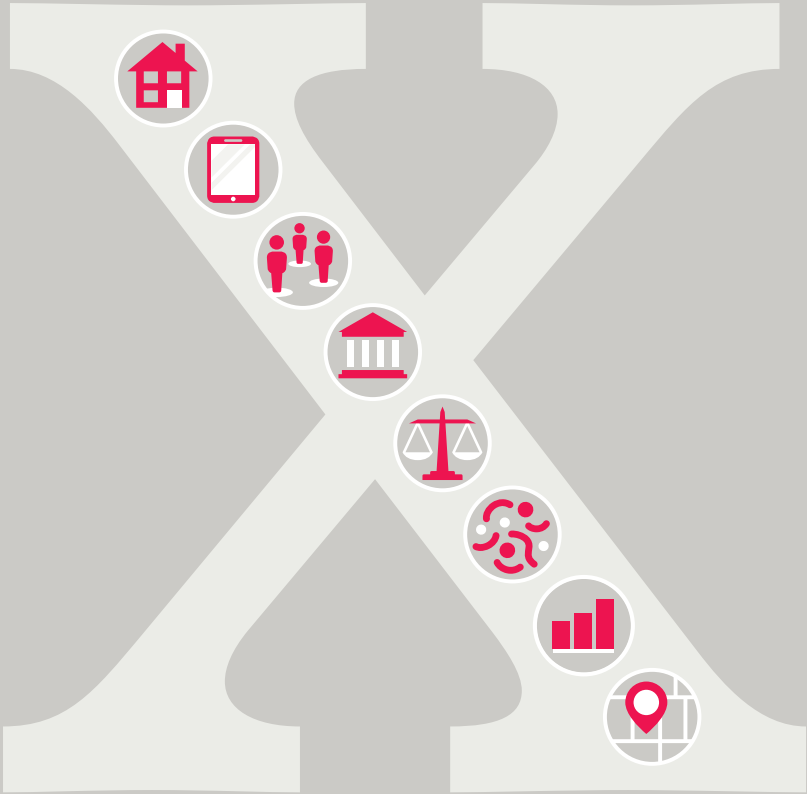
Event 2018

Essays

X Factor

for evidence for the public's health

Exploring why we need to use different kinds of evidence to improve the public's health



The Health Foundation

Contents

About X Factor for evidence for the public's health

We know that improving a population's health requires more than good health care. Pressing public health challenges – such as obesity – will only be addressed through multidisciplinary approaches that build an understanding of individuals in their social and environmental context. But not all disciplines share the same concepts of evidence, or reasoning for action.

Analysis of the results produced from randomised controlled trials (RCTs) have become accepted as the highest quality form of evidence for use in health care decision making. This belief in the coherence and validity of such evidence has motivated the application of RCTs to non-health care settings. Aside from growing arguments about the limits of RCTs and their use, there is also a real question about where the methods and hierarchy of evidence developed in health care can be applied to improving the public's health.

The central question for any policymaker is: 'what is the best evidence-based policy that I should implement?' Answering this in the context of complex public health challenges requires an evidence paradigm that is as valid, compelling and respected as that generated by RCTs.

Presenting perspectives from a range of disciplines, X Factor for evidence for the public's health aims to expand the discussion about the reasoning and evidence necessary to meet contemporary public health challenges. It does so by exploring what needs to be done to harness trans-disciplinary approaches to improving the public's health, as well as the potential for borrowing reasoning practices and approaches to evidence in other disciplines and professional practices.

Jo Bibby
Director, Healthy Lives Strategy
The Health Foundation

Sridhar Venkatapuram
Senior Lecturer in Global Health and Philosophy
King's College London

History

Dr Alex Mold

At first glance, the discipline of history seems easy to understand. History is an accumulation of facts about the past: historians collect various kinds of evidence (documents, images, objects, oral testimony etc) to tell us what happened. This simplistic view of history as a discipline is pervasive, but it is wrong. History is not just about what happened, but also about considering why something happened. Assessing a range of sources, making a judgement about their reliability and then blending these together into a convincing interpretation of the past is a skilled endeavour. Moreover, perhaps surprisingly, history can offer powerful insight into the present by demonstrating what did and did not work in the past, and why.

How do we understand childhood obesity?

Taking a historical approach offers two valuable insights into how we understand childhood obesity.

Firstly, history helps us determine the extent to which this is a new problem, and if it is new, what it is about our times that has made obesity more prevalent. On the one hand, there have always been 'fat' children (and adults). On the other hand, the rapid growth of rates of obesity and overweight among children over the last 30 or 40 years suggests that this is indeed a novel problem – at least in terms of scale.

Secondly, history shows us how the concept of obesity has changed over time. This highlights the constructed nature of such concepts and how these are not just a factual description of the problem, but a reflection of the way it is framed. The label 'obese' has a history, as do the factors thought to be responsible for excess weight. At different times, excess weight in children has been understood as healthy, as a condition caused by

faulty glands, or as a social problem. And today it is seen increasingly as the result of an obesogenic environment.

History demonstrates that context matters. What we think about an issue and how we respond to it is determined by a whole host of issues that are peculiar to the time we live in.

Solutions and evidence: lessons from the past

Just a few years ago, an editorial in a leading medical journal criticised historians for what it described as our reluctance to engage with issues of the day. Not only are such suggestions unfounded, but they also misunderstand the value of history in dealing with contemporary problems. It is true that many historians are more comfortable with policy analysis than policy prescription. However, historical analysis allows us to critique past approaches, which can then inform future interventions.

Since at least the 19th century, public health policy and practice have been underpinned by a desire to act for collective wellbeing. Such good intentions can blind public health practitioners to the limits of their capacity to effect change and the potentially negative impact of their activities. Taking the long view highlights three potential downsides of public health action, which could be avoided by adopting a historian's approach to childhood obesity.

1. Public health policies and practices have often been imposed on the most disadvantaged in society from above. In the early part of the 20th century, British public health doctors were keen to inculcate practices of hygiene and good motherhood among the poorer members of the populace. Such action, however, was as much about middle-class morality as it was about combatting disease. More recently, what has

been called 'lay epidemiology' demonstrates that when health education messages do not align with people's lived experiences they either ignore them, or interpret them to suit their own pre-existing views.

These examples (and many others) would suggest that policies designed to help deal with childhood obesity should work with families and individuals to reflect their lived experiences. This would not only make policies more likely to succeed, but also avoid replicating and reinforcing existing patterns of inequality that might be contributing to the problem.

2. Public health policies and practices can make an issue, or elements of it, worse, not better.
This is often the case when individual behaviour is thought to be a cause of disease, or important for its transmission. In some circumstances, there is a tendency to blame the victim: to hold individuals responsible for their health status rather than address the broader social, environmental and economic factors that underpin it. This can be observed in certain types of health education. Shocking images and the explicit use of fear tactics may have an impact, but this can backfire. In 1980s Britain some of the early AIDS education campaigns increased the stigma attached to the condition. The scare tactics effectively turned people with HIV into potential threats to public health at the same time as reinforcing existing prejudices. This resulted in more discrimination against individuals with the virus and the groups then associated with it, such as gay men and intravenous drug users. Similar arguments are now being made about anti-obesity campaigns: mobilising negative emotions leads to more discrimination, and strengthens negative perceptions of the obese.

We should, therefore, be careful in the use of tactics and images within health education campaigns and avoid policies and practices that will increase stigma, discrimination and victim-blaming. Instead, we need to take wider context into account when thinking about how to approach childhood obesity.

3. Complex problems are often presented as if they have simple solutions.

Although we may now be approaching a degree of academic consensus that childhood obesity is a complex problem that requires a multifaceted and multidisciplinary approach, the political and public discourse around obesity often persists in searching for a single solution. But this is not peculiar to childhood obesity. Illegal drug use is another complex challenge for which simple solutions are often put forward. Prohibitionists argue that we need to crack down on drugs and the people that sell and use them. For legalisers, drug problems will disappear if the legal barriers that surround them are taken away. Yet history tells a rather different tale. The prohibition of alcohol in America during the 1920s and 1930s is often cited as a failure because of the increase in organised crime connected to the sale and distribution of illicit alcohol. More nuanced historical research, however, has demonstrated that by some measures prohibition could be considered a success: the incidence of alcohol-related health conditions, for instance, declined in this period.

The success or failure of a policy very much depends on both the intended outcome and the point in time at which it is judged. A historical perspective demonstrates that any attempt to deal with complex problems like childhood obesity is likely to produce unintended effects and that these may take many years to be fully understood.

Conclusion

Setting childhood obesity in historical context helps us identify continuity and change in social policies and concepts over time. This applies not just to obesity itself, but to the long-running challenges that persist within public health policy and practice. To develop a realistic approach to dealing with issues like childhood obesity, it is vital to work with the people affected, avoid victim-blaming and recognise that complex problems do not have simple solutions.

The historian's use of various types of evidence – and our attention to change over time, place and the ways in which problems are framed – enables us to see the bigger picture. Historical examples demonstrate how the wider context helps shape a problem and the response to it. Understanding this can help us avoid common pitfalls and design more effective and equitable policies in the future.

Design

Brendan McGetrick

The designer positions the headset over my eyes and the room disappears. She places plugs in my ears. The sound of her voice, clear just seconds before, becomes distorted and distant. The noises surrounding us – people talking, children screaming, phones ringing – meld into an undifferentiated roar. I feel disoriented and vulnerable. Frankly, I feel afraid. I'm about to comment on this when the designer asks me to open my mouth. She inserts an oddly shaped lollipop. The taste isn't bad, but the shape stretches my mouth and restrains my tongue. I try to speak, but can only grunt. The roar in my ears is relentless. My eyes see only blurred silhouettes surrounded by uncomfortably bright colours. I feel trapped. After a few seconds, I remove the headset.

When my vision returns I see the designer. She wears the nervous smile of someone who knows she's subjected you to something uncomfortable, but for a good cause. The designer's name is Heeju Kim, a graduate of the Royal College of Art in London. I've been trying out her graduate project, called Empathy Bridge for Autism, which is a set of tools that disturb the senses. The tools expose the user to the hypersensitive sensory environments in which autistic people live – its aim is to increase understanding and, eventually, inspire new forms of treatment.

I discovered Heeju's Empathy Bridge for Autism while organising the Global Grad Show, an international exhibition of graduate design and technology projects that I curate each year. Heeju's was just one of more than 100 works in the show, which all shared a common spirit of creativity. That spirit – empathy combined with imagination and technical rigour – informs the best design. As a curator, my job is to capture that

spirit and communicate it to the public, many of whom are unfamiliar with, and sometimes openly dismissive of, the value of design.

What is curating and how does it relate to child obesity?

There are many kinds of curating – online and offline – but I focus on the most traditional form: namely creating exhibitions in galleries, museums and conferences. Global Grad Show is one such annual exhibition, and provides a useful illustration of how a curator marshals evidence and cultivates an atmosphere of curiosity around a given subject.

Global Grad Show features inventions from the world's leading design and technology schools. The 2017 edition comprised 200 projects drawn from 92 universities in 43 countries. Inventions included:

- an app that allows non-verbal children to communicate with their parents
- a centrifuge inspired by salad spinners that allows technicians to analyse bodily fluids without electricity
- a kit that transforms poles for IV drips into imaginary friends to make hospitals less intimidating for sick children
- a baby bottle and breast pump redesigned for working mothers
- mats (MoonPads) that use sight, sound and touch to encourage exercise and teach children.

These projects exemplify evidence-based design. The final one, MoonPads, is a system of interactive smart-mats developed by a multidisciplinary group of US-based engineers, industrial designers and business strategists at the Rochester Institute of Technology (RIT) in collaboration with the Al Sigl Community

of Agencies (a US network of organisations that provides services to people with special needs).

Like many research-based designs, the MoonPads system was developed in three phases: discovery, concept development and user testing.

During the discovery phase, two RIT designers observed daily activities at a children's centre that supports young people with autism, Down's syndrome and cerebral palsy. The designers noticed that students were becoming distracted when walking down the hallway from one classroom to another, and their teachers were constantly having to lead them back in the right direction. Based on this observation and follow-up interviews with teachers, administrators and students, the RIT team defined a project brief: to design an affordable, flexible system for guiding distracted or overstimulated children in daily activities.

The project then entered the concept development phase, during which the team created and tested prototypes in conversation with stakeholders at the children's centre and other institutions. Through an iterative process, the RIT design team developed a system of interactive mats. Constructed from soft silicone, the mats use lights, sounds and vibrations to engage and direct children through activity based therapy sessions. Therapists can modify the light, sound and vibration settings on each tile to maximise the children's comfort.

Once a working prototype was complete, the project entered the user testing phase. During testing, when a product leaves the studio and enters the real world, new uses are often discovered. In this instance, sets of MoonPads were sent to a hearing and

speech centre and were found to show great potential as an aid to help children develop motor and cognitive skills.

Once a design is in the public domain, the opportunities for inventing new applications radically expand. Although originally inspired by autism, the playful, movement-based approach of MoonPads makes the system relevant to obesity and many other public health challenges.

How do design curators approach public health challenges?

Design curators are uniquely qualified to contribute to conversations around complex issues in need of fresh thinking, such as childhood obesity. As a profession, we aspire to create experiences that stimulate innovation and challenge mindsets. In the case of child obesity, I would start by scouring the world for ideas, products and prototypes that provide a new perspective on factors influencing obesity. This process would be entirely open – gathering raw material with as many inputs as possible. Next, I would establish a set of criteria by which to assess the material. In the case of an exhibition related to public health, these could be:

- Originality of the idea – projects that introduce a product, service or experience that is not currently available elsewhere.
- Social impact – projects designed to directly benefit social, medical or environmental causes.
- International relevance – projects that can have an impact beyond the specific context for which they were created.
- Feasibility – projects that can be produced in a straightforward and affordable manner.

This assessment would be made by a panel of judges representing the assorted partners necessary to take a project from a prototype into the public domain. Each of these experts would be asked to apply critical pressure to the works according to his or her area of expertise. Each potential exhibit would be rated on a scale of 1 to 5, with the highest scoring projects selected for the show.

Once an exhibition's content is selected, the challenge for the curator is how to communicate it – through text, graphics and atmosphere to cultivate an environment of curiosity, in which visitors feel interested and empowered. This is achieved most effectively by emphasising what a work does, rather than simply what it is. Heeju's Empathy Bridge for Autism did this to devastating effect, and the experience changed my perception of autism forever.

This visceral, revelatory audience experience is the curator's ultimate goal. The best exhibitions change lives. They fascinate and frighten and motivate. They provide an open stage on which to demonstrate that issues like childhood obesity arise because of multiple factors – and require solutions from unconventional sources. Designers can offer more than products, concepts and experiences that address childhood obesity – they can also provide the research-driven, user-focused methods that create them.

Creative-relational inquiry

Dr Marisa de Andrade

Creative-relational inquiry (CRI) is a dynamic conceptual frame for research that is context-sensitive, experience-near and personal. It engages the political, social and ethical. It problematises agency, autonomy and representation by providing detailed, close-up explorations of public health relationships, using the arts, performance, collaboration and traditional methodological approaches. Instead of speaking or acting on behalf of someone based on existing beliefs, it considers the background of those who dominate narratives and looks for evidence that has been overlooked. Missing voices and new emotive forms of knowledge rise to the surface, to tell us what it means for (sometimes silenced) individuals to be independent and free.

CRI allows my personal experiences as a public health researcher to be part of the research. I speak with my voice as my interpretations aren't value-free – they may influence findings and interventions in ways that aren't aligned with users' views. So, CRI also brings participants' knowledge claims, lived experiences and voices to the research.

CRI proposes that the issue of child obesity, particularly in relation to social inequalities, can be tackled by positioning the individual at the heart of public health. CRI allows their expressions – their evidence, in whatever form is suitable for them – to cut through and breathe life into statistical datasets that provide few or inaccurate insights into their experience of child obesity (something they may not even consider to be a problem). CRI accepts that 'the person' may have valuable recommendations for bringing about change that we, so-called public health experts, do not have access to.

Understanding child obesity: who am I?

Who am I to propose an understanding of the phenomenon of child obesity? An 'expert' in community based 'interventions'? A privileged scholar with an understanding of 'valid' research deemed worthy by the scientific community? An academic with enough power or knowledge to assert that my understanding of child obesity is the 'right' one?

'I'm Johnny. I'm 13 and hate the way I look. Hate school. Not because of things we do. Cos of the people. They call me Whopper when they're being kind. 1 day they saw my lunch and started calling me Baby Pork Sausage. School's still better than home. Mum's always busy, I've never met dad. Sandy, Bonnie and Laura are cute (sometimes), but I always have to look after them. Mum's always skint, even with the handouts. The week we had mini sausages for lunch, she had £20 to feed us cos Sandy and Bonnie needed school shoes. I went shopping with mum, saw her eyeing up fruit and veg. She said it'll cost £4 on the electricity meter to cook it. She doesn't have that this month. She said cocktail sausages are good. They fill you up, loads of energy. And they're cheap. 26 for £1.'

From Johnny's perspective, child obesity is more than the result of a complex tangle of psychological, biological, cultural, social and environmental effects. It's the way he experiences life. The way he is treated by others. The way his identity is (co-) constructed. It is the way he experiences emotions – his inner world, subjective truth or reality. And how this meets his outer world, objective truth or reality – the obesogenic environment skewed towards high fat, salt and sugar foods promoted to those of low socio-economic status.

Johnny knows his diet isn't healthy, and knows how being overweight makes him feel. Johnny decides what child obesity means to him and what actions to take. He is the expert, not me. My own understanding of child obesity would, as Masuda et al (2013) put it, 'include the narratives that reproduce, reinforce, and legitimise particular claims' of this phenomenon. My position as 'expert' would offer expertise that 'subordinates other perspectives', and propose perspectives that 'treat people as "data" rather than formidable sources of knowledge and agency.'

Making Johnny the central agent means his testimony about his lived experiences of the issue becomes the foundation for conceptualising it – for coming up with meaningful ways of tackling it. CRI provides us access to context-sensitive, interpersonal data that can be used in a variety of ways.

Addressing child obesity?

By focusing on Johnny's understanding of child obesity I would not neglect the structural causes of ill health and inequality. For example, the harm done by the marketing of cheap processed foods targeted at Johnny, his family and friends must be addressed too. But top-down interventions imposed without understanding communities' lived experiences can further stigmatise the marginalised and may widen health inequalities. Academic literature is populated with such examples, and I see it first-hand when conducting research in disadvantaged communities.

Johnny could work with me, health practitioners and third sector professionals to help us understand which mechanisms could help his community. Through co-production – equal and active input by those who use services – we could co-produce appropriate services, policies and outcomes. This relies on trust.

Meaningful engagements must be cultivated over time, as change won't happen overnight. We'll commit to long-term outcomes supported by sustained resources for evolving initiatives. Working collaboratively, we'll use upstream approaches to challenge structural causes of inequalities and child obesity.

Johnny's community will drive the process of change, and become familiar with mutually reinforcing public health responses to child obesity. An example of this is Hastings' 3Cs model: containment of the pathogen (by regulation); counteracting its spread (by community led initiatives); and critical capacity building (with media, marketing and health literacy).

These different kinds of actions have been identified through ongoing research, and often co-produced with communities. We know it's working when community members take ownership of the issue and become instrumental in the (social) change process. They set their own definitions, means of data collection, measurement scales and outcomes.

What is evidence?

We would then, collectively, reconceptualise public health approaches to evidence. Thinking of evidence in a way that doesn't acknowledge the role of creativity hinders access to the human experience. Even positive measures like trust and empathy are difficult to evaluate, so we're talking about 'validating the feels' – recognising that people's views are essential evidence that enables us to understand their stories and outcomes, as well as the inputs, outputs and costs. Often, it's the narrative behind the data that gives the richest picture.

What constitutes evidence should be decided by people like Johnny, and could take on any creative and relational form. The 'error' and 'delusion' of 'highly educated' people's overreliance on text – or scriptocentrism as de Carteau (1984) puts it – means we fail to notice 'other forms of skilled, intelligent, creative activity' including 'theatre' and 'active politics'. Williams (1983) goes further by noting that 'contempt' for performance and practical activity 'is a mark of the observer's limits, not those of the activities themselves'.

By engaging with the personal, we can contextualise healthy eating and living in practical and sustainable ways for children and their families in specific communities. We can gather data and co-design 'interventions' in ways that are appropriate to them. We can work with community members as they gain confidence to challenge the status quo.

Conclusion

Through the lens of CRI, the challenge of child obesity becomes a real issue for people and communities, rather than an abstract analysis. Inner worlds meet external realities to challenge power structures and traditional paradigms. It is a new way of thinking, being, doing. A new way of collecting data, objectifying the subjective – accessing diverse 'truths' from diverse communities through creative community engagement. Then convincing others that gathering evidence and implementing 'interventions' to understand and tackle complex issues leading to sustained, meaningful change is fundamentally linked to the creative and relational.

Law

Professor John Coggon

Public health agendas require social coordination. Law is thus of fundamental importance. It secures the legitimacy and scope of institutional measures aimed at assuring the public's health, and provides rules and regulations that themselves might protect and promote health. At public health law's core is the necessarily contestable philosopher's question, 'what makes health public?', as well as the public health activist's question, 'how can health be made public?' With reference to child obesity, this essay explains how law may both serve, and be a constraint upon, public health activities. It also outlines the role of reasons, rules and principles as 'evidence' in the development of the social machinery required to promote and protect health.

Public health law and understanding child obesity

Public health law focuses on the manifestation, implementation and development of formally instituted rules, standards and practices in the overall social, political and regulatory environments. It is a broad field of study and practice, encompassing legislation and case law, as well as 'softer' modes of governance such as local authorities' regulations and policies. Normatively, it seeks to establish authoritative bases for health protection and promotion activities (eg empowering agencies to institute health policies), and any limits to potential public health agendas (eg allowing non-health rights such as religious freedoms to supersede health concerns). It also explains how, for example, private law measures may or may not be used to advance health. It is within legal constraints that health may be made public, and through legal or legally supported measures that health interventions may be advanced.

In understanding child obesity, public health lawyers would explore and debate how existing legal structures frame the challenge, and ask what more the law – as it exists and as it may develop – might do to improve health. Children hold a special place in law, with welfare-focused state interventions in their lives justified in a way that is not true for adults. Nevertheless, there is a not carte blanche for paternalistic interventions. Public health lawyers would be interested in epidemiological perspectives on potentially effective anti-obesity measures. The weight of evidence available from such perspectives tells us that child obesity invites a complex systems approach, implying broad-ranging needs for legal mechanisms to support and effect change. However, lawyers also look at further evidence, in terms of support from more diffuse – and potentially incommensurate – schemes of reasoning, leading to radical disagreement in practice.

Evidence used by lawyers

Lawyers such as Lawrence Gostin accept and combine evidence from social epidemiology and philosophical theories of justice, using these to support the development of legal frameworks to advance population health. However, libertarian legal theorists such as Richard Epstein work from political and economic principles that reject such an approach, defending the 'old public health' and arguing that legal interferences with individual autonomy are unjustified and ineffective. In public health law, arguments are based not simply (or even primarily) on scientific reasoning. In practice, what is effective from a public health law perspective will be contingent on how and by whom a measure

is to be effected. Judges will respond to legal reasoning; executive and legislative actors will work within a context of political disagreement, aiming to effect agendas using their legal powers; social and commercial actors will argue about public health duties, powers and constraints, employing legal, political, scientific and other reasoning.

Legal mechanisms to intervene in public health

Law can place general obligations on governmental actors to consider health in all policies. Consider the Well-being of Future Generations (Wales) Act 2015, which requires public bodies to set wellbeing objectives and do what is reasonable to achieve them. These objectives are set by reference to seven wellbeing goals, one of which is a 'society in which people's physical and mental wellbeing is maximised and in which choices and behaviours that benefit future health are understood'. In examining the implications for obesity, lawyers would debate the scope of the duty, how it is implemented, and methods of monitoring how it is exercised and how it achieves accountability.

Such general health-focused obligations (where they exist) cannot supplant the need for directed legal measures. This means that lawyers would also look to areas where more specific legal authority is needed to achieve public health aims. These include the sources of public health agencies' powers and duties, or the legal basis of measures such as the sugar tax. In each instance, law is a necessary tool for public health, and thus we need to understand how it has been established, and how it is enforced.

We might also consider more disparate means of health promotion, identifying different legal levers that might be pulled. These could include private law mechanisms that protect consumers, family law provisions that make child welfare the paramount concern, or limitations on commercial freedoms to advertise unhealthy foods. Individual legal rights and obligations can contribute to a healthier regulatory – and ultimately social – environment.

Law and governance for the public's health

When considering a transformative agenda – such as reducing child obesity – public health lawyers look to legal rules and principles and examine how relevant actors and institutions may legitimately promote health. As indicated previously, lawyers do not speak with one voice: interpretation, application and monitoring are constrained by differences of opinion on the strength of reasons that support the legitimacy and practicability of legal and regulatory foundations for different powers and measures.

In the context of litigation strategies, evidence from public health law will be found in understandings of legal procedures, rules and principles; the application of precedents; and reasoning by analogy. The courts do consider scientific evidence, but alongside and by reference to values, principles and rules that are not born of science. In the context of political bodies that implement and create public health laws and regulations, further modes of evidence will be needed. For bodies such as local authorities, evidence will include the legal basis of their powers: what may they do and under what constraints? Could a public

authority, for example, deny junk food outlets a right to operate near schools? Crucially, evidence here will not be exhausted by the wording of the legal power, or scientific evidence: political and other practical reasoning will also be crucial. With parliament, related but distinct points arise. In legislating to reduce children's consumption of obesogenic products, the evidence base will be restricted by political commitments, parliamentary time and public discourses.

Conclusion

Laws are part of the social environment. They support and limit public health agendas. Evidence within public health law is context dependent, and rests on reasoning and value judgments that are quite distinct from – potentially anathema to – evidence-based policy. Public health may be a science, but it is also an art. It rests on philosophical and social commitments that cannot be understood purely through scientific methods. Law brings theoretical and practical understandings of the interplays and contests between legal, political and other modes of reasoning, and of the distinct powers and competences of different institutions. In creating laws and regulations, political and legal reasoning are vital. In implementation, we must understand legal duties, as well as legal and political methods of accountability and enforcement. Without legal understanding, there cannot be a full appreciation of the strength and viability of approaches to improving the public's health.

Food policy

Professor Corinna Hawkes

They are the questions we so often hear: what works to reduce childhood obesity? What can we do? While answers to these questions vary, to date they've largely been about offering up evidence of specific actions: a sugary drinks tax, front-of-pack labelling, interventions in schools, banning fast food takeaways, teaching cooking skills.

Proponents of each of these approaches argue in their favour on the basis of the evidence they have. Yet even where positive impacts of these actions are shown, questions can be raised about what constitutes sufficient impact. If a sugary drinks tax is associated with reformulation and lower consumption, that's good impact, right? Well, it's not enough for people who want to see 100% proof that obesity has been influenced.

To be fair, there has been an important shift in this dialogue: innovations such as the 'systems mapping' in the government's much-cited Foresight report on obesity gave people the confidence to say: lots of things are needed to tilt the system against obesity; there is no single magic bullet, it's a complex system, and we have to be patient and not expect immediate impact on obesity. The trouble is that policymakers still need to make specific choices about what to do – and when policymakers make proposals they are constantly confronted with the argument that there is inadequate evidence the proposed policies will work. So we are back to the beginning again – what works?

How can the discipline of food policy help?

Food policy is a young discipline. Part of what we do at the Centre for Food Policy at City, University of London – and part of my own preoccupation before I joined in 2016 – is to define

that discipline. We take a progressive view. This means we see food policy as extending way beyond just one aspect of food (such as health or agriculture), encompassing all the policies that influence and shape the food system – and how and what people eat – from farm to fork. It means we place food system problems – obesity, malnutrition, poor livelihoods, exploited work, environmental damage and climate change – in the context of the interconnected systems that create them. For example, if we look at overconsumption, our systems reasoning helps us view it not just as a matter of individual people eating too many calories, but as a result of the way the whole system encourages overconsumption. This in turn has other impacts, such as climate change. And finally, it means we take an interdisciplinary approach.

What would constitute evidence in the food policy discipline?

For these reasons, a core aspect of gathering evidence in food policy involves asking and answering questions about how systems work: the food system, the policy system, and any system that affects people's relationship with food. This can illuminate many aspects of what effective obesity policy would look like. Let me illustrate with three examples of evidence that would lead us to come to a judgement about what policies to recommend.

The first type of evidence we seek is how the system influences the problem – and how the system is in turn influenced by efforts to address it. For example, once we start to study the system, we can see a disconnect between health and the way the food system currently operates. We can see

that food supply chains are a marvel of efficiency that create economic value – but also that they respond to incentives to add value that are not related to health. For example, more economic value can be created from grains if they are highly processed for use as de-germinated flour, animal feed, sweeteners and oils used in refined, manufactured foods, rather than simply kept whole as a grain, which we know is better for health.

This is evidence of misalignment between economic and health goals. One cannot do a randomised control trial of conflicts between goals, but it has profound implications for how obesity is addressed. If economic success leads to obesity, our battle to reduce it will be all the greater. Thus, the solutions we recommend should also be about how the economics – or any other relevant aspect – of the system can be changed. This in turn means we must gather evidence from the people in the food system who drive and respond to these economic incentives.

In the other direction, obesity policies have implications for the system. Front-of-pack nutrition labelling presents a very straightforward example: while the impacts on consumers are debated, one clear and consistent outcome is the way manufacturers in the system respond by improving the formulation of their products.

The second type of evidence we seek is how policies work. This involves understanding the mechanisms through which polices affect the system, including how people in the system respond to them. Let's take the case of action in schools on obesity – a good example of the need for different disciplinary views. A straightforward policy is to improve the nutritional

quality of foods offered in schools. From a public health perspective, this alone would be a simple win to get children eating healthily. But if we add the behavioural psychology perspective, we may find that teenagers respond by eating more of the restricted foods at home or on the way to or from school, owing to learned habits and preferences. Others, however, will accept the new regime, and value it.

If we then factor in the sociological perspective, we might find teens rebelling against the restrictions by 'trading' banned foods to earn a form of status, and food service managers rebelling because they become worried that children are now eating too little. All these things affect whether the policy will achieve its goal of advancing long-term improvements in the things people eat.

By taking an interdisciplinary approach to examining how policies work (and do not work), we can identify how to design them to be more effective – such as including measures to help young people to enjoy and value healthier food. Importantly, it also enables us to be more realistic about what we can expect their effects to be (necessary for the design of quality evaluations).

The third type of evidence we seek is about how people affected by the problem experience the system. We need evidence of how they experience the barriers and challenges to eating well, based on the realities of their lives. Take the example of food price policy. A lot of evidence indicates that people experience the food system though food prices: healthy food baskets are commonly too expensive for people to afford. This is often proposed as a primary reason for obesity among the poor

– there's a plethora of evidence that people respond to pricing. A fully person-centred view of the system goes beyond that to identify other parts to the equation. Missing these would lead to policy being rendered less effective. We might learn, for instance, that people find 'welfare' – such as vouchers designed to make fruit and vegetables cheaper – stigmatising. We might learn that some people don't buy fruit and vegetables because of the time needed for preparation or fear that kids won't eat them – explaining the attractiveness of the convenience of biscuits for breakfast. Seeking to understand people's lived experiences of a problem could help deliver policies designed to address the full range of core causes, not just the ones for which the evidence is easier to gather.

Recommended mechanisms and tools

So what does this mean for the mechanisms and tools we would recommend to address child obesity? The first would be to take a very careful approach to designing policies that take into account the people of the system, and how they respond to policies. The second would be policy coherence and integration: putting into place governance mechanisms that make sure policies across sectors are all pointing in the right direction for obesity prevention. The third would be to take a person-centred approach to defining the challenges and solutions in the system – solutions that engage effectively with the communities most affected by the problem. These three approaches are not policies per se, but are ways of reasoning about and doing policy. It's not just what we do, it's how we do it.

The Health Foundation
90 Long Acre, London WC2E 9RA
T +44 (0)20 7257 8000
E info@health.org.uk
@HealthFdn
health.org.uk

Registered charity number: 286967
Registered company number: 1714937