Guidance for researchers interacting with the food industry: the FoRK Toolkit

Martin White, Katherine Cullerton, Jean Adams, Nita Forouhi, Oliver Francis
Research team | Conflict of interests

Martin White, Nita Forouhi, Jean Adams and Oliver Francis conceived the project and secured funding. With Katherine Cullerton, they developed the methods and interpreted the data. KC undertook the fieldwork and, with MW, analysed the data.

This work has been funded by the MRC Epidemiology Unit, University of Cambridge and the Medical Research Council.

Team members have no conflict of interest to declare. In particular, they have received no direct or indirect funding from any food or beverage company.
Unhealthy and less sustainable foods are cheaper to produce and consume, and increasingly dominate food environments.

This contributes to some of the biggest challenges for public health and the environment facing societies today.
The ten biggest trans-national corporations with food brands
Trends in per capita sales of unhealthy food and beverage commodities, 1997–2010 and projected to 2016

Stuckler D, McKee M, Ebrahim S, Basu S. Manufacturing Epidemics: the role of global producers in increased consumption of unhealthy commodities including processed foods, alcohol, and tobacco. PLOS Medicine, 2012; 9(6): e1001235
Number of people with diabetes
Aged 20–79 years globally and by IDF region

North America & Caribbean (NAC)
- 2045: 63 million
- 2030: 57 million
- 2021: 51 million

South & Central America (SACA)
- 2045: 49 million
- 2030: 40 million
- 2021: 32 million

Africa (AFR)
- 2045: 55 million
- 2030: 33 million
- 2021: 24 million

Middle East & North Africa (MENA)
- 2045: 136 million
- 2030: 95 million
- 2021: 73 million

Europe (EUR)
- 2045: 69 million
- 2030: 67 million
- 2021: 61 million

South-East Asia (SEA)
- 2045: 152 million
- 2030: 113 million
- 2021: 90 million

Western Pacific (WP)
- 2045: 260 million
- 2030: 238 million
- 2021: 206 million

Increases:
- North America & Caribbean (NAC): 24%
- South & Central America (SACA): 50%
- Africa (AFR): 134%
- Middle East & North Africa (MENA): 87%
- Europe (EUR): 13%
- South-East Asia (SEA): 68%
- Western Pacific (WP): 27%
What role should the commercial food system play in promoting health through better diet?

Martin White and coauthors consider that the commercial food system has the potential to show leadership and support for dietary public health, but systemic change is needed first and this is likely to require governmental action.

Key messages

- Populations across the globe are highly dependent on commercial food systems for daily nourishment.
- Commercial food systems rely heavily on high volume sales of foods high in unhealthy ingredients to generate profits and value for shareholders.
- The commercial food system does not adequately take account of the high costs of its activities for societies, health, or the environment.
- Profit could be made from a healthier and more sustainable food system, in ways that are consistent with prevention of non-communicable diseases, but whole system change will be needed.
- Governments need to increase their efforts to catalyse rapid change in commercial food systems, through fiscal and regulatory policies and development of metrics for the health, environmental, and social impacts of food companies.
The commercial processed food system, influences on human health, and external costs to society

Commercial processed food system

↑ Political influence
↑ Market concentration
↑ Acquisitions and mergers (including transnationally)
↑ Vertical and horizontal integration
↑ Efficiencies and control of value chain

↑ Company growth
↑ Shareholder value
↑ Food processing and added value
↑ Investment in low wage economics
↑ Low price per g or kcal
↑ Retail innovation/efficiency

↑ Short term profits
↑ Production
↑ Favourable trade agreements and regulatory environment

↑ Consumer demand
↑ Sales and exports

↑ Promotion

External costs to society

↓ Whole food and fibre consumption
↓ Highly processed food consumption
↓ Sugar, salt, unhealthy fat consumption
Taste preference for salty and sweet foods

↑ Obesity and NCDs

Human system

↑ Environmental degradation
↑ Economic productivity
↑ Healthcare costs
↑ Social costs
The challenge of misaligned goals

White M, et al. BMJ 2020;368:m545 doi: 10.1136/bmj.m545

Commercial food system - primary goal = short term profit

- High processed food production
- Unhealthy fast food
- Aggressive marketing of unhealthy foods
- Defensive and offensive challenges to public interest and overall

Public health policy - primary goal = population health

- Regulation - taxation, advertising restrictions
- Mandatory nutritional back-of-pack labelling
- Advisory front-of-pack labelling
- Education - social marketing

Potential for closer alignment

- More profitable retailing of fruits, vegetables, legumes, nuts, seeds minimally processed whole grains, seafood; reduced reliance on marketing of, and profit from, highly processed foods high in energy density, salt, sugar, and unhealthy fats
- Takeaways and restaurants selling more food high in fruits, vegetables, legumes, nuts, seeds minimally processed whole grains, seafood; reduced reliance on marketing of, and profit from, highly processed foods high in energy density, salt, sugar, and unhealthy fats
- Voluntary policies promoting healthier food sales/restricing unhealthy foods sales
- Supportive public health regulation, advice and infrastructure to help industry achieve these goals, including a framework convention on healthy and sustainable food systems
Why are interactions with the food industry problematic for population health researchers?

Key documented risks include:

- Immediate reputational risk for researchers and their institutes
- Future reputational risk: we can’t control what the food industry will do with our data/names in the future
- Misdirection of the research agenda, creating a distortion of the evidence base
- Reduced trust in science
Is industry funding undermining trust in science?

How valid are fears that financial conflicts of interest are damaging confidence in academic research?

October 29, 2015

People don't trust scientific research when companies are involved

May 8, 2017 by John Bessley, Aaron M. Mcgorty, Joseph D. Martin, Kevin Elliott And Nigelan Zahry, The Conversation

Sugar lobby paid scientists to blur sugar's role in heart disease - report

New report highlights battle by the industry to counter sugar's negative health effects, and the cozy relationship between food companies and researchers

THIS WEEK 22 August 1998

Salt and vitriol

By Michael Day

AN ARTICLE in a leading science journal has ignited a heated debate about whether eating large amounts of salt leads to high blood pressure. The Journal
Population health research and food industry interactions - aims and methods

Aims: To determine whether it is acceptable for population health researchers to interact with the food industry and if so, under what conditions

Methods:
- UK workshop (Dec 2015)
- Systematic scoping review (2017)
- International online Delphi study of dietary public health researchers (2017)
- International survey of users and funders of DPH research (2018)
- Consensus building via international workshop (Apr 2018)
- Development and piloting of guidance and toolkit for researchers (2019-22)
- Publication of FoRK guidance and toolkit (29th January 2024)
Should we welcome food industry funding of public health research?

*BMJ* 2016;353 doi: https://doi.org/10.1136/bmj.i2161 (Published 20 April 2016)
Cite this as: *BMJ* 2016;353:i2161

Paul Aveyard, professor of behavioural medicine 1, Derek Yach, executive director 2, Anna B Gilmore, professor of public health 3, Simon Capewell, professor of public health and policy 4

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Researchers should accept research grants from the food industry, write Paul Aveyard and Derek Yach, but Anna B Gilmore and Simon Capewell say that it biases science

Yes—Paul Aveyard, Derek Yach

The food industry consists of farmers, manufacturers, wholesalers, retailers, distributors, and the catering industry. If it disappeared tomorrow, most people in the developed world would die within months. It is a major employer; more people are employed in the food industry in the UK, for example, than any other manufacturing sector. ¹ For these reasons, government policies seek to support the industry. From this perspective, it would be absurd for health policy researchers to shun collaborating with the food industry.
What principles should guide interactions between population health researchers and the food industry? Systematic scoping review of peer-reviewed and grey literature

Katherine Cullerton1,2 | Jean Adams1 | Nita Forouhi1 | Oliver Francis1 | Martin White1

Summary

There is no explicit consensus amongst population health researchers regarding what constitutes acceptable or effective interactions with the food industry. This has led to confusion and disagreements over conflicts of interest, which can undermine the integrity of science. To clarify this issue, we aimed to systematically identify the key principles developed by population health researchers to prevent or minimize conflicts of interest when interacting with the food industry. Databases of peer-reviewed literature were searched. In addition, an advanced Google search, a request to experts seeking related documents, and hand searching of references were undertaken. Thematic analysis of the extracted data was undertaken. We examined 54 eligible documents describing guidelines for population health researchers when interacting with the food industry. Fifty-six principles were identified and synthesized in five themes. There were high levels of agreement in themes relating to research governance, transparency, and publication but less agreement and guidance on how principles should be applied in relation to funding and risk assessment. There is agreement on some of the general principles for preventing and minimizing conflicts of interests for population health researchers when interacting with the food industry. However, for issues such as assessing the appropriateness of an industry partner, greater clarity and consensus are required.
Systematic scoping review

**Question:** What principles/guidelines exist for preventing or managing conflicts of interest between dietary public health researchers and the food industry?

A **conflict of interest** is defined as “a set of circumstances that creates a risk that professional judgement or actions regarding a primary interest will be unduly influenced by a secondary interest”
Records identified through database searching (n = 1052)
  Scopus n = 603
  PubMed n = 449
Additional peer reviewed lit identified through other sources eg reference lists, experts (n = 17)

Records after duplicates removed (n = 1462)

Titles screened (n = 1462)

Abstracts screened (n = 906)

Full-text articles assessed for eligibility (PR n = 51) (Grey n = 45)

Full-text PR articles excluded, with reasons (n = 22)
  6 x policy focus
  12 x Does not offer principles/guidance for prev/managing Col
  2 x not research focus
  1 x not focused on dietary public health

Full-text Grey lit excluded, with reasons (n = 20)
  1 x policy focus
  5 x Does not offer principles/guidance for prev/managing Col
  2 x not research focus
  11 x not focused on dietary public health
  1 x report superseded

Records excluded (n = 562)

Grey lit identified through Advanced Google search (n = 456)

Grey lit identified through experts (n = 33)

Records excluded (n = 813)

Articles included in qualitative synthesis (n = 54)
Systematic scoping review: findings

56 statements in 5 themes

- Funding
- Assessing risks
- Maintain high standards of research governance
- Ensure high levels of transparency
- Improve publication standards

- 52% of papers peer-reviewed (e.g. commentaries, reviews)
- 48% grey literature (e.g. organisation/association reports & policies)

- 41% pro-engaging with industry
- 26% anti-engaging with industry
Vague/ambiguous statements: risk assessment and transparency

Polarised views on food industry funding
- Many pro-industry docs did not recognise risks
- Anti-industry docs did not recognise some research may require food industry involvement

Building consensus on interactions between population health researchers and the food industry: Two-stage, online, international Delphi study and stakeholder survey

Katherine Cullerton1,2,*, Jean Adams3, Oliver Francis5, Nita Forouhi1, Martin White5

1 MRC Epidemiology Unit & Centre for Diet and Activity Research, Institute of Metabolic Sciences, University of Cambridge, Cambridge, United Kingdom, 2 School of Public Health, University of Queensland, Herston, Australia

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Abstract

Key to scientific integrity is ensuring that research findings are considered credible by scientific peers, practitioners, policymakers and the public. Industry sponsorship of nutritional research can result in bias and raises significant professional, public and media concern. Yet, there is no international consensus on how to prevent or manage conflicts of interest for researchers considering engaging with the food industry. This study aimed to determine internationally agreed principles to guide interactions between population health researchers and the food industry to prevent or manage conflicts of interest. We used a two-stage, online Delphi study for researchers (n = 100 in 28 countries), and an online survey for stakeholders (n = 84 in 26 countries). Levels of agreement were sought with 56 principles derived from a systematic review. Respondent comments were analysed using qualitative content analysis. High levels of agreement on principles were achieved for both groups (researchers 68%; stakeholders 65%). Highest levels of agreement were with principles concerning research methods and governance. More contentious were principles that required values-based decision-making, such as determining which elements of the commercial sector are acceptable to interact with. These results provide the basis for developing internationally-agreed guidelines for population health researchers governing interactions with the food industry.
Delphi study: components

Q1) 56 statements concerning preventing or managing conflicts of interest in interactions with the food industry
Q2) Characteristics a food company influencing interactions
Q3) Specific food companies/associations influencing interactions
## Question 1

Although some of the actions may seem similar, please rate each action as it is stated based on your personal opinion. You have the opportunity to suggest modifications beside each statement or add new actions in a text box at the end of the question. The statements have been generated by a systematic review of the published and grey literature on preventing and managing conflicts of interest in this area. You may need to scroll down the page to see all the statements.

<table>
<thead>
<tr>
<th>Actions</th>
<th>Rating</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Funding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A pool of funding from the food industry which is independently administered by a third party should be created</td>
<td>![Rating Icon] ![Rating Icon] ![Rating Icon] ![Rating Icon] ![Rating Icon]</td>
<td>![Comment Box]</td>
</tr>
<tr>
<td>A system where industry provides funding to research institutions, not individual researchers or research units, should be created</td>
<td>![Rating Icon] ![Rating Icon] ![Rating Icon] ![Rating Icon] ![Rating Icon]</td>
<td>![Comment Box]</td>
</tr>
<tr>
<td>Researchers should not accept funds from the food industry</td>
<td>![Rating Icon] ![Rating Icon] ![Rating Icon] ![Rating Icon] ![Rating Icon]</td>
<td>![Comment Box]</td>
</tr>
</tbody>
</table>
Delphi study: participants

- Round 1: 100 researchers from 28 countries (59% high income, 37% middle income, 3% low income).
- Most worked in:
  - food & nutrition policy
  - behavioural change interventions
  - nutritional epidemiology
- 70% worked in field for 10+ yrs
Delphi study: findings

**Round 1**
- 56 statements
- Consensus achieved on 28 statements (Consensus = 80% agreement – ‘agree’ or ‘strongly agree’)
- Clarifications + 6 new statements for Round 2

**Round 2**
- 92% response rate
- Consensus on 11 more statements
- Total of 39 statements (68%) reached consensus
| Question |
|------------------|------------------|------------------|
| Q1) A pool of funding from the food industry which is independently administered by a **publically accountable** third party should be created | 74% | 86% |
| Q2) A system where industry provides funding to research institutions, not individual researchers or research units, should be created | 34% | 32% |
| Q3) Researchers should not accept funds from the food industry | 47% | 44% |
| Q4) Researchers should not accept funds from processed food companies | 53% | 55% |
| Q5) Researchers should not accept funds from any commercial organisation | 24% | 23% |
Qualitative findings

If appropriately managed and controlled to ensure no conflict of interest, [the food industry] can be an important source of funding.

(Researcher, South Africa)

The big food multi-national corporations produce commodities which kill, and deserve to be treated like tobacco companies.

(Researcher, UK)
Areas of disagreement requiring greater clarity

- Assessing which organisations it is appropriate to interact with
- Assessing the appropriateness of the type of interaction with the food industry
Acceptability of interaction: manufacturers & supermarkets

- Direct funding
- In-kind funding
- Dialogue
Survey of research stakeholders

- Findings mirrored Delphi study
- Overall, greater caution about interactions with industry than among researchers
Two-day International consensus meeting, April 2018: Overview

- Attended by:
  - 31 dietary public health researchers – from low-, middle- and high-income countries
  - 10 staff from CEDAR as table facilitators and scribes
  - 1 independent facilitator

- Including some who have interacted with the food industry in a variety of ways

- Workshop vision: ‘everyone working in dietary public health research has clear guidance to navigate appropriate interactions with the food industry’.
International consensus meeting: objectives

1. Reflect on the challenges and benefits of DPHR interaction with commercial organisations
2. Share work to date on agreeing a set of principles that could guide appropriate interaction between DPHR and the food industry
3. Build agreement on the principles to guide DPHR interaction with the food industry in relation to the following themes:
   - Publication
   - Transparency
   - Research Governance
   - Funding
   - Risk Assessment
4. Agree on:
   - the most appropriate provenance of the proposed guidance
   - a process for turning the principles into the proposed guidance
   - a process for seeking endorsement of the proposed guidance from key stakeholders
5. Identify next steps and key milestones, including determining what we should publish from the workshop, and when
International consensus meeting: outcomes

1. *Useful guidance would:*
   - Protect and empower researchers
   - Be context specific and culturally sensitive
   - Maintain or enhance reputation
   - Inform judgement and action
   - Incorporate and build on existing good research practice
   - be supported (or recognised) by key stakeholders
   - Have impact with change agents

2. *Guidance as a set of ‘thinking tools’ to use across the research process*
Guideline and Toolkit development

- 2-year process, interrupted by Covid-19 pandemic
- 3 rounds of pilot testing, incorporating feedback at each stage
- 8 different researchers or research groups piloted the initial tool
- Then all 41 workshop participants asked to pilot the tool further using a real-life example
- 21 participants provided feedback
- Finally, 12 researchers from a range of countries, who had not been involved in the workshop, piloted the guidance
- Refinement and finalisation of guidance, followed by peer-review
Flowchart and associated thinking tools

Before formal interaction commences

- Problem/issue identification
  - Identify research activity that might require involvement of one or more food organisations*

- Initiating interaction
  - Food organisation approaches you or you decide to approach food organisation

- Risk assessment
  - Undertake thorough risk assessment of food organisation and type of interaction

- Risk and benefit assessment
  - Determine if benefit of interaction outweighs risk, or vice versa

Use tool A: Risk assessment

Negotiating formal interaction

- Establish research governance and integrity requirements
  - Establish clear and transparent integrity and governance requirements before commencing formal interaction

Use tool B: Risk and benefit assessment

Use tool C: Negotiating interaction

During formal interaction

- Ensure research governance and integrity
  - Ensure transparent arrangements for governance and integrity, including full disclosure of interests throughout interaction

Use tool D: Research governance and integrity

Communicate research findings

- Follow best practice when communicating research findings

Use tool E: Communicating findings
Tool A, part 1: assesses the risk profile of commercial food companies and associated organisations
Tool A, part 2: assesses the risks of different types of interactions with commercial food companies and associated organisations
Tool B: enables an overall risk-benefit analysis for specific interactions
Tool C: guides negotiations with commercial food companies or associated organisations concerning specific interactions
Tool D: guides research governance requirements for interactions involving commercial food companies or associated organisations
Tool E: guides the communication of findings from research involving interactions with commercial food companies or associated organisations
# TOOL A: RISK ASSESSMENT

Please complete *both* Parts 1 and 2 before assessing level of risk in Part 3. For guidance on where to find answers to the risk questions, see the section at the end of Tool A for suggestions.

## PART 1: RISK ASSESSMENT OF FOOD COMPANY OR RELATED ORGANISATION

If the food organisation\(^1\) is owned or funded by another commercial organisation please answer the following questions based on the product portfolio of the parent company or organisation.

<table>
<thead>
<tr>
<th>Assessment criteria</th>
<th>Questions to ask</th>
<th>Indicative Risk Rating: answer yes/no (numerical score in brackets)</th>
</tr>
</thead>
</table>
| 1) Perform background checks* and assess food organisation profile* | a) Does the organisation:  
- Violate international human rights conventions or health-related international, national or regional laws or agreements (e.g. The WHO International Code of Marketing of breast-milk substitutes or the WHO Framework Convention on Tobacco Control)  
- Own or is owned by, or has other structural links to a tobacco or arms company.  
  
   No = low risk (1)  
   Yes = very high risk (4)\(^2\)  

b) Does the organisation:  
- Own or is it owned by, or have other structural links to a company that produces other commodities harmful to health (e.g. alcohol, gambling).  
  
   No = low risk (1)  
   Yes = high risk (3) |
### PART 2: RISK ASSESSMENT OF TYPE OF INTERACTION

Not all of these will apply to your research interaction. Only assess against those criteria that are relevant.

<table>
<thead>
<tr>
<th>Which of the following types of interaction are you considering?</th>
<th>Indicative Level of Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dialogue</strong></td>
<td></td>
</tr>
<tr>
<td>1. Formal dialogue (e.g. discussions to improve and/or change internal policy within an organisation). No funding received.</td>
<td>Low risk</td>
</tr>
<tr>
<td>2. Participation in an independent/government-led scientific or policy expert group with industry involved. No funding received.</td>
<td>Low risk</td>
</tr>
<tr>
<td>3. Participation in an industry-led or funded scientific or policy expert group. No funding received.</td>
<td>Medium risk</td>
</tr>
<tr>
<td><strong>Conducting research within or with a food organisation</strong></td>
<td></td>
</tr>
<tr>
<td>4. Accessing data or information from an organisation with unrestricted access and research use</td>
<td>Low risk</td>
</tr>
<tr>
<td>5. Accessing data or information from an organisation with unreasonable restrictions on access and research use</td>
<td>Medium risk</td>
</tr>
<tr>
<td>6. Developing an intervention within or with a food organisation with involvement from the food organisation</td>
<td>Medium risk</td>
</tr>
<tr>
<td>7. Accepting in-kind resources to support research e.g. food products with no involvement from the food organisation in the research process</td>
<td>Medium risk</td>
</tr>
<tr>
<td>8. Accepting in-kind resources to support research e.g. food products with involvement from the food organisation</td>
<td>High risk</td>
</tr>
<tr>
<td>9. Evaluating an intervention within or with a food organisation with no involvement from the food organisation</td>
<td>Low risk</td>
</tr>
<tr>
<td>10. Evaluating an intervention within or with a food organisation with involvement from the food organisation</td>
<td>High risk</td>
</tr>
<tr>
<td><strong>Accepting a prize and/or sponsorship</strong></td>
<td></td>
</tr>
<tr>
<td>11. Accepting a prize or award from a food organisation (e.g. at a conference)</td>
<td>Medium risk</td>
</tr>
<tr>
<td>12. When organising a conference or scientific meeting, accepting unconditional or unrestricted sponsorship for the conference or scientific meeting from a food organisation</td>
<td>Medium risk</td>
</tr>
<tr>
<td>13. When organising a conference or scientific meeting, accepting conditional or restricted sponsorship for the conference or scientific meeting (e.g. sponsorship is conditional on the organisation having a speaker in the program)</td>
<td>High risk</td>
</tr>
<tr>
<td>14. Endorsement of food organisation product or brand by a university or a researcher (e.g. co-branding)</td>
<td>High risk</td>
</tr>
</tbody>
</table>
PART 3: OVERALL RISK

Add the risk assessment rating from 1) Overall risk profile of the organisation + 2) Type of interaction risk rating in the risk matrix below

<table>
<thead>
<tr>
<th>Interaction Risk</th>
<th>Overall Risk Profile of Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

If the overall risk is ‘High’ = Consider carefully the overall risk of proceeding with this interaction. Many may prefer not to proceed with a proposed interaction if any of the answers are ‘high risk’, unless the specific risks can be clearly mitigated.

If the overall risk is ‘Medium’ or ‘Low’ = go to Risk and Benefit Assessment Tool B to balance risks and benefits.
Identify the risks and benefits of interacting with the food organisation and the likelihood of these risks and benefits occurring. Some examples have been given below, but you may identify further risks and benefits. Judgements about the balance between risks and benefits can be complicated, may involve many factors, and are often subjective. If you are having trouble balancing the risks and benefits, you may find it helpful to discuss the risks and benefits critically with colleagues to reach a consensus. You may also wish to acquire an independent assessment from a professional colleague who is not a direct collaborator or a university advisory committee (e.g. ethical committee) not familiar with your research to gain a perspective from another angle.

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Will you or your organisation benefit in this way? (Yes/No/unsure)</th>
<th>Likelihood* (unlikely, possible, probable)</th>
<th>Risks</th>
<th>Will this risk affect you or your organisation? (Yes/No/unsure)</th>
<th>Likelihood* (unlikely, possible, probable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Access to data needed to conduct your research is available from a commercial partner.</td>
<td></td>
<td></td>
<td>1. The organisation may not deliver on conditions agreed to for interaction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Access to sites needed to deliver interventions for the research are available from a commercial partner.</td>
<td></td>
<td></td>
<td>2. Your interaction may provide a food organisation with a ‘health halo’ (i.e. increases the perception that they produce ‘healthy’ food/drinks) or be perceived as endorsement of their product.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ability to influence food organisation policies and/or practices that are scalable and can lead to healthier changes to healthier food products or environments.</td>
<td></td>
<td></td>
<td>3. Your collaborative research could be used by a food organisation to divert attention from pressing public health issues.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Title of Project: ___________________________ Date: ___________________________

Organisation: ___________________________ Name of person completing form: ___________________________

TOOL C: NEGOTIATING INTERACTION

For research projects involving direct or in-kind funding or participation in an industry-led or funded scientific or policy expert group use checklist 1.

For interactions involving sponsorship, formal dialogue and/or conference presentations please use checklist 2. We recognise that some activities might involve both checklist 1 and 2.

Checklist 1: For research projects involving direct or in-kind funding with a food organisation or participation in an industry-led or funded scientific or policy expert group, complete the checklist below before formal interaction commences. For all cases with direct funding or where there are intellectual property issues, this will require a written contract to protect the interests of both parties. Please seek guidance from your research institute on this issue.

<table>
<thead>
<tr>
<th>Task</th>
<th>Comments</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you clearly stated agreed goals, objectives, roles and responsibilities and accountability of each ‘partner’ in a shared, written document?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Have you explained to the food organisation why they should not be involved in study design, analysing and/or interpreting scientific findings due to their conflict of interest?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Have you established up-front control and ownership of the research data (including all types of personal and biological data) by the researchers, irrespective of the funding source?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Have you established your, and your institution’s independent right to comment publicly on the food organisation’s policies or practices that are unrelated to your interaction with them?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For research projects involving direct or in-kind funding or participation in an industry-led or funded scientific or policy expert group – Once the project commences you should adhere to the usual standards of research reporting as per standards published in the [www.equator-network.org](http://www.equator-network.org), and consider the additional questions below.

<table>
<thead>
<tr>
<th>Task</th>
<th>Risks identified and action taken</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you considered involving independent oversight in governance arrangements, which might include members of the public, to ensure ongoing critical scrutiny for your research?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Have you publicly reported funding arrangements, governance structures, research frameworks and findings?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Have you established mechanisms to continuously monitor for conflicts of interest among your research team? For example, establishing a conflict of interest register which needs to be updated every 3 to 6 months.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Have you established the principle that stakeholders (i.e. those who might have an interest in the research findings, such as, research funders, food organisations) should remove themselves from decision-making bodies in relation to the research (e.g. advisory groups), when there may be a conflict of interest?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## TOOL E: COMMUNICATING FINDINGS

<table>
<thead>
<tr>
<th>Task</th>
<th>Risks identified and comments</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consider which journal you will publish in. Some journals receive considerable funding from food organisations or associated organisations and this may be a factor you may want to investigate. You should take into consideration the risk associated with publishing with a journal that receives food industry funding.</td>
<td></td>
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<tr>
<td>2. Have you disclosed your interests relevant to the research over at least the last five years?</td>
<td></td>
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<tr>
<td>3. Have you declared the role the funder played in the design, implementation, interpretation and/or reporting of the research?</td>
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<tr>
<td>4. Have you been comprehensive when disclosing your interests? These may include: financial relationships with entities that could be perceived to influence your research activities (e.g. employment, honoraria, research support, investment interests); non-financial relationships that could be perceived to influence your research activities (e.g. member of professional or other associations, advocacy or pressure group, board memberships).</td>
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<tr>
<td>5. When presenting findings at a conference or public talk, do you have a slide to declare your interests near the start of your presentation?</td>
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<tr>
<td>6. Do you fully disclose your research funding sources and financial and non-financial interests in media releases of research findings?</td>
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<tr>
<td>7. In all your published outputs, including journal articles, reports, policy briefings or other materials, do you list all of your potential conflicts of interests, including full affiliation as well as disclosure of all sources of funding and affiliations with commercial organisations? Where possible, are these made clear on the title page or near to the front of the report?</td>
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</tr>
<tr>
<td>Example scenario</td>
<td>Tool A, part 1</td>
<td>Tool A, part 2</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>A transnational processed food corporation wishes to fund an academic post at a university</td>
<td>Score 17: the company represents a high risk because its products, their production, and marketing are harmful to health</td>
<td>Rating high risk: interaction represents a high risk because the company will provide direct funding albeit with no direct influence from the company on the appointment or role</td>
</tr>
</tbody>
</table>

Example 2

An invitation to independently evaluate an intervention designed to increase purchases of healthy food in a national grocery chain

Score 10: the company represents a high risk because although its overall aims and food offer are broad, it does sell a moderately high proportion of unhealthy processed foods, plus tobacco and alcohol

Rating low risk: the proposed interaction (independent evaluation of an intervention to promote sales of healthier and more sustainable foods) represents a low risk, providing key safeguards in place

Rating likely low risk-to-benefit ratio: the company will deliver the intervention, which focuses on the promotion of healthier food sales. The researchers will have control of the independent evaluation and receive unlimited access to commercial data. The research could provide a health halo* for the company, but negative results might also be damaging for the company and there are no restrictions on publication of findings without involvement of the company

Interaction resulted in agreed processes that maintain safeguards for the academic partners' reputational integrity, including rights of access to data, rights to publish, and scientific independence

Independent oversight of the research and ongoing relationship has been established. A register of interests has been established by the research team and is updated biannually. Interests, including those represented by this study, will be reported by all members of the research team in all outputs of the research

A publication policy has been established by the research team and made available to the company for information. The researchers will only publish findings in journals and at conferences of organisations that are independent of commercial funding.
Evaluating an intervention delivered by a commercial company

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Disclaimer The funders of the study had no role in study design, data collection, data analysis, data interpretation or writing of the paper. The Jamie Oliver Foundation, Jamie’s Italian and their employees had no role in the study design, data analysis, data interpretation or writing of the paper.

Competing interests None declared.

Avoiding conflicts of interest and reputational risks associated with population research on food and nutrition: the Food Research risK (FoRK) guidance and toolkit for researchers

Katherine Cullerton, Jean Adams, Nita G Forouhi, Oliver Francis, Martin White

Researchers wishing to interact with the food industry can be subject to conflicts of interest and reputational risks, but new guidance from Cullerton and colleagues should help researchers navigate this tricky territory, make informed decisions, and minimise adverse outcomes.

SUMMARY POINTS

Interacting with commercial food companies can result in conflicts of interest for population health researchers, which can bias research findings and contribute to reputational risks.

By developing consensus on established principles for clarifying and negotiating these challenges, guidance and a toolkit has been developed that support principled decision making in population health research.

The FoRK guidance and toolkit is a practical tool for researchers, research funders, and academic journals; its widespread use is encouraged in everyday practice and evaluation over time to refine and improve the guidance and toolkit.
Next steps

- Publication of FoRK guidance + toolkit in BMJ – 29th January 2024
- Publicise widely via social media and existing academic networks
- Seek endorsement and adoption by key stakeholders – other journals, research funders, learned societies – in the UK and internationally (ideas?)
- Seek feedback on use of the FoRK guidance and toolkit (via form at: https://www.mrc-epid.cam.ac.uk/research/studies/diet-research-food-industry/)
- Continuously improve FoRK guidance and toolkit
Thanks

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Questions