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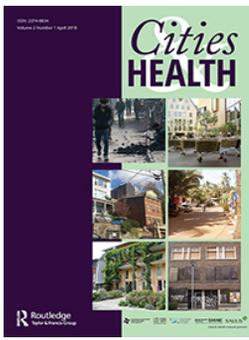
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IDRC Grant: 108458-001-Urban food systems governance for NCD prevention in Africa



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To cite this article: Jo Hunter-Adams, Jane Battersby & Tolu Oni (2018) Fault lines in food system governance exposed: reflections from the listeria outbreak in South Africa, *Cities & Health*, 2:1, 17-21, DOI: [10.1080/23748834.2018.1508326](https://doi.org/10.1080/23748834.2018.1508326)

To link to this article: <https://doi.org/10.1080/23748834.2018.1508326>



Published online: 26 Sep 2018.



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Fault lines in food system governance exposed: reflections from the listeria outbreak in South Africa

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ABSTRACT

According to the World Health Organization (WHO), South Africa recently experienced the largest ever recorded outbreak of listeria (*Listeria monocytogenes*), with almost 1049 confirmed cases and 209 deaths between 1 January 2017 and 5 June 2018. South Africa's listeria outbreak provides an opportunity to interrogate the relative power of the state and the private sector in shaping the food system and to re-evaluate the issues of traceability and broader governance. It also provides an opportunity to consider the determinants of diets and consequent health outcomes of the poor, and to develop policy and programmatic inventions better attuned to the lives of the poor and aligned for the creation of health.

ARTICLE HISTORY

Received 17 May 2018
Accepted 18 July 2018

KEYWORDS

Listeria; food system; food insecurity; diet; determinants; outbreak; South Africa

According to the World Health Organization (WHO), South Africa recently experienced the largest ever recorded outbreak of listeria (*Listeria monocytogenes*), with almost 1049 confirmed cases and 209 deaths between 1 January 2017 and 5 June 2018 (NICD 2018). This is more than the combined cases (860) and deaths (132) during ALL 68 outbreaks of listeria that occurred in the entire United States between 1998 and 2016 (National Outbreak Reporting System (NORS) Dashboard CDC 2018). A year after the first cases were identified, two Tiger brands factories manufacturing polony, a ready-to-eat meat product, were identified as a probable source of this outbreak. The company denied any direct links between their products and the listeria-related deaths (Pijoo 2018). It subsequently emerged that the processed meat industry had managed to block the implementation of evidence-based regulatory standards developed in 2014 (Ensor 2018), meaning there was relatively little pressure for the private sector to apply stringent standards. As such, industry did not implement criteria for preparation of ready-to-eat meats that effectively control the growth of the bacterium (Glass et al. 2002).

Ready-to-eat meat has come to play an important role in the diets of the urban poor, where companies have actively marketed these products as a cheap protein source (Figure 1). As a result, this news affected many South Africans; from the teacher at a local school who spoke about throwing away polony from her fridge, to the attendant at the petrol station who spoke, with concern and

uncertainty, of how his lunch would have to change.

South Africa's listeria outbreak provides an opportunity to interrogate the relative power of the state and the private sector in shaping the food system and to re-evaluate the issues of traceability and broader governance. It also provides an opportunity to consider the determinants of diets and consequent health outcomes of the poor, and to develop policy and programmatic inventions better attuned to the lives of the poor and aligned for the creation of health. While the outbreak occurred in South Africa, the issues of food systems transformation, governance, and poor diet extend well beyond South Africa's borders. Neighbouring countries were affected by the outbreak (News24 2018a) and had to quickly enact a ban on affected South African meat (News24 2018b).

Food safety requires regulation, capacity, and transparency

A year after the outbreak began, the prevailing narrative from the state, academia, and civil society has been one of the needs for better implementation of food safety regulations. While the issues of tracing the epidemic are partly due to the listeria's long incubation period of up to 70 days, we argue that the failure to identify the source of the outbreak for more than a year is significant. It reveals lack of regulation, lack of capacity on the part of the state, lack of



Figure 1. Ready-to-Eat meats have become central to street food and small scale fast food vending in South Africa (photo credit: Sam Reinders).

transparency in large-scale food manufacturers, and a lack of food security policy aligned with health creation and disease prevention. The food system has become characterized by considerable economic concentration and centralization of power since the deregulation that occurred post the 1994 transition to democracy (Greenberg 2017). In South Africa, the 10 largest packaged food companies account for 52% of sales of packaged foods, almost double the global average (Igumbor et al. 2012). Tiger Brands accounts for 17% of packaged food sales in South Africa (Igumbor et al. 2012). This economic concentration together with rolling back of state control of the food system has led to significant limits to transparency and traceability. For example, food inspection is within the mandate of overstretched municipal governments, which has meant that random checks by health inspectors were not occurring regularly (Child and Anetos 2018). The result has been that industries are effectively left to self-monitor, as the limited state capacity is generally focused on regulating the informal sector. While there have been continuous attempts to regulate for microbiological limits, these efforts have been deprioritized and underresourced, and actively blocked by industry (Donnelly 2018).

Economics and food system governance and policy

Globally, the worst outbreaks of listeria have consistently involved large farms or large processing facilities (National Outbreak Reporting System (NORS) 2018). While this scale of production supplies the demand for cheap food, it is not necessarily more efficient; rather it simply relies on lower labour costs due to mechanization, while transferring social, health (both in the context of outbreaks like Listeria, as well as through non-communicable disease (NCD)), and ecological costs to others (Holt-Giménez and Altieri 2013).

Policy discourses on food security in South Africa, and Africa more broadly, have focused primarily on issues of availability or of economical accessibility of staple foods. There has been little focus on the quality of diets available to the poor, with diet-related diseases blamed on poor choices. In contexts of energy poverty, both in the home and for street traders, the pre-prepared nature of ready-to-eat products makes them a viable source of food. Furthermore, many poor households experience time poverty, particularly in cities where long commutes are the norm. These ready-to-eat products are therefore well designed for the lived experience of urban poverty, and occupy a niche as the cheapest form of meat within a society in which access to meat is a marker of economic status.

Health equity consequences of food system and food security policies

The listeria outbreak in South Africa is indicative of the potential weaknesses of the kinds of social, economic, and environmental distancing that occur in the context of urbanization and globalization (Clapp 2014). The increased complexity of the food system required to serve large urban populations with high concentrations of poverty creates pre-conditions for the kind of disease outbreak seen in South Africa. While vertically integrated, large-scale supply chains have been positioned as necessary and as the safest way to feed large urban populations, these systems are vulnerable to a number of shocks – food safety being just one. Food policy is required that is mindful of entrenched power with the food system and that seeks to generate robust food systems characterized by transparency, accountability, and diversity.

The commercial determinants of health (Kickbusch et al. 2016) refer to commercial factors that shape the health of citizens, by creating a cycle of low wages and low food prices for unhealthy foods. These determinants drive the expansion of obesogenic food environments that increase the risk of NCDs, evident in the current listeria outbreak. There is sufficient literature on the nutritional characteristics (high in sugar and salt, and are a carcinogenic source of protein (Domingo and Nadal 2017)) and consequences of ready-to-eat meat. These properties contribute to the rising disease burden, and worsening health outcomes of NCDs including hypertension and cardiovascular disease, diabetes, and colon cancer (Spires et al. 2016), driving health inequity by disproportionately affecting the urban poor (Figure 2).

Governance lessons for food system and food security policy

The linkages between economic and food systems can perpetuate economic, food security, and health



Figure 2. Ready-to-Eat meats have become central to street food and small scale fast food vending in South Africa (photo credit: Sam Reinders).

inequities; but also represent an important upstream lever to address these inequities. We identify two over-arching pathways to establishing better, healthier food systems.

The first is the longer term goal of moving towards the re-development of smaller-scale production and processing, with shorter value chains. This long-term goal aligns to principles of food sovereignty and is informed by the practice of the Slow Food movement (Alkon and Agyeman 2011). This systemic change can be achieved by quantifying the true costs of large-scale food production, including those borne by the environment, by the poor, and by the health sector; establishing fair living wages; and making large-scale producers accountable for externalities of production (Holt-Giménez and Altieri 2013).

The shorter term imperative focuses on improved regulation, and increasing transparency and accountability within the existing system. There are signs that companies are becoming aware of this responsibility, and volunteering greater transparency, for example in Unilever's recent announcement that they will share their palm oil supply chains (Unilever 2018). However, the expectation of self-regulation involves an inherent conflict of interest with health creation, and has been demonstrated to have significant limitations (Buse et al. 2017). The insidious nature of most NCDs means less urgent civil society calls to action, frequently necessitating infectious disease outbreaks and deaths to spark outrage.

We argue that the bedrock of models to better govern food systems health must include sub-national, national, and global mechanisms that raise awareness about intersectoral and commercial determinants of health, and that hold policy sectors and corporations accountable for population health. To this end, it is worth learning from lessons learnt in healthcare delivery and infectious disease epidemics in proposing intersectoral governance mechanisms:

At the sub-national level, community organizations can and should play an important role in accountability. In South Africa, the model of community health forums is well known: community-selected representatives who act as the voice of the community and hold the health sector accountable for delivery of quality health care. There is a need for similar mechanisms through which communities can hold, for example, actors involved in their food systems, accountable for health, beyond healthcare delivery. Furthermore, civil society organizations may be able to collectively organize to impel the Human Rights Commission to investigate food safety breaches as an impingement on the constitutional right to food.

There is also a need for greater funding for municipal government environmental health departments, and improved training for environmental health officers, including shifting deeply entrenched biases towards regulation of informal sector activities at the expense of regulation of the formal sector. Accountability needs to be improved through the imposition of harsher penalties for non-compliance. At present, penalties are insufficiently punitive and are considered a cost of doing business.

At the national level, this would require establishing enforceable regulatory frameworks that shift thinking on accountability for health. Such frameworks must be guided by strong ethics, acknowledging conflicts of interests where they occur. They must have clear goals, recognizing governments' responsibility to protect the right to health. In our experience of conducting urban health policy research, the health sector is still largely considered as the sole policy sector responsible for the health of the population. This siloed thinking results in policy incoherence, with policies in the trade and food sectors, for example, antagonistic to health policies and targets. Such mechanisms should raise awareness about ways in which these policies influence health and aim to shift legislation towards greater transparency. An example of this approach is the urban health initiative launched in El Salvador (International Council for Science 2017). This intersectoral initiative brings together representatives from the ministries of health, public works, youth, sports, culture, traffic and road safety, transport, and justice to improve health and to develop strategies to reduce the burden of NCDs. Such intersectoral initiatives, involving the entire food systems value chain, have the potential to prevent outbreaks, in addition to preventing NCDs.

A 2015 report by the WHO on the capacity of member states to prevent NCDs found weak multi-sectoral coordination as a significant challenge to addressing NCDs (World Health Organization 2016). In the African region, whilst over 80% (second only to the South East Asia Region) of the 35 countries

surveyed included NCDs as part of the national development plan, only 17% (the lowest percentage of all regions) reported an operational multisectoral mechanism in place. This implementation gap highlights limitations in financial and human resource capacity of countries to affect these strategies. We strongly advocate for greater resource allocation to structures below the national level responsible for implementation.

The transnational nature of the large-scale food system (the factories implicated in the listeria outbreak distribute their products beyond South Africa's borders) highlights the need for regional and global efforts to support the development, implementation and evaluation of regulation and engagement with all key actors. For example, the UN Special Rapporteur on the right to health applied a human rights approach to set out accountability mechanisms and standards to address NCDs (Gruskin et al. 2014). However, such global efforts should also support building capacity of cities and countries to implement these strategies.

In addition to implementation, governance models should incorporate independent evaluation of the health impact of the mechanisms and strategies suggested above in the short, medium, and long term; with sufficient flexibility to adapt to evidence generated. Furthermore, it is critical that experiences of tried and tested intersectoral approaches are shared between countries and regions. An example of this is the report by UK Health Forum on experiences from 12 countries of public-private interactions for governance of food and alcohol industries (UK Health Forum 2018). The absence of an example from Africa highlights the need for such knowledge and experiences to be generated and shared.

As is the case in many countries, food security policy in South Africa has focused on social grants to increase spending power, with little focus on markets and control of healthy food prices. This has driven the nutrition transition and expansion of ultra-processed foods targeted to the poor. The South African listeria outbreak is an opportunity to examine and address the deficiencies of the current governance of food systems. A key component of food security policy must centre on making healthy foods more accessible, and to addressing all the upstream barriers to achieving this across sectors. This could be achieved through applying the different levels of governance and advocacy highlighted above for healthy food systems and accountable food governance. There is also an important role that transdisciplinary research should play in partnership with policymakers to:

- (a) Generate new knowledge including systems models that can demonstrate the health impact of different interventions, strategies and policies, including the costs of inaction/action; for

example, costing of outbreaks, as well as good data linking diet and NCD will motivate for measures that compensate (incentives and penalties) for these positive and negative externalities that impact health);

- (b) Inform models of intersectoral governance to address the gap between the existence of policies and mechanisms and their implementation to create healthy food environments;
- (c) Evaluate the health impacts of these strategies and policies.

Such interventions are needed to nurture better healthier food systems and health equity.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by the International Development Research Centre [108458].

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Jo Hunter-Adams, MPH, PhD, is postdoctoral research fellow at the Health Economics Unit, School of Public Health and Family Medicine, University of Cape Town. She is a qualitative public health researcher with an interest in the intersections between changing food systems, health and social inequality. Jo is particularly interested in understanding global food systems through local, participatory research. She is part of the Nourishing Spaces project, focused on understanding food and non-communicable disease at the urban scale in six African cities.

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Tolu Oni, MBBS MRCP MPH (Epi) DFPH FCPHM(SA) MD (Res) is a Clinical Senior Research Associate at University of Cambridge. Her research focuses on understanding the interaction between commonly co-occurring chronic conditions (HIV, TB, non-communicable diseases (NCD)), upstream health determinants, the unplanned urban environment, and the impact on health outcomes; with a view to developing integrated inter sectoral public health interventions. She has received several awards in recognition of her research contribution including the Carnegie Corporation "Next Generation of African Academics" award, the Claude Leon Merit award, the UCT College of Fellows Young Researchers awards; and was a 2015 Next Einstein Forum Fellow.

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References

- Alkon, A.H. and Agyeman, J., 2011. *Cultivating food justice: race, class, and sustainability*. Cambridge, MA: MIT Press.
- Buse, K., Tanaka, S., and Hawkes, S., 2017. Healthy people and healthy profits? Elaborating a conceptual framework for governing the commercial determinants of non-communicable diseases and identifying options for reducing risk exposure. *Global health*, 13, 34. doi:10.1186/s12992-017-0255-3
- Child, K. and Anetos, P., 2018. *Tiger brands hit by listeriosis outbreak*. Available from: <https://www.businesslive.co.za/bd/national/health/2018-03-04-deadly-listeriosis-outbreak-traced-to-tiger-brands-subsidiary/>. [Accessed 17 June 2018].
- Clapp, J., 2014. Financialization, distance and global food politics. *Journal peasant studies*, 41, 797–814. doi:10.1080/03066150.2013.875536
- Domingo, J.L. and Nadal, M., 2017. Carcinogenicity of consumption of red meat and processed meat: A review of scientific news since the IARC decision. *Food and chemical toxicology*, 105, 256–261. doi:10.1016/j.fct.2017.04.028
- Donnelly, L., 2018. Listeriosis: mind the regulatory gap. *The M&G Online* Available from: <https://mg.co.za/article/2018-03-09-00-listeriosis-mind-the-regulatory-gap/>. [Accessed 17 June 2018].
- Ensor, L., 2018. *Before listeria: how the processed-meat industry 'blocked' regulation*. Available from: <https://www.timeslive.co.za/sunday-times/business/2018-03-09-before-listeria-how-the-processed-meat-industry-blocked-regulation/>. [Accessed 26 March 2018].
- Glass, K.A., et al., 2002. Inhibition of listeria monocytogenes by sodium diacetate and sodium lactate on wieners and cooked bratwurst. *Journal of food protection*, 65, 116–123. doi:10.4315/0362-028X-65.1.116
- Greenberg, S., 2017. Corporate power in the agro-food system and the consumer food environment in South Africa. *Journal peasant studies*, 44, 467–496. doi:10.1080/03066150.2016.1259223
- Gruskin, S., et al., 2014. Noncommunicable diseases and human rights: a promising synergy. *American journal public health*, 104, 773–775. doi:10.2105/AJPH.2014.302167
- Holt-Giménez, E. and Altieri, M.A., 2013. Agroecology, food sovereignty, and the new green revolution. *Agroecol sustain food systems*, 37, 90–102.
- Igumbor, E.U., et al., 2012. 'Big food,' the consumer food environment, health, and the policy response in South Africa. *PLoS medicine*, 9, 1–7. doi:10.1371/journal.pmed.1001253
- International Council for Science, 2017. *El salvador launches urban health model*. Paris, France: International Council for Science.
- Kickbusch, I., Allen, L., and Franz, C., 2016. The commercial determinants of health. *Lancet global health*, 4, e895–e896. doi:10.1016/S2214-109X(16)30211-X
- National Outbreak Reporting System (NORS) Dashboard CDC, 2018. Available from: <https://wwwn.cdc.gov/nors/dashboard/>. [Accessed 25 March 2018].
- News24, 2018a. Man, 41, fighting for his life in Namibia's first case of listeriosis - report. *News24*, Available from: <https://www.news24.com/Africa/News/man-41-fighting-for-his-life-in-namibias-first-case-of-listeriosis-report-20180314>. [Accessed 16 June 2018].
- News24, 2018b. Listeriosis: four countries 'immediately' suspend SA chilled meat imports. *News24*, Available from: <https://www.news24.com/SouthAfrica/News/listeriosis-four-countries-immediately-suspend-sa-chilled-meat-imports-20180305>. [Accessed 16 June 2018].
- NICD, 2018. *NICD listeriosis situation report 11 june 2018 NICD*. Available from: <http://www.nicd.ac.za/index.php/nicd-listeriosis-situation-report-11-june-2018/>. [Accessed 17 June 2018].
- Pijoo, I., 2018. 'No direct link between deaths and our products' Tiger Brands. *News24*.
- Spires, M., et al. 2016. Diet-related non-communicable diseases in South Africa: determinants and policy responses. *Southern African health reviews*, 2016, 35–42.
- UK Health Forum, 2018. *Public health and the food and drinks industry: the governance and ethics of interaction*. London, UK: UKHF.
- Unilever, 2018. We take a radical step on palm oil supply chain transparency. *Unilever global company website* Available from: <https://www.unilever.com/news/news-and-features/Feature-article/2018/we-take-a-radical-step-on-palm-oil-supply-chain-transparency.html>. [Accessed 11 April 2018].
- World Health, Organization, 2016. *Assessing national capacity for the prevention and control of noncommunicable diseases: global survey*, Geneva Switzerland, 2015.