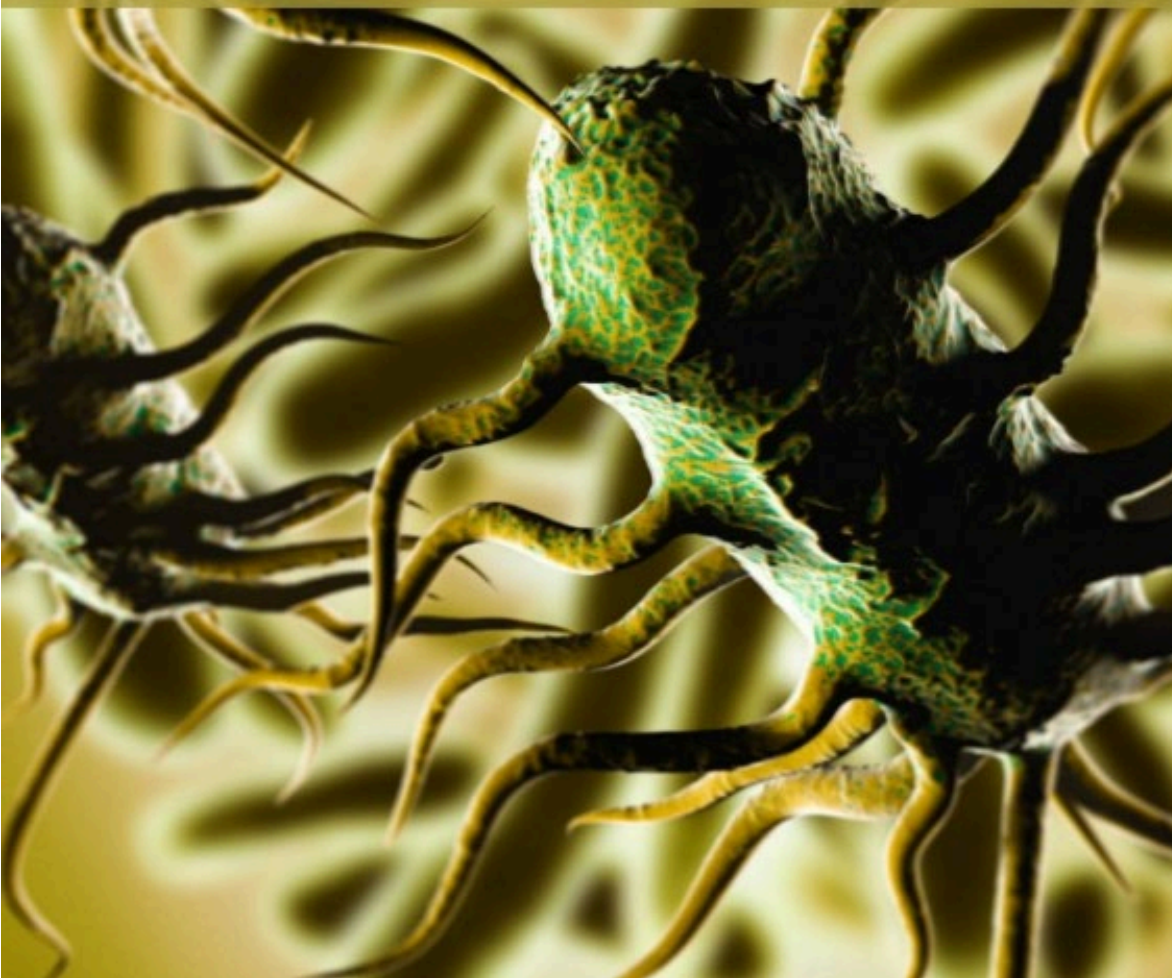
Power Dynamics in Food Safety Governance:

The Case of South Africa's Compulsory Specification for Processed Meat Products

By Ntombizethu Mkhwanazi, Camilla Adelle and Lise Korsten

Between January 2017 and July 2018, listeriosis led to the deaths of 216 people across South Africa. NTOMBIZETHU MKHWANAZI, CAMILLA ADELLE and LISE KORSTEN consider the role that power dynamics played in the failure of food safety governance to prevent the listeriosis outbreak. Corporate influence prioritised financial concerns over public health protection. This intersected with poor co-ordination between the array of government entities working within a fragmented food safety system.



Navigating power dynamics in food safety governance:

The case of South Africa's compulsory specification for processed meat products

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Abstract

The 2017–2018 listeriosis outbreak in South Africa had a severe impact on the processed meat industry, prompting significant regulatory changes including the development of the Compulsory Specification for Processed Meat Products (VC 9100). This regulation aimed to improve food safety standards by mandating the implementation of a Hazard Analysis and Critical Control Points system across all processed meat production facilities. Drafting of the VC 9100 was initiated in 2013 following concerns that existing voluntary standards were inadequate for protecting public health. However, progress was hindered by strong resistance from industry stakeholders who argued that compliance would be financially burdensome, particularly regarding the costs and levies associated with its enforcement. The listeriosis outbreak, which resulted in over 219 deaths, dramatically shifted the regulatory landscape. The crisis brought food safety to the forefront of the national agenda, compelling the government to accelerate the development and implementation of VC 9100. Despite the urgency, industry resistance persisted, with stakeholders lobbying for reduced levies and delaying the regulation's full enforcement. This case study highlights the complex interplay between public health priorities and industry interest in food safety governance. It also demonstrates how crises can serve as catalysts for regulatory change, with the listeriosis outbreak playing a pivotal role in overcoming industry resistance and advancing the implementation of essential food safety measures.

Keywords: Foodborne illness, food safety, legislation, listeriosis, South Africa, VC 9100

Introduction

The listeriosis crisis in South Africa (2017–2018) had devastating human and economic consequences. The outbreak, which was only officially declared by the Minister of Health, Dr Aaron Motsoaledi, on 5 December 2017, resulted in 1,060 confirmed cases and 219 deaths, making it one of the deadliest listeriosis outbreaks globally. Gauteng experienced the highest infection and mortality rates, while the Northern Cape had the lowest. The loss of life was the most tragic aspect of the outbreak, overshadowing the economic losses incurred, significant though these were.

The source of the outbreak was traced to ready-to-eat (RTE) processed meat products from Enterprise Foods' Polokwane production facility, leading to a nationwide product recall on 4 March 2018. The processed meat industry, particularly the pork sector, suffered severe financial damage, with estimated losses reaching R1 billion (City Press, 2018; National Institute for Communicable Diseases [NICD], 2019). The Department of Agriculture, Land Reform and Rural Development (DALRRD) temporarily closed select pork processors — including Enterprise Foods' Polokwane plant RCL Foods' Wolwehoek plant [1] — but not all plants were affected; Eskort, for example, remained operational. Suspensions lasted until stricter food safety regulations were implemented. The Department of Health (DoH) later confirmed that Tiger Brands alone was responsible and just one strain was linked to RCL Foods' chicken polony (City Press, 2018).

Some regulations were drafted and introduced to strengthen food safety requirements and standards, which included the Compulsory Specification for Processed Meat Products (VC 9100) and Regulations R 607 and R 638. The VC 9100 was published in the Government Gazette on 8 August 2019. This regulation is enforced by the National Regulator for Compulsory Specifications (NRCS) and mandates compliance with Hazard Analysis Critical Control Points (HACCP), effective from 8 October 2019. Regulations R 607 and R 638 (DoH, 2018a;b), based on the South African National Standards (SANS) and Codex Alimentarius[2] guidelines, were published by the DoH on the 14 and 22 June 2018 respectively. R 607 enforces mandatory HACCP requirements for food plants manufacturing RTE meat, meat offal and poultry products, while R 638 addresses food transport and food premises' general hygiene and food safety requirements.

The VC 9100 regulates the handling, preparation, processing, packaging, refrigeration, freezing, chilling, labelling, marking and storage of heat-treated and RTE processed meat products covered under SANS 885, and addresses microbiological and food safety requirements (Department of Trade and Industry, 2019). The SANS 885 (NRCS, 2023), which classifies processed meats, existed before VC 9100, but was not mandatory. Developed initially in 2011 under Technical Committee TC 1027, it complied with the World Trade Organization's Agreement on technical barriers to trade

(WTO, 2000). The development of VC 9100 started in 2013 as a result of industry and regulator concerns about unregulated processed meat, initiated by the NRCS and followed by feasibility, risk and impact research.

This paper examines stakeholder influence on the VC 9100 regulation at different stages of the policy cycle with a focus on its development and delayed implementation until after the 2017–2018 listeriosis outbreak. Furthermore, the paper analyses the role of stakeholders in shaping the development of VC 9100 to demonstrate how they influenced and delayed the regulatory progress and its implications for food safety governance in South Africa. In addition, the study identifies and addresses the factors that contributed to the regulatory delays, the role of the enforcement agencies, and the broader impact of stakeholder engagement on food safety policy implementation.

The processed meat industry in South Africa

The processed meat industry plays a key role in South Africa's economy, contributing to the Gross Domestic Product (GDP) and employment. The industry includes poultry, pork, beef, lamb and mutton, with products ranging from chilled and frozen to shelf-stable varieties (Mordor Intelligence, 2022). Meat processing techniques such as salting, curing, fermenting and smoking enhance the flavour and shelf life of the products (Technavio, 2021). The formal pork sector consists of approximately 400 commercial producers, 19 stud breeders and a workforce of 10,000, including 4,000 farm workers and 6,000 processing and abattoir employees (DALRRD, 2021). South Africa is also the largest regional exporter of processed meat, supplying countries like Botswana, Namibia and Zimbabwe (Mordor Intelligence, 2022; Mugido, 2018).

Consumer demand is driven by household consumption and the food service industry, but rising feed costs and religious restrictions have limited the growth of the pork industry (DALRRD, 2020; Mugido, 2018). However, marketing campaigns by major companies have helped to expand the market (Mordor Intelligence, 2022). Separately, poultry is the dominant segment, holding 40% of the market share, with chicken meat accounting for 65% of the consumers' total consumption due to its affordability and popularity (Mordor Intelligence, 2022).

The demand for pork products grew by 9% between 2015 and 2022, driven by an expanding middle class and changing dietary habits (Marais, 2023). Popular pork-based products include sausages, bacon and ham (Mugido, 2018). RTE items, such as polony and Vienna sausages, remain staple protein sources, especially for low-income households, due to their affordability and long shelf life of up to five months under optimal cold storage conditions (Thomas, Govender, McCarthy *et al*., 2020). Polony, in particular, is widely consumed across South Africa and some Southern African Development Community (SADC) countries and is valued for its low cost compared to other protein sources (Tshandu & Anetos, 2018).

Listeriosis outbreak in South Africa

Listeriosis is a severe foodborne illness caused by *Listeria monocytogenes*, which poses a high risk to pregnant women, the elderly and individuals with weakened immune systems (CDC, 2024). South Africa experienced a listeriosis outbreak between January 2017 and July 2018. Identifying the source of the illness proved difficult, as *L. monocytogenes* has a long incubation period of up to 90 days (WHO, 2018). Hunter-Adams, Battersby and Oni (2018) argue that the delayed identification of the outbreak's origin contributed to its severity, exposing gaps in South Africa's regulation and capacity. The Minister of Health officially declared the outbreak in December 2017, but the contaminated products—polony and other RTE meats from Enterprise Foods—were only identified in March 2018, leading to a product recall by Tiger Brands (Department of Trade and Industry, 2018). However, some supermarkets continued to sell RTE meat, causing confusion and revealing weaknesses in the recall system (Boatemaa *et al*., 2019; Payi, 2018). The outbreak affected all of South Africa's nine provinces, with reported cases and fatalities recorded between January 2017 and July 2018, as shown in Table 1.

Table 1: Cases reported and mortality rates by province, January 2017–July 2018

Province	Number of cases (% of cases)	Number of deaths (% of deaths)
Gauteng	614 (57.92%)	108 (50%)
Western Cape	136 (12.83%)	32 (14.81%)
KwaZulu-Natal	83 (7.83%)	21 (9.72%)
Limpopo	55 (5.19%)	11 (5.09%)
Eastern Cape	53 (5.0%)	13 (6.02%)
Mpumalanga	48 (4.53%)	11 (5.09%)
Free State	36 (3.40%)	9 (4.17%)
North-West	29 (2.74%)	8 (3.70%)
Northern Cape	6 (0.57%)	3 (1.39%)
Total	**1,060 (100%)**	**216 (100%)**

Source: NICD (2019)

In total, 1,060 listeriosis cases were reported during the outbreak, resulting in 216 deaths, with Gauteng experiencing the highest infection and mortality rates and the Northern Cape having the lowest (Smith, Tau, Smouse et al., 2019; NICD, 2019). The DoH criticised the meat processing industry's lack of cooperation, while Tiger Brands' CEO denied a direct link between the company's products and the deaths, delaying official intervention (Mabuza and Gous, 2018). Media coverage heightened consumer scepticism about food safety (Rootman, 2016).

Regulatory agencies struggled to coordinate their response, with uncertainty over whether the National Consumer Commission, DoH or DALRRD should lead the investigation (Food Safety Network Service, 2018). This lack of action during the

outbreak highlighted systemic governance failures, including weak enforcement of food safety regulations (Boatemaa *et al*., 2019; Wilson & Worosz, 2014). The DoH acknowledged deficiencies in the country's legislative and policy frameworks, emphasising the need for regulatory reform (Department of Health, 2018c).

Food safety crises often stem from inadequate regulatory enforcement (Grace, 2017), with South Africa's approach being reactive rather than preventative (University of Venda, 2019). The outbreak underscored the urgent need for improved food safety legislation, prompting the government to review and strengthen regulations for heat-treated, RTE meat products (Mphaga, Moyo & Rathebe, 2024; WHO, 2018).

Materials and methods

This study employed an explanatory case study approach, which was selected to address the central research question: "What role did power dynamics play in the South African food safety governance's failure to prevent the listeriosis outbreak in 2017-2018?" The South African food safety governance system is fragmented since it is managed by three distinct government departments, resulting in several weaknesses. This research study utilises a multiple case study design (Yin, 2014), which offers a robust foundation for theory building by enabling case comparisons, thereby strengthening the theoretical framework. The selected cases focus on various food safety-related policy changes following the listeriosis crisis in South Africa. The case study research was conducted between March and July 2023.

This case examines the compulsory specification for processed meat products, which gained prominence on the policy agenda after the 2017-2018 listeriosis outbreak. This specification sets out the hygiene, labelling and safety standards required for processed meat production to protect public health. Although its development encountered resistance from industry players and concerns about enforcement, the listeriosis outbreak and its attendant death toll accelerated its implementation. This tragic event underscored the necessity for stringent food safety regulations, positioning the specification as a critical measure to prevent future outbreaks. Fifteen key informants, who represented various sectors involved in the implementation or enforcement of food safety governance, were interviewed by the researcher between March and August 2022. The interviews were recorded electronically with the respondents' permission.

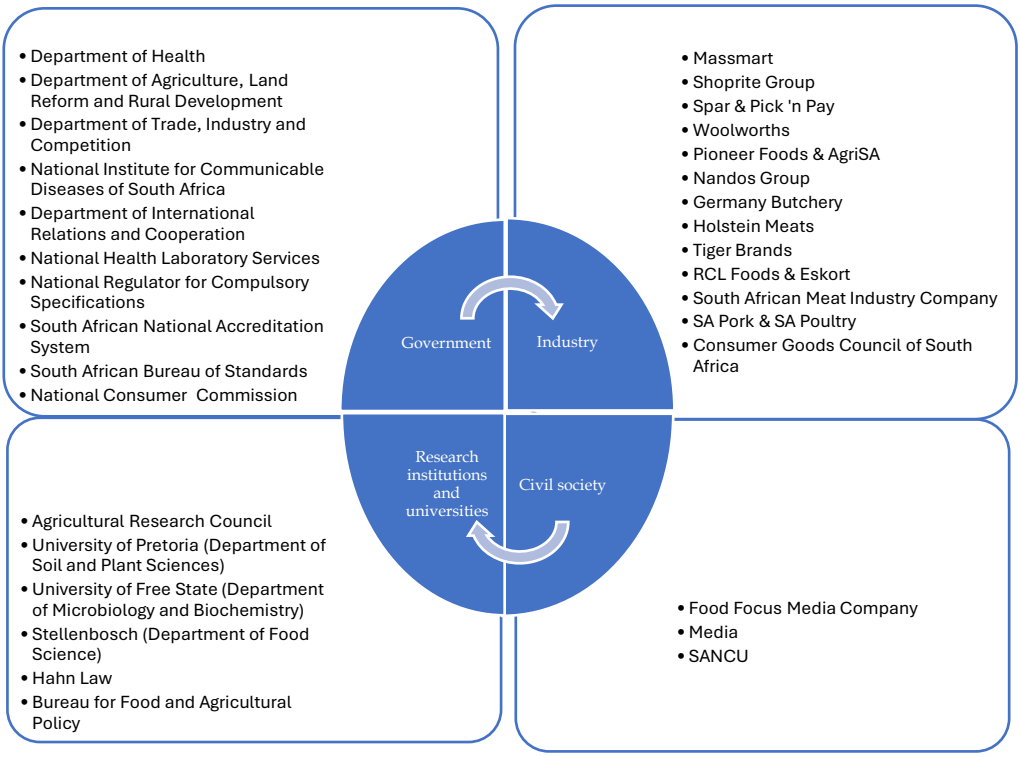
Findings

Stakeholders involved in the drafting process of the VC 9100

The process of developing the Compulsory Specification for Processed Meat started in 2013 and involved multiple/numerous stakeholders, as recorded in Figure 1. The network of stakeholders involved in the drafting process of VC 9100 reflects the complex and often fragmented nature of South Africa's food safety governance system.

Key government agencies, such as the NRCS, the DoH and the DALRRD, each have distinct mandates and regulatory responsibilities, contributing to overlapping roles and coordination challenges. Industry players, including major producers like Tiger Brands and industry associations such as South African Meat Processors Association (SAMPA), actively participate in consultations to safeguard their commercial interests. Meanwhile, civil society groups and consumer representatives are notably underrepresented or sidelined within this stakeholder network, highlighting limited inclusivity in decision-making processes. This intricate web of interactions underscores the difficulties encountered in coordinating policy development across multiple departments and vested interests, which ultimately contributed to delays and conflicts in the formulation and implementation of VC 9100.

Figure 1: Stakeholders involved in the development of the Compulsory Specification for Processed Meat Products, 2013-2019



Source: *Author's creation based on desk review and stakeholder mapping.*

Fragmented government authority and competing mandates

The food safety regulatory framework suffered from significant fragmentation across three government entities. In the above mentioned case study, respondent 1 explained: "There is a concern of contestation of mandate, where various government departments all want to regulate, but obviously, we do it under different pieces of legislation and we also use different methods to regulate". The NRCS focused on microbiological safety under the National Regulator for Compulsory Specifications Act 5 of 2008, while DALRRD oversaw product quality through the Agricultural Product Standards Act 119 of 1990, and the DoH conducted facility inspections under the Foodstuffs, Cosmetics and Disinfectants Act 54 of 1972 (NRCS, 2023; DALRRD, 2020).

This division created enforcement gaps and inefficiencies, with industry facing multiple inspections and levies. Respondent 7 noted the financial burden: "All three regulators charge the industry different levies for their inspections", while Respondent 9 added: "It would work much better for the industry if they had to deal with one government department instead of all three regulators as it becomes complex and costly for them".

Industry resistance and regulatory delays

The processed meat industry, represented by powerful associations like SAMPA and major corporations including Tiger Brands, exerted significant influence over the regulatory process (Tiger Brands, 2012). Respondents 1, 2, 3, 4, 7 and 9 all confirmed that industry resistance to proposed levies during the 2014 consultations led to a four-year delay in finalising VC 9100 (Parliament, 2018).

Respondent 16 provided insight into industry tactics: "Tiger Brands and other industry players adopt a protective stance in meetings for two main reasons: to gather information and to quickly adapt to changes. They are cautious about sharing insider details, likely to protect their brand and the broader industry's interests." This corporate influence prioritised financial concerns over public health protections, with Respondent 16 further noting: "Stricter regulations pose more risk and accountability, which can lead to significant legal and financial consequences for the company."

Marginalisation of civil society and academia

Civil society organisations and academic institutions which could have provided independent oversight were largely excluded from food safety governance. Respondents noted that consumer advocacy groups had minimal participation in policy consultations, leaving public health concerns underrepresented. Similarly, government officials viewed academic experts with suspicion, fearing criticism of regulatory weaknesses. One respondent stated: "Officials believe it's the government's mandate, not academia's, and scientists should refrain from interfering" (Respondent 16). This exclusion prevented evidence-based policy improvements and allowed industry and

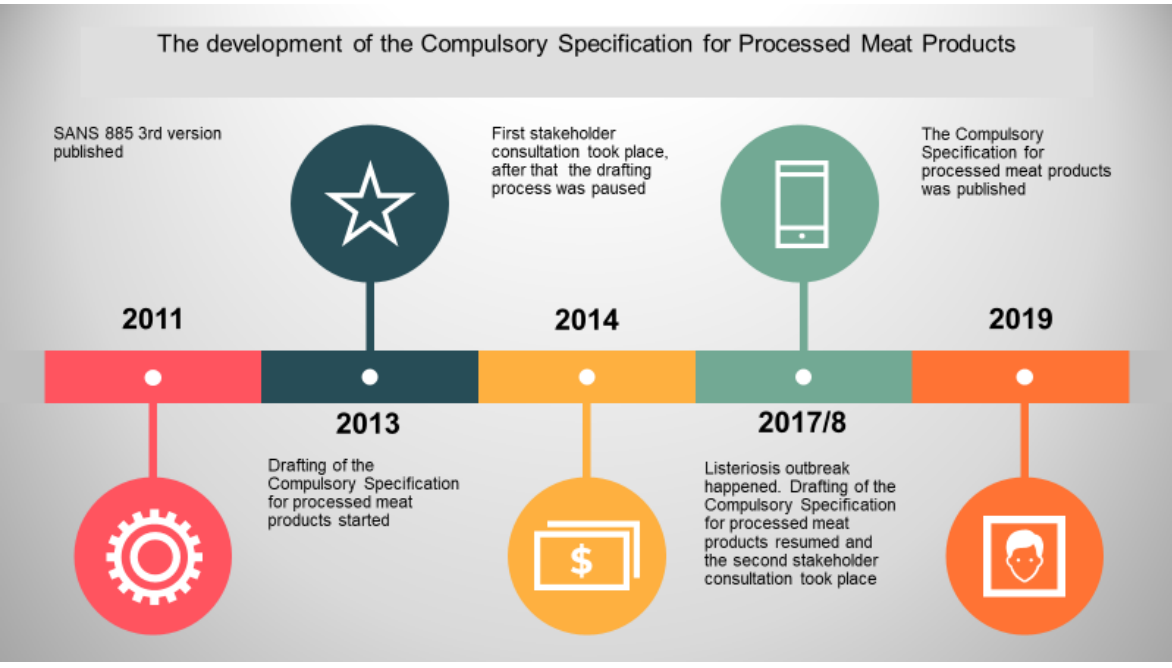
government actors to dominate decision-making without sufficient accountability (Hunter-Adams *et al*., 2018).

Crisis-driven policy changes after the outbreak

The listeriosis outbreak, which caused 1,060 infections and 216 deaths (NICD, 2019), finally forced regulatory action. As Respondent 1 noted: "The VC 9100 became part of the interventions that the government wanted to put in place as a clear regulatory tool after the listeria outbreak" (Department of Trade and Industry, 2018). The outbreak prompted Tiger Brands to establish the Centre for Food Safety in collaboration with Stellenbosch University in November 2019 (South African Association for Food Science and Technology, 2019) — a reactive measure that came too late to prevent the crisis.

This crisis-driven response highlights how power dynamics had previously stalled necessary reforms until a public health disaster compelled change in 2019 — a turning point vividly illustrated in the timeline in Figure 2 below.

Figure 2: Compulsory Specification for Processed Meat Products Development Timeline



Source: *Authors' creation from desk review and interviews.*

The timeline highlights the initial stakeholder consultation in March 2014, the development of draft regulations, and the subsequent delays primarily caused by

industry resistance over levies and regulatory fragmentation. Notably, it marks the resumption of progress following the 2017–2018 listeriosis outbreak, leading to the final drafting, approval and enactment of VC 9100 in August 2019. This timeline underscores the protracted nature of the process, influenced by stakeholder conflicts and policy negotiations.

Discussion

This case study interrogates the delays and obstacles faced in developing and adopting the Compulsory Specification for Processed Meat Products (VC 9100) in South Africa, which may have prevented the listeriosis outbreak of 2017–2018 had it been implemented earlier. The findings highlight how industry interests significantly influenced food safety governance, operating within an interest-intermediate network where power dynamics favoured economic priorities over public health. The exclusion of key stakeholders, such as consumers, from meaningful participation in policymaking further exacerbated regulatory inefficiencies.

The delayed implementation of VC 9100 — driven by industry lobbying for lower levies — demonstrates how economic power can obstruct critical food safety measures. Even after its eventual publication, persistent industry resistance hindered enforcement, illustrating a governance system where profitability often supersedes consumer protection. Had the regulation been implemented and enforced more rigorously prior to the outbreak, the scale of the listeriosis crisis might have been reduced.

The case also reveals the pivotal role of focusing events in overcoming regulatory stagnation. Before the outbreak, industry opposition stalled VC 9100's progress, reflecting systemic weaknesses in routine policy processes. However, the listeriosis crisis acted as a catalyst, compelling the government to accelerate regulatory action (Hunter-Adams *et al.*, 2018). This underscores the need for proactive governance mechanisms that pre-emptively address food safety risks rather than relying on crisis-driven responses.

For future prevention, food safety governance must shift toward a more inclusive network that balances stakeholder interests while prioritising public health (Mkhwanazi, 2024). Sustained public pressure, transparent policy processes and enforceable regulations are essential to counter industry dominance and ensure timely, effective food safety interventions. Without such reforms, regulatory delays and industry influence may continue to leave consumers vulnerable to preventable outbreaks.

Conclusion and recommendations

The listeriosis outbreak in South Africa exposed critical deficiencies in food safety regulations, particularly within the processed meat sector. In response, the Compulsory Specification for Processed Meat Products (VC 9100) was developed to address these gaps by enforcing stringent standards for the production, packaging and labelling of processed meat. VC 9100 mandates the implementation of HACCP systems across all processed meat facilities, aiming to enhance overall food safety. While its development began in 2013, industry resistance led to significant delays, with stakeholders contesting the financial burden of compliance. The outbreak's severity in 2017–2018, which highlighted the urgent need for effective food safety measures, prompted a renewed push for VC 9100's implementation. Despite this urgency, resistance continued, affecting the regulation's full enforcement. This case study underscores the role of crises in driving regulatory change and the challenges of balancing public health priorities with industry interests. Effective enforcement of VC 9100 is crucial for improving food safety and preventing future outbreaks. To address the limitations of South African food safety governance, it is recommended that the decision-making process be expanded to include a broader and more representative group of stakeholders.

While Figure 1 outlines a seemingly comprehensive network of actors, interviews reveal a stark disconnect between formal representation and real influence. One respondent raised a concern that consumers, small-scale producers and public health advocates were repeatedly sidelined during the VC 9100 negotiations. This expansion should focus on enhancing inclusivity and collaboration among diverse actors, beyond the current specialised interests that may dominate the process. The government should lead this initiative by managing and facilitating network openness, despite potential resistance from industry groups that benefit from the status quo.

Regular monitoring and adaptive management of these networks are essential to keep pace with evolving stakeholder dynamics and ensure meaningful collaboration. Given the complexities and coordination challenges within the food system as highlighted by recent studies, a more integrative approach is necessary to overcome obstacles and advance the effectiveness of food safety governance.

Declarations

Conflict of interest: The authors wish to confirm that there is no conflict of interest to declare.

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ENDNOTES

[1] RCL Foods has not been linked to Rainbow Chicken since 2024.

[2] Codex Alimentarius sets the international guidelines for food safety. It was formed jointly by United Nations bodies, the World Health Organization (WHO) and the Food and Agricultural Organization of the UN (FAO) in 1962.

BIOGRAPHIES

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