

Mini-publics in dental public health policymaking

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What are mini-publics and under what circumstances could they be applied to public health dentistry? This question is explored with reference to water fluoridation in England, a policy intervention characterised by a visceral politics that has embedded a systemic preference for non-decision-making. Mini-publics can nevertheless inform decision-making by inviting a representative sample of the affected citizenry to consider the available evidence and come to a set of conclusions and/or recommendations that if all parties cannot agree, none can reasonably object. In doing so, mini-publics have the potential to break the policy deadlock by adding an additional layer of legitimacy to the decision-making process, albeit this is dependent upon decision-makers granting value to their findings.

Keywords: dental public health, deliberative democracy, water fluoridation, cognitive ideas, normative ideas, mini-publics

Introduction

In 1953 the UK government invited a small number of local authorities to act as test sites to fluoridate community water supplies in response to a significant increase in the number of children with decayed, missing and filled teeth. Notwithstanding cumulative evidence of their effectiveness, however, the number of schemes implemented thereafter is negligible.

Dental health has improved significantly in England since the 1970s. Despite this, substantial and entrenched inequalities remain (PHE, 2021). Resultantly, dental extractions due to avoidable decay currently constitute the most common cause of hospital admission for children in England at more than twice the number of those requiring tonsillectomies, the second most common cause (PHE, 2018).

Water fluoridation has the potential to reduce this number by more than half (PHE, 2018; OHID, 2022), is backed by government agencies and professional bodies, yet is currently consumed by only ten percent of the population in England. This disconnect between what evidence suggests is effective and the policies enacted is attributable to the presence of two discrete policy alternatives in which scope for compromise is eliminated (either water is fluoridated, or it is not). To what extent can mini-publics act as circuit-breakers in the context of highly contested public health interventions? This is not the first time this question has been considered in relation to health-related policy (Escobar, 2014). Yet the need is particularly apparent in the context of water fluoridation in England where pro- and anti-fluoridationists have contributed to visceral debate characterised by a prolonged period of policy paralysis.

Background

Mini-publics take as their core the act of considering different viewpoints and contributing to reasoned and informed opinion as opposed to being decision-making

forums in and of themselves. Mini-publics are therefore part of an increasing effort to design more informed, effective, and legitimate public participation and are supported by decision-makers who increasingly agree on the importance of involving citizens in the decisions that affect them.

Methods vary, including citizens' juries, consensus conferences and citizen's assemblies. Common to all, however, is a commitment to considering different viewpoints in a manner that enhances participants' understanding of policy proposals. In doing so, technical information and values are considered by ensuring that a diverse range of participants have an equal opportunity to influence the process. The insights derived from open deliberation allows participants to consider evidence in a non-coercive fashion, thereby producing conclusions and/or recommendations that are both balanced and constructive.

Mini-publics have acquired popularity in the context of increasingly polarised political debate and a governance philosophy that fosters reciprocal obligations between citizens and governments (Abelson *et al.*, 2003). Although dependent on decision-makers granting value to their findings, experience suggests mini-publics have the potential to break long-standing policy deadlocks in contested public policies, including in instances with significant ethical and social implications. Examples include cuts to public spending, NHS care provision, and mental health service provision.

Applied to water fluoridation, the potential utility of mini-publics stems from two key considerations. Firstly, community water fluoridation in England has been fiercely contested since its commencement because it not only involves debates pertaining to just two available policy options and their associated costs and benefits, but is more fundamentally underpinned by two very different, and ostensibly irreconcilable, 'world views' (Table 1). On the one hand, pro-fluoridationists emphasise cognitive ideas in political and policy debates, highlighting 'facts' and 'data' in a highly technical 'what works?' approach.

In doing so, most academics, researchers, and dentists advocate for water fluoridation as an effective public health intervention that carries no substantive negative health consequences when ingested at the optimum concentration, with the potential for mottling and a slight dis-colouring of the teeth being the most notable side-effects (PHE 2018, 2021; OHID, 2022).

Contrastingly anti-fluoridations typically emphasise normative ideas which foreground values and attitudes in discussion and debate. In doing so, opponents, including loosely connected protest groups and a small number of academics, emphasise the appropriateness and legitimacy of policy interventions. Arguments broadly coalesce around: the importance of individuals agreeing to whatever level of risk there may be; that water fluoridation restricts the choices of individuals; and suggest that it is beyond the scope of government to restrict freedoms to coerce individuals into leading healthier lives. These arguments are supplemented with concerns that much of the evidence for the effectiveness of water fluoridation pre-dates the widespread use of fluoridated toothpaste in the 1970s which helped to reduce levels of dental decay. A 2022 study of the effectiveness of water fluoridation in England (Goodwin *et al.*, 2022), for example, found only a modest positive effect among children.

Secondly, and resultantly, water fluoridation in England has been characterised by political reticence to legislate for a policy that is highly divisive and politically risky. Authority has instead been delegated at various junctures to local authorities, area and regional health authorities, strategic health authorities (SHAs), back to local authorities, and currently, the Secretary of State for Health and Social Care who now has the power to initiate or terminate community water fluoridation schemes.

Irrespective of the decision-making arena, however, prospective schemes legally require consultation with the affected citizenry. It is during such moments that anti-fluoridationists have prevented policy change through protest activities including organising petitions, writing to newspapers, and pledging to not vote for decision-makers supporting water fluoridation. The most recent manifestation came in Hampshire in 2008 with the local SHA dropping plans to fluoridate community water supplies in the face of vociferous opposition.

Against this backdrop a Nuffield Council on Bioethics Report (2007) noted that ‘a mechanism is needed for considering the views of the public in providing a

mandate for either option’. This call is consistent with Public Health Ethics which has sought to move away from a focus on medical ethics to a public health context that considers a broader populous (Goggon & Viens, 2017). To what extent, therefore, might mini-publics help to break the policy deadlock in relation to water fluoridation? It is to this question that we turn presently.

Mini-publics

Strengths of the mini-publics approach

Applied to the case of water fluoridation in England, mini-publics have the potential to contribute to the decision-making process in four ways. Firstly, they can provide a forum for reasoned consideration of the arguments for and against water fluoridation, moving beyond the visceral politics that characterises local consultations and policy debate. In doing so, mini-publics have the potential to create a reflective space for ‘slow thinking (Stoker *et al.*, 2016)’ through the conscious deliberation between alternatives by ensuring “epistemic equality” (equal rights for everybody to be taken seriously when making knowledge claims), and “epistemic neutrality” (ensuring open and fair discussion).

Secondly, mini-publics consider the opinions of members of the public who may not have strongly held prior beliefs. This is particularly important in the context of water fluoridation, which is characterised by a near absence of quality data on the opinions of the public. One notable exception is a 2010 report commissioned by NHS West Midlands, which found that 18% of people strongly supported water fluoridation, compared with 6% who were strongly opposed (Michels and Binnema, 2019; NHS West Midlands, 2010). These findings strengthen the case for considering the opinions of a wider representative sample both because all citizens are affected by the decision, and it is a very difficult and expensive policy intervention for individuals to opt out of.

Thirdly, mini-publics can provide an additional layer of legitimacy for the actions of decision-makers by placing the voice of the public at the heart of the opinion formation and consultation. Indeed, mini-publics are particularly well positioned to exploit the ‘windows of opportunity’ presented by local consultation processes, the results of which can play a critical role in informing policymakers’ deliberations and/or decisions. In doing so,

Table 1. Competing Ideas in relation to water fluoridation (Lowery *et al.*, 2021).

	<i>Pro-fluoridationists</i>	<i>Anti-fluoridationists</i>
Central Arguments	Water fluoridation successfully reduces tooth decay Water fluoridation is a safe public health intervention with the only noticeable side effect being mild dental fluorosis Water fluoridation is justifiable on utilitarian grounds	The evidence in support of water fluoridation is of poor scientific quality A number of adverse health effects exist, including Down’s syndrome, goitre, hypothyroidism, and bone fractures Water fluoridation is an attack on individual liberty and a form of enforced medication
Emphasis of argument	Technical with some emphasis on ethics	Ethical with some emphasis on technical
Direction of policy	Top-down	Bottom-up
Structures	Formal/Political	Informal/Protest
Policy community	Cognitive/Technocratic	Normative/Critical

mini-publics have the potential to contribute to policy outcomes that secure the common good as opposed to those that are driven solely by narrow political interest or political power.

Finally, the success of deliberative fora is dependent upon political will to engage with the conclusions and/or recommendations made. Although the impact of mini-publics on policy is difficult to discern despite quite extensive research (Elstub *et al.*, 2023), evidence suggests some, albeit very tentative, ground for optimism. Notwithstanding their relative rarity, mini-publics have been utilised to consider a range of contested public policy issues in England, including climate change, town planning, and congestion and air quality. Research suggests that, of 13 citizen's assemblies, nine have shown evidence, to varying degrees, of committing to implementing policy recommendations (Liao, 2021). The more mini-publics are embedded in local politics, the greater their impact (Michels & Binnema, 2019). This strengthens the case for their potential efficacy in localised water fluoridation consultations.

Weaknesses of the mini-publics approach

Numerous shortcomings of the mini-publics approach have been highlighted by the existing literature. Arguably most prominent is the question of neutrality and concern regarding elite attempts to excessively shape, influence or limit the agenda in a top-down manner that reflects the preferences of decision-makers (Abelson *et al.*, 2003). Criticism centres upon concerns surrounding 'institutional engineering' (Elstub *et al.*, 2023) by those in political power who have control over mechanisms, processes, and discourses. This highlights the need to consider the fundamentally contested nature of critical prior questions including the circumstances under which water fluoridation is subject to mini-publics, when, how, and with what representation from those for and against policy proposals?

Relatedly, concerns exist regarding the extent to which decision-makers are willing to make use of mini-publics and under what circumstances. Potential problems arise from the fact that successive governments have refrained from directly legislating for community water fluoridation schemes, even in highly deprived regions that carry the most significant burden of decay and therefore stand to benefit most. Underpinning this approach is the political risk associated with becoming embroiled in arguments relating to forced medicalisation, and concern surrounding the potential for lost votes. Similar concerns apply to local authorities. Breaking the policy deadlock would therefore require either the government or local authorities to commit to granting tangible value to mini-publics. Without doing so, political considerations risk blurring the connection between open deliberative debate and its relationship to decision-making (Michels & Binnema, 2019). This could make it more difficult to secure participants as decision-makers risk being accused of simply seeking to provide post-hoc justification for policies already agreed upon.

Mini-publics also have the potential to be overly rationalistic and, paradoxically, work undemocratically by excluding those likely to present their arguments by alternative means. These include people of lower socio-economic status, the homeless, people with disabilities, and refugees whose speech cultures may depart from

rationalist forms of discourse that privilege dispassionate argumentation and evidence-based knowledge (Curato *et al.*, 2019) Yet it is precisely these groups who, facing particularly extreme dental health inequalities (PHE, 2021), risk being marginalised or excluded from deliberative discussion and debate.

Finally, mini-publics, typically consisting of less than 100 participants, can create the perception of abandoning the mass of public opinion in favour of participatory elitism in which citizens are asked to defer to the deliberations of a small sample of the population (Elstub and Khoban, 2023). This problem is particularly acute given that it is unclear to what extent and how, if at all, mini-publics inform, influence, or guide broader public opinion. Resultantly, water fluoridation campaigners on both sides are highly unlikely to accept the recommendations of a small, and potentially insular, mini-public.

Future Research

One of the most under-appreciated facets of the mini-publics literature, and one that would benefit from further interrogation in the context of water fluoridation, is the role of emotions. Although only recently acknowledged in critiques of narrow rationality in deliberation, Elstub *et al.* (2021) suggest that reason and emotion are inextricably linked, can enhance deliberative norms, and enable both reasoning and decision-making. Flinders (2020) has gone even further in suggesting that, often, 'feelings tend to trump facts'. Consequently, if an individual, group or community feels that water fluoridation is wrong or risky (or right and safe), evidence alone is unlikely to change their mind. To many people tampering with public drinking water simply feels wrong. As a result, emotional appeals can be as much, if not a bigger part, of politics and deliberative fora than appeals to rational understanding.

This argument is particularly pertinent in the sense that it is arguably anti-fluoridationists that have recognised the need to forge an emotional connection with the public. Pro-fluoridationists have, contrastingly, privileged the technical presentation of 'the facts'. Although the latter carries a degree of emotional valance for individuals who display trust in science and scientists it is an approach that arguably struggles to chime with much of the public at an emotional level (BEIS, 2020).

The point being made is not that pro-fluoridationists need (or should) adopt emotion-laden narratives or presentational strategies. What the role of feelings highlights, however, is the importance of being able to translate complex scientific evidence into simple stories that demonstrate their relevance to the public. This, in turn, may also suggest the need to reconsider the opportunities members of the public have to engage with the evidence and, through this, to question and reconsider how they feel about water fluoridation. It also suggests the need to better understand the extent and ways in which feelings influence the recommendations made by mini-publics.

Conclusion

Public health policymaking is the art and science of preventing disease, prolonging life, and promoting health through the organized efforts of society. Yet ideas about

how best to achieve these aims are fundamentally contested. Although pro-fluoridationists advocate a linear, direct, and causal relationship between scientific evidence and policy, for anti-fluoridationists, it is less clear that the link is, can be, or even should be, a direct one. What to do when these competing ideas buttress against one another in a manner that induces policy paralysis despite a clearly defined dental public health problem? Mini-publics offer one, albeit imperfect, solution with their role and legitimacy resting on decision-makers committing to granting value to them.

Importantly, although the insights presented are centrally concerned with water fluoridation in England, there are clear synergies to be discerned internationally, particularly in countries whose local constituencies are engaged in intense debates pertaining to initiating, amending, or terminating a water fluoridation scheme in response to political or public pressure. Canada and the United States offer two such examples.

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