the US from India, packaged and distributed under a number of different spice brands prepared by contract manufacturing plants. The addition of lead is motivated by the increase in profits from artificially enhancing the colour and an increase in net weights. Lead is a heavy metal known for its longer-term serious and permanent physical harms, particularly cognitive damage and behavioural changes in children.[18] It is important pregnant women, infants and young children are

[15] See British Retail Consortium, Food and Drink Federation, Seasoning and Spice Association, 'Guidance on Authenticity of Herbs and Spices – Industry Best Practice on Assessing and Protecting Culinary Dried Herbs and Spices' (Food Standards Agency and Food Standards Scotland, 2016); See also Connor Black, Simon Haughey, Olivier Chevallier, Pamela Galvin-King, Christopher Elliott, 'A comprehensive strategy to detect the fraudulent adulteration of hers: The oregano approach' (2016) 210 *Food Chemistry* 551

[16] FDA, *Recalls* <https://www.fda.gov/Safety/Recalls/ucm513844.htm>; <https://www.fda.gov/Safety/Recalls/ucm515328.htm>;<https://www.fda.gov/Safety/Recalls/ucm515105.htm>; <https://www.fda.gov/Safety/Recalls/ucm523561.htm>.

[17] See US FDA, 'Company Announcement, Oriental Packing Co., Inc. Issues Alert on Lead in Curry Powder' (Public Release (online), 12 August 2016) <https://www.fda.gov/Safety/Recalls/ucm516541.htm>; <https://www.fda.gov/Safety/Recalls/ucm517333.htm>;

[18] Alice Park, 'Study: Lead Poisoning Could Lurk in Spices', (*Time* (online), 15 March 2010).

not exposed to any lead-contaminated substance. The presence of lead, or another contaminant at levels beyond maximum permissions, renders food 'unsafe' and 'unsuitable'. As lead-contaminated spice is 'not of the nature or substance'[19] represented, inter alia, it is also falsely described under state food Acts.

A similar event involving hundreds of tonnes of food affected the EU food supply in 2005. Chilli powder containing the potentially carcinogenic dye Sudan I (shoe polish) was distributed throughout the food supply network, sparking an historic withdrawal of over 350 branded foods from retail sale. Foods included refrigerated or frozen ready meals, sauces, fresh foods, and canned foods.[20] Although the risk to individual safety was declared minimal because the foods contained small amounts of the unsafe substance, and a strong causal link between Sudan I consumption and cancer has not been established, this event demonstrates the chaos that can ensue following authenticity failures of an input ingredient traded in the complex food supply network.

In 2016, consumer advocacy group CHOICE[21] exposed evidence of insufficient control of mandatory Tier one food labelling issues in supply chains during its retail survey testing the authenticity of oregano sold at Australian supermarkets. Food businesses represented the true nature of the food as 'oregano'. Yet, eight of the 12 samples tested contained cheaper ingredients, with one brand having up to 90 per cent of the substituted ingredient.[22] The CHOICE report followed a survey of 78 oregano samples sold at supermarkets in the UK. The UK survey, performed one year prior revealed 25 per cent of the oregano sampled contained up to 70 per cent of cheaper alternatives – olive or myrtle leaves. Professor Christopher Elliott, author of the Elliot Review commented:

> Clearly, we have identified a major problem and it may well reflect issues with other herbs and spices that enter the British Isles through complex supply chains. Much better controls are needed to protect the consumer from purchasing heavily contaminated products. [23]

No evidence exists of a public response from FSANZ or state food regulators warning of the safety and public health issue. The substitution and dilution of oregano uncovered by CHOICE was not treated as a Tier one food labelling issue in accordance with the Hierarchy, but seemingly treated as a Tier three consumer values issue to be resolved through deterrent, reactive enforcement action by the ACCC.[24] Despite the ACCC responding, the food labelling issues are prioritised at Tier one of the Hierarchy. The herbs were not of the nature or substance declared in the ingredients list, and not the true name of the food. The fraud and misrepresentation caused direct threats of harms to safety and public health. Consumers with sensitivities to the ingredients used to substitute or dilute the oregano leaves - sumac and olive leaves - were unable to make an

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19 *Model Food Act 2000* (Cth) s 19 (examples of false descriptions).

20 Food Standards Agency, 'Sudan I product list 18 February 2005' (*BBC News* (online), 18 February 2005) <http://news.bbc.co.uk/nol/shared/bsp/hi/pdfs/18_02_05_sudan.pdf>.

21 See CHOICE, <www.choice.org.au>.

22 Anon, 'Does your spice rack contain fake oregano?' (*CHOICE* (online), 5 April 2016).

23 Olivia Howes, 'Does your spice rack contain fake oregano?' (*WHICH?* (online), 23 July 2015).

24 ACCC, 'ACCC acts on 'Oregano' misrepresentations' (Media Release, ACCC (online), 9 November 2016); ACCC, 'Hoyt's Food pays $10 800 penalty for alleged false and misleading 'Oregano' representations' (Media Release, ACCC (online), 7 March 2017); ACCC, 'Spencers to undertake regular testing of Oregano' (Media Release, ACCC (online), 19 December 2016).

informed choice and avoid this food due to the fraud and misrepresentation that occurred somewhere in the global supply chain. Olive leaf is an abundant, cheap by-product of olive oil production. In regard to the sumac, over 35 varieties of the cheaper substitute are used to spice different cuisines. Historically, some plants named sumac are not used as culinary herbs and are toxic to persons allergic to the natural compound urushiol. There is no evidence in the CHOICE survey that the sumac found mixed with the oregano was of the allergenic variety. Allergenic individuals may react, causing physical harm, but regardless, the eight substituted 'oregano' products are by definition the same: not unsafe, not unsuitable, but falsely described. Sumac and olive leaf may indeed be 'foreign to the nature of the food' represented on the packet as 'oregano'. But, because sumac is not prohibited under the ANZFSC[25] its presence in the food does not make the food 'unsuitable'. Because any physical injury must affect 'the majority' and does not include individual allergenic condition or sensitivity, such food is not 'unsafe' as defined.

Food safety threats in Canada, the US and the UK due to cumin and paprika substitution with (lesser value) peanut[26] prompted industry associations and government agencies in the UK to publish educative best practice material to respond to the authenticity issues in supply chains.[27] Despite increasing reports of serious risks to food safety and public health in the global spice food supply chains,[28] no specific public material was released by the government in Australia to assist food businesses, food safety regulatory auditors and inspectors in systematically preventing food safety labelling non-compliance and the false description in the sale of herbs and spices.

2 *Grains and soy*

Data in the Food Fraud Database indicates melamine has been used in the substitution and dilution of wheat gluten (as well as dairy products). Melamine reacts with an associated hazardous compound, cyanuric acid to form large crystals that block delicate vessels in kidneys. Case studies indicate 'there was a fraud opportunity due to detection challenges, effectiveness and application of current standard methodologies used for protein determination of wheat gluten'.[29] The non-animal nitrogen source is added to manipulate and increase protein readings in quality assurance tests. The price of wheat gluten is dependent on protein readings, so the addition of melamine to a low protein food increases its perceived value and demand. Implicated in the deaths of pets in the US,[30] melamine-tainted grains were fed to juvenile pigs farmed in Asia, killing thousands.[31] It is only following these catastrophic manifestations of harms that methods for its detection have developed as a preventative control.

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25 See generally *ANZFSC* Standard 1.4.4.

26 See, eg, Homa Khaleeli, 'Spice – the new horsemeat? Be warned if you're allergic to nuts (*The Guardian* (online) 18 February 2015).

27 See British Retail Consortium, above n 15.

28 Whitney Cowell, 'Ground Turmeric as a Source of Lead Exposure in the United States.' (2017) 132(3) *Public Health Reports* (Washington, D.C.).

29 Douglas Moyer, Jonathan DeVries and John Spink, 'The Economics of a Food Fraud Incident - Case Studies and Examples Including Melamine in Wheat Gluten' (2017) 71 *Food Control* 358, 363.

30 Cathy Brown, Kyu-Shik Jeong, Robert Poppenga, Birgit Puschner, Doris Miller, Angela Ellis, Kyung-Il Kang, Steffen Sum, Alexis Cistola and Scott Brown, 'Outbreaks of Renal Failure Associated with Melamine and Cyanuric Acid in Dogs and Cats in 2004 and 2007' (2007) 19 *Journal of Veterinary Diagnosis and Investment* 525.

31 Supol Luengyosluechakul, 'Evidence of Melamine and Related Substances Contamination to Animal Feed in Thailand' (2007) 37(4) *Thai Journal of Veterinary Medicine* 7.

Although insufficient relevant facts in the Spiral Foods Bonsoy soy milk class action[32] are available to conclude that the matter is an example of food fraud, the case has been defined as such in the Food Fraud Database. The potential technical, indirect and direct threats to safety and public health followed long-term exposure to ingredients allegedly chosen so manufacturers could claim 'no added salt'. The act followed reformulation in 2003 with iodine-rich kombu (seaweed) to (allegedly) avoid representing salt as an added ingredient to the food. The plaintiffs particularised in the settled class action[33] that the highly popular soy milk, represented as healthy 'materially increased the risk of those consuming it suffering thyroid dysfunction… and was unsafe for human consumption'.[34] The importer is alleged to have failed in 'ascertaining the consequences of the reformulation for the risks to human health', and 'after receiving inquiries alleged in 2006, 2007 and 2009 (on the level of iodine in the food), failed to act to ascertain for itself whether the levels of iodine in Bonsoy, of which it was then aware, constituted a risk to human health'.[35] Spiral Foods admitted[36] it voluntarily recalled[37] Bonsoy from sale following a request by the Victorian Department of Health which informed it that tests had shown the presence of 'very high levels of iodine'.[38]

3 *Honey*

In 2012 honey, along with olive oil, milk, and saffron, was listed as a commonly targeted food for economically motivated adulteration in the Food Fraud Database.[39] In 2014 the ACCC issued penalty notices[40] to the importers of a plant sugar-syrup product from Turkey labelled 'Victoria Honey'[41] and 'Hi Honey'[42] for false representations as to its composition and place of origin, and sought compliance from a number of businesses selling 'honey' mixed with sugars not

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32 *Erin Downie v Spiral Foods Pty Limited* (SCofV CI 2010 05318) (Settlement Scheme, Supreme Court of Victoria, 7 May 2015) < http://www.mauriceblackburn.com.au/media/2722/approved-bonsoy-settlement-scheme.pdf>.

33 See Anon, 'Bonsoy to pay soy milk victims $25m in record class action' (*The Sydney Morning Herald* (online) 24 November 2014); See Daniella Miletic, 'More join Bonsoy iodine class action' (*The Age* (online) 4 January 2013).

34 *Erin Downie v Spiral Foods Pty Limited* (SCofV CI 2010 05318) (Amended Statement of Claim, 21 December 2012), 9 <http://www.mauriceblackburn.com.au/media/2194/amended-statement-of-claim.pdf>.

35 Ibid 14.

36 *Erin Downie v Spiral Foods Pty Limited* (SCofV CI 2010 05318) (Further Amended Defence to the Plaintiff's Amended Statement of Claim, 22 March 2013) <http://www.mauriceblackburn.com.au/media/2193/first-defendants-further-amended-defence.pdf>.

37 See FSANZ, *Food recalls* <http://www.foodstandards.gov.au/industry/foodrecalls/recalls/pages/bonsoysoymilkexcessi4653.aspx>.

38 On 28 April 2010, FSANZ advised the public Bonsoy soy milk reformulated without kombu seaweed extract, could return to sale, noting in the iodine levels in the recalled batches of the food, 'were at a level that is likely to exceed the safe limit for iodine when as little as 30ml is consumed per day by an adult. The only soy milk product identified through testing to have high levels of iodine was Bonsoy soy milk'. See FSANZ, 'Reformulated Bonsoy soy milk without Kombu seaweed to return to shelves' (Press Release, Commonwealth Department of Health 28 April 2010).

39 Jeffrey Moore, John Spink and Markus Lipp, 'Development and Application of a Database of Food Ingredient Fraud and Economically Motivated Adulteration from 1980 to 2010' (2012) 77(4) *Journal of Food Science* 118, 121; Honey represents 7 per cent of the total records in the US Pharmacopeial Convention's Food Chemicals Code (third to olive oil and milk).

40 Infringement notices were issued to Basfoods (Aust) Pty Ltd (and paid on 18 June 2014) for contravention with *ACL* ss 29(1)(a) and 29(1)(k) (two offences identified) <http://registers.accc.gov.au/content/index.phtml/itemId/939950>.

41 *ACCC*, 'ACCC acts on "Victoria Honey" misrepresentations' (Media Release, 23 June 2014) >

42 *ACCC*, 'ACCC acts on "Hi Honey" misrepresentations' (Media Release, 1 December 2014)

produced by bees. In another case, honey represented to be 'a blend of Australian organic certified honey and organic honey produced on Kangaroo Island, home to the world's only remaining pure strain of the Ligurian honeybee' when in fact sampled honey contained a small fraction of honey from the preferred region.[43]

When analytical reports related to the 'Hi Honey' and 'Victoria Honey' case were presented to the responsible food regulatory home jurisdiction, Department of Health, Victoria around May 2013, they did not enforce the ANZFSC honey standard[44] The Senate Committee criticised the time to resolve the complaint, stating 'enforcement of standards and labelling may be more likely to assist the honey industry'.[45]

Honey is standardised in the ANZFSC with a definition and clear composition value ratios of reducing sugars and moisture.[46] ANZFSC Standard 2.8.2 provides the testing parameters for the authentication of a food labelled with the prescribed name, honey. False description offences in the *Model Food Act 2000* (Cth) – Annex A were adopted in the *Food Act 1984* (Vic).[47] In addition to the power to initiate proceedings for contravention of the Act, since 2011 the Secretary of the Department of Health, Victoria has power to accept written undertakings given by a person in connection with a matter relating to the false description of food.[48] This means Victoria Health has sufficient powers to act and respond to the frauds and misrepresentation, but is not exercising the statutory powers to meet all three objectives of its food Act.

Fraud and misrepresentation of honey introduces technical, indirect and direct threats to safety and public health. The USP data reveals incidents where products labelled 'honey' have been found to contain non-permitted antibiotics and chemotherapeutics such as chloramphenicol, ciprofloxacin, tetracycline, ampicillin, erythromycin and enrofloxacin.[49] The illicit use of anti-microbial chloramphenicol in overseas honey production introduces direct risks of harm to safety and public health. Xiao Ou Shu et al, reported in *The Lancet* that a population-based case-control interview study showed a significant dose-response relationship between chloramphenicol and leukaemia in children.[50] This antimicrobial is unsafe at any level in food.[51] Individuals may suffer a

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43 Aldi Foods Pty Ltd, (Court Enforceable Undertaking 'Just Organic', *Competition and Consumer Act 2010* s 87B, 28 July 2011). <http://registers.accc.gov.au/content/index.phtml/itemId/1000928>.

44 Senate, Rural and Regional Affairs and Transport References Committee, 'Future of the Beekeeping and Pollination Service Industries in Australia' (Parliament of Australia, July 2014), 45 discussed the handling of the complaint from the Australian Honey Bee Industry Council by the ACCC and Victoria Health.

45 Ibid 4.15-4.16.

46 Ibid 4.11. Mr Peter May, Legal Counsel, FSANZ provides, 'The honey standard has been designed and has a definition which specifically requires honey to be the product that is produced by bees interacting with plants, and not bees fed on sucrose or dextrose or whatever sugar they might be fed on or any other sugar product ... Honey is a prescribed name - it is one of the few prescribed names in the food code - and so a product that is on the shelf as honey must be that particular product and cannot be corn syrup'

47 *Food Act 1984 (*Vic) s 13(3) A person must not, in the course of carrying on a food business, sell food that is packaged or labelled in a way that falsely describes the food; *Food Act 1984* (Vic) s 17A(1)(a).

48 *Food Act 1984* (Vic) s 19BB.

49 See Table 1 to this Chapter.

50 Xiao Ou Shu Shu, Martha Linet, RuNie Gao, YuTang Gao, Louise Brinton, Fan Jin and Joseph Fraumeni, 'Chloramphenicol use and childhood leukaemia in Shanghai' (1987) 330(8565) *The Lancet* 934.

51 Codex Alimentarius Commission, *Maximum Residue Limits and Risk Management Recommendations for residues of veterinary drugs in foods*, (CAC/MRL 2-2015, 38th Session of the Codex Alimentarius Commission (July 2015)). The compound is genotoxic in in vitro and in vivo studies and an actual dietary intake safe level cannot be

rare but serious and potentially fatal side effect, the delayed onset of aplastic anaemia, following repeated consumption. Other sensitive individuals may experience adverse hypersensitivity reactions or drug interactions and contra-indications, individualised physical harms that do not make a food unsafe under the Act, but the presence of prohibited substances do render it unsuitable, even if not necessarily falsely described.

The foods labelled honey imported to Australia were either collected from unknown locations overseas or diluted with sugar syrup and other unknown liquids. Honey and royal jelly, prized natural energy-dense products made by bees are rich in naturally occurring vitamins, minerals, enzymes and simple sugars. The natural mode of collection by bees in flora environments directly influences a honey's contaminant burden and molecular composition. USP data records dilution or substitution with the addition of substances such as high fructose corn syrup, invert cane sugar, corn syrup, sugar syrup, beet sugar syrup, maple syrup, fructose, sucrose, glucose, malt syrup, pectin, iso-glucose, rice syrup, and unspecified sweeteners.

Considering this well-established vulnerability of honey within the global food supply network, scientific developments have enhanced tools for control. For example, Capilano Honey, one of the largest honey packers in the world with the capacity to process and pack over 45 000 tonnes per annum and exporter of honey to over 33 countries, engages advanced screening techniques to systematically screen procured honey against consolidated tests to detect known contaminants.[52]

4 *Fats and edible oils*

Incidents of fraud and mispresenting lower value oils (seed, unrefined or olive pomace oils) as extra virgin olive oil are common. The Food Fraud Database identifies olive oil as the food most vulnerable to fraud on a global basis, representing 16 per cent of reports in that database (1980 – 2010).[53] A University of California comprehensive analysis of 124 international brands of extra virgin olive oil revealed 'that the quality level of the largest imported brand names [were] inconsistent at best, and that most of the top selling olive oils we examined regularly failed to meet international standards for extra virgin olive oil'.[54] In 2007, 100 000 tonnes of Ukrainian-sourced sunflower oil was mixed with cheaper, inedible mineral oils used for manufacturing, leading to recalls and the introduction of explicit regulatory limits on the addition of paraffin.[55] The ACCC

ascertained due to a lack of information on carcinogenicity and potential distortion of reproduction system; See also Codex monograph <http://www.fao.org/fileadmin/user_upload/vetdrug/docs/41-1-chloramphenicol.pdf>.

52 Randox Food Diagnostics, 'Antibiotic honey screening – A user's perspective' (Promotional Document, Randox, May 2014). <http://www.randoxfooddiagnostics.com/matrices/honey>

53 Moore, Spink and Lipp, above n 39. In the 167 database entries reviewed by the researchers, 16 per cent of the records related to the adulteration of olive oil.

54 Edwin Frankel, Rodney Mailer, Selina Wang, Charles Shoemaker, Jean-Xavier Guinard, Dan flynn and Nicole Sturzenberger, 'Evaluation of Extra-Virgin Olive Oil Sold in California' (UC Davis Olive Center, 2011), 2.

55 Koni Grob, 'Could the Ukrainian Sunflower Oil Contaminated with Mineral Oil Wake up Sleeping Dogs?' (2008) 110(11) *European Journal of Lipid Science and Technology* 979.

has prosecuted a case involving 100 per cent extra virgin olive oil substituted with 93 per cent canola oil.[56]

Direct, acute and immediate threats of physical harm can follow the mixing of allergenic substances such as peanut, sesame, hazelnut or other nut oils to allergenic consumers, causing death for those who suffer anaphylactic reactions. Indirect and accumulative physical harms may occur following long-term consumption of oils containing carcinogens such as polycyclic aromatic hydrocarbons (benzopyrene) because of high heat processing methods. The false description of controversial cheaper seed oils as premium extra virgin does not render food unsafe or unsuitable, as defined, but falsely described as to nature or substance.

The Australian Olive Association claims the 'level of fraud and consumer deception (in the labelling of olive oil) is enormous and will only start to subside when the compositional Australian Standard (AS 5264-2011) becomes mandatory'.[57] Complaints to regulators by the Australian olive industry highlighted complexities in the application of analytical tests, the voluntary nature of compositional standards, and debate over authenticity markers.[58] The NSW Department of Fair Trading reported in its 2012-2013 Annual Report that olive oils were sampled to verify processing claims.[59] Ultimately, state consumer affairs Ministers agreed to a 'business as usual approach and [to] consider food claims as part of their usual compliance activities under the Australian Consumer Law' noting the compliance monitoring 'identified minimal evidence of consumer harm or false or misleading representations'.[60] However, enforcement data to enable an appreciation for the nature or extent of any food fraud activity are not available to the public, nor are details on the 'successful outcomes… including packaging changes and enforceable undertakings'.[61]

IV Food Legislation Analysis

Key food legislation definitions steering operation of the framework as explained in Chapter 2 (Part II.C) are discussed in this Part IV. First, section A discusses the legal meanings of unsafe, unsuitable and false described foods, highlighting potential gaps and weaknesses in the capacity to control the range of physical harms to all consumers. Second, section B identifies the nature and extent of legal obligations when processing safe and suitable food.

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56 ACCC, 'MOI International Pays for Misleading Olive Oil Claims' (Media Release, 3 June 2013) http://www.accc.gov.au/media-release/moi-international-pays-for-misleading-olive-oil-claims.

57 Lisa Rowntree, 'Consumers are being conned. Why Australia needs to mandate the Australian Olive Oil Standard', (CEO Report, Australian Olive Association, 2013) 4.

58 Lisa Rowntree, 'Australian Olive Association CEO correspondence to The Hon. Anthony Roberts MP, Minister for Fair Trading' (Correspondence, Australian Olive Association, 28 August 2013) <http://www.australianolives.com.au/assets/files/>.

59 NSW Department of Fair Trading, Annual Report 2012-2013 (Annual Report, Department of Finance and Services, 2013), 17 <http://www.fairtrading.nsw.gov.au>.

60 Council of Australian Governments, Meeting of Ministers for Consumer Affairs (Joint Communique, 5 July 2013) <http://www.consumerlaw.gov.au/content/caf/meetings/downloads/004.pdf>.

61 Department of Fair Trading, above n 59, 17.

A *Safe, suitable or falsely described food*

The safe and suitable food definitions effectively operate to limit the obligations of food businesses to systematically prevent harms from frauds and misrepresentations. The definitions contain critical evidentiary and threshold requirements. For a food to satisfy the definition of unsafe, 'a likelihood to cause physical harm' must be evident.[62] No legal distinction is drawn between food causing direct, acute and immediate or indirect, long-term and chronic threats and impacts on health. Both scenarios are captured by the definition of 'unsafe' food, but it is the former category of direct, acute and immediate harm from microbial hazards that is the major focus of the food regulatory framework. Foods with inherent nutritional and chemical properties that cause adverse reactions in a minority of persons with allergies or sensitivities is not unsafe in law.[63] A food is unsuitable if, inter alia, it contains 'biological or chemical agent, or other matter or substance, that is foreign to the nature of the food'. [64] It is not unsuitable if the other substance foreign to the represented nature of the food is permitted by the ANZFSC.[65]

Operation of the safe and suitable definitions is impacting on the proactive control of Tier one food labelling issues, especially controlling allergens. For example, the undeclared presence of peanut oil (used to substitute a more expensive oil such as olive oil) does not render olive oil unsafe, but the presence of an allergen triggers requirements for mandatory warning, advisory statements or declarations upon sale.[66] So, a food can be safe and suitable but falsely described because it has a substance 'foreign to the nature of the food', for example, premium olive oil mixed with cheap seed oil. Sale of this food may be a serious offence if a food business knew the false description was likely to cause physical harm to a consumer who relies on the description (see Chapter 2 Table 1). Voluntary labelling systems control this most serious and direct threat of harm to sensitive consumers.[67] There is no regulatory measure in the ANZFSC obligating food businesses to process foods in a way that assures food authenticity and prevents false description, even with food ingredients and allergen labelling.

The laws in the Australian food control system fundamentally aim to protect public health and safety by controlling contamination by known microbiological, chemical or physical hazards threatening food safety and causing foodborne illness, but not harms from fraud and misrepresentation. A hazard for the purpose of the food regulatory system is 'a biological, chemical or physical agent in, or condition of, food that has the potential to cause an adverse health effect in humans'.[68] Hazards are defined by Codex as 'a biological, chemical, or physical agent, in or condition of, food with the potential to cause an adverse health effect'.

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62 *ANZFSC* Standard 3.1.1 cl 2(1).

63 Ibid cl 2(2).

64 *Model Food Act 2000* (Cth) s 7; *ANZFSC* Standard 3.1.1 cl 2(4).

65 *ANZFSC* Standard 3.1.1 cl 2(5).

66 Ibid 1.2.3.

67 Ibid. See also <www.allergenbureau.net/vital/> for the Voluntary Incidental Trace Allergen Labelling Program, a standardised allergen risk assessment process for the food industry.

68 *ANZFSC* Standard 3.1.1 cl. 1; Australia and New Zealand Food Regulation Ministerial Council, Food Regulation Standing Committee, Australian Standard for the Hygienic Production and Transportation of Meat and Meat Products for Human Consumption: AS 4696:2007 (CSIRO Publishing, 2007); FSANZ, *A Guide to the Food Safety Standards – Chapter 3 of the Australia New Zealand Food Standards Code* (Third Edition, Commonwealth Departemnt of Health, November 2016), 7.

In addition to the ANZFSC minimum hygiene requirements for all food business compliance, legally articulated HACCP processing controls apply to high risk food manufacturing in the meat, seafood, egg and dairy industries. The prioritised high food safety risk food sectors must document and comply with food safety programs that systematically identify hazards for monitoring and control. The system relies on identifying hazard contaminants reasonably expected to occur,[69] and implementing a food safety program to control the identified hazards.[70] This does not include ensuring food authenticity and preventing frauds and misrepresentation.

B *Food legislation obligations on businesses to process only safe and suitable food*

Table 1 in Chapter 2 shows four serious offences in relation to food, provided in the *Model Food Act 2000* (Cth), carry penalties of imprisonment. The strict liability 'other offences' include handling food in a manner that renders the food unsafe or unsuitable, and sale of unsafe and unsuitable food.[71] To recap, a person must not engage in misleading or deceptive conduct or cause food to be, or sell food that is, falsely described.[72] False descriptions of food (and ingredient declarations) for sale by acts of substituting, mixing, diluting, or otherwise engaging in misleading conduct when representing food and food ingredients is therefore prohibited. Food businesses are required to comply with provisions of the food legislation relating to food composition, labelling and information, packaging requirements,[73] and when handling food.[74]

The ANZFSC sets out specific hygiene and contamination prevention standards for food businesses 'that, if complied with, will ensure food does not become unsafe or unsuitable'.[75] No equivalent requirements exist in the food legislation that will ensure food does not become falsely described. The focus of the law is on controlling the risk of contamination by known hazards and defines outcome-based procedures to assure safe and suitable food. The regulatory control of 'identity and purity' as provided in ANZFSC Schedule 3 only applies to substances added to food that are used as a food additive, processing aid, nutritive substance or novel food.[76] No explicit controls exist on the identity or purity of nominal food and food ingredients outside of limited definitional standards for prescribed names, for example honey (see above). As part of the one step up and one step back traceability controls, an operator of a food business must, as a minimum, provide supplier details and the name of a food on the premises when such information is sought from an authorised officer.[77] Beyond this mandatory requirement, further traceability and identification management controls are not prescribed in the ANZFSC.

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69 *ANZFSC* Standard 3.2.1 cl 3(a).
70 Ibid cl 3(b).
71 *Model Food Act 2000* (Cth) ss 12-13.
72 *Model Food Act 2000* (Cth) s 14.
73 *ANZFSC* Standard 1.1.1 cll 10, 13 and 14(1).
74 Ibid cl 14(1).
75 *ANZFSC* Standard 3.2.2 (purpose).
76 Ibid Standard 1.1.1 cll 15(1)-(2).
77 Ibid Standard 3.2.2 cl 5(b).

All food business operators are legally obligated to 'take all practicable measures to process only safe and suitable food'[78] and when processing food, 'take all necessary steps to prevent the likelihood of food being contaminated', where a contaminant is defined as 'any biological or chemical agent, foreign matter, or other substances that may compromise food safety or suitability'[79] of food for sale.[80] Codex defines contaminant to mean, 'any substance not *intentionally added to food*, which is present in food as a result of the production (including operations carried out in crop husbandry, animal husbandry, and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport, or holding of such food or as a result of environmental contamination' (emphasis added).[81]

The ANZFSC Food Safety Standards explicitly requires operators of food businesses to take 'all practicable measures' when 'receiving'[82], 'storing'[83], 'displaying'[84], 'packaging'[85], and 'transporting'[86] food to ensure the food is 'protected from the likelihood of contamination'. Food businesses have the general duty to inform food-handling employees of their health and hygiene obligations when processing food, and 'take all practicable measures' to ensure employees 'do not contaminate food'.[87] The stated purpose of Standard 3.2.2 Food Safety Standard – General Processing and Hygiene Requirements is:

> This Standard sets out specific requirements for food businesses and food handlers that, if complied with, will ensure food does not become unsafe or unsuitable. This Standard specifies process control requirements to be satisfied at each step of the food handling process. Some requirements relate to the receipt, storage, processing, display, packaging, distribution, disposal and recall of food. Other requirements relate to the skills and knowledge of food handlers and their supervisors, the health and hygiene of food handlers, and the cleaning sanitising and maintenance of premises and equipment.[88]

In Standard 3.1.1 of the ANZFSC, process is defined to mean 'in relation to food, activity conducted to prepare food for sale including chopping, cooking, drying, fermenting, heating, pasteurising, thawing and washing, or a combination of these activities'[89]. The definition includes the activities as expressed, but operation of the word is not limited to the list. A question arises as to whether the meaning of process includes other activities central to food manufacture food and ingredient identification, declaration and mandatory labelling of food for sale. Although not legally binding, the FSANZ Food Safety Guideline (the Safety Guideline) provides the definition 'is inclusive and intended to cover all the activities that take place in relation to food before it is sold. It is not restricted to the activities listed.'[90] The process definition may include labelling and associated authenticity-related verification (for example) activities to 'prepare food for sale'. The

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78 Ibid cl 7(1)(a).
79 *ANZFSC* 3.1.1 cl 1.
80 Ibid Standard 3.2.2 cl 7(1)(b)(i).
81 Codex Alimentarius Commission, CAC 1995:1.
82 *ANZFSC* Standard 3.2.2 cl 5(1).
83 Ibid cll 5(1)(a)-(b).
84 Ibid cl 8(1). Additional requirements apply when displaying unpackaged ready-to-eat food for self-service.
85 Ibid cl 9(c).
86 Ibid cl 10(a).
87 Ibid cll 18(1), 18(3)(a).
88 *ANZFSC* Standard 3.2.2 Food Safety Practices and General Requirements (Purpose)
89 Ibid cl 1.
90 *FSANZ*, *Safe Food Australia A Guide to the Food Safety Standards* (3rd ed, Commonwealth Department of Health 2016), 7.

Safety Guideline also suggests, 'practicable measures' include sourcing ingredients from reputable suppliers, specifications to suppliers, operate appropriate procedures in receiving food, inspecting food for damage or deterioration, temperature control for potentially hazardous foods and removing contaminants that might be present (for example, washing fruits and vegetables).[91] Further commentary is provided that suggests testing of hazards may be necessary for food manufacturers 'where the quality of the ingredients is critical to the safety or suitability of the food being manufactured'.[92]

V CONCLUSION

The chapter analysis reveals the foundational classification system based on microbial-risk assessments (Chapter 4) is clearly inadequate to predict which foods carry a risk to safety and public health from fraud and misrepresentation. Traditional hazards contribute significantly to foodborne illness, but as revealed in Chapter 4, unknown and uncontrolled substances (that may be from food fraud) also cause direct, indirect and technical threats of safety and public health harms. This chapter looked at the operating legal definitions with reference to the food safety prioritisation policy of low – medium - high risk foods. Legal definitions provide the scaffolding of the food safety regulatory system, steering and focusing its operation. Significantly, the safe and suitable food definitions are limited and therefore not capturing all categories of foods that risk harm to all consumers.

Operation of the food processing requirements to handle and sell safe and suitable food for 'food safety' is limited to controlling harms affecting the 'majority of persons' from contamination with agents of foodborne illness harms. The safe and suitable paradigm, supported by food safety standards in the ANZFSC operates without reference to labelling compliance and the false description prohibitions. For a food to be unsafe, it must be likely to cause physical harm to a majority of persons. Food is not considered unsafe because of the presence of allergenic substances or sensitive ingredients. Yet falsely described food is also not always unsuitable due to the presence of any undeclared ingredients permitted under the ANZFSC. In both cases, the food is falsely described. Specific food processing requirements are required to support food businesses in not falsely describing food with inauthentic Tier one food labelling information. Tier one food labelling issues, including allergen declarations is under controlled within Australia's food regulatory framework.

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91 Ibid 33.
92 Ibid.

CHAPTER 9: CONCLUSIONS

I INTRODUCTION

The aim of this research was to understand the nature and extent of formalised food authenticity control and food fraud prevention systems operating to control threats to safety and public health within Australia's food regulatory framework. Food frauds involve supply chain actors using false misrepresentations, misleading or deceptive conduct, mislabelling and non-compliant information to promote the sale of food. Food businesses have been motivated by economic reasons to intentionally misrepresent food and ingredients for centuries. Food fraud is therefore not a new phenomenon but a complex and globally focused food supply is relatively new, introducing new risks and threats of harm to control. Preventing food fraud is also not a new objective for food regulatory systems. However, the rapid transformation to global supply chains is changing the nature and extent of harms to safety and public health. New regulatory measures and strategies are required to effectively control food fraud to protect consumers from harms in the 21st century.

Food frauds are intentional and economically motivated acts that affect the authenticity of information used to promote sales of foods and ingredients. Inauthentic information used to describe the nature or substance of food and ingredients introduces technical, indirect and direct threats to safety and public health. Examination of Australia's food regulatory framework to assess its control of food labelling information to protect consumers from safety and public health threats was therefore warranted. This thesis has examined Australia's food regulatory framework of laws, strategies, policies, and operating risk-based approaches that steer the systems in achieving the framework's strategic and statutory objectives. This thesis also synthesised and reviewed relevant food fraud, food crime and food supply chain research literature. Analysis of food labelling enforcement data, marketplace survey data, real food fraud incident data and a small number of interviews with food supply chain actors also informs the answer to the question posed in this thesis: *Does the Australian food regulatory framework operate to control food authenticity and prevent direct, indirect and technical harms to safety and public health from food fraud?*

Part II of this concluding chapter outlines the main conclusions of this thesis before presenting a summary of the findings from each chapter. Part III outlines recommendations for future research on Australia's food regulatory framework and food fraud. Part IV discusses the key research findings in light of existing food fraud, food crime and supply chain literature and the practical implications for Australian governments and the food industry.

II Main Conclusions And Summary Of Findings

A *Main conclusions*

'Over emphasis'[1] on the targeted control of known microbiological hazards leaves Australian consumers at risk from uncontrolled food fraud related harms, as in the EU before the 2013 horsemeat crisis. This research leads to new knowledge about the operation of Australia's food regulatory framework. The findings of this thesis demonstrate at most a general failure, or at least uncertainty, regarding how Australia's food regulatory framework can effectively achieve Forum-approved policies and parliamentary established legal objectives when the threats of harm to safety and public health are caused by fraud and misrepresentation. The research findings highlight the need for new regulatory measures, policies and strategies targeting the prevention of fraud and misrepresentation in the interest of safety and public health to complement Australia's traditional food safety regulatory approaches.

Ensuring food authenticity and preventing food fraud must be explicitly articulated by responsible governments as a policy goal if Australia's food regulatory framework is to effectively achieve its statutory objectives in the complex globalised food supply. The following conclusions can be made from a holistic synthesis of the research findings in the context of the overall project:

a) Australian food laws are drafted to control harms from traditional unintentional food safety incidents, not intentional acts of fraud and misrepresentation. This is reflected in the food legislation definitions restricting the concept of unsafe food to food that has a likelihood of causing physical harm to a *majority* of persons. Food likely to harm a minority of persons because of false descriptions of Tier one food labelling information is not unsafe or unsuitable but falsely described;
b) State-operated food safety schemes implementing HACCP and audited by regulatory food auditors are *not* detecting food frauds over long periods of offending. Moreover, the organisation of regulatory food safety audits is serving to camouflage parasitic and illegitimate fraudulent acts on audited routine and legitimate food manufacturing processes and systems of work.
c) Food labelling authenticity regulatory monitoring for safety and public health exists in a regulatory 'blind spot'.[2] Operation of the food regulatory framework, including prioritisation of resources and risk assessments criteria is based on a likelihood of harm from foodborne illness caused by traditional hazards and controls based on microbial assessments. As the evidence internationally shows, assessment of food fraud threats to safety and public health sits outside the traditional paradigm of food safety risk assessment and targeted control of microbial contamination. Microbial assessments are not effective in assessing the nature of safety and public health threats from fraud and misrepresentations to establish effective regulatory food labelling compliance and enforcement strategies. As a result, the most serious

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1 Catherine Barnard and Niall O'Connor, 'Runners and Riders: The Horsemeat Scandal, EU Law and Multi-Level Enforcement' (2017) 76(1) *The Cambridge Law Journal* 116.

2 Nicholas Dorn, 'The Governance of Securities Ponzi Finance, Regulatory Convergence, Credit Crunch' (2010) 50(1) *British Journal of Criminology* 23.

risk to safety and public health from fraud and misrepresentation of Tier one food labelling information is under controlled compared to risks to safety and public health from hazard contamination.

d) An outcome-based food processing standard supporting the compliant labelling of food and obligating the control of vulnerabilities for fraud-caused harms is absent. ANZFSC outcome based food processing standards support the processing of safe food by obligating the control of unintentional hazard contamination. The Forum and ACCC publish unenforceable guidance documents that aim to support food businesses making of true and correct Tier two preventative health claims and Tier three consumer value issues, respectively. However, there is no government or industry guidance supporting food businesses to assure food authenticity and systematically prevent fraud and misrepresentation of the most serious food labelling issues for health and safety: Tier one food, ingredient labelling and allergen declarations;

B *Thesis findings - chapter by chapter*

The findings above were supported by analysis of eight subsidiary questions in each of the substantive chapters of this thesis.

Chapter 2 identified preventing food fraud as the historically dominant regulatory driver of food legislation in the UK and Australia. Until food law reform in 2000 Australia regulated using the concept of food adulteration to protect safety and public health. Food adulteration was previously a defined concept. Compositional food standards and definitions set out the nature and substance of foods marketed for sale with prescribed and defined names. At the turn of the 21st century, over 3000 food standards regulating authenticity dropped to the 50 or so commodity standards in today's ANZFSC. Further, mandatory food information and labelling compliance requirements essential to inform consumer choices were introduced to apply uniformly across all foods for sale (exact information provision requirements depend on whether the food for sale is required to bear a label). However, the shift from the technocratic regulation of a food's composition moved the regulatory focus to controlling food safety by systematically controlling known contamination hazards and away from controlling authenticity. As a consequence, food authenticity is now indirectly regulated by misleading or deceptive conduct proscriptions in consumer and food laws. This signifies less proactive control over food authenticity for safety and public health at a time of enhanced globalisation of complex food supply chains and increased fraud and misrepresentations.

Australia's food regulatory framework is the dominant mechanism for embedding fraud and misrepresentation controls to systematically prevent safety and public health harms. The Australian modern-day food regulatory offence architecture provides a range of strict liability offences to control food authenticity related issues. The goal of protection of safety and public health, the significance of food offences and the associated detection challenges justify regulatory repercussions without necessitating any proof of intentions. Further, the architecture provides a graduated approach to penalties, commensurate with culpability. State food regulators are routinely entering food premises when conducting food safety audits and inspections. This means state food

regulators, not the ACCC, are well placed to implement enhanced controls required for modernisation of the framework

Chapter 3 described the roles and responsibilities of key government bodies, agencies and legal and strategic policy instruments comprising the Australian food regulatory framework with respect to food labelling regulation and compliance enforcement. The analysis of recall and enforcement data lays bare deficiencies in the regulatory control of food labelling to actively prevent harms to safety and public health. The operating food safety risk-based approach to food labelling regulation and compliance is conceptualised in the Food Labelling Issues Hierarchy. The Hierarchy expressly prioritises ingredients and allergens as a Tier one priority for the framework due to direct, acute immediate threats to safety and public health. Data analysis reveals over the last few years Australia has increasingly witnessed a trend towards more FSANZ co-ordinated recalls because of potential safety and public health harms from false Tier one food information, compared to recalls because of traditional hazard contamination. Yet, analysis of available enforcement data in NSW reveals less than 1 per cent of penalty notices issued, over an 18-month period, were for acts of food labelling non-compliance. This suggests not only a lack of proactive monitoring of food labelling compliance by state food regulators enforcing state food Acts. This data also exemplify the most serious, and therefore prioritised Tier one food labelling information directly threatening safety and public health is not under control. International evidence supports this trend away from microbial hazards being the cause of recalls. Operational hazards including fraud and misrepresentation, not microbial hazards, are commonly identified to be most significant issue causing recalls in modern supply chains.

How regulators proactively prevent fraud to protect consumer safety and public health is not articulated in the Australian food regulatory framework nor the Australian public health literature more generally. When mentioning food fraud, Australian government and industry representatives often characterise food fraud with reference to economic loss for consumers, economic harms to food industry sectors, brands and threats to international trade. Preventing misleading or deceptive conduct in globalised food supply is not only about protecting consumers from economic loss. Proactive control is required to avoid the real, unknown and potentially wide-ranging threats of harms to safety and public health from food label frauds.

The Chapter 4 analysis of national food safety risk prioritisation schemes found the Australian food safety framework circumscribes food safety and its control by the aetiology of harm. That is, the known causes of food safety harms – agents of foodborne illness - are characterised for targeted and systematic control to prevent foodborne illness. Traditional food safety harms cause foodborne illnesses. Non-traditional food safety harms cause allergic reactions and food sensitivities, illnesses and ill-defined physical harms poorly characterised compared to harms from the agents of foodborne illness. The literature provides food fraud prevention is not about targeting and controlling the traditional hazards of contamination. Risks of harms caused by fraud and misrepresentation are not criteria used in microbial-based assessment tools determining whether a food presents a low or high risk to safety and public health to Australian consumers. Australia's priority classification tool based on microbial risk-based assessments is the critical mechanism that determines the level of regulatory intervention and oversight of a food business.

Food supply chain research literature contends globalisation is changing the nature and extent of food safety related incidents threatening public health. New factors are relevant to regulatory risk-based assessments determining the level of oversight required to manufacture only safe food. The fast-paced, opaque and complex 21st century global food supply maze is fraught with fraud opportunities and ample motivations to mislabel food and ingredients. Economic incentives and layers of financial advantage motivate people to commit food frauds, rendering human behavioural science relevant, and highlighting the importance of understanding where fraud opportunities exist throughout food supply chains for strategic prevention.

Preventing food fraud is therefore about systematically reducing fraud vulnerabilities. Opportunities to falsely describe ingredients constantly evolve, triggered by seasonality and weather events, economic indicators, access to technologies, social and political events and more, with vulnerabilities dependent on the type and form of the food. The incidence of fraud and misrepresentation in the global supply of foods and ingredients has ultimately transformed whether a food's safety profile can be determined by the assessment of risk of causing foodborne illness alone. To avoid the detrimental direct and indirect risks to public health as demonstrated in the herbs and spices sector, for example, food regulatory system modernisation requires the systematic prevention of fraud whilst still maintaining established systems targeting the prevention of microbial contamination for public health and safety.

The evidence showed that protecting consumers from harms from fraud and misrepresentation involves different tactics – controlling fraud vulnerabilities, not controlling microbial risks. Food fraud policy research literature reveals food industry and regulatory actors are now articulating that the control of food authenticity is necessary to prevent the safety and public health harms of food fraud. Some governments have established specialist food crime units operating specialist food fraud monitoring and crime prevention strategies. New regulations introduced under the *Food Safety Modernisation Act 2011*(US) preventative rules for instance mean eligible US food businesses as of September 2018 are systematically assessing their food supply and manufacturing systems to identify food fraud vulnerabilities with the potential to threaten safety and public health. The literature confirms food industry initiatives, including the Global Food Safety Initiative's (GFSI) self-regulatory benchmarking of private food safety standards, now require food suppliers to introduce food fraud vulnerability assessments and mitigation plans to protect safety and public health. In contrast, comparable responsible Australian governments are neither formally nor informally articulating the substitution and dilution of food and ingredients – the Hierarchy's Tier one food labelling information - as a safety and public health issue requiring systematic regulatory control.

The chapter 5 analysis of state based implementation of national food labelling compliance monitoring and enforcement strategies revealed serious structural deficiencies impacting on the framework's capacity to fulfil Forum and parliamentary approved objectives. Governments are failing to fulfil not only the policy objectives in the *Overarching Strategic Statement* but also the statutory objectives of the *Model Food Act 2000* to prevent misleading or deceptive conduct. National strategies direct state regulators to respond to food labelling non-compliance administratively. That is, mediate with food businesses any labelling non-compliance offences and

help them achieve compliance. Mediation may include unpublished verbal warnings, regulator discussions and meetings and does not include actual monetary fines or penalties. State regulators are explicitly directed by the Forum not to use their powers of enforcement for most food labelling non-compliance breaches.

The strategic policy direction from the Forum to the states and territories not to use enforcement powers seriously trivialises food labelling non-compliance and the threats to safety and public health from fraud and misrepresentation. However, it explains the extremely low number of penalty notices issued for food labelling breaches by food regulators (state and local food enforcement agencies) in NSW. The analysis concluded governments have failed to properly assess the risk of fraud and misrepresentation to safety and public health and mistakenly characterising not only frauds and misrepresentations (intentional acts) but also food labelling non-compliance more generally as a 'residual risk' to the risks of physical harms from foodborne illness.[3] Certainly, the ever-emerging need to systematically monitor food authenticity to prevent the most serious direct risks of harms to health from fraud and misrepresentation exists in a regulatory 'blind spot'.[4] Regulators appear blinded by the need to control direct harms from known hazards that cause foodborne illness. This is leaving consumers at risk from other causes of harm.

Moreover, the case studies showed that the publicised food safety risk-based approach espoused by the Hierarchy is not fully and properly implemented. Although Tier one food labelling information is the top priority and mandatory legal requirements are the dominant mode of intervention through oversight of the ANZFSC, food regulatory monitoring of labelling authenticity is not embedded into the extensive regulatory food safety audit, inspection and monitoring programs controlling agents of foodborne illness. Full implementation of the Hierarchy's risk-based and graduated approach as articulated in the Overarching Strategic Statement is critical to control direct, acute and immediate threats of harm to food safety and public health. However, the evidence showed that when fraud and misrepresentation events occur in Australia, food regulators are treating a Tier one food labelling issue - the substitution and dilution of food and ingredients - as a Tier three consumer value issue for reactive enforcement by the ACCC. Certainly, the known cases of fraud and misrepresentation in the herb and honey sectors of 2016 and 2013-14, respectively, demonstrate this deviation from Forum-adopted risk-based graduated policy. This is incongruent with the risk-based approach driving food labelling regulation decisions as adopted in the Hierarchy. The regulatory control of the most serious risk to safety and public health from food labelling (allergen declaration) is reactive, not preventative, and follows complaints or the actual manifestation of physical harm experienced by consumers. The system is not preventing harms to consumers from fraud and misrepresentation of Tier one food information.

The final chapters 6, 7 and 8 present research and analysis of food labelling issues in the Hierarchy's ascending order of risk. For each chapter, the small number of case examples limits drawing conclusions and extrapolating the data more broadly. The data in Chapter 6 is of known

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3 Australian National Audit Office, 'Administering Regulation Achieving the Right Balance Better Practice Guide' (National Policy Guideline, Commonwealth of Australia, 2014). See Chapter 5.

4 Dorn, above n 2. See also Chapter 5.

crimes and conclusions are potentially artefacts of the applied method engaging an analysis of known enforcement actions. Chapter 6 uses enforcement data from the prosecutions of consumer value issues (Tier three - technical risks to health), and a small number of interviews with meat supply chain industry actors, to describe the crime opportunity structure for a type of food fraud involving representations of premium-value meats. Quotes from the interviewees served only to enhance the data analysis. In the Australian context, the candidate's research shows that the crime opportunity structure for food fraud in premium-value meat processing in Australia is characterised by a minimum effort to commit, low risk of detection, high rewards, the existence of situational provocations and plentiful rationalisations/excuses.

The research reveals, most importantly, that routine food safety regulatory audits are failing to routinely and systematically detect the frauds taking place in highly regulated meat processing systems over long periods of offending (from one month to 14 years of offending). This is consistent with international evidence revealing traditional food safety management systems do not prevent nor detect frauds in supply chains. In the majority of cases analysed in Chapter 6, the food is the subject of complex and dynamic food processing chains and systems. Whereas the hazards in food processing systems are identified for control and documented routine processes are audited for compliance with state Food Safety Schemes implementing HACCP, the food labelling processes are not subject to the rigour of the food safety audit. Regulatory food safety auditors, inspectors and environmental health officers do not have the responsibility, nor training or skills to identify fraudulent activities by food businesses. Moreover, the analysis in Chapter 6 indicated not only do regulatory food safety audits not detect food fraud as a matter of routine, the operating state food safety schemes are providing great cover and camouflaging parasitic illegitimate conduct around the routine labelling of food. Predatory entrepreneurs are exploiting gaps in food safety monitoring and inspection systems to benefit from weak food labelling authenticity compliance and enforcement strategies.

Chapter 7 examined the regulation of preventative health issues (Tier two - indirect, long term impacts on health) using a survey of anti-aging health claims on a superfood, comparing the Australian health claims regime with the EU and US regulatory frameworks. This conduct is conceptualised as the eighth type of food fraud which Australia's new regulatory system for nutrient content and health claims on food (ANZFSC Standard 1.2.7) seeks to mitigate. The chapter argued new ANZFSC Standard 1.2.7 inadequately prevents these types of food frauds. The over-reaching claims observed on açai product labelling potentially misleads consumers and subverts public health messages in a context of 'gastro-anomy' (confusion over appropriate norms for eating) and 'healthism' (individual responsibility for making healthy choices). The substance of Standard 1.2.7 is well designed to avoid food fraud. However, unlike the EU system that requires health claims be regulator-approved before market, Australia is permitting food businesses to self-substantiate evidence when making some health claims. This undermines the Standard's protections. Unsubstantiated, fraudulent and misrepresenting claims will exist on the market. Compliance rates are totally dependent on the ability and capacity for state regulators to prioritise resources and investigate compliance to enforce a Tier two food labelling issue.

Chapter 8 looked at controlling the authenticity of information about food to prevent direct food safety threats (Tier one - direct, acute immediate threats to health). Analysis in chapter

8 showed how the definitions for safe and suitable food explicitly exclude food harmful to consumers with allergens or sensitives. The traditional food safety hazard contamination control regulatory paradigm protects consumers by preventing the *unintentional* contamination of food by known hazards causing foodborne illnesses. Accordingly, foodborne illnesses are systematically prevented when food businesses properly implement food legislation requirements targeting controls of known microbiological, physical and chemical hazard contamination. By contrast, food frauds are about *intentional* acts unrelated to microbial hazard contamination risks assessments. Intentional acts motivated by financial pressures and economic benefits have a different aetiology to consider when designing regulatory measures and operating government compliance monitoring programs. The intentional acts of food fraud are about human behaviours and motivations.

Australian food legislation sets minimum, outcome-based food hygiene and processing standards to support food businesses processing only safe and suitable food.[5] No food legislation prescribes minimum, outcome-based food authenticity and labelling process standards to ensure the sale of accurately labelled food in Australia. That is, no comparative ANZFSC standard sets out how food business can ensure their food for sale is compliantly labelled and not falsely described. No unenforceable guidance material is provided within the food regulatory framework to help food businesses assure food and ingredient authenticity at Tier one of the Hierarchy.

III. Recommendations For Further Research

Australia would benefit greatly from food law and policy research examining the nature and extent of fraud and misrepresentation in Australia's food manufacturing industries. Ideas for recommended research inquiries include, but are not limited to, the following questions and project aims:

a) How do small, medium and large food businesses systematically maintain food authenticity for safety and public health and prevent fraud when sourcing ingredients from commodity markets with a large price differential and (or) volatility?
b) What is the scale of the problem in certain food commodity sectors in Australia? Research that systematically collects and deposits to a central and accessible database all known Australian fraud and misrepresentation incidents as recorded in media reports and published enforcement activities will assist researchers. Also, food authenticity verification surveys to identify authenticity rates of ingredients traded in supply chains will reveal the organisation of offending and incidence estimations on rates of falsely describing low food safety risk foods (for example, edible oils, herbs and spices, honey, cereals, juices etc.).
c) What is the nature and extent of Australian-specific vulnerability factors and conditions influencing the frauds and misrepresentations that present the most serious threats to safety and public health by food and food manufacturing sector?

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5 *ANZFSC* Standard 3.1.1 Interpretation and Application; Standard 3.2.2 Food Safety Practices and General Requirements; Standard 3.2.3 Food Premises and Equipment.

d) What is the typology of food fraudsters operating in operating in different Australian food commodity supply chains (for example, fish and seafood, grains, edible oils, herbs and spices etc.) and at identified points from paddock to plate (for example, farm gate, brokers, distributors, storage, transport, retail shelf and restaurant menus)?
e) What does an Australian-centric comprehensive food fraud vulnerability-based assessment scheme to guide and prioritise the regulatory monitoring of food labelling compliance activities look like?

IV PRACTICAL IMPLICATIONS

Once considered a leader of food safety laws effectively working to protect safety and public health, Australia now needs to follow the lead of international governments diffusing new regulatory policies and measures to strategically combat food fraud to protect safety and public health. The 2000 shift from regulating food adulteration to prohibiting false description of food has impacted greatly on Australia's effective control of authenticity. Of greatest seriousness to health and safety is the under controlled Tier one food labelling issues. This gap, created in 2000 must now be filled with appropriate strategies and new regulatory measures.

The conclusions of academic research suggest governments are best placed to be capable and well-resourced guardians strategically combatting food fraud.[6] Governments are in the unique position to set, lead and steer the policy direction, including articulating that food fraud is a food issue requiring systematic prevention by food industry actors to protect safety and public health.[7] To proactively prevent fraud and misrepresentations in the interest of safety and public health and effectively meet the objectives of Australia's food regulatory framework formal and informal reforms are recommended to fill the gap:

1 *Governments fully implement the Hierarchy's risk-based graduated approach to food labelling regulation and compliance monitoring*

(i) It is critical the perceptions of state and territory enforcement agencies, food safety auditors, food safety officers and enforcement officers are refocused to appreciate food labelling compliance is an indicator of safety (and not just information). Government

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[6] John Spink, Douglas Moyer and Peter Whelan, 'The role of the public private partnership in Food Fraud prevention includes implementing the strategy' (2016) 10 *Current Opinion in Food Science* 68, 3.3; See also John Spink, Neal Fortin, Douglas Moyer, Hong Miao and Yongning Wu (2016) 70(5) *Chimia* 320, 325-327; Christopher Elliott, 'Elliott Review into the Integrity and Assurance of Food Supply Networks – Final Report A National Food Crime Prevention Framework' (Independent Review Report, Department for Environment Food and Rural Affairs (DEFRA), July 2014) 12. ('*Elliott Review*'); Michael Robets and Whitney Turk, 'The Pursuit of Food Authenticity' (White Paper, University of California, Los Angeles, 2017) 22-28; John Keogh, 'Combatting the Global Crime of Food Fraud' (2017) May *Food Industry Asia* 8, 9.

[7] See also John Spink, Neal Fortin, Douglas Moyer, Hong Miao and Yongning Wu, 'Food fraud prevention: Policy Strategy and Decision-Making – Implementation steps for a government ageny or industry' (2016) 70(5) *Chimia* 320, 325-327, 325; John Spink, David Ortega, Chen Chen and Felicicia Wu, 'Food Fraud Prevention Shifts the Food Risk Focus to Vulnerability' (2017) 62 *Trends in Food Science and Technology* 215, 216; John Spink, Douglas Moyer and Cheri Speier-Pero, 'Introducing the Food Fraud Initial Screening model (FFIS)' (2016) 69 Food Control 306, 306; *Elliot Review* above n 6.

strategies and officer training must communicate the importance of true and correct food labelling information for safety and public health.

(ii) As a minimum, unenforceable guidance documents to support food businesses in ensuring food authenticity, especially Tier one food information is true and correct, not falsely described are required. ISFR can draft food authenticity guidance materials to support food businesses assuring compliant Tier one labelling, just like ISFR has for Tier two and Tier three food labelling issues.

(iii) In addition to unenforceable guidance documents drafted by ISFR, a new ANZFSC outcome-based regulatory measure setting a standard for best practice control of food authenticity in the ANZFSC is an appropriate formal control and source of guardianship. A new outcome-based regulatory measure targeting authenticity of Tier one food labelling information is consistent with the Hierarchy's risk-based and graduated approach that indicates government-initiated mandatory regulatory measures control the highest risk to safety and public health. Operation of the food regulatory framework is deficient without new regulatory measures aiming to protect *all* consumers, not only the majority, from the greatest of risks to safety and public health from fraud and misrepresentation. FSANZ-drafted new regulatory measures may include obligating food businesses to implement Food Fraud Vulnerability Assessments and responsible enforcement agencies monitoring food business Fraud Mitigation Plans.

(iv) Enhancing regulatory food safety audits and compliance inspections with actual authenticity verification checks (such as ingredients mass balance reconciliation), specific fraud modules and other fraud specific controls focusing on verifying the authenticity of Tier one food labelling information is consistent with the graduated risk-based approach. The Hierarchy and Continuum of food labelling compliance monitoring and enforcement directs food regulators to target regulatory resources according to the highest risk to safety and public health. Accordingly, ISFR needs to update its national strategies including, but not limited to, the Enforcement Strategy 2017, National Food Auditor Guideline and Inspections Checklist to control the risks to safety from fraud and misrepresentation, especially Tier one food information.

(v) To ensure direct, indirect and technical harms to safety and public health are well characterised for control, based on relevant risks regardless of the cause of harm, food regulators administering food Acts should incorporate food fraud vulnerability assessment criteria to nationally applied risk-based classification and prioritisation schemes. This will introduce new criteria to steer the regulatory monitoring activities and target limited resources to foods and food manufacturing sectors based on fraud and misrepresentation vulnerabilities (not microbial risks) likely to cause harm.

2 *Australian governments should follow the direction of international governments and specifically articulate food fraud prevention is an important component of the Australian food regulatory framework in the pursuit of protecting safety and public health*

(i) Food labelling compliance and enforcement strategies require a zero-tolerance approach to fraud and misrepresentation in the interest of safety and public health. A food fraud focus that enhances the capacity of state and territory enforcement agencies to monitor the risks is necessary to effectively monitor compliance, identify fraud and

misrepresentation and enforce breaches of food labelling law. Moreover, a range of appropriate regulatory responses must validate and support industry-led innovations aimed at identifying frauds through supply chain digitalisation and advanced technologies, such as Blockchains and DNA authentication testing. A range of penalties provided in legislation, commensurate with the risk to safety and public health, is available to regulators. Compliance and enforcement strategies require reform with regulatory actions and penalties applied to act as a form of guardianship or control as theorised in the food fraud triangle.

(ii) Informal and formal education campaigns targeting food businesses and consumers play a critical part in the food regulatory framework achieving its overarching objectives. In the complex globalised food supply network of the 21st century, food fraud awareness is as important in the control of safety and public health, as traditional hazard contamination awareness is. Food businesses as well as food auditors, inspectors and environmental health officers require education and training to protect consumers from this uncontrolled cause of potential harms. The websites of FSANZ and state regulators are suitable to include relevant general information about food frauds in supply chains, risks and vulnerabilities and options for mitigation.

(iii) Confidential hotlines encouraging employees to report to state and local food authorities any suspected frauds and misrepresentation in Australian food manufacturing may improve the risk of fraud detection.

The provision of information in the sale of food is one of the most influential and contested regulatory spaces managing the impacts of a complex and dominantly globalised food supply network. This research contribution leads us to understanding the options available to strategically control frauds and misrepresentation of that information to ensure we are achieving the safety and public health objectives of Australia's food regulatory framework.

APPENDIX 1

APPENDIX 1 (Chapter 8 data)			UNSAFE (mutually exclusive)		UNSUITABLE	FALSE DESCRIPTION	RISK TO PUBLIC HEALTH (Spink and Moyer (2011))
REPRESENTED FOOD and FOREIGN SUBSTANCE ('potentially hazardous adulterant' as per USP, OR an allergen)		DATA SOURCE	UNSAFE (i.e. likely to cause physical harm) to majority of persons	likely to cause physical harm in minority of persons (not as defined)	UNSUITABLE (i.e. damaged/deteriorated/perished; illegal slaughter; or 'contains a biological or chemical agent, or other matter or substance, foreign to the 'nature of the food' and also NOT permitted under the ANZFSC)	Representation as to 'nature & substance' but substituted with ingredients, lower commercial value or false impression of nature or substance'	DIRECT OR INDIRECT OR TECHNICAL
HERBS, SPICES AND SEASONING	n = 44						
black pepper	mineral oil	USP	X		X	X	INDIRECT
black pepper(whole)	dried fruit of west indian lantana	USP		X	X	X	TECHNICAL
cardamom	green dye	USP	X		X	X	INDIRECT
cayenne pepper	artificially colored fennel seeds	USP	X		X	X	INDIRECT
chill pods	fabric dye	USP	X		X	X	INDIRECT
chill pods	rhodamain b	USP	X		X	X	INDIRECT
chilli powder	sudan dyes	USP	X		X	X	INDIRECT
chilli powder	colored sawdust	USP	X		X	X	INDIRECT
chilli powder	red clay	USP	X		X	X	TECHNICAL
chilli powder	talc	USP	X		X	X	TECHNICAL
cinnamon	artificially colored fennel seeds	USP	X		X	X	TECHNICAL
coriander	rice husk & wood fiber	USP	X		X	X	TECHNICAL
coriander powder	powdered horse dung	USP	X		X	X	DIRECT
cumin	almond husk	USP		X	X	X	DIRECT
cumin	peanut shell	USP		X	X	X	DIRECT
cumin	fennel seeds marble dust	USP	X		X	X	TECHNICAL
cumin	artificially colored fennel seeds	USP	X		X	X	INDIRECT
curry powder	metanil yellow	USP	X		X	X	INDIRECT
curry powder	sudan I,II,III or IV dyes	USP	X		X	X	INDIRECT
oregano	olive leaf and/or unknown	MEDIA		X	X	X	INDIRECT
oregano	sumac and/or unknown	MEDIA		X	X	X	INDIRECT
paprika	barium sulfate	USP	X		X	X	INDIRECT
paprika	lead trioxide	USP	X		X	X	INDIRECT
saffron	flowers from amica	USP		X	X	X	TECHNICAL
saffron	flowers from calendula	USP		X	X	X	TECHNICAL
saffron	oniopardon acanthium l. with barium sulfate	USP	X		X	X	INDIRECT
saffron	petals of cynara cadanculus mixed with glyceroborate	USP	X		X	X	INDIRECT
saffron	onion dyed with ecosin	USP	X		X	X	INDIRECT
saffron	synthetic safranal	USP	X		X	X	INDIRECT
saffron	sandalwood dye	USP	X	X	X	X	INDIRECT
saffron	red dyed silk fiber	USP	X		X	X	INDIRECT
saffron(crocus sativas L.)	quinoline yellow	USP	X			X	INDIRECT
salt	stone powder and chalk	USP	X		X	X	TECHNICAL
salt (sindhav,rock salt)	powder stone	USP	X		X	X	TECHNICAL
spices	peanut shell	USP		X		X	DIRECT
spices	coconut hulls	USP		X	X	X	TECHNICAL
spices	brick dust	USP	X		X	X	TECHNICAL
spices	ground olive stone	USP		X	X	X	INDIRECT
spices	clay	USP	X		X	X	TECHNICAL
sucrose	chalk powder	USP	X		X	X	TECHNICAL
sugar	plastic	USP	X		X	X	INDIRECT
turmeric	sudan I,II,III or IV dyes	USP	X		X	X	INDIRECT
turmeric powder	lead chromate	USP	X		X	X	INDIRECT
turmeric powder	metanil yellow	USP	X		X	X	INDIRECT
GRAINS, RICE, SOY AND PULSES	n = 41						
Bajara flour	chalk powder	USP	X		X	X	TECHNICAL
Barley (organic)	Barley (non-organic)	USP			X	X	TECHNICAL
Buckwheat flour	Optical whitener, grit mixture, mixture (grit, samak, and singhada)	USP	X		X	X	INDIRECT
Corn	Corn (not fit)	USP	X		X	X	DIRECT
Corn flour	Ammelide, Ammeline, Melamine, Cyanuric acid	USP	X		X	X	INDIRECT
Grains (unspecified)	melamine, cyanuric acid	USP	X		X	X	INDIRECT
green rice	malachite green	USP	X		X	X	INDIRECT
lentils	dyes	USP	X		X	X	INDIRECT
millet flour	colour, husk, leaves	USP	X		X	X	INDIRECT
pulses	metanil yellow	USP	X		X		INDIRECT
pulses	lead chromate	USP	X		X	X	INDIRECT
pulses	dal (Khesari), yellow dye	USP	X		X	X	INDIRECT
pulses	lead chromate	USP	X		X	X	INDIRECT
pulses	lead chromate, dal (Khesari)	USP	X		X	X	INDIRECT
rice	fake rice made from plastic resin and potato starch	USP	X		X	X	INDIRECT
rice	starch, stones	USP	X		X	X	INDIRECT
rice	gravel, rice (unspecified) sand	USP	X		X	X	INDIRECT

rice	colour (unspecified), stones	USP	X		X		INDIRECT
rice	stone powder	USP	X		X	X	INDIRECT
rice (green)	malachite green	USP	X		X	X	INDIRECT
rice (indica)	rice (unspecifed) Paraffin wax	USP	X		X	X	INDIRECT
rice (instant)	sudan dye, butter yellow	USP	X		X	X	INDIRECT
rice (par boiled)	turmeric powder, metanil yellow	USP	X		X	X	INDIRECT
rice (parched)	urea	USP	X		X	X	INDIRECT
rice flour	ammelide, Ammeline, Melamine, Cyanuric Acid	USP	X		X	X	INDIRECT
rice flour	colour, husk, leaves	USP	X		X	X	INDIRECT
rice protein concentrate	melamine	USP	X		X	X	INDIRECT
semoline	iron fillings	USP	X		X	X	INDIRECT
soymilk	hydrolyzed leather	USP	X		X	X	INDIRECT
wheat	nitrogen containing fertilizer (urea ammonia, or salts)	USP	X		X	X	INDIRECT
wheat	sand, wheat (rotten), stone powder	USP	X		X	X	DIRECT
wheat bran	melamine	USP	X		X	X	INDIRECT
wheat flour	cyromazine	USP	X		X	X	INDIRECT
wheat flour	biuret	USP	X		X	X	INDIRECT
wheat flour	dicyandiamide	USP	X		X	X	INDIRECT
wheat flour	amidinourea	USP	X		X	X	INDIRECT
wheat flour	urea	USP	X		X	X	INDIRECT
wheat flour	Urea, Cyromazine, Triuret, Dicyandiamide, Amidinourea	USP	X		X	X	INDIRECT
Wheat flour	Chalk powder	USP	X		X	X	INDIRECT
Wheat flour	iron fillings, chalk powder	USP	X		X	X	INDIRECT
wheat gluten	melamine	USP	X		X	X	INDIRECT
HONEY n=7							
Australian honey	Plant sugar syrup product and unknown substances from Turkey	MEDIA	X		X	X	TECHNICAL
Australian honey	chloramphenical	USP	X		X	X	INDIRECT
Honey	Sugars, antibiotics, water	USP	X		X	X	INDIRECT
Honey	Chloramphenicol, ciprofloxacin, oxytetracycline, ampicillin, erthromycin, enrofloxacin	USP	X		X	X	INDIRECT
Indian honey	Sugar syrup, preservatives	USP	X		X	X	TECHNICAL
Manuka Honey	Syrup (unspecified), honey	USP				X	TECHNICAL
Royal Jelly	Chloramphenicol, Royal Jelly	USP	X		X	X	INDIRECT
FATS AND OILS n=21							
almond oil	non-authentic botanical origin	USP		X		X	DIRECT
apricot kernel oil	inauthentic botanical origin	USP	X			X	DIRECT
Argan oil	peanut oil, soybean oil, apricot oil, sesamne oil, canola oil, hazelnut oil, sunflower oil	USP		X		X	DIRECT
black current oil	non-authentic botanical origin	USP		X		X	INDIRECT
borage oil	non-authentic botanical origin	USP		X		X	INDIRECT
Camellia seed oil	recycled waste cooking oil	USP	X		X	X	DIRECT
Camellia seed oil	rice bran oil, peanut oil, corn oil, canola oil, soybean oil, sunflower oil, palm oil	USP	X			X	DIRECT
cocoa butter	non-authentic oil and fat	USP		X		X	INDIRECT
cod liver oil	non-authentic oil and fat	USP		X		X	INDIRECT
evening primrose oil	non-authentic oil and fat	USP		X		X	INDIRECT
flax seed oil	non-authentic oil and fat	USP		X		X	INDIRECT
grapeseed oil	copper chlorphyllin	USP		X	X	X	DIRECT
grapessed oil	non-authentic oil and fat	USP		X		X	INDIRECT
hazelnut oil	non-authentic botanical origin	USP		X		X	INDIRECT
hepseed oil	non-inauthentic botanical origin	USP		X		X	INDIRECT
macadamia oil	non-authentic botanical origin	USP		X		X	INDIRECT
mustard oil	non-edible oils mixed with butter yellow and artificial flavor	USP		X	X	X	DIRECT
mustard oil	allyl Isothiocyanate (synthetic), argemone oil, butter yellow, palm oil	USP		X	X	X	DIRECT
olive oil	inauthentic botanical origin	USP		X		X	INDIRECT
pumpkin seed oil	inauthentic botanical origin	USP		X		X	INDIRECT
wheat germ oil	inauthentic botanical origin	USP		X		X	INDIRECT

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