Public mobilisation is needed to enact obesity-prevention policies and to mitigate reaction against their implementation. However, approaches in public health focus mainly on dialogue between public health professionals and political leaders. Strategies to increase popular demand for obesity-prevention policies include refinement and streamlining of public information, identification of effective obesity frames for each population, strengthening of media advocacy, building of citizen protest and engagement, and development of a receptive political environment with change agents embedded across organisations and sectors. Long-term support and investment in collaboration between diverse stakeholders to create shared value is also important. Each actor in an expanded coalition for obesity prevention can make specific contributions to engaging, mobilising, and coalescing the public. The shift from a top-down to a combined and integrated bottom-up and top-down approach would need an overhaul of current strategies and reprioritisation of resources.

**Introduction**

In response to the obesity epidemic, many expert panels (some of which are convened by government agencies and scientific societies) and professional or advocacy organisations have called for a comprehensive approach designed to create health-promoting environments for eating and physical activity. Policy actions taken by governments and private institutions are generally understood as essential elements of such comprehensive strategies, although the specific approaches or implementation strategies to be taken are more open to debate. Despite repeated calls for societal action, progress in the relevant policy arenas has been slow. In both the public and private sectors, the political and institutional will to take such action is often absent and might not emerge without greater citizen demand for policy adoption and implementation. The first paper of this Series by Roberto and colleagues discusses several policy options. It also describes competing forces in society that often hinder progress towards policy adoption. Organisation of the public to confront and change such hindering power dynamic is therefore an essential way to move forward. So far, interventions to prevent obesity have not focused explicitly on the dynamic interaction between individuals and the political environment.

The overall goal of this Series paper is to emphasise the importance of mobilisation of popular demand for policy actions to prevent obesity. This effort needs change agents from all sectors in society. Public health can play a leading part in the organisation and coordination of actors from diverse sectors to shape public support for obesity-prevention policies. Here we describe ways that popular demand for policy actions might be mobilised using frameworks from political science and sociology. We discuss the roles of diverse actors in an expanded coalition to generate bottom-up effects and public health research opportunities around policy mobilisation.

**Creation of political demand: frameworks to inform grassroots mobilisation**

Political science offers insights into the so-called political determinants of health and the constraints and forces that shape public policy. To enable the adoption of policies for obesity prevention, three frameworks from political science can inform strategies to increase the demand for these policies: the multiple-streams framework, the advocacy-coalition framework, and punctuated-equilibrium theory. Additionally, social movement theory embodies elements of the political science frameworks and presents a process model for social change.

The multiple-streams framework (also known as the windows-of-opportunity framework) proposes that the greatest potential for policy change—or windows of
opportunity—emerges when three conditions, or so-called
streams, come into play: problem, policy, and politics. The
problem stream refers to how a problem (or policy issue)
is defined or framed and to what extent the problem could
be addressed through policy. The policy stream refers to
the different policy solutions being offered. The politics
stream refers to the political climate, arrangement of
stakeholders, and national mood. Windows of opportunity
emerge at the confluence of at least two of these streams.
Greater success is likely when three streams come
together to create an opportune moment for change, but
such windows of opportunity are often not open for long
because public attention and political support can quickly
wane. The challenge in public health is both to create and
sustain these windows of opportunity. Through the lens of
the multiple-streams framework, policy assessment of ten
WHO-designated Healthy Cities showed the importance
of building capacity among social entrepreneurs or
change agents in each city. Similarity, in Slovenia,
establishment of a national food and nutrition policy
became possible by the triggering event of accession to the
European Union; this event created access to individuals
with the appropriate analytical, strategic, and policy
entrepreneurial skills and who could begin to enlist
previous opponents and mobilise change in society.

The advocacy-coalition framework helps to strengthen
policy issues and expand windows of opportunity; by
emphasising the alignment of groups or individuals with
the same core beliefs, it coordinates and leverages their
power to achieve shared goals. Coalitions comprise a
diverse set of groups and individuals who might diverge
on non-core beliefs but are held together by commitment
to core beliefs or primary goals. This framework also
emphasises the importance of education of change
agents and sharing of resources across sectors to
empower the politics stream. In an expanded after-school
programme across five cities, the framework was used
not only to map stakeholder assets, but also to address
core values and conflicts and develop common goals
between stakeholders within each city. This framework has
also been applied to the implementation of soft-drink
policies in the Pacific Islands. Advocacy coalitions can
bring about the right expertise and political alignment to
exploit and trigger windows of opportunity. The major
challenge in the domain of obesity prevention is that the
diversity of stakeholders (ie, government agencies,
non-governmental organisations, and companies directly
related to health or food) remains low, and sustained
and coordinated infrastructure with resources to build
coalition across diverse sectors is absent.

The punctuated-equilibrium theory contends that big
changes in policy can happen abruptly under the right
conditions. Policy tends to remain constant (or in
equilibrium), but can have rare periods of sudden
and substantial change. The causes of these changes
include new perceptions around the policy, an increase
in media attention and public interest, economic crises,
environmental changes, involvement by new groups and
stakeholders, and increases in open support for change
(or opposition to the status quo) from leaders, celebrities,
and other public figures. The use of marketing, including
media, to educate and enable the public and to exert
pressure on politicians is also key to all three streams in
the multiple-streams framework to create the windows
of opportunity. In the case of tobacco policies, the use of
health research in legal proceedings against tobacco
companies, intense media campaigns showing the
danger of tobacco use, and change of public opinion and
social habits around smoking represented a window of
opportunity for tobacco taxes, smoking bans in public
spaces, and other policies.

Sidney Tarrow defines social movements as
“collective challenges, based on common purposes and
social solidarities, in sustained interaction with elites,
opponents, and authorities”. Tarrow’s work provides a
useful process model, beginning with the identification
of political opportunity, then coherence around
common goals, followed by development of frames,
and ending with sustained collective interaction.
Once a common challenge and purpose are identified,
the building of social networks and social solidarity
sustain collective interaction.

Together, these frameworks show some common
demand-side strategies that can mobilise the public for
policy change. As described below, these strategies
include reframing or redefinition of obesity and the policy
issues, use of media advocacy to garner public support
and change public opinion, mobilisation of public protest
or vote for political change, and creation of a receptive
political environment through relationships within
government and industry, support for political candidates,
and pressure on officials and administrators to act.

**Demand-side strategies to mobilise policy actions**
In view of the well established precedents and analogies
from other areas of public health policy and practice,
surprisingly little effort has focused on the creation of
popular demand for obesity prevention policies.

Perhaps the arguments needed to address food issues in
particular are so complex and often seem to lead nowhere,
and bottom-up pressure from communities has not been
well coordinated. In the second paper in this Series,
Hawkes and colleagues discuss the complexity of
food politics, food policy, and consumer preferences.

Investment in strategies that increase citizen demand is
crucial for the creation of a political will and climate for
change. In keeping with lessons from social science and
with precedents in public health that have shown the
importance of grassroots support for policy actions, we
now discuss four specific demand-side strategies that
warrant greater attention in public health efforts to
prevent and control obesity at the population level.

Additionally, we discuss the importance of an expanded
coalition of diverse sectors with specific actions in each

The aim of the Treatment Action Campaign (TAC)\(^3\)\(^\dagger\) was to redress the inequitable access to health care for underserved people with HIV/AIDS. The campaign began as a small contingent of activists in 1998 and grew to a nationwide movement, mainly involving people from deprived urban and rural areas. The TAC sought to reframe the notion of equitable access to health care in moral, political, and legal terms as a right guaranteed under the South African constitution, redress the inequitable access to health care by casting it as a violation of constitutional and human rights (eg, pharmaceutical industry profiting through costly antiretroviral therapy [ARV]), and broaden the movement through a mix of education in treatment literacy (empowering individuals with knowledge about HIV/AIDS, treatment options, obstacles to treatment, and needed research) and mobilisation of newly treatment literate advocates. TAC created coalitions with anti-apartheid networks and lesbian, gay, bisexual, and transgender activist groups and AIDS activist groups, namely Gay Men’s Health Crisis and ACT-UP, who provided training to TAC on treatment literacy techniques. Additionally, TAC connected with anti-apartheid networks to gain wider leverage in South Africa and internationally, as well as connecting with collaborators in the science community, politicians, and government bureaucrats. By 2007, more than 200 treatment literacy practitioners were providing information to over 100,000 people every month. TAC used powerful symbols for branding, visibility, and group coherence (eg, the red HIV-positive t-shirts). The campaign gradually attracted media attention and gained a national audience through its compelling stories based on the experience of real people, not abstract complaints of inequality.

From 1999 to 2008, TAC won at least five legal challenges. The courts ruled in favour of TAC by expanding implementation of pregnant mother-to-child HIV transmission programmes, ARV therapy rollouts, and ARV treatment access for prisoners. Success in the courts inspired demonstrations, increased visibility and media attention, and created more recruitment at the grassroots level, which compounded the overall success of TAC. The expansion of health services led to fewer incidences of opportunistic infections, deaths, and orphans. The expansion of the national ARV programme saved about 400,000 lives.

Government resistance was ultimately overpowered by pressure from TAC, its coalitions, and collaborators. In 2008, South African President Thabo Mbeki, an AIDS denialist and a source of resistance to a national ARV programme, was removed from office.

For more on the FrameWorks Institute see http://www. frameworksinstitute.org

Executive branch control, legislation, and legislative domains and new areas of social innovation (figure). We present a case study in which many of these strategies were used to redress unacceptable access to health care for people with HIV/AIDS living in South Africa (panel 1). We also describe a coalition of non-governmental organisations in Mexico (panel 2) that use some of the strategies to promote nutritional health.

Refinement and streamlining of consumer information and identification of the appropriate frame for obesity

Refinement and streamlining of information to the public is an important strategy to improve public knowledge and galvanise populations around a common issue. For example, research on climate change showed that people respond more positively to messages on the health benefits of mitigation policies than the health risks of climate change.\(^3\)\(^\dagger\) Similarly, efforts in public health might benefit from a change in emphasis away from the risks of obesity towards greater communication to consumers about the benefits of specific policies. Alternatively, co-framing obesity with other issues of importance to specific population groups might also increase their support for obesity-prevention policies. Findings of a study in the USA showed that conservative voters’ support for government policies increased substantially when obesity was linked to military readiness.\(^\dagger\) The FrameWorks Institute provides useful resources for framing health issues.

The framing of obesity issues can also incorporate how the medical care cost of obesity is distributed. These costs are not entirely borne by individuals with obesity. Some of the medical care costs of obesity are paid by the non-obese in the form of higher health insurance premia (for private health insurance) and in the form of higher taxes (for public health insurance). Such external costs have the potential to lower social welfare, so economists recommend policies to internalise these external costs. These policies could take many forms, such as subsidies for physical activity and healthy diets, taxes on energy-dense foods, and wellness programmes that incentivise the maintenance of healthy weight. Support for such programmes depends partly on whether they are framed or interpreted as increasing fairness by decreasing external costs and cross-subsidisation of costs, or as worsening inequalities by decreasing risk-sharing in insurance. Support might also depend on whether such taxes and subsidies are framed as rewards for healthy behaviour or penalties for unhealthy behaviour (panel 3).

Another major challenge in public health communication to the public is the multitude and inconsistency of messages over time. For example, public health experts have made recommendations from low-fat, low-carbohydrate, and low-glycaemic diets, among others, to now a total diet approach from the US Academy of Nutrition and Dietetics.\(^\dagger\) Likewise, nutrition labels and health claims on food packages have been equally wide-ranging and confusing, leading to a gradual...
adoption of front-of-package labelling with graphic displays that are more cognitively accessible than numeric information alone (although debates remain). Another gap for the public relates to information about industry practices; initiatives, such as the Access to Nutrition Index, can increase the transparency of industry practices and help consumers make more conscientious choices.

Additionally, whether the emphasis in public communication about obesity should be on health is important to ascertain. For instance, results of studies in South African women and girls show a robust body-size tolerance and an effect of maternal body size and body image on their daughters. Attitudes to weight loss and thinness are also informed by community perceptions that individuals who lose weight might have HIV or tuberculosis. Whereas health-based messages might motivate the public in some countries (eg, longevity in Japan and diabetes in Mexico), in other countries, people might be more attuned to messages about environmental sustainability, food security, animal rights, and national security, among others. The most effective messages are transformative in emotional appeal, which, in turn, is socially and culturally dependent. The use of storytelling and narratives have a theoretical and empirical basis for the creation of such transformations. In Australia and the USA, the notion of equal protection and rights yielded success for the gay rights movement in the courtroom, but the imagery and stories of loving gay couples have had the greatest effect on public opinion. Alternate framing of the obesity issue could not only help to reach target audiences more effectively, but could also extend the range of potential partners in the fight for policy change.

Media advocacy

Media advocacy refers to leveraging of the power and access of all media channels to both frame obesity as a common challenge (as health or beyond health, depending on context) and market-specific policies that are in the common interest. Key goals for media advocacy include increasing popular attention to obesity as a political issue, educating the public about the relevance of the environment, generating public debate about the merits of different policy options, and persuading the public and the political elite to support specific policies. Media advocacy can raise issues, set agendas, and engage and motivate citizens and politicians. Below we discuss three aspects of media advocacy that public health should particularly strengthen to be more effective in the mobilisation of policy action.

The success of media advocacy hinges on implementation on a sufficiently broad scale to successfully change the information environment and ensure sufficient exposure. Obesity-prevention messages should compete with pervasive marketing of unhealthy food and beverages. Social marketing campaigns about nutrition and physical activity exist, albeit with moderate success, but these campaigns could be more effective if resources were pooled nationally or worldwide to build more powerful public health brands.

Panel 2: Alianza por la salud alimentaria (Alliance for nutritional health), Mexico

In Mexico, civil society organisations (CSOs) are playing an important advocacy part in the demand for obesity policy action. The Alianza por la salud alimentaria (ASA) is a consortium of academics and more than 20 CSOs in different specialties, from consumer groups to children’s rights organisations. ASA has garnered much media attention. It carries out activities from imaginative stunts, such as the capture of the so-called Junk Food Cartel (brand name characters Tony the Tiger for Kellogg’s Frosted Flakes cereal, Melvin the elephant for Kellogg’s Cocoa Krispies, Ronald McDonald, and Coca Cola’s polar bear) for threatening public health, to formal academic forums in which national and international experts provide policy recommendations. The ASA has also launched a communications campaign to raise public awareness of the risks of sugary soft drinks and the link to diabetes, using mass media such as billboards on main thoroughfares and publicity on buses and in the subway, which are used daily by 5·4 million people in Mexico City. Through an online strategy, the ASA also spreads messages and information on the Internet and social media through web content, videos and radio spots. The ASA has positioned the need for public health policy free of conflict of interest.

The ASA has not only increased public debate about the need of immediate actions to address obesity, but has also been a referent for social pressure in the executive and legislative bodies. As a result of ASA’s efforts, and despite a politically conservative government, taxes on soft drinks and junk food were put into effect in Mexico in 2014.

Media advocacy can benefit from the rapid growth and evolution of online digital media. Interactive social media platforms have changed the marketing and communication environment. Research across various health issues that involve online multimedia platforms have shown positive results and an advantage of low cost and high reach. However, to optimise results, these new platforms need a different conceptualisation to systematically integrate messages rather than consider each message as a standalone element. Use of digital media is not mutually exclusive from traditional media, of course, particularly in low-income and middle-income countries. Yet, even in these countries, the use of digital media by young people is rapidly rising.

Perhaps the most important consideration is how an obesity coalition can control media messages rather than letting these messages be controlled by industry or be diluted or muddled by uncoordinated organisations. A useful strategy is to create a centralised strategic platform to design and manage the messages. Although agreement between stakeholders will always be challenging to achieve, paralysis can be avoided and at least partial progress ensured by the introduction of issue-specific buffer zones that allow stakeholders to agree on some, not necessarily all, messages. Such a platform can also provide communication-related technical assistance to partner organisations and lead the strategic planning of press releases, press conferences, government hearings, and media appearances by representatives of the coalition among other events. An example is the Movement Advancement Project.
Panel 3: Examples of shifting of the cost of obesity to the obese

The raised medical costs of poor diets and sedentary lifestyles are not paid solely by those with poor health habits, but are also borne more generally by society. In private health insurance plans, the treatment costs of obesity-related illness are subsidised by the non-obese enrollees, who pay the same premium but incur fewer costs. In public health insurance, which is funded by taxes, the higher costs of those who engage in risky behaviours are subsidised by taxpayers. Internalisation of these external costs (ie, ensuring that they are borne solely by the individuals who generate them) has an economic rationale to ensure that the health-care system does not unintentionally subsidise poor diets and physical inactivity. Communication of the magnitude of these external costs to the public might make taxpayers more supportive of government actions aimed at the promotion of healthy behaviours.

The US Government, through the 2010 health-care reform legislation (ie, Affordable Care Act or ACA), now allows group health insurance plans to charge 30% higher premiums to enrollees who are overweight and refuse to participate in qualifying wellness plans. The US Federal Register gives a hypothetical example of an acceptable plan: an insurance company can give a 30% premium discount to those with a body-mass index of 26 kg/m² or less. To get the same discount, those with a body-mass index greater than 26 must walk 150 min per week (unless they have a medical disorder that would make that requirement unreasonable, in which case they must be offered a substitute programme).28

Another way of restricting external costs is to provide health insurance coverage for treatments of obesity-related illness conditional upon health behaviours. For example, in the US state of West Virginia, Medicaid (a single-payer public-health insurance programme) does not cover nutrition education, bariatric surgery, or weight-loss management in its basic plan, but enrollees who sign an agreement outlining their responsibilities for meeting health goals receive an enhanced plan with expanded coverage for such services.29 These enhanced benefits can be removed if enrollees fail to adhere to the agreement, for example, by missing a doctor’s appointment.

Policies that seek to internalise the external costs of obesity should be designed to avoid the creation of loopholes that allow health insurance companies to discriminate on the basis of pre-existing disorders. The Medical Schemes Act (1998) in South Africa30 stipulates that discrimination on the past or present state of health of the applicant is prohibited for the receipt of relevant health services. Likewise, the ACA states that health insurance companies should not discriminate based on pre-existing disorders. Some programmes seek to achieve this balance by rewarding programme participation (eg, enrollment in a weight loss programme) but not programme outcomes. Another challenge is establishment of when medical exceptions should be allowed—eg, if morbid obesity makes an exercise programme risky.

Other responses to the external costs of obesity include New Zealand’s immigration ban on individuals whose body-mass index is in the obese range, because they are considered to be a potential burden on the health system29 and airline pay-as-you-weigh price schemes to offset the cost of additional fuel from increasing passenger weight.29,30

Citizen protest and engagement

Citizen protest driven by a common cause is a powerful trigger for the spread of a social movement.37 At the height of protest against US health-care reform, a counter protest was mounted by the group Health Care for America Now, a broad coalition of stakeholders, to bring attention to harmful actions by the insurance industry, which helped put pressure on local elected officials.38 The obesity prevention movement often looks to the tobacco control movement for strategies to break a political impasse in the face of an international health crisis.38 But although the tobacco control movement is built on a strong foundation that attempts to demonise a harmful industry, the obesity prevention movement has to contend with the reality that food, unlike tobacco, is necessary for life and that stigmatisation of obesity itself is unacceptable from an ethical perspective.39 However, issues such as food safety or deceptive food advertising (eg, false health claims) can potentially be capitalised as cause for protest.40,41 The challenge is finding how ideas and imagery mobilise the public toward engaged citizen protest. One interesting example is how a group cleverly and successfully thwarted the efforts of an anti-tax movement to close the public library in Troy, MI, USA, with powerful imagery and metaphor (book burning) that led to dramatic increase in voter turnout.42 The logic is that tax reduction would lead to a decrease in public funding and public services, such as libraries, which are greatly valued by residents of most communities in the USA. A parallel example in the obesity context was a controversial YouTube video from Australia that equated feeding junk food to children with giving children heroin.43 The video, since removed from the internet, led to a substantial backlash, with much of the criticism on the video’s inadvertent blame on parents for child obesity. The powerful imagery might have led to greater change if the perceived target of the video had been food companies rather than parents.

Citizen engagement is key to any political campaign.45 Direct interaction of obesity-prevention advocates with citizens is important, as in the case of US President Barack Obama travelling throughout the country at the same time as the Health Care for America Now group protest to save the American health-care reform bill.46 In addition to grassroots organisation and canvass,
established machinery and advocacy audiences online can be cost-effectively leveraged. For example, online forums, such as MoveOn.org and MomsRising.org in the USA, have reconfigured methods and strategies for political mobilisation. These forums can assist in the organisation of offline events, revive and reconfigure organisational networks, distribute trust through visible signs of open deliberation, and foster a cultural fusion with politics by creating subversive messages and campaigns that use new media. For example, MomsRising.org has launched large-scale education and engagement campaigns to improve school food quality, generating broad national coverage in traditional and social media and increasing the numbers of parent bloggers and policy makers educated on school food issues. Public mobilisation at the outset of policy change can also increase public understanding and ownership of the issues, thus limiting public backlash or unintended results when policies are implemented.

Youth advocacy can be an important strategy for obesity prevention. A model of youth organisation that intertwines aspects of youth development, community development, and social change provides a unique opportunity for policy adoption and implementation. Youth organisations, networks, and leaders can uniquely elicit the attention of adults and can seed change through long-term ownership of the problem and its solutions as advocates for their own life-long health prospects. In a continuing initiative in a Latino community in the American Midwest, youth advocacy, coupled with social marketing and community engagement, has led to a doubling in community readiness from vague awareness of childhood obesity as a problem at the community level to a preparatory stage for community action. Youth engagement around voting initiatives is also a strategy to promote civic engagement and shift attitudes around policy formation and political processes.

Building of partnerships to create a receptive political environment

Various mechanisms exist for building relationships to affect policy change at the political level. Messages about obesity policies need to be refined and streamlined for legislators and government administrators, as well as for the general public. Lobbying is more effective when policy makers are sympathetic to the policy position. Compelling stories should be relayed to legislators where it matters the most—in the constituencies they represent. Strong constituent-representative relationships have led to policy advances in the area of veteran affairs and in mobilising demand for healthy public policies. A central premise of this Series paper is that, in view of the wealth of obesity prevention policy recommendations that exist, the missing elements are ways to bring these policies to fruition. No single person or sector is responsible for making this happen automatically. Indeed, windows of opportunity are broadened with the expansion of coalitions. Ways to activate leadership and pool existing resources have to be developed to drive the process.

Here we provide recommendations for actions for diverse sectors to enter an expanded coalition, in which concerted actions can create the greatest policy effect (panel 4). Note that these recommendations are bottom-up strategies and differ from previous recommendations that were top-down strategies. The actions outlined in panel 4 are meant to work in synergy and, when undertaken, optimise the demand-side strategies described earlier.

When problems are complex, a package of policy solutions should be presented rather than single policies. This approach helps distribute the responsibility so that it becomes everyone’s problem and everyone can play a part to fix it. At the same time, a clear governance and accountability structure must also be present to ensure policy implementation (Swinburn and...
colleagues, this Series). Although the specifics of a solution package might differ, a combined top-down and bottom-up approach that engages the public in policy intervention applies to both developed and developing countries. Three important conclusions were drawn from a study in north Africa. First, policies are needed to address obesity. Second, policy feasibility and costs are as important as effectiveness. Finally, engagement by both citizens and policy makers is seen as crucial for any policy mobilisation.

As part of an expanded coalition, change agents are needed across organisations and sectors to realise health in all policies. These change agents can be developed with strategic training and placement of individuals in organisations across sectors, with distributed action and decision-making in this network of actors. Besides a change of formal training of the next generation of public health students, an interesting example from Fiji involved strategies to enhance workforce capacity to translate research evidence into policy making. Additionally, in a
multistakeholder approach, efforts to build trust across sectors take time and sometimes a neutral buffer zone is needed for divergent interests to start working together towards a common goal without parties having to agree on everything outside the buffer zone.

In Mexico, Bloomberg Philanthropies started a pilot programme about obesity prevention, modelled on previous initiatives in tobacco control, road safety, and maternal health. Bloomberg Philanthropies funds academic institutions, non-governmental organisations, and government agencies, creating, in turn, networks of actors. Academic institutions are funded to generate evidence that can inform policy and programme design and will allow monitoring and assessment. Non-governmental agencies are funded to advocate for the implementation of evidence-based strategies for the prevention and control of obesity, and government offices are funded to improve implementation of such policies and programmes. Such funding supports an expanded coalition and helps create a social environment that is conducive to policy action.

Public health research agenda
Several new research opportunities arise from this discussion. First, much research is needed to develop the science of social mobilisation, including formative and public opinions research on social values and concerns pertinent to each population. The methods need to be documented and mechanistic strategies need to be linked with observable changes in the community so social mobilisation efforts can be scaled up across communities.6 As part of this research, specific recommendations can help establish what works in each particular context (panel 4). Additionally, there is a need for timely and longitudinal population surveillance data on changes in social norms and attitudes,20 such as perceptions of obesity and support for various interventions, as well as prevailing issues of concern and cultural trends (Hawkes and colleagues;27 this Series). Efforts to document the cost-effectiveness of policies should continue to expand because such evidence can help to create public demand for change.14 These data are difficult to obtain through conventional experiments, and so assessment of natural experiments and the use of computer simulations will be important. Finally, a better understanding of the potential unintended consequences or by-products of different policy options is needed because this knowledge might further help refine the demand-side strategies. This knowledge can be gained through a variety of approaches such as scenario planning and simulations.

Conclusions
Although strategic and wide-scale efforts to mobilise the public have not been emphasised in obesity prevention, this approach might be one of the most important vehicles for change.26 So far, the strategies recommended for public mobilisation have been minimally studied, implemented, and coordinated in the context of obesity prevention. This Series paper is, therefore, a call to action. The intent of our proposal is to both reorient public health efforts and to change the natural attention cycle of public interest.20 Retrospective lessons from the specialities of political science and sociology can be parlayed into prospective and proactive strategies to enhance the popular demand for policy change.

Our call for bottom-up action aligns with that of the WHO Framework Convention on Tobacco Control,49 which sets a precedent for worldwide actions targeting the supply-and-demand feedback on tobacco use. Our recommendations also align with those of WHO about population-based approaches to childhood obesity prevention, which calls attention to government structures, population-wide policies, and community-based programmes.4 These recommendations, however, would need reprioritisation within public health. The public health specialty needs to assume new leadership and provide the infrastructure for a cohesive multistakeholder approach to the creation of public demand for policy actions to prevent obesity. Investment in public engagement and mobilisation will create and sustain more windows of opportunities.

Public health advocates need to reexamine their approach and use of resources to address obesity. New research should inform how best to strategically align citizens with policy goals. Assessment of continuing and future policy actions should also be a top priority to create practice-based evidence as an integral part of the knowledge loop.

Contributors
TT-KH conceptualised and led the writing, JHC, MA, SAC, LMF, LZ, JAR, and SKK drafted sections of the paper. All authors critically reviewed and helped revise successive drafts of the paper.

Declaration of interests
We declare that we have no competing interests.

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