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Fixing America's eating habits with effective stakeholder collaborations

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Healthy eating habits require effective collaborations among stakeholders — such as researchers and food retailers — to be impactful and sustainable.

Today, more than half of all adults in the USA have one or more diet-related chronic diseases and health conditions, including obesity and diabetes, and the situation is worsening[1]. According to 2017–2018 data from the National Health and Nutrition Examination Survey, more than half of the US adult population is obese or severely obese, and the prevalence continues to rise[2]. The cost of this is huge — influencing every aspect of the lives of affected individuals, their families and society. However, despite a tremendous amount of effort devoted to improving diet quality in the USA[3], the eating patterns of most US adults have not changed much over the past 20 years[4,5]. So, what fresh strategies are needed to improve the diet quality of Americans? A report by Steen et al.[3] in this issue of *Nature Medicine* sheds light on one promising approach, whereby dietary intervention delivered in supermarkets improved the quality of shoppers' diets.

An individual's eating behavior can be influenced by many factors, including their own preferences and value systems, their social circles, neighborhoods and communities, food environments (such as food retailers), societal infrastructures, government policies and even global climate (Fig. 1). Improving diet quality requires not only the consideration of all possible influential factors on eating behaviors, but also effective collaboration among stakeholders. Each stakeholder (individual or entity) alone can have a powerful and unique role in influencing eating behaviors; however, effective collaborations among stakeholders can maximize their impact and create new opportunities that would otherwise not exist.

Steen et al.[3] report a promising and innovative approach to combat challenges in improving diet quality, involving collaboration among researchers, food retailers and the customers. They report the results of a randomized dietary intervention trial (SuperWIN, NCT03895580) conducted at supermarkets. The authors delivered two active dietary interventions (strategies 1 and 2) and compared these to a control condition. Both active interventions delivered individualized, in-person and dietitian-led medical nutrition therapy sessions that were tailored to shoppers' purchasing data at supermarkets. Strategy 2 also included online tools for shopping, home delivery, selection of healthier purchases, meal-planning and healthy recipes. The primary objective of each intervention was to help participants adopt the Dietary Approaches to Stop Hypertension (DASH) diet, an eating pattern recommended by the Dietary Guidelines for Americans[4].

Both active interventions significantly increased participants' adherence to the DASH diet at 3 months. Although adherence was somewhat sustained at 6 months, the results were not statistically significant at this timepoint. Previous research has shown similar

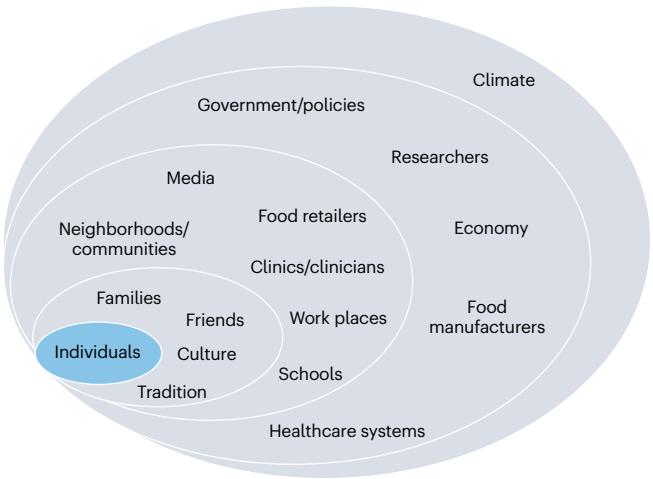

Fig. 1 | Stakeholders and factors affecting eating behaviors. Overview of the complexity of potential entities and factors that influence individuals' eating behaviors.

short-term success in increasing fruits and vegetable consumption, but not long-term success[5], and a meta-analysis of store-based diet interventions also showed mixed results[6]. However, the lack of sustained, long-term success up to now should not discourage us from delivering interventions at food retailers. Steen et al.[3] reported high participant engagement, which suggests that improving and refining the communication approach may be a key to producing long-term success. Using shopping data to guide interventions — including online tools and other strategies — also has the potential to improve intervention efficacy[7]. Indeed, the COVID-19 pandemic has indirectly increased the uptake and acceptance of online shopping tools, home delivery services and virtual information delivery. There are undoubtedly more undiscovered opportunities to create win–win collaborations between food retailers, customers, researchers and other stakeholders with the goal of improving diet for all Americans[8].

The trial reported by Steen et al.[3] demonstrates an effective intervention utilizing the food environment in supermarkets, data-guided dietitian consultation and online tools in a free-living, community-based population. It also demonstrates successful collaboration between academic researchers and food retailers in communicating healthy eating information to participants, and it is crucial that such collaborations continue in order to improve and refine approaches to communicating healthy eating information. Clearly, there remains much work to be continued, knowledge to be gained and perhaps drastic decisions to be made so as to improve Americans' diets[9]. We can start by learning from success stories involving sustainable healthy diet change[8]. Food reformulation, such as gradual

reduction of salt content in food products, provides an example of a successful and collaborative strategy between government and food manufacturers in the UK that led to significant health benefit[10]. This strategy can and should be applied to other eating habits to improve diet quality, but effective implementation will require clear and practical policies set forth and monitored by the government, with the willing collaboration of food manufacturers. This is not an easy task; but it is worth pursuing because of the profound health benefits that the public stands to gain.

Strategies are also needed to combat food and nutrition misinformation and to effectively communicate evidence-based information to health professionals as well as the lay public. Clinicians face frustrating challenges in deciphering diet information and translating this into advice for their patients, which may discourage them from engaging in such conversations. This highlights the need for collaboration between researchers, nutrition educators and clinicians to positively influence peoples' eating habits.

Even within government agencies, there has been a call for an increased effort to coordinate among the numerous diet-related initiatives to improve their impact[11]. Learning from the success in taxing cigarette products to reduce smoking, taxation of unhealthy food such as soda drinks has been implemented in some US cities and has shown effectiveness[12]. However, wider implementation of such a strategy requires a more integrated collaboration among multiple stakeholders. 'Doing well by doing good', a philosophy attributed to Benjamin Franklin, is applicable here to create a mutually beneficial relationship between food manufacturers, retailers, and their customers. Food manufacturers and retailers can prosper by growing a loyal customer base, doing right by their customers in the way that they manufacture and sell healthy food, and providing tools to support customers' healthy eating habits.

Only through integrated stakeholder collaboration and effective evidence communication will we be able to improve the public's eating habits and curb the rise of diet-related health conditions.

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Competing interests

The authors declare no competing interests.