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RISING FOOD POISONING INCIDENTS IN MALAYSIA: PROPOSING STRICTER LEGAL MEASURES AGAINST FOOD TRADERS

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ABSTRACT

Food poisoning incidents in Malaysia have risen in the past decade, causing illnesses and fatalities to consumers. However, to the best of the authors' knowledge, no food trader has been prosecuted in a court of law for causing food poisoning despite the existence of relevant legal provisions. Instead of facing prosecution, such food traders are merely issued with compounds and/or temporary closure orders. This study employed a doctrinal research method and analysed relevant legal provisions and regulations under the Food Act 1983, the Penal Code, the Prevention and Control of Infectious Diseases Act 1988, the Food Regulations 1985 and the Food Hygiene Regulations 2009. These legal provisions and regulations were analysed without empirical data. The authors also examined the current approach adopted by the enforcement authorities against food traders causing food poisoning. This study recommends a shift in the legal enforcement approach, envisioning that stricter legal measures will deter the occurrences of food poisoning incidents in Malaysia. As previous research on food safety predominantly investigated from scientific or social science perspectives, this study focuses on the legal perspective, addressing key factors for the lack of prosecution of food traders causing food poisoning and suggesting legislative reforms to enable effective prosecution of food traders by recommending amendments to the country's current food safety laws.

Keywords: Food safety, food poisoning, legal reform, legal provision, Malaysia, prosecution.

INTRODUCTION

Food poisoning occurs due to the ingestion of contaminated food, which is harmful to consumers' health (Abdul-Mutalib et al., 2015). Food can be contaminated by the three common categories of food contaminants, namely, microorganisms, such as harmful bacteria and their toxins, fungi and parasites; chemicals, such as drug residue, heavy metals and pesticides; and physical contaminants, such as plastic, metal and glass fragments (Grace, 2017). Although these food contaminants can be transmitted onto food through various means, this study focuses on food contaminants transmission through human error, including improper food handling practices, poor personal hygiene and unhygienic food premises, which can lead to food poisoning (Salleh et al., 2017). Soon et al. (2011) revealed that improper food handling practices caused over 50 per cent of food poisoning incidents in Malaysia, making these malpractices the primary contributing factor causing food poisoning to consumers. Some examples of improper food handling practices causing food poisoning include cross-contamination from raw to cooked food, the use of contaminated cooking utensils, unhygienic processing facilities and/or environments, inadequate storage facilities and incorrect storage temperature settings (Abdul-Mutalib et al., 2015; Woh et al., 2016; New et al., 2017).

According to the World Health Organisation (WHO), an estimated 600 million people (nearly 1 in 10 people) around the world experience food poisoning, resulting in approximately 420,000 deaths every year (WHO, 2024). In Malaysia, food poisoning is a public health problem and is ranked among the top five communicable diseases (Abdullah & Ismail, 2021). Table 1 shows the number of food poisoning cases reported by the Department of Statistics Malaysia (DOSM) from 2016 to 2022.

Table 1Number of Food Poisoning Cases Reported by the DOSM from 2016 to 2022

Year	Number of Food Poisoning Cases	
2016	17,480	
2017	13,686	
2018	15,023	
2019	16,583	
2020	9,425	
2021	6,007	
2022	14,293	

Source. Department of Statistics Malaysia (2019, 2020, 2021, 2022, & 2023).

Table 1 shows the incidence of food poisoning cases that reached alarmingly high levels, reaching five-digit figures from 2016 to 2019. The figure notably dropped in 2020 and 2021, followed by a return to five-digit figures in 2022. The reduction in food poisoning cases during 2020 and 2021 could be due to the lockdowns and restrictions imposed during the COVID-19 pandemic (Gani et al., 2023; Yuen, 2024). During the pandemic, consumers were prohibited from dining in at any food premises. Many consumers also abstained from going out to buy food from food traders due to concerns about COVID-19 infection (Soon et al., 2021). The pandemic also heightened the consciousness about hygiene among

food traders and consumers, leading to safer food and drinks (Soon et al., 2021). In 2022, after governmental restrictions were lifted as the COVID-19 pandemic transitioned into an endemic phase, the number of food poisoning cases increased by more than twofold (Gani et al., 2023; Yuen, 2024).

To further demonstrate the severity of causing food poisoning to consumers in Malaysia, it is pertinent to highlight several selected food poisoning outbreaks that caused illnesses and fatalities among consumers. These selected food poisoning outbreaks are illustrated in Table 2.

Table 2Selected Food Poisoning Outbreaks in Malaysia

Year	Food Poisoning Outbreak	
2023	The Ministry of Health (MOH) received two reports of food poisoning incidents caused by food purchased at the Asia City Ramadan bazaar in Kota Kinabalu, Sabah and at the UiTM Ramadan bazaar in Segamat, Johor. Errant food traders at these Ramadan bazaars were issued with compounds for failing to comply with the clothing requirements outlined in the Fourth Schedule of the Food Hygiene Regulations 2009 (FHR 2009) and were issued with temporary closure orders under Section 18(1)(d) of the Prevention and Control of Infectious Diseases Act 1988 (PCIDA 1988) (Kasinathan, 2023).	
2020	One outbreak involved 99 cases of food poisoning, causing one death due to the consumption of a dessert called <i>puding buih</i> , which was found to have used expired eggs as one of the ingredients (Zolkiply, 2020). The home-based food trader used eggs that were over two weeks past their expiry date when making the dessert (Malay Mail, 2020). A woman who had consumed the dessert died after receiving treatment in the Intensive Care Unit for severe food poisoning. The food traders were issued with a temporary closure order under Section 18(1)(d) of PCIDA 1988 (Malay Mail, 2020).	
2018	An incident involved 81 cases of food poisoning, causing two deaths due to contaminated laksa sold by a food trader from Kedah (Kamarudin, 2018). The food trader was issued a temporary closure order under Section 18(1)(d) of PCIDA 1988 (The Star, 2018). Initially, the MOH intended to initiate legal action against the food trader. However, the food trader was subsequently allowed to reopen the business without facing prosecution (Lokman, 2018).	
2014	141 cases of food poisoning occurred in Kuala Terengganu, causing one death due to the food sold at a night market. Laboratory tests revealed that these consumers were infected with foodborne pathogens. Three food traders from the night market were issued with temporary closure orders under Section 18(1)(d) of PCIDA 1988 (Che, 2014).	

As seen in Table 2, many consumers contracted or even died from food poisoning caused by food traders. However, the current approach adopted against these food traders merely consists of the issuance of compounds and/or temporary closure orders. None of them faced prosecution for causing

food poisoning to consumers. Critics argued that the current approach is not considered a form of punishment and, hence, fails to raise awareness among food traders about the importance of food safety (Osman, 2020). Another contention is that the current approach is ineffective in deterring food traders from causing food poisoning to consumers. Therefore, the suggestion is that the Food Act 1983 (FA 1983) should be amended to enhance food safety and consumer protection (Consumers' Association of Penang, 2021). Such contentions align with the deterrence theory developed by Hobbes (1651), Beccaria (1872) and Bentham (1789), consisting of three fundamental elements of punishment, namely severity, certainty and celerity (Abramovaite et al., 2023). Severity of punishment encourages people's compliance with the law, certainty of punishment implies that sanctions are implemented against unlawful activities, and swiftness of punishment deters unlawful activities (Abramovaite et al., 2023). This theory asserts that a rational person weighs potential gains and losses before engaging in a particular action and refrains from such action if the losses outweigh the gains (Tang et al., 2024). This study proposes stricter legal measures and employs the deterrence theory to deter food traders from causing food poisoning incidents through the severity of punishment (imprisonment and/or hefty fines), certainty of punishment (prosecution and conviction) and swiftness of punishment (effective prosecution and sanction).

This study chose the doctrinal research method over the empirical research method because the data collection is library-based, and all relevant sources, including textbooks, legal provisions, regulations, cases, research journals, statistics reports and press reports, are available in libraries, archives and databases (Yaqin, 2007). Empirical research method, also known as non-doctrinal research method, focuses on social values and people, relying solely on observation and experiment while requiring the conduct of fieldwork (Chakraborty, 2015). Since this study does not involve observation, experiment or fieldwork, and it adopted the doctrinal research method to explain, examine and analyse relevant doctrines, principles, concepts, provisions or certain legal operations and institutions (Yaqin, 2007), the empirical research method is unsuitable for the purpose of this study. This study uses doctrinal legal research to scrutinise the enforcement procedures applicable to food traders causing food poisoning incidents, relevant legal provisions providing criminal offences under the FA 1983 and the Penal Code (PC) and potential legal barriers to prosecution. The doctrinal research method can also be used to address loopholes or gaps in substantive law and suggest legal developments or improvements (Abdullah, 2018). In this study, the doctrinal research method was used to explore suggestions and recommendations for legislative reforms to improve the relevant legislation for effective prosecution of food traders. Additionally, this study utilised a comparative approach to examine the prosecution of food traders who caused food poisoning incidents in other jurisdictions, namely the United States of America (USA), Australia, and Singapore.

THE BACKGROUND

Under the existing food safety legislations and regulations, when a food trader is found to have engaged in improper food handling practices, practised poor personal hygiene and failed to maintain the cleanliness of food premises, the food trader may be subjected to a compound and/or a temporary closure order.

Issuance of a Compound

Under Section 33(1) of FA 1983, the Deputy Director General of Health or any authorised officer, with the Public Prosecutor's consent, may impose a compound on any person who commits any

compoundable offences in Malaysia. Section 33(1) of FA 1983 shall be read together with the Fourth Schedule of FHR 2009, which provides a list of compoundable offences. Some examples of the compoundable offences regarding improper food handling practices, poor personal hygiene and unhygienic food premises are as follows:

- a) Regulation 11 of FHR 2009: Failure of the proprietor, owner or occupier of food premises to comply with requirements pertaining to their general duties.
- b) Regulation 31 of FHR 2009: Non-compliance with requirements pertaining to medical examination and health condition of food handlers.
- c) Regulation 32 of FHR 2009: Non-compliance with requirements pertaining to food handlers' clothing.
- d) Regulation 33 of FHR 2009: Non-compliance with requirements pertaining to food handlers' personal hygiene.
- e) Regulation 34 of FHR 2009: Non-compliance with requirements pertaining to duties to maintain cleanliness of food premises.
- f) Regulation 35 of FHR 2009: Non-compliance with requirements pertaining to the handling of food, appliances, etc.

Issuance of a Temporary Closure Order

Under Section 18(1)(d) of PCIDA 1988, an authorised officer who has reason to believe that conditions of the premises can cause an outbreak, including food poisoning or spread any infectious disease, including food poisoning, may order the premises to be closed until it has been thoroughly disinfected. This legal provision empowers the issuance of a temporary closure order given that the enforcement authorities think that the condition of the food premises in question might cause a food poisoning outbreak. Hence, a temporary closure order may be issued even in the absence of a food poisoning outbreak.

The authors commend the enforcement authorities for issuing compounds and/or temporary closure orders to food traders who committed food safety violations. However, surprisingly, the enforcement authorities adopt a similar stance when food traders commit serious food safety violations that cause food poisoning, resulting in illnesses and/or death of consumers.

THE PROBLEM

There are no records available from any legal reports showing that any prosecution has been conducted against any food trader causing food poisoning to consumers. Other relevant sources only show that enforcement authorities had issued compounds and/or temporary closure orders on these food traders. They did not face prosecution, although sufficient evidence exists, proving their responsibility for causing food poisoning incidents. As such, the authors contend that the current legal approach should be remedied to ensure justice is served for consumers who suffer illnesses and/or face death due to food poisoning caused by these food traders.

APPLICABILITY OF RELEVANT LEGAL PROVISIONS FOR PROSECUTION

Legal provisions provide food safety offences under the FA 1983 and the PC (Zulkupri, 2022; Ismail et al., 2012), whereby the authors identify relevant legal provisions applicable to prosecute food traders causing food poisoning incidents. However, to date, these relevant legal provisions have only been utilised for other food safety offences unrelated to food poisoning.

Relevant Legal Provisions in the FA 1983

(i) Section 13(1) of FA 1983

Section 13(1) of FA 1983 provides that:

"Any person who prepares or sells any food that has in or upon it any substance which is poisonous, harmful or otherwise injurious to health commits an offence and shall be liable, on conviction, to a fine not exceeding one hundred thousand ringgit or to imprisonment for a term not exceeding ten years or both."

To ascertain the applicability of Section 13(1) of FA 1983 in prosecuting food traders causing food poisoning to consumers, it is essential to determine whether the term "substance" includes food contaminants that can lead to food poisoning. In *Chuang Hock Meng v Pegawai Kesihatan Daerah Hulu Langat Kajang, Selangor Darul Ehsan & Anor* [2002] 8 CLJ 195, the first defendant had seized 70 live pigs owned by the plaintiff. The first defendant slaughtered 4 out of 70 live pigs and sent the slaughtered pigs (samples) for lab testing. The lab results revealed that the samples contained *beta agonists*, which is a prohibited drug under Table II to the Fifteenth A Schedule of the Food Regulations 1985 (FR 1985). Consequently, the plaintiff had contravened Section 13(1) of FA 1983 and Regulation 40(5) of FR 1985. Regulation 40(5) of FR 1985 prohibits people from importing, selling, exposing, offering for sale or delivering any food for human consumption that contains the drugs listed in Table II of the Fifteenth A Schedule of FR 1985. Concerning the application of Section 13(1) of FA 1983, the High Court held that:

"... the plaintiff was believed to have contravened s. 13 and r. 40(5) of the Food Regulations 1985... One of the drugs prohibited in Table II of the abovementioned Fifteenth A Schedule is beta agonists. Therefore, if all the ingredients of the above rule exist, and any person has contravened the above rule, he thus has contravened s. 13, and hence exposed to prosecution."

Considering the judgment above, beta agonists, considered a "substance which is poisonous, harmful or otherwise injurious to health" under Section 13(1) of FA 1983, are common drugs used to improve the efficiency of meat production (Anderson et al., 2014). Beta agonists are considered food contaminants as the consumption of meats contaminated by such drug residues can lead to harmful health effects, including food poisoning (Rustia et al., 2022).

Similar to beta agonists, which are a chemical food contaminant, microorganisms and physical food contaminants are also categorised as a "substance which is poisonous, harmful or otherwise injurious to health" under Section 13(1) of FA 1983. All three common categories of food contaminants are regarded as "incidental constituents" under Regulation 37(1) of FR 1985, which states that:

"... 'incidental constituent' means any foreign, extraneous, toxic, noxious or harmful substance that is contained or present in or on any food and includes metal contaminant, microorganisms and their toxins, and drug and pesticide residues..."

Additionally, food contaminants in the microorganism category are addressed in Regulation 39(2) of FR 1985, which prohibits the preparation or sale of food contaminated with pathogenic microorganisms.

The application of Section 13(1) of FA 1983 can also be seen in the March 2023 incident, where an elderly couple died after consuming a pufferfish bought from a trader at a local market (Yun, 2023). In a media response concerning this incident, Dr Noor Hisham Abdullah, the Director General of Health, stressed that pufferfish contain lethal toxins and are prohibited from sale under the FA 1983 and the Malaysian Fisheries Development Authority Act 1972. He also mentioned the application of Section 13(1) of FA 1983 in this incident, as pufferfish is considered a "substance which is poisonous, harmful or otherwise injurious to health" (The Sun, 2023). Despite the highlighted illegality of pufferfish sale, information regarding any legal action taken against the market trader who sold the pufferfish to the elderly couple is non-existent in available sources.

In short, Section 13(1) of FA 1983 may be invoked to prosecute food traders responsible for causing food poisoning to consumers.

(ii) Section 13A of FA 1983

Section 13A of FA 1983 encompasses three subsections that stipulate the different types of food that are deemed unfit for human consumption. To date, Section 13A(1) of FA 1983 has never been considered by the court of law, and therefore, the analysis of this legal provision relies on other relevant sources.

Section 13A(1)(a) of FA 1983 provides that:

"Any person who prepares or sells any food that consists wholly or in part of - (a) any diseased, filthy, decomposed or putrid animal or vegetable substance...commits an offence ..."

According to the Centres for Disease Control and Prevention (CDC), "diseased, filthy, decomposed or putrid vegetable substances" harbour harmful pathogens such as *E. coli, norovirus, salmonella, listeria* and *cyclospora*, which can cause food poisoning (CDC, 2023a). Moreover, food containing "diseased" and "filthy" animal or vegetable substances can cause zoonotic diseases, including food poisoning. Zoonotic pathogens are bacteria, viruses or parasites that can spread to humans through direct contact or through food, water or the environment (Espinosa et al., 2020). WHO reported over 200 types of zoonotic diseases that are transmissible from "diseased or filthy animals" to humans, such as avian influenza virus, Ebola virus disease and salmonellosis (WHO, 2020; 2023). Salmonellosis is an infection caused by a bacterium called *salmonella*, which is a common pathogenic microorganism that leads to food poisoning. It can be found in the intestines of animals, and humans can contract salmonellosis by consuming food contaminated with animal faeces (CDC, 2023b). Also, "decomposed or putrid animals" or carrion (remains of dead animals) are contaminated with harmful bacteria and fungi that can cause diseases, including food poisoning (Mondor et al., 2012). Accordingly, food traders who prepare or sell any food containing either entirely or partially "any diseased, filthy, decomposed

or putrid animal or vegetable substances" that consequently cause food poisoning to consumers can be prosecuted under Section 13A(1)(a) of FA 1983.

Section 13A(1)(b) of FA 1983 states that:

"Any person who prepares or sells any food that consists wholly or in part of - (b) any portion of an animal unfit for food ... commits an offence...".

Section 13A(1)(b) of FA 1983 can also be applied to the aforesaid pufferfish incident. The body parts and organs of pufferfish are poisonous (Amano et al., 2022) and thus, they are considered portions of an animal unfit for consumption. As such, food traders who prepare or sell any food containing wholly or partially any portion of an animal deemed unfit for consumption commit an offence under Section 13A(1)(b) of FA 1983.

Section 13A(1)(c) of FA 1983 states that:

"Any person who prepares or sells any food that consists wholly or in part of -(c) the product of an animal which has died otherwise than by slaughter ... commits an offence...".

The product derived from an animal that has died by means other than slaughter poses certain risks. Animals that die from causes other than controlled slaughter may have been exposed to diseases or infections. Hence, consuming their meat can pose health risks (Food Safety Authority of Ireland, 2002). Properly slaughtered animals undergo regulatory checks to ensure safety, which are not conducted for animals that die naturally or from unknown causes (Food and Agriculture Organisation, 2023). Animals that die outside of controlled slaughter may experience a delay in processing, refrigeration or preservation, leading to a higher likelihood of spoilage, decomposition or harmful bacterial growth (Addis, 2015). Consuming such animals may expose humans to harmful bacteria or the toxins they produce, which can have detrimental health effects (Food Safety Authority of Ireland, 2002). Hence, food traders who prepare or sell any food containing, either wholly or partially, products derived from an animal that has died through non-slaughter methods and subsequently causes food poisoning to consumers can be prosecuted under Section 13A(1)(c) of FA 1983.

Section 13A(2) of FA 1983 stipulates that:

"Any person who prepares or sells any food that contains or upon which there is any matter foreign to the nature of such food, or is otherwise unfit for human consumption, ... commits an offence ...".

In the case of Syarikat Abdul Ghaffar Trading Sdn Bhd v Societe Agro-Export Sahel-Sages [2022] MLJU 298, the plaintiff was convicted and sentenced under Section 13A(2) of FA 1983 for selling dried dates contaminated with insects and larvae, which are classified as foreign matter. Insects, including flies, carry harmful bacteria (microorganism contaminants) that they fetch from decaying organic matter, such as spoiled food and human or animal waste, and subsequently transmit them onto food (Black et al., 2018). Eggs laid by flies develop into larvae by ingesting harmful bacteria. Consequently, consumers who consume food contaminated by flies and/or their larvae may contract food poisoning (Black et al., 2018). In the case of Manager, Tuborg (Malaysia) Sdn Bhd v PP [1990] 2 MLJ 173, the appellant was prosecuted under the pre-amended Section 13(1) of FA 1983 for the offence of selling a bottle of beer consisting of fungal growth, which is considered a foreign matter. According to Xu

(2022), many fungal species can produce toxins that contaminate food and cause illnesses ranging from allergic reactions to life-threatening infections, including food poisoning.

Additionally, Section 13A(3) of FA 1983 stipulates that a person commits an offence if he prepares or sells any food enclosed in a sealed package that becomes damaged, rendering it incapable of preventing the contents from contamination or deterioration. The main purpose of food packaging is to protect food from contamination or deterioration caused by food contaminants (Karanth et al., 2023).

As such, Section 13A of FA 1983 can be invoked to prosecute food traders causing food poisoning incidents.

(iii) Section 13B of FA 1983

Section 13B(1) of FA 1983 provides that "no person shall prepare or sell any adulterated food". The conditions under which food is considered adulterated are stipulated in Section 13B(2) of FA 1983, as follows:

- (i) If it contains or blends with any substances diminishing its nutritive qualities, causing potential harm to consumers;
- (ii) If any substance or ingredient is wholly or partially extracted or omitted; resulting in reduced nutritive properties or harm to consumers;
- (iii) If it is mixed with a substance of lesser commercial worth;
- (iv) If it includes unauthorised substances according to the FA 1983 or its regulations;
- (v) If it fails to meet standards or specifications stated in any regulations enacted under the FA 1983;
- (vi) If it contains substances which exceed permissible proportions stated under the FA 1983 or its regulations;
- (vii) If it undergoes treatments concealing damage or inferiority;
- (viii) If packaged, the original contents are wholly or partially replaced.

Under Section 13B(4) of FA 1983, any person found guilty of food adulteration is subject to a fine not exceeding RM20,000 or imprisonment for a term not exceeding five years or both.

In *PP v Twenty-Twenty Food Industry Sdn Bhd* [2020] 2 SMC 421, the accused faced prosecution under Section 13B(2)(e) of FA 1983 for preparing for the sale of three packets of dry laksa noodles which contained sulphur dioxide of 218mg/kg, breaching the permitted limit of 200mg/kg under Regulation 63(3) of FR 1985. Sulphur dioxide is a type of food preservative used to prevent food spoilage and prolong shelf lives (Thakur et al., 2022). Exposure to excessive concentrations of sulphur dioxide can lead to side effects, such as nausea, vomiting, stomach pain, headache and corrosive damage to the airways and lungs (Chiang et al., 2023). Moreover, in *PP v Sinar Bakery & Biscuit Supply Sdn Bhd* [2016] 2 SMC 101, the accused was prosecuted under Section 13B(1) of FA 1983, read in conjunction with Section 13B(2)(f) of FA 1983, for selling peanut biscuits containing aflatoxin levels exceeding the permitted limit specified in the Fifteenth Schedule of FR 1985. The accused was convicted and fined RM 5,000.00 or 6-month imprisonment, if the payment of the fine was defaulted. Aflatoxin, a type of mycotoxin, is expressly prohibited under Regulation 39(4) of FR 1985. Aflatoxin is a group of naturally occurring fungal toxins that contaminate food. Consuming food contaminated by aflatoxin may lead to serious illnesses, such as acute poisoning, liver failure and cancer. It has been reported to have caused deaths among consumers aged 19 years old and below (Chang et al., 2023).

Hence, Section 13B of FA 1983 could also be invoked to prosecute food traders responsible for causing food poisoning.

Relevant Legal Provisions in the Penal Code (PC)

Among the legal provisions outlined in the PC, Sections 272 and 273 encompass criminal offences related to food safety, rendering them relevant to this study.

(i) Section 272 of PC

The offence of food adulteration is addressed not only in the FA 1983 but also under the PC (Ahmad et al., 2021). Section 272 of PC provides the criminal offence for the adulteration of food for sale, as follows:

"Whoever adulterates any article of food or drink, so as to make such article noxious as food or drink, intending to sell such article as food or drink or knowing it to be likely that the same will be sold as food or drink, shall be punished with imprisonment for a term which may extend to six months or with fine which may extend to two thousand ringgit or with both."

Besides invoking Section 13B of FA 1983, food traders who sell adulterated food that leads to food poisoning incidents can also be prosecuted under Section 272 of PC. However, Section 272 of PC only prohibits the act of selling adulterated food. Contrastively, Section 13B of FA 1983 prohibits both the sale and preparation of adulterated food, regardless of whether it is intended for sale.

(ii) Section 273 of PC

Section 273 of PC provides an offence for the sale of noxious food or drink:

"Whoever sells or offers or exposes for sale, as food or drink, any article which has been rendered or has become noxious, or is in a state unfit for food or drink, knowing or having a reason to believe that the same is noxious as food or drink, shall be punished with imprisonment for a term which may extend to six months or with a fine which may extend to two thousand ringgit or with both."

The PC does not provide any interpretation of the term "noxious". Cambridge Dictionary defines noxious as a "... substance, that is ... poisonous or very harmful" (Cambridge Dictionary, n.d.). Therefore, similar to the meaning of the term "substance" defined under Section 13(1) of FA 1983, Section 273 of PC also prohibits the selling or offering for sale of any food or drink that is poisonous or harmful. Hence, it could be applied to prosecute food traders who sell noxious food that leads to food poisoning incidents. However, similar to Section 272 of PC, Section 273 of PC prohibits only the act of selling noxious food, whereas Section 13(1) of FA 1983 prohibits both the sale and preparation of noxious food, regardless of whether it is intended for sale.

To date, Section 273 of PC has never been considered by the court of law. In the case of *Chuang Hock Meng v Pegawai Kesihatan Daerah Hulu Langat Kajang*, *Selangor Darul Ehsan & Anor* [2002] 8 CLJ 195, the prosecution opted for Section 13(1) of FA 1983 rather than Section 273 of PC to prosecute the

accused for selling food containing a harmful or poisonous substance. As such, it is somewhat surprising that, although all the aforesaid legal provisions under the FA 1983 and PC could be invoked to prosecute food traders for causing food poisoning to consumers, none of them have ever been invoked for this purpose. They have been applied to other food safety offences, but not for those related to food poisoning incidents. This could be due to the challenges faced by enforcement authorities when utilising relevant legal provisions for prosecution.

POSSIBLE DIFFICULTIES OR CHALLENGES IN PROSECUTING FOOD TRADERS FOR CAUSING FOOD POISONING AMONG CONSUMERS

The proposed shift in legal enforcement against food traders causing food poisoning may be impeded by several potential difficulties or challenges.

Prosecution Barred by Issuance of Compound

Under Section 33(1) of FA 1983, the Deputy Director General of Health or any authorised officer may, with the consent of the Public Prosecutor, issue a compound for anyone who commits a compoundable offence. Section 33(3)(a) of FA 1983 specifies that no prosecution can be initiated once the compound has been issued. In other words, prosecution is barred against a food trader who is issued a compound. Additionally, the FA 1983 and its regulations do not clarify whether a compound can be issued before completing an investigation into a food poisoning outbreak. If a compound is imposed before the completion of the investigation, the statutory bar in Section 33(3)(a) of FA 1983 could prevent prosecution, even if subsequent investigations establish the food trader's responsibility for causing food poisoning to consumers.

Prosecution Halted by Limitation Period

The prosecution under the FA 1983 can also be barred by limitation periods. Section 19(1) of FA 1983 states that if an analyst certifies an offence has been committed after analysing a food sample, an authorised officer may initiate prosecution under Section 377 of the Criminal Procedure Code (CPC) and Section 32A of FA 1983. Section 19(1A) of FA 1983 requires the analyst's certificate to be issued to the Director or authorised officer within 90 days of receiving the food sample. Section 19(2) of FA 1983 stipulates that prosecution cannot proceed after 150 days from the date the food sample was collected.

In the case of *Mead Johnson Nutrition (Malaysia) Sdn Bhd v Public Prosecutor* [2020] MLJU 1091, the Johor Bahru Health Office obtained a milk powder sample and initiated prosecution against the appellant. The appellant appealed against the Magistrate's Court's dismissal of their application to cancel the summons. The original summons, filed on May 11, 2018, was issued on the 150th day after the sample was procured, while a second summons, filed on June 3, 2018, was issued 172 days after the sample was procured. The issue was whether the second summons constituted a new summons or an amended one. If it were a new summons, it fell outside the 150-day limitation period prescribed by Section 19(2) of FA 1983. However, if it was considered an amended summons, the filing date of the original summons would apply, keeping it within the limitation period. The High Court found no evidence that the original summons was amended. Thus, the second summons was deemed a new summons, which was filed after the 150-day limitation period. The High Court allowed the appeal and struck out the summons against the appellant.

Lack of Evidence

As highlighted by the Attorney General's Chambers Malaysia (AGC), the decision to prosecute is made only after thorough examinations and considerations of all available evidence submitted by the enforcement authorities and in accordance with the relevant laws (AGC, 2023). In other words, prosecution will not be initiated if there is a lack of evidence. An instance of prosecution not being pursued due to a lack of evidence occurred in 2018 in an investigation into a food poisoning outbreak caused by a food trader selling laksa, which affected 81 people, with two fatalities (Abdul Rahman et al., 2022). Laboratory tests showed a genetic match between the Salmonella Weltevreden found in the stool samples of infected consumers and the contaminated laksa noodles sold at the food premise. However, stool or gastric samples from the two deceased consumers could not be collected, as their bodies had already been released to their families for burial at the beginning of the investigation (Abdul Rahman et al., 2022). Without these critical pieces of evidence, the investigation team could not confirm the presence of the causative foodborne pathogen in the deceased's bodies, and consequently, was unable to establish the food trader's culpability for causing their deaths due to food poisoning (Abdul Rahman et al., 2022). The Garis Panduan Pengurusan Wabak Keracunan Makanan FWBD/KRM/ GP/001 (Pindaan 2006), a guideline for managing food poisoning outbreak investigations published by the MOH, recommends collecting biological samples, including stool, vomit, gastric contents and blood from infected persons (MOH, 2006). However, currently, this process is not mandated by law.

Suggestions and recommendations addressing the aforesaid legal barriers to prosecution are detailed in the next section.

SUGGESTIONS AND RECOMMENDATIONS

Suggestions and recommendations are provided in this section to amend the relevant legal provisions to ensure effective prosecution and deter the occurrence of food poisoning incidents.

Interpretation of the Term 'Substance' under Section 2 of FA 1983

The present Section 13(1) of FA 1983 states that a person commits an offence if he prepares or sells any food containing any "substance" which is poisonous, harmful or injurious to health. Neither the FA 1983 nor the Malaysian courts provide a definition for the term "substance". To ensure that Section 13(1) of FA 1983 is applicable to enable the prosecution of food traders causing food poisoning to consumers, a clear interpretation of the term "substance" should be inserted under Section 2 of FA 1983.

"Substance" includes -

- (i) Any pathogenic microorganisms or toxins they produce that are poisonous, harmful or injurious to health;
- (ii) Any chemical that is poisonous, harmful or injurious to health;
- (iii) Any physical item or material that is poisonous, harmful or injurious to health;
- (iv) Any other article, item or material that is poisonous, harmful or injurious to health.

The insertion of the said interpretation clearly explains the term "substance" stated in Section 13(1) of FA 1983, which includes the three common categories of food contaminants that can cause food poisoning. Paragraph (d) serves as an umbrella provision, encompassing any article, item or material

not included in the three common categories of food contaminants that can also be harmful and cause food poisoning to consumers.

Inclusion of the Term "Food Poisoning" under Sections 13A and 13B of FA 1983

Section 13A of FA 1983 prohibits the preparation or sale of any food unfit for human consumption. Concerning Section 13A of FA 1983, a new subsection (4) comprising the term "food poisoning" should be inserted to enable the prosecution of food traders causing food poisoning through unfit food. The proposed wording for the new subsection (4) under Section 13A of FA 1983 is as follows:

"Any person who contravenes any of the provisions of this section and causes food poisoning commits an offence and shall be liable, upon conviction, to face the same punishment as stated under the provision contravened."

Similarly, Section 13B of FA 1983 prohibits the preparation or sale of adulterated food. To ensure the application of Section 13B of FA 1983 in prosecuting food traders causing food poisoning through adulterated food, a new subsection (5) comprising the term "food poisoning" should be inserted under this legal provision. The proposed wording for this new subsection (5) under Section 13B of FA 1983 is as follows:

"Any person who prepares or sells any adulterated food within the meaning of any of the provisions of this section and causes food poisoning commits an offence and shall be liable, upon conviction, to face the same punishment as stated under subsection (4) of this section."

With the insertion of the proposed new subsections under Sections 13A and 13B of FA 1983 consisting of the term "food poisoning", it is clear that these legal provisions can be utilised to prosecute food traders causing food poisoning incidents.

Mandatory Collection of Biological Samples

To address the challenge of insufficient evidence in prosecuting food traders, the collection of biological samples from persons infected with food poisoning, which is strongly recommended by the Garis Panduan 2006, should be made mandatory in law. While Section 5 of FA 1983 empowers authorised officers to collect food-related samples, the section does not extend this authority to biological samples from infected persons. Under Section 2 of FA 1983, the authorised officers include medical practitioners, assistant environmental health officers and other qualified individuals appointed by the MOH. It is proposed that Section 5 of FA 1983 be amended to require these authorised officers to collect biological samples. The proposed amendment to Section 5 of FA 1983 would introduce a new subsection (4a) as follows:

"An authorised officer shall, at any location, take or obtain samples of stool, vomit, gastric contents and blood from a person suspected of being infected with food poisoning for the purpose of analysis."

The proposed amendment legally obligates authorised officers to collect biological samples from infected persons, including those who have eventually died from food poisoning, before their release for burial. These samples would serve as crucial evidence in establishing a causative link between the

contaminated food and the food poisoning outbreak, thereby enabling the prosecution of food traders and proving their liability in causing food poisoning that results in illnesses or fatalities.

Extension of Limitation Periods

To overcome the challenge of prosecution being hindered by the limitation periods, it is suggested that the limitation periods specified in Section 19(1A) and (2) of FA 1983 be extended by an additional 30 days. The 90-day limitation period in Section 19(1A) of FA 1983 should be extended to 120 days, while the 150-day limitation period in Section 19(2) of FA 1983 should be extended to 180 days. This extension would provide enforcement authorities with ample time to carry out their duties and ensure that prosecution can be successfully initiated.

Unbarring Prosecution After Issuance of a Compound

As highlighted earlier in this study, one of the procedures adopted by the enforcement authorities to penalise food traders for causing food poisoning incidents is by way of the issuance of compounds. Section 33(3)(a) of FA 1983 specifies that once a compound has been issued under Section 33(1) of FA 1983, no further prosecution can be initiated. Furthermore, if a compound is issued before a food poisoning investigation is completed, prosecution is barred by Section 33(3)(a) of FA 1983, even if the investigation subsequently confirms the food trader's responsibility.

Section 33(3)(a) of FA 1983 states that:

"No prosecution shall be instituted after that in respect of the offence against the person to whom the offer to compound was made."

It is recommended that Section 33 of FA 1983 be amended to ensure food traders are held responsible for causing food poisoning to consumers. This amendment permits prosecution even after a compound has been issued under Section 33(1) of FA 1983, and thus, it overcomes the hindrance of the statutory bar outlined in Section 33(3)(a) of FA 1983. A proposed new subsection (3a) could be introduced under Section 33(3) of FA 1983 as follows:

"Notwithstanding any other provisions of this section, prosecution may be initiated against the person to whom an offer to compound was made if the offence results in food poisoning causing harm and/or health injury."

Increase Penalties for Sections 272 and 273 of PC

As discussed above, Section 272 of PC and Section 13B of FA 1983, as well as Section 273 of PC and Section 13(1) of FA 1983, address similar offences. However, the severity of the penalties they impose varies significantly. Table 3 compares the penalties stipulated under the said two sets of legal provisions providing similar offences.

Comparison of Penalties (between Section 272 of PC and Section 13B of FA 1983 and between Section 273 of PC and Section 13(1) of FA 1983)

Section 272 of PC ("Adulteration of food or drink intended for sale")	Section 13B of FA 1983 ("Adulterated food")
A fine not exceeding RM2,000 or imprisonment not exceeding 6 months or both.	A fine not exceeding RM20,000 or imprisonment for a term not exceeding 5 years or both.
Section 273 of PC ("Sale of noxious food or drink")	Section 13(1) of FA 1983 ("Food containing a substance/substances injurious to health")
A fine not exceeding RM2,000 or imprisonment not exceeding 6 months or both.	A fine not exceeding RM100,000 or imprisonment for a term not exceeding 10 years or both.

As indicated in Table 3, the penalties prescribed in Sections 272 and 273 of PC appear to be relatively lenient compared to those stated in Sections 13B and 13(1) of FA 1983. The consequences of consuming adulterated or noxious food should not be underestimated, as they can cause severe illnesses or even death. As such, the current penalties prescribed by Sections 272 and 273 of PC are not proportionate to the severity of these offences. To address this issue, Sections 272 and 273 of PC should be amended to provide stricter penalties that align with those in Sections 13B and 13(1) of FA 1983, respectively.

The proposed amendments for Section 272 of PC are as follows:

Table 3

"Whoever adulterates any article of food or drink in any manner that makes such article noxious as food or drink for consumption, with the intention to sell such article as food or drink or knowing it to be likely that the same will be sold as food or drink, shall be punished with imprisonment for a term which may extend to five years or with a fine which may extend to twenty thousand ringgit or with both."

Similarly, Section 273 of PC could be amended as follows:

"Whoever sells or offers or exposes for sale, as food or drink, any article which has been rendered or has become noxious or is in a state unfit as food or drink for consumption, knowing or having reason to believe that the same is noxious as food or drink, shall be punished with imprisonment for a term which may extend to ten years or with a fine which may extend to one hundred thousand ringgit or with both."

With these proposed increased penalties, food traders responsible for causing food poisoning to consumers could face comparable penalties of equal severity upon conviction regardless of whether they are prosecuted under the FA 1983 or the PC.

Aligning with the Legal Approach of the United States of America (USA), Australia and Singapore

In the USA, Australia, and Singapore, food traders who cause food poisoning incidents are prosecuted in the court of law. Table 4 illustrates key cases and the food traders' prosecution in the aforesaid jurisdictions.

Table 4Prosecution of Food Traders Causing Food Poisoning Incidents in the USA, Australia and Singapore

Countries	Prosecution
USA	2015: The Peanut Corporation of America (PCA) caused food poisoning outbreaks in 46 states, causing around 22,000 consumers to fall ill and nine deaths. The owner and a few employees of PCA were prosecuted and sentenced to imprisonment for committing several food safety offences under the United States Code (USC) (United States Department of Justice [USDOJ], 2015).
	2011: Eric and Ryan Jensen, who owned Jensen Farms, which produced cantaloupes, installed a washing system designed for potatoes to wash cantaloupes. However, they failed to activate the chlorine spray to eliminate harmful bacteria on the exterior of cantaloupes. This negligence led to contaminated cantaloupes that caused a food poisoning outbreak across 28 states and resulted in 147 hospitalisations, 33 deaths and one miscarriage. They were prosecuted and sentenced to probation, home detention and community service (United States Attorney's Office, 2014).
	2010: A company named Quality Egg LLC produced and distributed eggs, which caused a nationwide food poisoning outbreak affecting 1,939 consumers in several states. The owner cum the chief operating officer, Austin DeCoster, and his son, Peter DeCoster, were prosecuted and received fines and prison sentences (USDOJ, 2015).
Australia	2016: A bakery named Box Village Bakery caused a food poisoning outbreak that affected over 200 people. The bakery and its owners were prosecuted and fined for selling unsafe food and contravening hygiene standards (Food Authority of New South Wales [FANSW], 2017a).
	2015: Another bakery named Bettamaid caused a food poisoning outbreak in several aged care facilities across Australia, resulting in two deaths. The bakery's director and the bakery were prosecuted and fined for selling unsafe food and violating hygiene standards (FANSW, 2017b).
	2007: A restaurant named Harem Turkish was prosecuted and fined for causing a food poisoning outbreak due to improper food handling practices (The Sydney Morning Herald, 2007).
	(continued)

(continued)

Countries	Prosecution	
	2024: Tung Lok Millennium Pte Ltd., a food caterer, caused a food poisoning outbreak that sickened 27 consumers. This food caterer was prosecuted and fined for improper food handling practices and failing to maintain the cleanliness of the food premises (Singapore Food Agency, 2024).	
Singapore	2018: A restaurant named Spize caused a food poisoning outbreak that affected 60 people. The restaurant was prosecuted and fined for possessing food deemed unfit for human consumption (Wong, 2020).	
	2009: A food stall in Geylang Serai served contaminated Indian rojak, leading to a food poisoning outbreak affecting 154 people, and causing two fatalities. The owner of the food stall was prosecuted and fined for improper food handling practices (I.R.B. Law, 2020).	

Table 4 illustrates the strict enforcement in the USA, Australia, and Singapore in prosecuting food traders who have caused food poisoning incidents. Therefore, Malaysia should follow suit and adopt the practices of these jurisdictions against food traders responsible for food poisoning incidents.

Summary of Suggestions and Recommendations

Table 5 summarises the abovementioned suggestions and recommendations for amending the FA 1983 and the PC.

Table 5Summary of the Proposed Amendments to the FA 1983 and the PC

Legislation	Legal Provisions	Proposed Amendments
FA 1983	Section 2	The inclusion of the interpretation of the term "substance" under Section 2 clarifies that Section 13(1) is applicable for prosecuting food traders causing food poisoning.
	Sections 13A and 13B	The insertion of new subsections under Sections 13A and 13B explicitly clarifies that these legal provisions are applicable for prosecuting food traders responsible for food poisoning.
	Section 5	Authorised officers are mandated to collect biological samples from infected persons.
	Section 19(1A) and (2)	The extension of both limitation periods stipulated under Section 19(1A) and (2) by an additional 30 days.
	Section 33(3)(a)	The unbarring of prosecution after the issuance of a compound under Section 33(1) of FA 1983.
PC	Section 272	An enhancement to punishments that aligns with Section 13B of FA 1983.
	Section 273	An enhancement to punishments that aligns with Section 13(1) of FA 1983.

CONCLUSION

The current practice of Malaysian enforcement authorities towards food traders causing food poisoning incidents to consumers, which is limited to issuing compounds and/or temporary closure orders, is ineffective in deterring such occurrences. Prosecution of these food traders may be impeded by legal barriers, including statutory prohibitions following the issuance of a compound, time-barred after the limitation period and the lack of evidence. To ensure effective prosecution and resolve the identified hindrances, this study recommends a shift in legal enforcement through legislative reforms by amending several legal provisions, namely Sections 2, 5, 13A, 13B, 19(1A) and (2) and 33(3)(a) of FA 1983, as well as Sections 272 and 273 of PC. Additionally, Malaysia should emulate forward-thinking countries like the USA, Australia and Singapore, which firmly prosecute food traders who are responsible for food poisoning incidents. It is imperative that the enforcement authorities seriously consider the suggestions and recommendations provided in this study and shift towards a prosecution-focused approach. Such a stern approach will give food traders a clear impression that causing food poisoning is a severe offence with grave legal consequences.

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CONFLICT OF INTEREST

No potential conflict of interest was reported by the authors.

REFERENCES

- Abdul Rahman et al. (2022). Investigation on food poisoning outbreak associated with consumption of Laksa Kebok in Baling, Kedah. *International Food Research Journal*, 29(4), 872–878. https://doi.org/10.47836/ifrj.29.4.14
- Abdullah, N. B. A., & Ismail, A. F. (2021). Food poisoning outbreaks among schoolchildren in Terengganu and their associated factors. *Sains Malaysiana*, 50(4), 1027–1036. https://journalarticle.ukm.my/17175/
- Abdullah, N. C. (2018). Legal research methodology. Sweet & Maxwell.
- Abdul-Mutalib, N. A., Nordin, S. A., Sakai, K, & Shirai, Y. (2015). An overview of food poisoning and food safety in Malaysia. *International Food Research Journal*, 22(3), 896–901.
- Abramovaite, J., Bandyopadhyay, S., Bhattacharya, S., & Cowen, N. (2023). Classical deterrence theory revisited: An empirical analysis of police force areas in England and Wales. *European Journal of Criminology*, 20(5), 1663–1680. https://doi.org/10.1177/14773708211072415
- Addis, M. (2015). Major causes of meat spoilage and preservation techniques: A review. *Food Science and Quality Management*, 41, 101–114.
- Ahmad, N., Sudin, S. H., & Abdul Aziz, H. (2021). A comparative study of fraud based on consumer's rights and Islamic concerning halal meat in context of Malaysia and European Union. *Malayan Law Journal*, *1*, ccxlviii—cclxxii.

- Amano, M., Takatani, T., Sakayauchi, F., Oi, R., Sakakura, Y. (2022). The brain of the wild toxic marine pufferfishes accumulates tetrodotoxin. *Toxicon*, 218, 1–7. https://doi.org/10.1016/j. toxicon.2022.08.015
- Anderson, P. T., Johnson, B. J., & Dikeman, M. (2014). *Encyclopedia of meat science: Growth of meat animals metabolic modifiers* (2nd ed.). Elsevier.
- Attorney General's Chambers Malaysia. (2023, August 16). *Penelitian semula kes-kes pendakwaan* [Press release]. https://www.agc.gov.my/agcportal/common//uploads/publication/517/2023_08_16_PR-16%20Ogos%202023-BM.pdf
- Beccaria, C. B. (1872). An essay on crimes and punishments. W.C. Little & Co.
- Bentham, J. (1789). An introduction to the principles of morals and legislation. T. Payne and Son.
- Black, E. P., Hinrichs, G. J., & Barcay, S. J., & Gardner, D. B. (2018). Fruit flies as potential vectors of foodborne illness. *Journal of Food Protection*, 81(3), 509–514. https://doi.org/10.4315/0362-028X.JFP-17-255
- Cambridge Dictionary. (n.d.). Noxious. https://dictionary.cambridge.org/dictionary/english/noxious
- Centers for Disease Control and Prevention. (2023a). *Lettuce, other leafy greens, and food safety*. https://www.cdc.gov/foodsafety/communication/leafy-greens.html
- Centers for Disease Control and Prevention. (2023b). *Salmonella and food*. https://www.cdc.gov/foodsafety/communication/salmonella-food.html
- Chakraborty, D. (2015). Empirical (non-doctrinal) research method and it's role in legal research. *International Journal of Advances in Social Sciences*, 3(1), 23-28.
- Chang, W. L., Abu Saad, H., Jamaluddin, R., & Sabran, M. R. (2023). Aflatoxin occurrence, food regulations, dietary exposure, and risk assessment: A mini review from the Malaysian perspective. *Malaysian Journal of Medicine and Health Sciences*, 19(1), 296–306.
- Che, B. (2014, March 22). Death of 5-yr-old boy was caused by salmonella poisoning: Terengganu Health Director. *New Straits Times*. http://www.nst.com.my/latest/death-of-5-yr-old-boy-was-caused-bysalmonella-poisoning-terengganu-healthdirector-1.497963
- Chiang, C. T., Wu, Y. C., Yang, S. H., & Chen, J. C. (2023, August 6-9). A CMOS sulfur dioxide concentration to time period converter for measuring sulfur dioxide concentration in food applications. Proceedings of IEEE International Conference on Mechatronics and Automation (ICMA), Harbin, Heilongjiang, China.
- Consumers' Association of Penang. (2021, February 23). *Amend laws to impose harsh penalties on dirty food manufacturers*. https://consumer.org.my/amend-laws-to-impose-harsh-penalties-on-dirty-food-manufacturers/
- Department of Statistics Malaysia. (2023, November). *Compendium of Environment Statistics*, *Malaysia 2023*. https://www.dosm.gov.my
- Department of Statistics Malaysia. (2022, November). *Compendium of Environment Statistics*, *Malaysia 2022*. https://www.dosm.gov.my
- Department of Statistics Malaysia. (2021, November). Compendium of Environment Statistics, Malaysia 2021. https://www.dosm.gov.my
- Department of Statistics Malaysia. (2019, November). Compendium of Environment Statistics, Malaysia 2019. https://www.dosm.gov.my
- Department of Statistics Malaysia. (2020, August). *Environment Statistics 2020*. https://www.dosm.gov.my
- Espinosa, R., Tago, D., & Treich, N. (2020). Infectious diseases and meat production. *Environmental and Resource Economics*, 76, 1019–1044. https://doi.org/10.1007/s10640-020-00484-3
- Food and Agriculture Organisation. (2023). Livestock transportation and slaughter practices Practical guidelines for Asia and the Pacific region. https://openknowledge.fao.org/server/api/core/bitstreams/17c637cb-7848-450b-af9a-06e8efed6a95/content

- Food Authority of New South Wales. (2017a). *Box Village Bakery fined for food safety breaches*. https://www.foodauthority.nsw.gov.au/news/departmental-media-releases/box-village-bakery-fined
- Food Authority of New South Wales. (2017b). *Bettamaid director fined for food safety breaches*. https://www.foodauthority.nsw.gov.au/news/departmental-media-releases/bettamaid-fined-food-safety-breaches
- Food Safety Authority of Ireland. (2002). *Unfit meat*. https://www.fsai.ie/enforcement-and-legislation/legislation/meat-fresh-meat/unfit-meat
- Gani, A. S. M., Alied, M., & Nguyen, T. H. (2023). Pandemic to endemic: A successful transition in Malaysia. *Journal of Global Health*, *13*, 1–2. https://doi.org/10.7189/jogh.13.03063
- Grace, D. (2017). *Food safety and the Sustainable Development Goals*. International Livestock Research Institute. https://cgspace.cgiar.org/handle/10568/100694
- Hobbes, T. (1651). *Leviathan, or, The matter, forme, & power of a common-wealth ecclesiasticall and civil*. Scolar Press.
- I. R. B. Law. (2020, January 12). *Food Poisoning: When a common occurrence turns fatal.* https://irblaw.com.sg/learning-centre/food-poisoning-law/
- Ismail, R., Ahmad Yusoff, S. S., Suhor, S., Azimon Aziz, A., Razman, M. R., & Aboo Talib, K. (2012). Consumer right to safe product: The application of strict criminal liability in product safety legislations in Malaysia. *Pertanika Journal of Social Science & Humanities*, 20(S), 57–72.
- Kamarudin, S. (2018, October 16). Baling laksa seller puzzled over health office's sixth visit to stall. *New Straits Times*. https://www.nst.com.my/news/nation/2018/10/421844/baling-laksa-seller-puzzled-over-health-offices-sixth-visit-stall
- Karanth, S., Feng, S., Patra, D., & Pradhan, A. K. (2023). Linking microbial contamination to food spoilage and food waste: The role of smart packaging, spoilage risk assessments, and date labeling. *Frontiers in Microbiology*, *14*, 1198124. https://doi.org/10.3389/fmicb.2023.1198124
- Kasinathan, S. (2023, April 20). Health Ministry: Two food poisoning cases recorded from Ramadan bazaars, nearly RM200,000 in fines issued nationwide. *Malay Mail*. https://www.malaymail.com/news/malaysia/2023/04/20/health-ministry-two-food-poisoning-cases-recorded-from-ramadan-bazaars-nearly-rm200000-in-fines-issued-nationwide/65650
- Lokman, T. (2018, October 23). Ministry to act against laksa seller. *New Straits Times*. https://www.nst.com.my/news/nation/2018/10/423774/ministry-act-against-laksa-seller
- Malay Mail. (2020, May 31). 'Puding buih' food poisoning case due to use of expired eggs, says Terengganu exco. https://www.malaymail.com/news/malaysia/2020/05/31/puding-buih-food-poisoning-case-due-to-use-of-expired-eggs-says-terengganu/1871122
- Ministry of Health Malaysia. (2006). Garis panduan pengurusan wabak keracunan makanan FWBD/KRM/GP/001 (Pindaan 2016). https://infosihat.moh.gov.my/images/isusemasa/Banjir/Jilid-4-FWBD-KRM-GP-001-pindaan2006.pdf
- Mondor, E. B., Tremblay, M. N., Tomberlin, J. K., Benbow, E. M., Tarone, A. M., & Crippen, T. L. (2012). The ecology of carrion decomposition. *Nature Education Knowledge*, *3*(10), 21. https://www.nature.com/scitable/knowledge/library/the-ecology-of-carrion-decomposition-84118259/
- New et al. (2017). Microorganisms food safety in Malaysia from the academician's perspective. *Food Research*, 1(6), 183–202. http://doi.org/10.26656/fr.2017.6.013
- Osman, M. S. (2020, June 6). Puding buih: Bukan salah telur. *Astro Awani*. https://www.astroawani.com/berita-malaysia/puding-buih-bukan-salah-telur-245889
- Rustia et al. (2022). Risk profiling of beta-agonists in the consumption of pork by the filipino consuming population. *Philippine Journal of Science*, 151(5), 1535–1555.

- Salleh, W., Lani, M. N., Wan Zin, W. Z., Wan Abdullah, W. Z., Tuan Chilek, T. Z., & Hassan, Z. (2017). A review on incidences of foodborne diseases and interventions for a better national food safety system in Malaysia. *Malaysian Applied Biology*, 46(3), 1–7. https://journalarticle.ukm.my/12353/
- Singapore Food Agency. (2024, March 20). *Tung Lok Millennium fined \$3000 for food safety lapses* [Press release]. https://www.sfa.gov.sg/docs/default-source/default-document-library/sfamedia-release---prosecution-of-tung-lok-millenium-for-food-safety-lapses.pdf
- Soon, J. M., Singh, H., & Baines, R. (2011). Foodborne diseases in Malaysia: A review. *Food Control*, 22, 823–830. https://doi.org/10.1016/j.foodcont.2010.12.011
- Soon, J. M., Vanany, I., Abdul Wahab, I. R., Hamdan, R. H., & Jamaludin, M. H. (2021). Food safety and evaluation of intention to practice safe eating out measures during COVID-19: Cross-sectional study in Indonesia and Malaysia. *Food Control*, *125*, 107920, 1–8. https://doi.org/10.1016/j.foodcont.2021.107920
- Tang, Z. Y., Hao, J. L., & Wang, X. Z. (2024). Park smart or face the music: Understanding users' orderly parking behavior of dockless shared bikes from the perspective of deterrence theory. *Transportation Research Part F: Psychology and Behaviour*, 107, 507–520. https://doi.org/10.1016/j.trf.2024.09.017
- Thakur, K., Singh, D., & Rajput, R. (2022). Effects of food additives and preservatives and shelf life of the processed foods. *Journal of Current Research in Food Science*, 3(2), 11–22.
- The Star. (2018, October 21). Noodles from laksa kebok stall contaminated with salmonella bacteria, says health ministry. https://www.thestar.com.my/news/nation/2018/10/21/noodles-from-laksa-kebok-stall-contaminated-with-salmonella-bacteria-says-health-ministry/#ETCKgK1P4 53fgJWU.99
- The Sun. (2023, March 30). Sale of puffer fish with dangerous toxins prohibited: Health DG. https://thesun.my/home_news/sale-of-puffer-fish-with-dangerous-toxins-prohibited-health-dg-HI10813224#google_vignette
- The Sydney Morning Herald. (2007, September 19). Restaurant fined over food poisoning. https://www.smh.com.au/national/restaurant-fined-over-food-poisoning-20070919-zsu.html
- United States Attorney's Office. (2014, January 28). *Statements regarding the sentencing of Eric and Ryan Jensen* [Press release]. https://www.justice.gov/usao-co/pr/statements-regarding-sentencing-eric-and-ryan-jensen
- United States Department of Justice. (2015, April 13). *Quality egg, company owner and top executive sentenced in connection with distribution of adulterated eggs* [Press release]. https://www.justice.gov/opa/pr/quality-egg-company-owner-and-top-executive-sentenced-connection-distribution-adulterated
- United States Department of Justice. (2015, October 1). Former peanut company officials sentenced to prison for their roles in salmonella-tainted peanut product outbreak [Press release]. https://www.justice.gov/opa/pr/former-peanut-company-officials-sentenced-prison-their-roles -salmonella-tainted-peanut
- Woh, P. Y., Thong, K. L., Behnke, J. M., Lewis, J. W., & Mohd Zain, S. N. (2016). Evaluation of basic knowledge on food safety and food handling practices amongst migrant food handlers in Peninsular Malaysia. *Food Control*, 70, 64–73. https://doi.org/10.1016/j.foodcont.2016.05.033
- Wong, C. (2020, December 3). Food caterer Spize and related firm fined \$32k for fatal food poisoning case. *The Straits Times*. https://www.straitstimes.com/singapore/courts-crime/food-caterer-spize-and-related-company-spize-events-fined-32000-for-fatal
- World Health Organisation. (2020). Zoonoses. https://www.who.int/news-room/fact-sheets/detail/zoonoses

- World Health Organisation. (2023). *Influenza (avian and other zoonotic)*. https://www.who.int/news-room/fact-sheets/detail/influenza-(avian-and-other-zoonotic)
- World Health Organisation. (2024). *Food safety*. https://www.who.int/news-room/fact-sheets/detail/food-safety
- Xu, J. P. (2022). Assessing global fungal threats to humans. *mLife*, 1(3), 223–240. https://doi.org/10.1002/mlf2.12036
- Yaqin, A. (2007). Legal research and writing. Malayan Law Journal.
- Yuen, M. K. (2024, February 20). Interactive: Food poisoning incidents on the rise after pandemic. *The Star.* https://www.thestar.com.my/starplus/2024/02/20/interactive-food-poisoning-incidents-on-the-rise-after-pandemic
- Yun, Y. X. (2023, May 7). Deadly pufferfish still being sold to the public, says fish suppliers' group. *The Star.* https://www.thestar.com.my/news/nation/2023/05/07/deadly-puffer-fish-still-being-sold-to-the-public-says-fish-suppliers-group
- Zolkiply, Z. I. (2020, June 3). Terengganu's 'puding buih' case claims first victim. *New Straits Times*. https://www.nst.com.my/news/nation/2020/06/597617/terengganus-puding-buih-case-claims-first-victim
- Zulkupri, M. I., Mahmood, A., Zainol, Z. A., & Hasmin, N. A. (2022). Consumer related theories and the right to informed choice for consumer in nano food consumption. *UUM Journal of Legal Studies*, *13*(1), 199–220. https://doi.org/10.32890/uumjls2021.13.1.9