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## **Advancing Evidence-Based Public Health Policy: How Core Component Thinking Can Illuminate the Nature of Public Health Policy?**

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## Abstract

Public health policy is critical for improving population health, but its effectiveness depends on identifying and implementing key elements that drive success. *Core component thinking*—a framework derived from implementation science—offers a structured approach to dissecting public health policies by distinguishing essential components from adaptable features. This review explores how core component thinking can enhance evidence-based public health policymaking by clarifying mechanisms of impact, improving scalability, and ensuring contextual adaptability. Drawing on examples from tobacco control, sugar-sweetened beverage taxation, and COVID-19 mitigation, we argue that this approach can bridge the gap between research and policy. Challenges, including political feasibility and data limitations, are discussed, along with recommendations for future research and practice.

**Keywords:** public health policy, evidence-based policy, core components, implementation science, health interventions

### 1. Introduction

Public health policies aim to improve health outcomes by addressing social determinants, preventing disease, and promoting equitable access to care. However, policymakers often struggle to determine which aspects of an intervention are fundamental to its success and which can be modified without compromising effectiveness (1). *Core component thinking*—an approach that identifies the active ingredients of interventions—provides a valuable framework for refining public health policies. This review examines how this approach can strengthen evidence-based

policymaking, ensuring that interventions are both effective and adaptable across different settings.

## 2. Core Component Thinking in Public Health Policy

Core component thinking originates from implementation science, emphasizing the need to distinguish between:

- **Essential components** – Elements that must be preserved for an intervention to work (e.g., high tax rates in tobacco control).
- **Adaptable components** – Features that can be modified to fit local contexts without undermining effectiveness (e.g., public messaging strategies) (2).

This distinction is crucial for policymakers who must balance fidelity to evidence-based strategies with the need for flexibility in diverse settings (3).

## 3. Applications in Public Health Policy

### 3.1. Tobacco Control Policies

Research demonstrates that taxation, smoke-free laws, and advertising bans are core components of successful tobacco control (4). Countries that implement these measures consistently see reductions in smoking rates, whereas those that modify or omit key elements experience weaker outcomes.

### 3.2. Sugar-Sweetened Beverage (SSB) Taxes

Studies highlight that tax structure (e.g., tiered vs. flat rates) and revenue allocation (e.g., funding health programs) are critical for effectiveness (5). Policies that deviate from these core components often fail to achieve meaningful behavioral change.

#### 4. COVID-19 Mitigation Strategies

Core components such as mask mandates, testing accessibility, and clear public communication were pivotal in successful pandemic responses (6). Jurisdictions that adapted these strategies to local needs—without abandoning essential elements—achieved better containment.

#### 5. Challenges and Future Directions

Despite its utility, core component thinking faces challenges:

- **Complexity of Policy Environments** – Political, economic, and cultural factors influence policy implementation (1).
- **Data Gaps** – Robust evaluations are needed to distinguish core components from peripheral features (3).
- **Stakeholder Resistance** – Policymakers may prioritize short-term political gains over evidence-based approaches.

#### 6. Future research should

- Develop standardized frameworks for identifying core policy components.
- Strengthen real-time policy evaluation mechanisms.
- Foster collaboration between researchers, policymakers, and communities.

#### Conclusion

Core component thinking offers a systematic way to enhance evidence-based public health policy by clarifying what works and why. By focusing on essential elements while allowing for contextual adaptations, this approach can improve policy effectiveness and

scalability. As public health challenges grow more complex, integrating core component analysis into policymaking will be essential for achieving sustainable health improvements.

#### References

1. Blase K, Fixsen D. *Implementation science: key concepts, themes, and evidence for practitioners in educational psychology*. National Implementation Research Network; 2013.
2. Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation Science* 2011;6(1):42.
3. Craig P, Di Ruggiero E, Frohlich KL, et al. Taking account of context in population health intervention research: the need for guidance. *Journal of Epidemiology and Community Health* 2018;72(6):513–515.
4. World Health Organization (WHO). *WHO report on the global tobacco epidemic*. Geneva: WHO; 2021.
5. Backholer K, Blake M, Vandevijvere S. Sugar-sweetened beverage taxation: an update on the year that was 2015. *Public Health Nutrition* 2016;19(13):2280–2288.
6. Hale T, Angrist N, Goldszmidt R, et al. A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). *Nature Human Behaviour* 2021;5(4):529–538.