Cross-Sector Partnerships and Public Health: Challenges and Opportunities for Addressing Obesity and Noncommunicable Diseases Through Engagement with the Private Sector

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Abstract

Over the past few decades, cross-sector partnerships with the private sector have become an increasingly accepted practice in public health, particularly in efforts to address infectious diseases in low- and middle-income countries. Now these partnerships are becoming a popular tool in efforts to reduce and prevent obesity and the epidemic of noncommunicable diseases. Partnering with businesses presents a means to acquire resources, as well as opportunities to influence the private sector toward more healthful practices. Yet even though collaboration is a core principle of public health practice, public–private or nonprofit–private partnerships present risks and challenges that warrant specific consideration. In this article, we review the role of public health partnerships with the private sector, with a focus on efforts to address obesity and noncommunicable diseases in high-income settings. We identify key challenges—including goal alignment and conflict of interest—and consider how changes to partnership practice might address these.

INTRODUCTION

Public health is, at its heart, a cooperative venture. Whether called partnership, collaboration, or cross-sectoral engagement, working with a diverse range of actors across multiple settings is considered core practice and a logical means to address the many determinants of health that lie outside the reach of public health systems (45, 55). These relationships take many forms, including public–private partnerships, nonprofit–private partnerships, and public–nonprofit partnerships. We refer to them in this article under the broader umbrella of cross-sector partnerships (CSPs) while maintaining clear distinctions between the public, nonprofit, and private sectors.

A push toward CSPs has emerged in response to the epidemics of obesity and noncommunicable diseases (NCDs). Obesity—a risk factor for NCDs such as heart disease, stroke, diabetes, and some cancers—has been on the rise, affecting ~35% of adults globally as of 2008 (62). The incidence and expected growth of NCDs have been identified as a global health crisis, responsible for an estimated 35 million deaths in 2005, with total deaths estimated to have increased by 17% in the years since (59). The urgency of this situation has compelled many public-sector and nonprofit organizations (NPOs) to explore all avenues of response, including CSPs involving the private sector.

Past experience with the tobacco industry and the marketing of infant formula has made public health practitioners particularly wary of the private sector. More recently, CSPs including the private sector have become accepted practice in areas such as vaccine development and distribution to prevent and manage infectious diseases in low- and middle-income countries (LMICs) (46). Correspondingly, the World Health Organization (WHO) has shifted its stance toward partnerships with the private sector: Once wary, it now embraces them where they are deemed appropriate (14). Whether CSPs with the private sector are appropriate for NCDs and obesity prevention remains a topic of considerable debate.

Critics of partnerships with the private sector fear a conflict of interest (COI), a weakening of the roles and responsibilities of the public sector, and an undermining of public health's efforts to improve population health. Proponents suggest that public–private partnerships are an important means of fostering collective action and providing potentially life-saving interventions. CSPs including the private sector in public health practice require special consideration and the application of operational tools and frameworks to ensure their effective and ethical management and oversight. In this article, we examine the role of CSPs in public health with a specific focus on their application to obesity and NCD prevention in high-income countries (HICs). We review the basics of CSPs for public health, including their recent history, definitions, and organizational roles and responsibilities, as well as their risks, benefits, opportunities, and criteria for success. Using examples, we consider the range of CSPs enacted for obesity and NCD prevention in HICs and the concerns they raise for public health. Last, we turn to core issues including trust, COI, and monitoring and evaluation to identify measures for improving CSPs in the future.

CROSS-SECTOR PARTNERSHIPS IN PUBLIC HEALTH

Definitions

The commonly used term public–private partnership has been employed ambiguously across numerous research, practice, and policy domains. "Public" has been used to refer to direct government involvement, such as in the use of public–private partnerships or P3s in reference to large-scale public infrastructure projects. In some cases, "public" has been used to refer to all government- plus taxpayer-funded nongovernmental organizations (NGOs); in other instances,

it has been applied indiscriminately to all nonprofit organizations regardless of whether they are publicly or privately funded. To minimize this ambiguity we use "cross-sector partnership" to refer to any combination of public, nonprofit (both publicly and privately funded), and private-sector (for-profit) relationships.

The term partnership has also been employed ambiguously, having been used interchangeably with a myriad of other terms including but not limited to collaboration, alliance, coalition, network, interorganizational relationship, joint advocacy campaign, and taskforce (4, 13, 58, 64). Austin (4) described a "collaboration continuum," which situates relationships along a spectrum ranging from philanthropic, in which a charitable donor and recipient exchange resources focused on specific activities, to integrative, in which "the partners' missions, people, and activities begin to merge into more collective action and organizational integration" (p. 71).

Hawkes & Buse (27) suggest that varied and inconsistent use of the term partnership "muddles the discourse" about governance of public–private interactions, with serious implications for civil society. They note that many activities defined as public–private partnerships consist of philanthropic exchange in the form of sponsorships or grants transferred from private sectors to public sectors. Although exceptions can be seen wherein public funding is provided to private-sector entities, most exchanges of financial or in-kind resources between public health and the private sector occur when public and nonprofit sectors seek out private-sector resources as a means to achieve their own ends (27). As such the authors criticize public health's disingenuous description of these arrangements as "partnerships," specifically when they do not involve shared decision-making powers around project agenda setting, goals, and strategies. Their preferred language for relationships that do not involve shared decision-making is public–private interaction or engagement.

The continuum of relationships between the private sector and public sector or NPOs can be further articulated with a systems science framework. **Table 1** describes the continuum from interactions and engagement to true partnership at different levels of a complex system using categories derived from a systems analysis tool, the intervention level framework (ILF) (32, 39). The relationship continuum is often expressed in the literature in terms of the structure of relationships, i.e., the nature of the exchanges that occur between sectors working in different parts

Table 1 Continuum of relationships across levels in a system

	Description	
System level	**Interactions/engagements**	**Partnerships**
Paradigm	Philanthropic to transactional Simple or basic trust (sometimes cordial hypocrisy)	Transactional to integrative Authentic trust
Goals	Peripheral to mission Minor strategic value Knowledge exchange Cobranding, cause-related marketing	Central to mission Major strategic value Organizational influence Policy or program change
Structure (including loops and subsystems)	Low level of engagement, infrequent interaction Small, often one-way exchange of resources Narrow scope of activities Organizational independence Simple management	High level of engagement, intense interaction Big, usually two-way exchange of resources Broad scope of activities Shared governance/interdependence Complex management

of the larger system that contribute to NCDs and obesity. In **Table 1** and the following sections, we consider how the continuum can be understood in terms of other aspects of a system such as the goals of the relationship and the paradigm under which the relationship operates.

Paradigms

The paradigm is the mind-set of the system, the level from which the system's goals, structure, rules, delays, and parameters arise (42). In public health, the paradigm has shifted in recent years as it relates to CSPs with the private sector. Public health's experience with the tobacco industry beginning in the 1960s has informed the current discourse about CSPs. With respect to obesity and NCD prevention, public health advocates have likened "big food" to "big tobacco," suggesting that CSPs with food-industry partners are inappropriate (10, 19, 48). In other areas such as vaccine and drug development and distribution, CSPs involving the private sector ("big pharma") have become commonplace (7, 44, 61).

The growing acceptance of CSPs with the private sector can be traced back to the 1980s movement to privatize public-sector functions in the name of increased efficiency and cost-savings, which represented a retreat from hard-line support for privatization during the 1990s (7, 36). These trends fostered a reimagining of the roles and responsibilities of the public, nonprofit, and private sectors, the former of which having lost some of their authority over the notion of the public good and the private sector having become a more accepted partner in the management of large public infrastructure and social functions (5). As such, the public sector's responsibility for maintaining systems that promote health and welfare as originally imagined in the UN Declaration of Human Rights has been diluted, which has raised concerns about the private sector's encroachment into policy setting and governance (7). Alternately, the shift can be understood as a natural extension of popular management reforms that emphasize holist approaches to the complex problems arising in the age of globalization (36).

Indeed, the complexity of publicly managed social problems has been a key driver toward acceptance of CSPs as a solution (5, 12). Sometimes called "wicked" or "intractable," challenges such as obesity and NCD prevention are recognized as exhibiting the hallmarks of complexity in that they involve a wide diversity of interdependent actors and institutions whose actions contribute to a larger, dynamic system, thereby making it difficult to pinpoint and address causality (23). We have argued that such systems require a shift toward solutions that are appropriate for complex problems. These solutions tend to be distributed and comprehensive and to require building trust in cross-sector collaboration and partnership. They also benefit from measurement systems that enable continuous adaptation and improvement on functional goals (23). Carefully developed CSPs can support solutions to complex public health problems, but they must be developed and managed with an understanding of each sector's goals and responsibilities.

Goals

A frequently cited rationale for partnering is the ability to accomplish goals together that each party could not achieve on its own. In terms of project management, clear articulation of goals is essential for achieving success and establishing accountability. Setting goals (or objectives) for individual health promotion programs or social media campaigns may prove a relatively straightforward process. However, goal alignment at the broader sectoral level poses significant challenges that should be considered when forming CSPs. Hawkes & Buse suggest that partnerships should be considered in the context of interests rather than goals or objectives (27). In this view, the preexisting mandates and responsibilities of each sector are an important consideration for partnering.

Private-sector participants are motivated to partner because of numerous variables, including the interests of their leadership, the nature of their business, and their organizational approach to social and ethical issues. Corporate social responsibility (CSR), which extends corporate interests into social and ethical concerns, has expanded significantly (19) and driven the private sector to seek out partnerships on a range of social issues, contributing to what Austin (4) calls an alliance marketplace. These relationships may be driven by personal interests or connections and/or may exist as part of broader corporate strategic endeavors to curry positive public goodwill and protect their core business from restrictive legislation, as was the case with tobacco (19). Industry is also motivated to partner with social causes to make itself more attractive to potential employees, build culture among staff, and generate business through goodwill and extending its contacts with external linkages (5). In the case of contentious interactions, such as that between the health sector and food and beverage companies, partnerships should be considered in the context of the corporation's core legal obligation, which is to maximize profits for its shareholders.

The public sector has a mandate to service the public interest, along with special rights and powers that can be applied toward addressing complex social problems (3). The public and publicly funded nonprofit sectors are motivated to partner with the private sector to acquire resources, increase the scale and scope of their efforts through increased visibility, and increase their capacity to address complex problems (5). The need for new funding and capacities in a time of scarce resources and public austerity measures can be a strong driver to partner in the pursuit of program objectives. As defined by WHO, public health is mandated to implement measures that promote health and prevent and control disease among the population as a whole (63). These efforts include developing public policy to address health priorities and ensuring access to appropriate and cost-effective health care and health promotion. Those working in public health may offer expertise in the design and implementation of health promotion and education programs to private-sector partners (30). Some take a broader perspective on the role of public health, prioritizing advocacy for a health-in-all-policies approach and addressing the fundamental societal causes of disease (55, 65). From this perspective, public health should look beyond whether a partnership will help achieve its objectives and take into consideration whether the interests of activities of potential partners clash with its broader vision of a healthier society.

Civil society representatives, who include NPOs or NGOs, are also active participants in CSPs for health. Working toward social issues independent of the state and market, NPOs and NGOs are often perceived as having special virtues and are therefore attractive partners for businesses seeking goodwill by association (4). The growth in privately funded nonprofits, ranging from the Gates Foundation to the PepsiCo Foundation, that participate in CSPs further complicates the assessment of interests. Linkages between foundations and the private sector are well documented, and decision making regarding priorities for investment in health is concentrated in a powerful few who largely guide the global health agenda (52). CSPs between members of the scientific community and the private sector raise similar concerns regarding potential COI. Marks & Thompson (40) suggest that interactions with the food industry have not been subject to the same level of scrutiny as those between physicians and the pharmaceutical industry and note the potential for bias in food industry–funded research (65). Industry has also been charged with buying legitimacy by recruiting former leaders from the health sector and partnering with prominent medical organizations.

Given this range of interests and the potential for COI, CSPs pose a challenge for public health professionals beyond merely identifying desired program objectives. In making the distinction between interests and objectives, Hawkes & Buse (27) argue that the interests of each party are unlikely to be equally served through partnership; rather, those of the more powerful partner will generally be favored. Although this reality need not preclude public health's partnering with

industry altogether, the authors ask that public health be honest about it. Roberts et al. (47) similarly suggest that the achievement of goals is not a sufficient basis for partnering with industry because public health has an obligation to pursue ethical goals and not just partnership for its own sake. Hawkes & Buse propose three questions that policy makers should ask themselves before engaging with the food industry to achieve its own independently set objectives. Paraphrased here, they are, first, will engagement achieve the objective faster and more effectively; second, would the interests of both sides enhance or threaten the likelihood of achieving the objective or longer-term public health objectives; and, third, would a real partnership or looser form of interaction most effectively achieve the objective (27)?

Structures, Loops, and Interdependencies

Although paradigms and goals guide system function, activities at the structural level of a complex system are where the system's dynamic behavior manifests through the interdependencies and feedback loops between sectors and actors (35, 41). Power struggles are contested at this level, particularly by the public and private sectors—the former through its ability to legislate and regulate system behavior and the latter through its financial power and influence over the consumer marketplace. Many of the elements of the collaboration continuum described by Austin (4) are structural in nature, including the level of engagement or interaction, the scope of activities, and the managerial complexity. At one end of the continuum, interactions between partners are infrequent with low levels of engagement, resource exchange is relatively small and often one-way, and activities cover a narrow scope. These engagements may be early-stage CSPs and are simple to manage; each organization maintains its independence (**Table 1**). At the partnership end of the continuum, there is usually a higher level of engagement, intense interaction, and large two-way exchanges of resources with a broader scope of activities. The structures of true partnerships recognize interdependencies, include shared governance structures, and are often complex to manage. The challenges, risks, benefits, and critical success factors for all kinds of partnering have been well documented and are largely applicable to public health CSPs with the private sector. These are summarized in **Table 2**. The further along the continuum toward partnership, the more important it becomes to consider criteria for success, particularly in the early stages of the relationship.

Because partnerships exist along a continuum and stakeholders desire flexibility for their real-world applications, it is difficult to establish clear definitions and guidelines for partnership. Widdus (64) suggests that public–private partnerships should be viewed as social experiments and argues that there is "no formula for constructing them and it is unlikely that a universally applicable one will be found" (64, p. 718). Although all partners need to be flexible in implementing CSPs, this flexibility must be balanced with necessary protection against COI and other threats to the integrity of the public sphere. In the following section, we consider the particular challenges posed in this area related to partnering for obesity and NCD prevention and control.

CROSS-SECTOR PARTNERSHIPS IN OBESITY AND NCD PREVENTION AND CONTROL

Paradigms and Goals

Much of what we know from previous experience with CSPs as applied to social and global health problems is generalizable to other issues. Some aspects, however, are necessarily context-dependent because CSPs are usually tailored to address specific diseases or conditions, and they

Table 2 Challenges, benefits, risks and criteria for partnership success[a]

Partnership considerations	Potential issues summarized from partnership literature
Challenges	Differences in interorganizational cultures and language Lack of appreciation for each other's roles Difficulties establishing agreement on appropriate means of measuring accountability and other performance measures
Risks	Dilution of organization's goals or cultures or loss of autonomy For business, slow pace of public sector bureaucracy Unequal power relations, which can be destructive for weaker members Conflict of interest Confused accountability For the public or nonprofit sector, negative reputation impact
Benefits	Access to resources, expertise, and knowledge transfer Improved service provision Divergent perspectives applied to social problems Merging of goals and interests by adopting cultural norms of other sectors
Criteria for success	Alignment of strategy, mission, and values Personal connections and relationships (leaders on either side) Trust and mutual respect Good governance practices (regarding representation, transparency, and accountability) Acknowledgement of and respect for partners' divergent interests Commitment of resources for carrying out partnership Strong project management with clear expectations of outcomes and benefits and roles and responsibilities Expectation management Vertical rather than horizontal relationships with equal power Built-in processes for review and evaluation

[a]Table content summarized from multiple sources (3, 4, 7, 8, 12, 35, 37, 41, 56, 58).

operate in specific political and social environments relative to the determinants of those specific diseases or conditions. The frame by which we understand the causes of obesity and NCDs has clearly influenced perceptions of CSPs that address prevention and control.

Obesity and NCD causation are understood using two main competing paradigms. The first posits that individuals are largely responsible for decision making regarding their health behaviors and resultant health outcomes. Poor diets and physical inactivity are a focal point of intervention, although tobacco use continues to be part of the bigger picture. This frame of causation suggests that solutions can be found in reductionist models of behavior change. Under this paradigm, environmental interventions that support healthy decision making may also be considered, but the emphasis is on individuals as rational decision makers. The healthy lifestyle frame of causation emphasizes individual behavior change as the solution, an approach supported by some CSPs and articulated in many obesity strategies (32).

When the frame shifts more toward socioecological models of causation, the emphasis becomes the complex, interrelated causal factors that give rise to disease. This frame identifies macrolevel and microlevel determinants that range in their proximity to individuals and act across varying levels of social relationships, settings, and influences (51). The socioecological frame may also recognize the influence that social determinants of health have on unequally distributing poor health outcomes along geographic, economic, and ethnic lines. A socioecological approach to

obesity and NCD prevention has been to coordinate and implement actions across a broad range of settings and levels, with an emphasis on policy measures intended to reverse-engineer the environment (29, 31, 60).

Researchers have argued that the presence of many factors and the interactions that occur among them have created toxic or obesogenic environments that frequently override individual willpower required for healthful decision making. Advocates for broader social and fiscal policy measures suggest they are a more efficient and cost-effective means of shifting social norms and reducing NCDs and obesity than are healthy lifestyle interventions that prove difficult to scale up and spread (52). However, whereas the population needs to reduce caloric intake, the food industry overproduces calories and motivates people to consume them, particularly its most processed, calorie-dense, and nutritionally poor products (11, 53). Transnational food corporations have thus followed in tobacco's footsteps to combat proposed regulatory action that might affect their bottom line. CSPs are employed as part of big food's strategy to shift focus away from diet as a determinant of obesity and NCDs by emphasizing the physical activity and sedentary living side of the energy balance equation (25). The food and beverage industry also lobbies against regulatory measures through front groups such as the Center for Consumer Freedom, which frames calls for regulation as the actions of an interfering nanny state in their industry-funded advocacy for consumer rights (11, 43, 65).

The socioecological frame has also been employed to support the notion that the food and beverage industry, given their contributions to NCDs and obesity and influence over the population, should be brought to the table to discuss solutions. Advocates for CSPs suggest these partnerships provide a means by which public health can help the private sector design health promotion programs while also influencing private partners to pursue more health-conscious business models (30). In addition, CSPs acknowledge that the food industry has the knowledge and capacity to improve the nutritional profiles of its products. Some food companies have expressed support for regulations that level the playing field for businesses, such as across-the-board limits for salt or sugar levels in processed foods, to incentivize and accelerate product reformulation (1). In addition, voluntary action has been taken on issues such as marketing to children and removing calories from the food supply. Within a socioecological frame, these actions suggest a willingness to align interests with those of public health (8, 66, 67). In response, critics have highlighted the shortcomings of these initiatives and the smoke screen they create for efforts to shift social norms regarding unhealthy diets (26). They argue that the balance of benefits for CSPs will always be unequally skewed toward the private sector.

Food and beverage industry representatives have equated embargoes on partnership to a "demonization" of industry, the consequences of which are their complete exclusion from working toward positive outcomes. However, even the harshest critics of the food industry note that dialogue and engagement are acceptable with appropriate protections and boundaries in place. In this case, it is especially important that the distinction between engagement and partnership with the food and beverage industry be made explicitly clear.

Structures and Risk Management

Examples of CSPs involving the private sector help elucidate the various structures employed and their implications for risk management (see **Table 3** for a select overview). At one end of the partnership continuum, cross-sector interactions or engagements to address obesity and NCD prevention have become platforms for discussion such as the Building Trust Initiative, where individuals from government, the private sector, nonprofits, and academia were brought together to discuss the challenges of and opportunities for building authentic trust as a foundation for

Table 3 Examples of cross-sectoral engagements/partnerships for NCD and obesity prevention[a]

Title and description	Structure	Rewards	Risks	Risk management
AAFP and Coca-Cola (2, 9, 28)				
Grant provided by Coca-Cola to develop consumer education material, including content about beverages and sweeteners	Sponsorship One-way exchange of resources Narrow scope of activity	Increased capacity to educate public via the FamilyDoctor.org website	Damage to public trust in AAFP and perceived influence on educational content Coca-Cola gains credibility as health-promoting corporation	Managed under regularly used AAFP internal and external COI standards All content controlled by AAFP, peer-reviewed, and free from commercial endorsement
Change4Life (34, 16)				
Social marketing arm of UK Gov obesity plan National partners asked to align activities and create campaigns to support behavior change	Large scale TV ads, billboards, and Web platform encouraging healthy habits	Greater alignment of public- and private-sector messaging Expansion of campaign reach Potential to influence national partners toward healthier practices	Perceived COI	Partnerships governed by Terms of Engagement Final approval of partner messaging and use of campaign logo
Canada on the Move (15, 18)				
CIHR enabled research on Kellogg's distribution of pedometers in Special K	Collaboration Minor financial contribution to research Low interorganizational influence and interdependence	Advances in population intervention research Assessment of health impact from sales marketing associated with active living	Risk of negative external perception of a health research institute partnering with the food industry	Research component independently run and monitored by CIHR
Shape Up Somerville (20)				
Systems-change approach to building and sustaining a healthy community Design aimed to improve energy balance by making small changes in the environment, e.g., local community restaurants	Community-based partnership Cross-sectoral collaboration Interorganizational influence over program through adaptation to challenges identified by restaurant managers	Opportunity to learn from small businesses to inform aims of program and future population interventions Small business hoped to gain exposure through program marketing	Small businesses assume financial risks by taking part in the program	Better supports recommended for future interventions to mitigate risk to small business

(*Continued*)

Table 3 (*Continued*)

Title and description	Structure	Rewards	Risks	Risk management
AOM (https://aom3.americaonthemove.org)				
Nonprofit organization created to promote evidence-based behavior change Partners must have mission alignment with AOM and provide research-based and low-cost services to users (e.g., YMCA) Sponsors are large foundations or consumer service providers (e.g., Anthem Blue Cross and Blue Shield Foundation)	Cobranding (partners can repurpose AOM content; sponsors provide financial support for AOM in exchange for cobranding and exposure on AOM resources) Goal alignment emphasized at partner level where no financial exchange takes place	Procurement of resources to operate programming Increased exposure for all parties through cobranding	Potential interference in AOM programming	AOM retains the right to determine program design and execution; attempts to fund programs from multiple sources; accepts funds from external parties only if doing so does not impact its objectivity
EPODE International Network (8; http://www.epode-international-network.com)				
Community-based capacity-building approach to reducing childhood obesity Major founding partners include Nestlé and Coca-Cola Many partners at the local level Private funding varies by community ranging from 0% to 100%	Large-scale, centrally coordinated community capacity-building approach Public–private partnerships supported through network and central to local-level organization	Procurement of funding to run EPODE programming Image improvement for food and beverage industry partners	Corporations permitted to refer to EPODE in their CSR activities (observers argue that this type of sponsorship provides leverage when lobbying against regulatory measures)	Private partners commit to noninterference in program content, must not associate the EPODE program with any product promotion, and cannot include their own branding on EPODE materials

[a]Abbreviations: AAFP, American Academy of Family Physicians; AOM, America on the Move; CIHR, Canadian Institute of Health Research; CSR, corporate social responsibility; COI, conflict of interest; NCD, noncommunicable disease.

building CSPs (**http://buildingtrustinitiative.wordpress.com**). At this end of the spectrum are also transactional arrangements such as the provision of a grant by Coca-Cola to the American Academy of Family Physicians (AAFP) for the development of educational materials (2).

At the other end of the spectrum are large-scale programs such as the EPODE International Network (**http://www.epode-international-network.com**), which builds local capacity and partnerships in multiple communities and countries to address childhood obesity. EPODE founding partners include large transnational food and beverage companies. Another large-scale joint venture is America on the Move (AOM; **https://aom3.americaonthemove.org**), a nonprofit foundation that seeks to improve Americans' health and quality of life by encouraging a small changes approach to healthful eating and active lifestyles among individuals, families, communities, and society. The AOM Board of Directors includes individuals from the public and private sectors. Another example at the true partnership end of the continuum is illustrated by Shape Up Somerville, which employed a community-based participatory research methodology to develop and implement interventions to address local population needs. Power was shared between small business owners and experts with regard to priority setting and project management (21).

CSPs built around social marketing and education include sponsorships, wherein private funding is provided for public awareness and educational programs designed by health organizations. Change4Life in the United Kingdom (**http://www.nhs.uk/change4life/Pages/change-for-life.aspx**) and ParticipACTION in Canada (57) are both social marketing CSPs in which the government provided funding and created a structure for public–private partnerships. More unusual is the example of Canada on the Move, a program of population intervention research built on a product-marketing campaign in which more than one million pedometers were given away in boxes of Kellogg's Special K cereal (18).

The examples in **Table 3** highlight the diverse range of cross-sector activities for obesity prevention and control and demonstrate that there is no singular model for working with the private sector; many interactions have mixed elements from opposite ends of the collaboration and partnership continuum. As Widdus (64) suggests, public–private partnerships are social experiments without a standard formula for their construction or implementation.

These examples also highlight variation in risk present across interactions depending on both the nature of the interaction and the actors involved. Shape Up Somerville presented a financial risk to local businesses, and Coca-Cola presented a risk to perceptions of the brand of the AAFP. Risk to the brand of the public sector was also real in the case of Canada on the Move because the federal government's health research funding agency's brand was printed on the back of a box of cereal. Although the particular brand of cereal was marketed as a healthy choice, critics argued that the company was an unsuitable partner because it also marketed many sugar-sweetened cereals to children.

The examples in **Table 3** also point to the varied approaches to risk management adopted by participating actors. Some CSPs employ formally established institutional guidelines for partnering. Risk management has also been conducted less formally, depending on the potential for COI inherent in the engagement. To mitigate possible COI when working with the food and beverage industry, watchdogs suggest that health organizations partner with the private sector only when it does not have input into program content and is prevented from branding any program materials, in part to prevent marketing to children (11, 38). EPODE is an example of putting this strategy into practice and may be viewed as successfully having navigated COI in its engagement with industry. Observers, however, have advocated for a broader perspective on COI, positing that some engagements carry risks to the public good that cannot be mitigated through adequate governance or oversight. These include relationships that threaten the legitimacy of public institutions (such as the AAFP's acceptance of funding from Coca-Cola) and those that provide the private sector

with the means to present themselves to policy makers as health-promoting organizations in their efforts to combat public health initiatives to regulate the food environment (24).

FOUNDATIONS FOR SUCCESSFUL PARTNERSHIPS

Our review of examples of CSPs to address obesity and NCDs highlights the wide range of relationships, their relative risk of and potential for COI, and the different extents to which the public or nonprofit sectors can engage with industry. For practitioners considering engagement with the private sector, and the food and beverage industry in particular, decision making can be a challenge. Here we review how trust, COI, and monitoring and evaluation are key considerations in moving forward.

Trust

Although a growing field of trust research is expanding the theoretical and empirical means of examining trust (6), little has been done specifically as it relates to CSPs for obesity and NCD prevention and control. Current research does recommend that new relationships begin with low stakes, which are to be raised as trust is built up (6). Solomon & Flores (49) describe several categories of trust, including simple, blind, and authentic trust, as well as cordial hypocrisy. Simple trust is trust that is taken for granted and requires no reflection or conscious choice, whereas authentic trust cannot be taken for granted, is carefully considered, and must be continuously cultivated. Blind trust is present when evidence for distrust is rejected or denied, and it requires self-deception; deception, however, in the form of a façade of goodwill and congeniality is labeled cordial hypocrisy. Cordial hypocrisy is destructive to teamwork and makes communication impossible. At the end of the spectrum where trust is low, the complexity of navigating a CSP grows.

The role of trust in the success of CSPs should not be underplayed. In comparing the effectiveness and efficiency of cross-sectoral and intrasectoral partnerships in public sector management, Andrews & Entwistle came to the following conclusion: "[I]t is conceivable that sociopsychological aspects of partnership—such as trust, goal alignment, and quality of communications—are a more important determinant of performance than either the resources or the focus of intersectoral collaborations" (3, p. 693). A major issue in partnering for chronic disease and obesity prevention has been the trustworthiness of the food and beverage industry. The history of industry practices that undermine public health efforts suggests that blind trust is not an option, and authentic trust has not yet been achieved. The basis for moving forward will depend on managing COI and improving on existing methods of monitoring and evaluation.

Conflict of Interest

Like trust and partnership, COI exists along a continuum from convergence of interest to perceived and actual COI. Ethical and moral issues must be considered when addressing COI (33), and clarification of the roles, practices, interests, and duties of partners in a CSP involving the food industry is also needed (40). Marks & Thompson (40) recommend that a temporal lens and a comparative lens are necessary when assessing whether COI is avoidable. In the former, one asks whether a conflict, if not avoidable altogether, could be eliminated over time. The latter adopts a broad comparative examination across institutions, professions, and national borders. As noted previously, considering CSPs in the broader context of interests, as opposed to goals, may assist with decision-making about COI. Brody (9), for example, suggests that conflicts arise when individuals or organizations enter into a set of arrangements that might tempt them to put aside

their primary interests (such as advocacy for public health) in favor of a secondary interest such as financial well-being. He therefore views the relationship between the AAFP and Coca-Cola as a COI, as it meets the definition of threatening social trust. Freedhoff calls for an expanded definition of COI wherein, regardless of the measures taken to mitigate corporate branding in health-promoting activities, the fact that industry can refer to their philanthropic activities in lobbying efforts to bolster their image should read as a COI to the public health sector (24).

Perceived COI often exists when the private sector provides the public or nonprofit sector with funding, even if the funds are provided without restrictions such as in the AAFP Coca-Cola example or in the more common industry sponsorship of academic research. In defending the AAFP's decision to partner with Coca-Cola, AAFP president Lori Heim argues that "examined only in a philosophical vacuum, issues of [COI] and the underlying ethics governing behavior become an ideological straitjacket" (28, p. 359), echoing past criticisms of the stifling effect of strict COI guidelines on pharmaceutical research (50). Industry watchdogs Nestle (43) and Brownell & Battle Horgen (11), among others, have countered the argument that action on CSPs for health promotion and education should and can advance in the absence of clear guidelines on COI as it applies to the food and beverage industry. Concern about potential COIs as they relate to prevention and control of NCDs also led a coalition of 150 organizations to issue a "Statement of Concern" (17) to the President of the UN General Assembly in September 2011. In their Statement of Concern, the Conflicts of Interest Coalition suggests the first steps to addressing COIs is to clarify the distinction between business-interest not-for-profit organizations (BINGOs) and public-interest nongovernmental organizations (PINGOs) and to develop a code of conduct for interacting with the private sector. Indeed, an important step in the move toward a consensus on partnering with industry will be the clearer use of language around partnering and defining the status of the actors involved, as well as the aforementioned need to distinguish between the interests and goals of each sector.

Monitoring and Evaluation

Built-in processes for review and evaluation as well as good governance, which includes a mechanism for reviewing accountabilities, are critical success factors for all complex CSPs. There have been many calls to research effectiveness and conduct evaluation of public–private partnerships in the face of little existing evidence (7, 14, 22, 35, 53). Developing rigorous means of evaluating CSPs will prove challenging in the current landscape in which experts have demonstrated no common understanding of what public–private partnerships consist of in spite of having great enthusiasm for them. Furthermore, stakeholders are often reluctant to sacrifice flexibility and expediency in favor of methodological rigor (7). Further work must be done to bridge the operating paradigms and goals of government, the private sector, and public health organizations in order to develop greater demand for evaluation.

Evaluative practice in regard to CSPs should, where possible, consider the place of a specific CSP in relation to the broader issues of COI. Barr (7), for example, has developed a research protocol that, in addition to considering management aspects such as administrative structures of the parties involved, also characterizes the market system in which the public–private partnership operates. He further recommends that equity be considered an indicator in evaluation because it corroborates the mandates of the WHO and public health in general. Integrating this frame into the evaluation of CSPs can help surface goal misalignment between organizations and their practices.

Closer monitoring and surveillance of industry behavior and compliance with regulation and voluntary pledges are necessary to build trust and help stakeholders assess the suitability of

partners (1, 14). One example of this is the auditing of the Healthy Weight Commitment Foundation, currently being conducted by the independent and trusted Robert Wood Johnson Foundation. Monitoring should also be extended to global markets and considered by public health organizations as part of their integration of an equity lens into evaluative practice. This is true particularly if public health is to fully embrace a social determinants approach. Support for increasing action on NCDs as part of a global health platform is growing. Although NCDs are associated with poverty and other broader determinants, especially in LMICs, community-based initiatives to address obesity and NCDs currently taking place in HICs are informed by western evidence that emphasizes proximal determinants (51). The interactions between industry and the public and nonprofit sectors continue to shift focus away from broader determinants associated with the food system and toward physical activity in particular as a key determinant of health. This and other relevant issues should be considered in macrolevel evaluations of the evidence base being constructed through CSPs, along with transnational corporations' activities in vulnerable, less-regulated LMIC marketplaces.

CONCLUSION AND IMPLICATIONS

The debate around CSPs between public health and the private sector eludes easy answers or simplistic analyses. In this review, we have considered various approaches to CSPs for NCD and obesity prevention and identified issues at the heart of public health's current dilemma about working with the private sector. Throughout the literature, public health advocates have identified several areas for improvement. These include the need for clearer language and definitions regarding partnering; stronger monitoring of industry practices in both HICs and LMICs; and the balancing of both interests and goals in decision making regarding CSPs. To this end, public health is reconsidering its role in addressing today's complex health problems. Teutsch & Fielding (55) argue that the field needs a clearer identity and needs to brand itself to convey "a set of important values and credibility" (p. 296). Poorly chosen partnerships with industries implicated as drivers of the obesity and NCD epidemics for easy money have tarnished public health's brand and the reputation of many health organizations. Even though the need to address obesity and NCDs is urgent, there will be no quick solutions for a problem that has developed over decades and will require sustained long-term interventions to revert. We would do well to take the long-term view in regard to CSPs involving the private sector and their potential benefits and consequences.

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