

independently conducted by researchers who are not employed by the funder, in addition to any statistical analyses performed by the sponsoring industry (Fontanarosa *et al.*, 2005).

Secondly, to address the problem at root, measures may also be required to reduce the reliance of researchers on private funding. The interaction between researchers and industry funding is highly complex, since in many instances researchers are required to attract private funding sources and voluntarily approach industry actors in search of grants. Such situations require at a minimum a careful analysis of potential conflicts of interest. Initiatives to fund and mandate independent scientific research and independent journalism on the health and environmental impacts of food systems are therefore needed.

Securing the necessary resources may require innovative funding models and the involvement of a range of public and private actors (e.g. philanthropists). Reflection is also required on the role of trade associations and industry-linked information portals and 'front groups'. These bodies may have greater capacity than public health agencies to communicate around food-related health risks, but also face key conflicts of interest and tend to blur the boundary between industry and education (Heiss, 2013).

Thirdly, a more fundamental reorientation of research agendas and modalities is required. Siloed approaches in science and policy make it possible for dominant actors to separate the problems from one another and to frame the debate around narrowly defined, one-dimensional solutions. Promoting more holistic and integrated approaches in science and policy alike - 'food systems thinking' - is therefore essential. Different forms of research involving a wider range of actors and sources of knowledge are also required to rebalance the playing field and challenge prevailing problem framings (e.g. industry-leaning approaches; a global North bias). For example, participatory research, which includes the people whose health is most affected by food systems, can help to overcome narrow research questions that exclude impacts on certain populations.

Encouraging a broader shift in research modalities requires different incentives across academia. It also requires assurances that studies of this type will not be relegated to inferior or anecdotal status, and will be considered side-by-side with other types of inquiry, forming a meaningful part of the evidence base for assessing food systems.

Fourthly, further investment should be made in large-scale data gathering by intergovernmental organisations. The

WHO-led Initiative to Estimate the Global Burden of Foodborne Diseases offers an example of collaborative data generation and capacity-building. After a decade-long effort, this initiative was able to produce an authoritative estimate of the global foodborne disease burden in 2015, while drawing considerable stakeholder attention to this problem (WHO, 2015a). Another example of a global initiative that aims to redress the imbalance in regional data availability is the mapping of poverty and likely zoonoses hotspots by the International Livestock Research Institute (ILRI *et al.*, 2012), one of the CGIAR research centres.

Together, these steps can help to redefine research for the public interest and the public good, to reassert scientific integrity, and ultimately to address the burgeoning health impacts of food systems.

This text is based on the October 2017 report from the International Panel of Experts on Sustainable Food Systems (IPES-Food): 'Unravelling the Food-Health Nexus: Addressing practices, political economy, and power relations to build healthier food systems' (Lead author: Cecilia Rocha, Editorial lead: Nick Jacobs). Available [here](#) (including references)

Fairness and food safety: a research gap

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Food safety is generally thought of as a rather dull and technical issue. Most of us take it for granted that the foods we put into our mouths do not contain dangerous pathogens or chemical substances.

The ways in which foods are marketed and retailed in industrialised countries such as the UK, do not encourage us to look back along the food chain. This is particularly true in regard to animal foods, as this might remind us of

uncomfortable truths about animal and worker welfare. It is only when a food scare, such as BSE, Horsemeat or the recent revelations about the 2 Sisters Food Group occurs, that these are exposed.

The safety of global food supplies is vital, but the current research agenda on food safety remains extremely narrow, with a focus on risk assessment and management along the food supply chain. Risks are framed primarily from a toxicological or epidemiological

framework. Consideration of fairness and ethics rarely, if ever, feature.

Now, however, with concerns about sustainability and food security high on the policy and research agendas, there is an opportunity to re-frame food safety to extend beyond concerns about consumer health, and to include potential harm to others involved in the food chain to ensure that food is fair for all, including animals and workers.