Unlocking the Door to New Thinking:
Frames for Advancing Oral Health Reform

Moira O'Neil, Director of Research Interpretation & Application

Julie Sweetland, Vice President for Strategy and Innovation

Marissa Fond, Assistant Director of Research

Table of Contents

Introduction

When Chapin Harris and Horace Hayden approached the University of Maryland in 1840 to propose the integration of dentistry into medical training, the response would reverberate in American public health across the next two centuries. According to Mary Otto, author of *Teeth: Beauty, Inequality, and the Struggle for Oral Health in America*, the medical school dismissed dentistry as irrelevant to the training of prospective doctors, characterizing the care of teeth as a "mechanical" issue rather than a medical one. After this historic rebuff, the United States' first dental school was founded as an independent entity. Thus, the complete separation of the dental and medical health care systems was set into motion—with profound and lasting consequences. Today, a few forward-thinking integrated models exist, but in general there is too little communication between dental and medical health systems, leading to missed opportunities to further the knowledge base for prevention and treatment efforts that address oral health issues in the context of overall health. Private insurance for these two types of care is typically handled under separate plans and by separate insurers. Oral health coverage is offered less often through employee benefit programs than medical coverage. This contributes to a general sense that oral health care is a "nice extra" rather than essential. Perhaps it is not surprising, then, that Americans fail to appreciate the connections between oral health and overall health.

The bifurcation of these systems is more than a perception problem. The separation has cascading consequences on health care costs and health equity. Lacking adequate coverage for oral health, the uninsured may defer treatment until problems become acute, then seek treatment in emergency rooms, where are there are neither dentists to treat the immediate problem nor the kinds of connections to oral health care providers that ensure appropriate referrals and follow-up care. In the absence of systems and structures that ensure access to adequate oral health care, there are profound disparities in oral health care outcomes that fall along the predictable lines of race, place, and socioeconomic status.

Since the release of the surgeon general's *Oral Health in America* report in 2000, public health advocates have made important progress in addressing these problems, but there is more work to be done. One significant task ahead involves the *meaning-making* work that every movement must undertake. Because oral health advocates are working toward major, structural changes, they must also continue to cultivate public understanding of the problem and generate broad support for their solutions.

Understanding the need for effective ways to elevate and explain oral health as a matter of public concern, the DentaQuest Foundation commissioned the FrameWorks Institute to conduct a Strategic Frame Analysis®—a multi-method investigation that combines theory and methods from different social science disciplines to arrive at reliable, research-based recommendations for reframing a social issue. Figure 1 outlines the set of questions that were pursued, the methods used to investigate them, and details on samples sizes. This MessageMemo outlines the major findings of these studies and explains their implications for communications, outreach, and advocacy.

The MessageMemo unfolds in three parts:

- *Anticipating Public Thinking* outlines how Americans mentally model oral health and related issues, and pinpoints the implications of these patterns for advancing an informed public conversation.

- *Redirections* outlines a series of thoroughly tested communications tools and techniques for reframing oral health.

- *Moving Forward* offers concluding thoughts and a call to action.

Figure 1: Research base

What communications research does a field need to reframe an issue?

WHAT DOES THE RESEARCH ON ORAL HEALTH SAY?
To discern expert consensus on oral health, FrameWorks interviewed 10 leading researchers, practitioners, advocates, and leaders in the field of oral health. These data, collected in late 2015, were supplemented by a literature review.

HOW DOES THE PUBLIC THINK?
To document the cultural models that Americans draw on to make sense of oral health, FrameWorks conducted in-depth cognitive interviews with members of the public and analyzed transcripts to identify the implicit, shared understandings and assumptions that structure public opinion. Twenty interviews were conducted in Los Angeles, CA; Baltimore, MD; Nashville, TN; Chicago, IL; and Philadelphia, PA, in November and December of 2015.

WHAT IS THE PUBLIC HEARING FROM THE FIELD AND THE MEDIA?
To characterize the public discourse that shapes the cultural and policy climate around oral health issues, FrameWorks analyzed both media coverage and communications from influential oral health advocacy organizations. Researchers coded 123 media pieces and 184 pieces of non-governmental organization (NGO) communications to identify the existing framing techniques and pinpoint their likely effects on people's understandings.

WHAT FRAMES CAN SHIFT THINKING?
To systematically identify effective ways of talking about oral health, FrameWorks researchers developed alternative messages and tested them with ordinary Americans. A set of related methods were used to explore, winnow, and refine possible reframes:

- A panel of grassroots advocates were invited to comment on possible messages and speculate on the usability of the frames in the communities where they work.

- A set of on-the-street interviews allowed for rapid, face-to-face testing of frame elements for their ability to prompt more productive and robust understandings. A round of 36 interviews was conducted in Miami, FL, and Annapolis, MD, in spring 2016. A second round of interviews (a total of 64) was conducted in Minneapolis, MN, and Baltimore, MD, in summer 2016.

- A series of experimental surveys, involving a representative sample of 7,000 respondents, tested the effects of exposure to a variety of frames on public understanding, attitudes, and support for programs and policies.

- A series of qualitative tests (called "Persistence Trials") further probed the effectiveness of the metaphor. These trials were was conducted with 24 participants in Phoenix, AZ, and Baltimore, MD, in January of 2017.

All told, more than 7,100 people from across the United States were included in this research.

Anticipating Public Thinking

Before designing communications on a complex issue, it is helpful to anticipate how and why those communications might go awry. When strong conceptual models exist but are at odds with research and evidence, advocates need to reach for strategies that can shift perspectives and allow people to incorporate new ways of thinking. A systematic assessment of where, and how, public thinking differs from expert consensus is therefore a crucial resource for setting communications priorities, designing a strategy to meet those priorities, and selecting framing tactics. In this section, FrameWorks offers its analysis of the most important differences for advocates to anticipate and their implications for an overarching reframing strategy.

What is oral health? Functioning system vs. no cavities

Experts characterize good oral health as "not just" the absence of disease, but the full ability to use the mouth for everyday functions such as eating, smiling, speaking, or kissing. While oral health focuses specifically on issues presenting in the mouth—including the teeth, tongue, gums, and the entire oral cavity—experts note that oral health is inextricable from physical and mental health. There are many examples of how oral health affects, and is affected by, the health of the whole body. When oral health is compromised (for instance, by the presence of harmful bacteria) it can lead to increased risk for diseases such as cardiovascular disease or stroke. Oral health can be compromised in a variety of ways, including cavities, gum disease, viral or fungal infections in the mouth, oral cancer, or trauma or injury to any part of oral cavity. Oral disease has been linked to complications in pregnancy and childbirth and to respiratory, gastrointestinal, rheumatologic, and immunological issues. The influence goes the other way, too: other health conditions can affect the mouth, as when medication side effects lead to a dry mouth and thereby increase the risk of cavities or gum disease. Furthermore, experts note that oral health has unique psychological and social elements. Because the mouth is a prominent part of personal appearance, people with visible signs of oral disease are negatively judged and socially stigmatized, with consequences for their mental health as well as other influences on wellbeing, such as employment outcomes.

The American public has a much narrower default definition of oral health: it's about teeth, and healthy teeth are teeth without cavities. When prompted to think about "the mouth," people will venture into speculating about how it is connected to overall health, but their reasoning reveals a limited understanding. They are likely to offer one of two examples: the mouth is used to eat, and eating influences health; and the mouth is used to breathe, and breathing is essential for life. A single mechanism —the process of introducing substances into the body—is at work in both examples. The other mechanisms that oral health experts consider—infection, trauma, cancerous growth—are notably missing from Americans' causal reasoning about why a healthy mouth matters.

To build support for the comprehensive reforms needed to improve oral health access, outcomes, and equity, advocates need strategies that broaden the issue of oral health "beyond teeth" and clarify the mechanisms that connect oral health with overall health.

Where should Americans access oral health care? Multiple sites vs. the dentist's office

Experts contend that improving oral health outcomes will require that many kinds of providers offer oral health services and that effective approaches embed oral health services across community institutions. They note the benefits that have accrued from initiatives to provide oral health services in the places where people already gather or go: Head Start programs, schools, pediatricians' offices, or community health centers. And they point to ways in which the system could be further reimagined to provide care in remote areas or for other hard-to-reach populations. One such creative option is teledentistry, where locally based oral health providers, like dental practitioners, can use communications technology to consult with dentists or oral surgeons based elsewhere, thus reducing the problems associated with shortages of professionals in remote areas. The underlying assumption and overarching theme across these examples is that oral health can and should be addressed in many places, and in many ways, by a variety of health providers.

In contrast, Americans hold a shared assumption that *Dentists' Offices Are the System.* This model involves the thinking that the only relevant actors in oral health are those who are associated with a stand-alone dentistry practice: dentists, dental hygienists, and receptionists. These providers are understood as doing a limited set of tasks: people think of them as primarily extending and enhancing patients' own efforts to keep their teeth clean, and remaining on standby to repair damage when necessary. Furthermore, each practice is thought of as something like an island unto itself. Each office stands alone, disconnected and divorced from other dentistry practices, and in an entirely different world from the overall health care system.

The assumption that *Dentists' Offices Are the System* has important implications for talking about community-based systems of oral health care. If the only important actors are dentists, hygienists, and receptionists, it will be difficult for people to understand proposals that involve providers beyond these familiar types, much less proposals to tackle issues beyond the provision of oral health care. To the extent that the system is thought of as tantamount to dentists' offices, the public will struggle to understand how oral health care can be better integrated into our health systems or to connect oral health to proposals for health care reform. The *Dentists' Offices Are the System* model also structures how people think about systemic problems like affordability. Because practices are understood to operate in isolation, it is easy for the public to imagine the dentist as self-interested and therefore perhaps untrustworthy– motivated to charge arbitrary fees, inflate costs, or upsell services that patients don't need or understand.

To bring Americans along in rethinking our system to better fit the country's oral health needs, communicators need ways to foreground the idea that there is a system beyond stand-alone dentistry practices. To build support for reforms that broaden access to care, like expanding provider licensing options, communicators will need strategies to highlight a more diverse set of actors and places that are part of the oral health system of prevention and care. To build support for reforms that take a public health approach to oral health—like fluoridation—communicators need strategies for highlighting prevention and intervention efforts beyond biannual visits to the dentist.

What threatens oral health? Environments vs. individuals

Experts emphasized that a constellation of social, political, and biological factors influence oral health. They note that self-care and personal habits influence outcomes, but simultaneously attend to the ways in which these individual behaviors are shaped by social context. Chief among these is the fact that, for some groups, oral health care is difficult to access. Oral health care is not integrated into patients' primary care; insurance coverage is often limited for oral health issues; and without insurance coverage, accessing oral health care providers is cost prohibitive for many people. There also is an extreme shortage of oral health professionals in certain parts of the country, particularly in rural areas. And even when oral health care is available and accessible, experts note that oral health providers are often not trained to deliver culturally and linguistically appropriate guidance that addresses specific communities' needs. Finally, experts express frustration that policymakers tend to ignore oral health and that oral health does not get enough attention at the higher levels of government. They point to the limits of oral health coverage provided through public programs such as Medicaid and Medicare.

Beyond this policy context, experts point to health literacy issues that influence oral health outcomes. For instance, few people are aware that parents' state of oral health (good or poor) directly affects children in the earliest stages of life. Infants are born with sterile mouths and acquire populations of bacteria through ordinary interactions with their primary caregivers—a normal, ubiquitous process referred to as "vertical transmission." When parents' mouths are healthy, helpful bacteria is passed along; when parents suffer from oral disease, harmful bacteria are shared. Because vertical transmission of bacteria will invariably occur, experts note, the goal is to ensure that parents' mouths are as healthy as possible. In turn, this goal requires improved oral health literacy among caregivers and the health care providers who influence their behavior.

Public thinking, in contrast, involves little to no consideration of external influences on oral health. Reasoning from the understanding that oral health is just about teeth, Americans focus narrowly on brushing, flossing, and eating habits as the primary causes of oral health or the lack thereof. Problems are assumed to be the result of poor personal hygiene–a problem that can be readily solved, as one participant said, "with just a $3 toothbrush." This thinking also reveals an underlying *Health Individualism* model, a pervasive American belief that health is almost entirely under one's personal control. According to this mental model, wise choices lead to good health, poor choices lead to illness, and everyone has the power to choose. Thus, the public is unlikely to think about whether quality care is accessible, yet can readily blame individuals for neglecting to seek medical care when there are symptoms indicating illness or disease. Similarly, factors beyond individual responsibility—such as the preparation and training of health care providers or the role of transmissible disease—are invisible to the public.

To elevate oral health as a matter of societal concern—not just a personal matter—advocates must find ways to expand public thinking beyond *Health Individualism.* This is no easy task, as *Individualism* is arguably the deepest, most pervasive, and most well-established cultural model that Americans hold, shaping thinking about a vast array of social issues, not just oral health. Because cultural models are activated by the process of association, reframing efforts must scrupulously avoid cues about individual

agency and, instead, consistently advance a frame that directs public attention to the many other factors that shape oral health. This reframing will involve, for instance, emphasizing how context can promote or reduce healthy behaviors, rather than merely naming the healthy behaviors themselves. Shifting the issue from an individualistic orientation to a public health perspective will also involve establishing that the consequences of positive or negative oral health outcomes are shared across society, and not limited to the individuals, families, or populations experiencing them.

What explains disparities in oral health? Structural inequality vs. "cultural" differences

Experts locate the root causes of disparities in oral health outcomes in structural factors: the geographic dispersion of oral health care systems, uneven access to linguistically and culturally appropriate oral health care services, and differences in health care coverage according to income, to name just a few sources of inequity. The cumulative effect of these factors is that people who live in marginalized communities—especially in rural areas—have the greatest difficulty accessing oral health care. Reasoning from this systemic view, experts recommend multiple policy reforms to reduce disparities. Most involve targeting specific communities with more resources and better oral health care delivery systems.

When asked to consider why some groups of people experience poor oral health more often than others, and what might be done about it, ordinary Americans' reasoning diverges sharply from that of experts and advocates. The public relies primarily on the *Health Individualism* model explained above, concluding that poor oral health is evidence that people are simply not taking good care of themselves. The solution, therefore, is to provide more information so that they can make healthier choices. The other way that the public conceptualizes disparities is through stereotypes (e.g., asserting that people from Appalachia and other rural areas have "bad teeth"). Importantly, there are no structural factors associated with these "cultural" explanations. That is, people don't connect the absence of water fluoridation or a shortage of oral health care providers in rural areas with their perception that a region has "bad teeth." They simply assume that such areas have a preponderance of people with poor personal hygiene and that these failures of personal responsibility aren't a matter of public concern.

To make the case for promoting greater oral health equity, the field will need to find ways to direct public attention away from deficit thinking about populations that experience poor oral health and toward systems thinking about how disparities arise and how they can be redressed. This will require techniques and tools to explain *how* structural factors—income, race and ethnicity, language, geographic location—influence oral health outcomes and show how shifts in the system can address disparities.

What are the consequences of oral health problems? Population effects vs. individual troubles

Experts note that oral health policies and outcomes have measurable consequences for the nation, including economic impacts. One way that oral health affects the economy is through its effect on employment. Employers are much less likely to hire candidates with visible or untreated oral health

problems, contributing to chronic unemployment in some segments of workers and setting a cascading set of economic effects in motion. When oral health problems translate into decades of dampened or lost earning potential, this brings with it a loss of tax revenue and economic activity and an increase in costs associated with public assistance.

Another way that current oral health policies and problems affect the economy is through their contribution to increased health care costs. When oral health is difficult to access—either because of inadequate insurance coverage, cost, or other reasons—patients are more likely to develop problems that could have been prevented, or defer treatment until the problem becomes severe or acute, then seek emergency treatment. Emergency treatment is more expensive and rarely solves the problem, as it is ill suited to handle chronic health issues, making it likely that emergency care will be sought once again. In the process, the emergency system can become overburdened, lowering the quality of care for all. The cumulative effect is an increase in health care costs, with no commensurate improvement in health outcomes. Experts speak with some frustration about this vicious cycle, pointing out that oral health problems are readily preventable through sound public health measures.

While experts see the interconnections among policy, outcomes, disparities, and associated costs, the public works with a decidedly little-picture view of the consequences of oral health issues. Americans' top-of-mind associations with oral health problems are simple and immediate: bad teeth can be painful and may cause "low self-esteem." With prompting, people can readily see some ripple effects from these starting points—say, missed days of work or a hampered ability to maximize professional opportunities. Importantly, they understand these negative impacts as unfortunate problems for individuals and their families, while failing to see how they contribute to matters of shared public concern like economic growth or the cost of health care.

If the public stays stuck in little-picture thinking, meaningful reform will be difficult to achieve. If the problem is understood to be the occasional toothache and a bit of personal embarrassment, then it's hard to make sense of the role for policy and programs. Yet care must be taken in elevating the issue. One common method of attempting to reframe the issue—highlighting negative outcomes for certain populations—may have unintended consequences. First, it's easy to imagine a backfire effect in which the public interprets data on disparities as evidence that "people who don't take care of themselves" are causing serious economic problems that affect us all. Second, making a strongly negative case will dampen the public's ability to appreciate the possibility for success. Given the expert perspective that population-wide preventive measures would have dramatic effects and reverberate across social and economic life, it seems wise to find ways to translate this more hopeful point of view to the public.

Simply put: to build support for oral health reforms, advocates must find effective ways to foreground the collective benefits that will accrue from more sensible oral health policies.

How can oral health be improved? Public health approach vs. three simple things
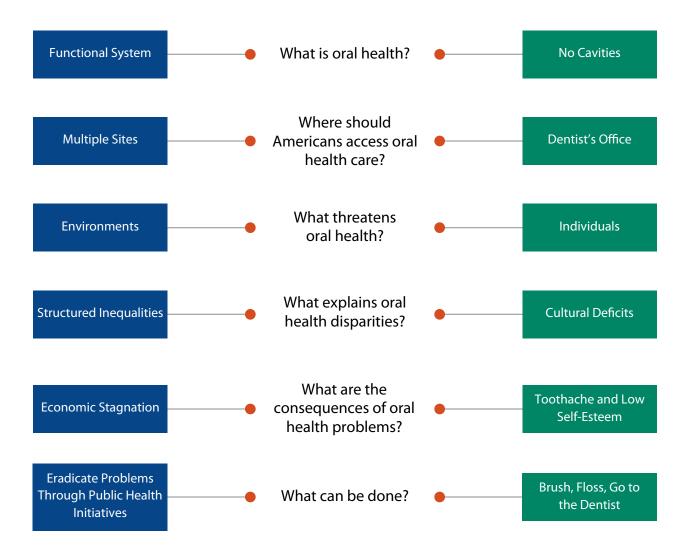
Experts see oral health issues as completely preventable. When talking about the real possibility of eradicating oral health issues, they focus on public health efforts that reach large numbers of people consistently. The prime example of a successful public health approach is water fluoridation: an inexpensive, unobtrusive, and nearly universal preventive measure that has yielded dramatic improvements in dental health. Experts go on to list other preventive measures, like screenings and dental sealants, that, if made widely available, could improve outcomes further. They note that the availability and affordability of healthy food plays an important role in oral health, and they connect federal nutrition programs and policies to oral health outcomes. Similarly, they emphasize that access to affordable, quality oral health care is an essential piece of effective public policy on oral health, and they argue for a variety of significant changes in current health insurance schemes (e.g., expansion of eligibility for Medicare and Medicaid, increase of oral health coverage in these plans, inclusion of at least some oral health treatment in private medical insurance). They suggest policies that would better integrate oral health concerns into medical care, like screenings for oral infections before surgeries or during pregnancy. Even when experts think about individual behaviors, they tend to think big, noting that current efforts at promoting awareness have fallen short, and more effective, innovative initiatives to build health literacy are needed.

Ordinary Americans also believe that oral health problems can be prevented, but place the responsibility for doing so on individuals. The public's model of prevention involves *Three Simple Things:* brushing, flossing, and visiting the dentist regularly. *Three Simple Things* is a more specific version of *Health Individualism,* focused on oral health behaviors. These are assumed to be matters of personal choice, willpower, responsibility, and even moral character. Reasoning from *Three Simple Things,* the public sees little role for policy and little chance that problems can be solved through a public response—the government can't make people brush their teeth, after all. The factors shaping the integration or separation of medical care and oral health are completely absent from the public's thinking, and public health efforts like screenings and fluoridation barely register. The public's sense that there is nothing to be done stands in sharp contrast to experts' call for bold action.

Given the distance between public and expert thinking about solutions, it is no surprise that oral health care remains low on the public policy agenda even in a moment of intense public debate about other health care issues. To raise the salience of the issue, oral health advocates must find ways to foster awareness and understanding of the structural and systemic factors that influence oral health and the kinds of policies and programs that could change them.

Figure 2 summarizes these gaps between public and expert thinking about oral health.

Functional System	What is oral health?	No Cavities
Multiple Sites	Where should Americans access oral health care?	Dentist's Office
Environments	What threatens oral health?	Individuals
Structured Inequalities	What explains oral health disparities?	Cultural Deficits
Economic Stagnation	What are the consequences of oral health problems?	Toothache and Low Self-Esteem
Eradicate Problems Through Public Health Initiatives	What can be done?	Brush, Floss, Go to the Dentist

Reframing the issue of oral health involves closing these gaps—not by traditional argumentation, classic persuasion, or catchy slogans, but by using communications and outreach opportunities to build awareness and understanding of the public health perspective. The remainder of this MessageMemo offers five pairs of framing strategies to replace and more effective alternatives to embrace.

Redirections

To elevate oral health issues, communicators need framing strategies that can be counted on to dislodge unproductive patterns of thinking and open new, more productive ways of engaging with the topic. To accomplish this, knowing what not to say is as critical as understanding what frames to promote.

To arrive at a set of framing tools and tactics that advocates can use with confidence, FrameWorks researchers designed a series of qualitative studies and quantitative experiments that tested the effects of different messages and themes. These findings, along with the findings of studies of how the field and the media currently frame issues, yielded a set of specific recommendations for oral health advocates. More detail on the methods used to arrive at these recommendations can be found in Appendix A. Figure 3 summarizes strategies communicators should use to advance the public discussion on oral health issues and frames they should avoid.

Figure 3: Summary of frames to avoid and advance in pursuing oral health reforms

AVOID	ADVANCE
Avoid framing that narrows the scope of the issue to the teeth.	Advance images, examples, and explanations that connect oral health to overall health.
Avoid unframed data about disparities.	Advance the value of Targeted Justice as an orientation to a fuller story about promoting equitable access to quality care.
Avoid leaving "prevention" undefined, undescribed, or individualized.	Use Responsible Management to make an economic case for widespread prevention strategies.
Avoid "zooming in" on individual cases to illustrate systemic problems.	Advance understanding of systemic influences on oral health by comparing barriers to "locked doors" and solutions that promote greater access to "keys."
Avoid leaving solutions to the public's imagination.	Advance the idea that oral health involves a team of professionals who work across the community.

We discuss each of these strategies below, offering data to support the recommendations.

AVOID *framing that narrows the scope of oral health to the teeth.*

Oral health advocates have a strong practice of connecting oral health to overall health in their communications. A systematic review of advocacy framing revealed that organizational language consistently explains how problems in oral health are connected to other health issues that go beyond the mouth, including behavioral and mental health issues. This is important: if the scope of the issue is narrowed to teeth, the potential for substantive reform is also narrowed.

While the field is *saying* one thing—and the right thing—researchers noticed that organizations are *showing* another. Visuals seem to be the one place where the field's framing narrows the scope of oral health to teeth. Photographs of bright smiles are ubiquitous, and images of friendly-faced toothbrushes and adorable cartoon teeth abound.

Beware the anthropomorphized cuspid. The image that telegraphs the topic easily or efficiently may not, from a reframing perspective, be the most effective.

ADVANCE *images, definitions, and explanations that connect oral health to overall health.*

The conscientious framing efforts of the oral health field were evident in the data collected for this study, as the field's language (some of which was developed in earlier FrameWorks studies) was echoed by the public. Just over half of the interview participants brought up the idea that the mouth is the gateway to the body, and many of them used the term "gateway." Yet efforts to advance this theme need to continue. Researchers found that, without prompting, Americans are unlikely to include oral health issues in their thinking about overall health—and once the topic is introduced, there remain many ways that understanding is limited or narrow.

Messages like these can't be repeated enough:

"Overall health is closely connected to healthy gums, teeth, tongue, and mouth."

"The health of the mouth and the rest of the body are interconnected."

It is also important to support these "thesis statements" with examples that help people understand the two-way connection between oral health and overall health. FrameWorks testing confirmed that the example of diabetes was helpful in this regard.

AVOID *unframed data about disparities.*

When oral health advocates see stark statistics about regional or racial disparities, they interpret them as evidence of systemic flaws or structural inequities. The public's default reading, on the other hand, is that poor outcomes reveal poor choices on the part of those experiencing problems. The numbers, on their own, can motivate advocates: they point straight to the need to act. When the public is presented with arguments that essentially begin and end with the scope of a problem—leaving out mention of possible solutions—they are more likely to be directed toward fatalism, the sense that, given the size of the problem, it probably can't be solved.

When communicating about oral health inequities, particularly those that involve race and socioeconomic status, it's important to provide multiple "clues" or cues for the public for how to interpret the data. These cues include the framing of why the issue matters (such as the values frames recommended below), the explanation of the causes and consequences of the problem, the nature of the solutions that are presented and highlighted, and the way responsibility for and benefits of solutions are described. In turn, these different cues can appear in multiple places in a message—the text, of course, but also the accompanying titles, captions, or images. FrameWorks research shows that, with framing adjustments, the public's "default settings" can be adjusted, too.

ADVANCE *the value of Targeted Justice as the opening of a fuller story about promoting equitable access to quality care.*

A FrameWorks analysis of oral health advocacy materials revealed that the field often talks about oral health issues as social justice issues, connecting oral health access and outcomes to broader issues of social inequality. But what is the most effective way to make the case on this important issue?

To explore this question, FrameWorks researchers first distinguished two versions of messages about justice and fairness that are common in the field. The *Opportunity for All* frame characterizes a just system as one where everyone, regardless of background, has the same basic conditions and services that support oral health. The *Targeted Justice* frame characterizes a just system as one that recognizes specific needs and accommodates them to support oral health.

Both *Opportunity for All* and *Targeted Justice* are values—enduring and cherished cultural ideals that guide individuals' attitudes and behaviors. People draw on values to evaluate social issues and reach decisions. As framing devices, values help people understand why an issue matters and orient them to whether the issue is one of private or public concern. Appealing to a shared value in a communication can have a measurable effect on people's attitudes and policy preferences. Importantly, based on hundreds of original studies on dozens of social issues, FrameWorks has found that it's impossible to guess which value or values will have a positive effect—much less which ones may backfire by depressing support. For this reason, it is important to look to evidence to inform decisions about which values work in service of advocates' goals.

In a controlled experiment that tested the effects of these two "flavors" of fairness, *Targeted Justice* surfaced as the more effective theme. As illustrated in Figure 4, *Targeted Justice* was effective at orienting public thinking about oral health toward a systemic perspective and at boosting the public's agreement that society has a collective responsibility to address oral health inequities. The measurable, statistically significant effects (between 4 and 6 percentage points relative to the control condition) are meaningful results for this kind of experiment.
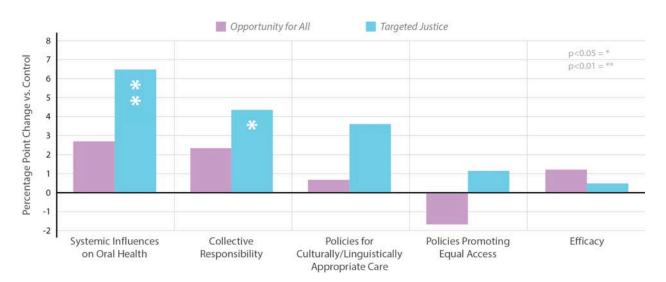
Figure 4: Framing fairness - Targeted Justice outperformed Opportunity for All

Based on these results, FrameWorks strongly recommends that oral health advocates consistently use the value of *Targeted Justice*. The essence of this frame element is as follows:

> **Targeted Justice:** To live up to our ideal of justice, we must recognize that different situations call for different responses, and different groups may have different needs. A one-size-fits-all approach sounds good but rarely works. When it comes to oral health, different people may need the ability to get care at a location that is easy to get to by public transportation, or can accommodate their work schedule, or has staff who are fluent in their language. By making sure that our health system allows people to get the kind of care they need to support good oral health, we can create a more just and fair society.

Targeted Justice is but one element of a fully framed communication. Even the most consistent or creative use of this theme won't serve as a "magic bullet"—it's worth noting that this value had no significant effects on some of the communications outcomes. For this reason, other themes and tools are recommended below. Yet, if the field coalesces around this value and finds resonant and authentic ways of using it in communications and outreach to groups, this will help shift public thinking about oral health away from default individualistic modes and toward a more collective and systemic perspective.

AVOID *leaving "prevention" undefined, undescribed, or individualized.*

Public health professionals work with the understanding that preventive strategies work at the level of the individual as well as at the levels of programs, policies, and systems. The ordinary American, on the other hand, is more likely to assume that preventing oral health problems is equivalent to keeping one's own teeth clean through self-care and periodic "deep cleans" from a professional. In fact, they are unlikely to be aware that any other sort of prevention even exists when it comes to oral health. Coming from this perspective, it's quite difficult for the public to appreciate the role of public health efforts.

FrameWorks' analysis of organizational communications found that advocates often assert the importance of prevention but do not explain how prevention works. This is unproductive. To build support for preventive approaches, oral health advocates should avoid appealing to "prevention" without also offering examples of what this looks like in a public health approach. Proven approaches like dental sealants or fluoride varnishes just aren't part of public thinking. Unless prompted, people won't connect the dots between tobacco cessation efforts and oral cancer prevention. But with a consistent effort to highlight these kinds of approaches, the public can and will develop the ability to name and value these types of actions.

To build support for wide-scale prevention efforts, oral health advocates must also develop the habit of mentioning individual-level prevention last and least. There is little information value in talking about self-care (this research demonstrates clearly that Americans know that brushing, flossing, and checkups affect oral health), but there is a big framing risk in leading with these familiar prevention behaviors. The public thinks about oral health in highly individualistic ways—more so than other health issues, in fact—and this thinking limits support for public policy and public health approaches. By reminding people of the dominant cultural model of *Three Simple Things,* communicators reinforce it.

Strategic framing is a process of making intentional choices about what to emphasize and what to leave unsaid. If and when the goal is to build public will for systemic change, then communicators must stress the public nature of the issue. Communicators should avoid reinforcing individualized understandings of prevention and devote more of their communications opportunities to community- and policy-based preventive strategies.

ADVANCE *the value of Responsible Management when making an economic case for widespread prevention strategies.*

Oral health advocates have highlighted the economic consequences of our nation's inadequate approach to prevention and care. Sometimes this case is made in terms of workforce participation: because of the stigma attached to oral health problems, employers are less likely to hire people with visible dental decay or loss; therefore, people with untreated oral health problems lose earning potential. A different economic argument focuses on the increased costs associated with the lack of access to affordable care, highlighting how current approaches create incentives for people to defer treatment, leading to more serious problems that are ultimately more expensive to treat. The resulting increased costs are avoidable costs.

Both arguments rely on an economic case, but which is more effective? To explore this question, FrameWorks researchers tested these alternatives head-to-head in a controlled experiment. The results indicate that it is more effective to frame the economic case in terms of avoidable costs. As illustrated in Figure 5, the message focused on *Workforce Participation* had no statistically significant effects: it was essentially the same as saying nothing. In contrast, the message that highlighted *Avoidable Costs* boosted the public's sense of collective responsibility to address poor oral health outcomes and led to increases in people's understanding of how systemic factors affect oral health.
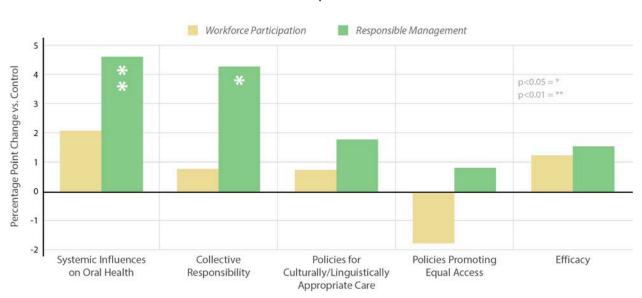
Figure 5: Framing the economic case - Avoidable Costs outperformed Workforce Participation.

Based on these results, FrameWorks recommends that oral health advocates abandon the workforce participation argument and devote more communications space to highlighting the problem of avoidable costs. (This recommendation is in line with findings from another part of the experiment that showed that messages that focused on the costs of inaction were particularly effective with self-identified Republicans. For more on this portion of the study, see Figure 6.)

While this recommendation is backed by strong evidence, it's worth noting that the gist of the "avoidable costs" is vulnerable to a backfire effect. It's not hard to imagine a scenario where opponents or ordinary Americans respond by blaming people who lack coverage for driving up costs for "the rest of us." To minimize and mitigate this problem, FrameWorks recommends that communicators always pair the "increased costs" argument with an appeal to the value of *Responsible Management*. This frame element taps into the cherished American ideal of thrift—the importance of using resources wisely and effectively, and the value of making smart decisions now to avoid problems and additional costs later. The following is an example of this value:

Responsible Management: We need to use our nation's resources efficiently and effectively. When it comes to oral health, we know we can reduce costs by stopping problems before they even start. When we fail to support prevention efforts, people end up with unnecessary problems with their teeth, gums, mouth, or tongue, and they might not be able to get them treated appropriately. In the end, the problems end up becoming more serious and more expensive to treat. Using our resources wisely means making sure that all communities have strong prevention efforts in place, oral health care is available in locations people can access, and our approach to dental insurance coverage includes everyone.

By highlighting the ways in which poor oral health imposes unnecessary and avoidable costs to our health care system, oral health advocates can galvanize the public to see oral health inequities as not just a problem that affects "other people" but one that has consequences for the whole of society.

Figure 6: What can be gained through loss framing?

As a general rule, reframing efforts are enhanced when they pursue a consistent framing strategy—one that relies on and repeats similar themes over time, across settings, and with diverse audiences. Yet, as there is always the exception that proves the rule, there are also times when subtle shifts in framing or messaging can be a good move. This can be particularly important when advocates have identified opinion groups whose support is critical to a reform effort, but are hard to engage or difficult to persuade.

To help oral health advocates find frames that could broaden their support, FrameWorks researchers looked for differences in the responses of registered voters who self-identified as Democrats versus those who self-identified as Republicans.

The baseline differences between Republicans and Democrats on oral health issues were pronounced, especially for policy preferences and attitudes about whether public policy would work to improve oral health outcomes. Self-identified Democrats had high levels of baseline support. Self-identified Republicans had generally less favorable attitudes toward policies designed to improve oral health and were more skeptical about the ability of public policy to make a difference in oral health outcomes.

FrameWorks researchers designed an experiment to find frames that might be especially effective with this hard-to-reach group. The study tested the impact of two ways of messaging about oral health policy:

Inaction Leads to Losses. This message emphasized that if society *fails to act* on oral health, economic *losses* and public health *problems* would follow.

Action Yields Gains. This message emphasized that if society *takes action* to improve oral health, economic *gains* and public health *improvements* would follow.

The results, as seen in Figures 6a and 6b, indicated that shifting emphasis along the lines of gain/loss can be an effective way to tailor communications to specific audiences.
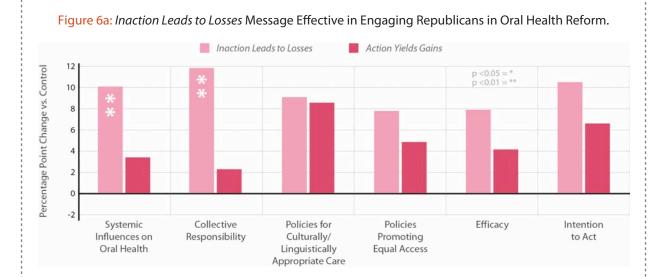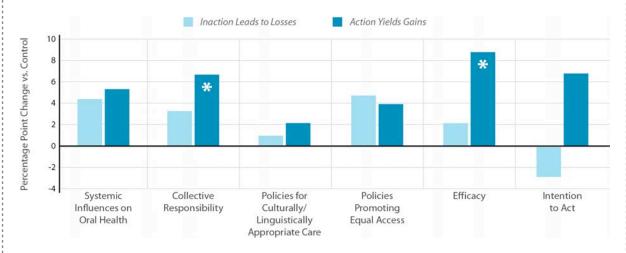
Figure 6a: *Inaction Leads to Losses* Message Effective in Engaging Republicans in Oral Health Reform.

Figure 6b: *Action Leads to Gains* Message Effective in Boosting Support Among Democrats.

For Republicans, the *Inaction Leads to Losses* message was particularly effective. Reading about the costs of inaction led to large, statistically significant differences across multiple batteries, including collective responsibility, policy support, and collective efficacy. The increases of 7 to 9 percentage points on the scales for equal access and culturally and linguistically appropriate care approached significance (p≥.08).

For Democrats, baseline support for oral health policies was high, even in the absence of a message, but was moved further with the *Action Leads to Gains* message.

Based on these data, advocates should consider varying their emphasis on gain or loss according to audience. FrameWorks recommends emphasizing the problems that stem from the status quo when trying to engage groups who may not already support oral health reforms, or when the audience is unknown. Emphasizing the potential for better outcomes through new or enhanced policies may be more effective with audiences who are already supportive of the issue.

AVOID *"zooming in" on individual cases to illustrate systemic problems.*

Advocates across social issues use stories of individuals in attempts to build public awareness, understanding, and the will for change. In the oral health field, advocates often highlight poignant cases, like the 2007 death of Deamonte Driver or the 2009 death of Kyle Willis, to illustrate the potentially fatal consequences of untreated oral health problems.

It's clear that stories like these gain attention, but do they also result in gains for policy reform? Some bodies of social science research, like the work of Shanto Iyengar and his colleagues, have suggested that the answer is "no," finding that stories that zoom in on individuals lead people to attribute responsibility for the problem and its solutions to the individuals themselves, not society. On the other hand, other bodies of research point to the power of stories as memorable, compelling, and relatable.
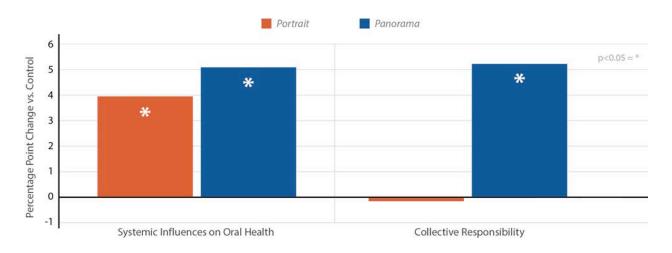
To help resolve this tension, FrameWorks tested the impact of two versions of a story about an individual who lacked access to affordable care.

> *Portrait.* This story focused on the experiences of Maria, a woman without dental insurance whose oral health declined because she was unable to afford treatment.
>
> *Panorama.* This version included the story of Maria, but embedded it into a longer message that explained the systemic causes of situations like hers, explained the broader impact, and named potential policy solutions.

The results, as seen in Figure 7, suggest that *Portrait* stories are *not* the most powerful use of limited communications opportunities. On its own, the story of Maria had no distinguishable effect on the public's sense of collective responsibility for addressing oral health issues.

Figure 7: Personal stories, on their own, fail to build a sense of collective responsibility for oral health.

The graph illustrates that, compared to participants who read nothing at all, participants who read the *Portrait* story were more likely to agree that systemic factors influence oral health, but were *not* more likely to agree that society has a responsibility for addressing oral health issues. In contrast, people who read the *Panorama* version of the story were significantly more likely to agree that oral health is determined by systemic influences *and* that society is collectively responsible for addressing oral health issues.

Put another way: The *Portrait* story helped people understand the problem, but it did nothing to help them understand that they had a role to play, as citizens, to help to solve it. The *Panorama* story yielded an understanding of the problem and, crucially, also led people to see the need for a public response.

This research suggests that stories of individuals, depending on how those stories are framed, can either help to build the will for change or be a waste of precious communications opportunities. For maximum effect, individual cases should always be "wrapped" in information that points out the social and policy context.

Advocates should avoid ambiguous statements like, "Maria was unable to see a dentist," and instead take care to explain why this was so—naming systems-level factors like high insurance costs, shortage of providers in the area, or the difficulties of finding providers who accept particular insurance plans. Stories mentioning individuals' experiences should be paired with information about the prevalence of similar cases, the collective consequences, and the types of solutions that could address the issue.

ADVANCE *understanding of the systemic barriers to oral health by comparing barriers to "locked doors" and solutions that promote access to "keys."*

A FrameWorks analysis of oral health advocacy materials revealed that, as a field, oral health advocates have a consistent practice of including systems-level issues, such as insurance coverage and provider shortages, as influences on disparities. These are effective framing strategies, but on their own they are not sufficient to reorient Americans from a highly dominant *Health Individualism* model to a public health perspective. Knowing the strength of the public's tendency to explain oral health disparities in terms of individual choices and to explain solutions in terms of actions that individuals can (or *should*) take to be healthy, FrameWorks researchers investigated whether it was possible to highlight systemic barriers rather than individual behaviors.

To do this difficult framing work, researchers turned to the powerful frame element of metaphor. Explanatory metaphors are linguistic devices that help people think about and talk about a complex concept in new ways. By comparing an abstract or unfamiliar idea to something concrete and familiar, explanatory metaphors can make information easier to understand—and in creating that cognitive shortcut, metaphors have the power to change the way a topic is understood.

FrameWorks designed the *Keys to Oral Health* metaphor to bring systemic thinking about barriers to the forefront of people's thinking in a way that also led people to see that public solutions were reasonable and feasible.

"An important part of overall health is oral health—having a healthy mouth, including teeth, gums, and tongue. Access to good oral health can be thought of like a series of doors. These doors include the availability of nutritious food, dentists who accept all different types of health insurance, and health professionals who speak the same language as their patients. Some people have all the keys they need to unlock every door, while others are missing one or all of them. If people don't have these keys, it doesn't matter how hard they push—without the right keys, no one can get to good oral health. To make sure America benefits from everyone having good oral health, we must make sure everyone has the necessary keys."

As illustrated in Figure 8, results from a controlled survey experiment demonstrated that this metaphor was effective in helping people think about the systemic and environmental influences on oral health. It was useful for shifting people's perspectives from the idea that oral health is a purely individual pursuit, and toward a more ecological perspective that considers various social, economic, and political factors in achieving good oral health.
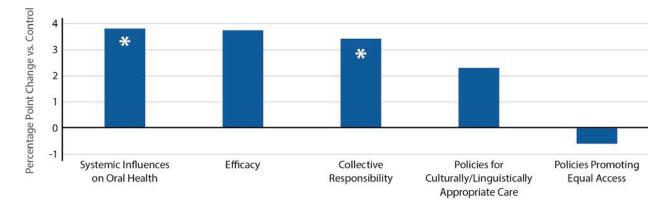
Figure 8: Effects of the Keys to Oral Health metaphor on understanding and attitudes.

These promising-but-not-amazing quantitative results were greatly bolstered by subsequent qualitative testing. Using a method that explored the metaphor's effects in conversational settings, researchers found that the *Keys to Oral Health* metaphor provided ordinary Americans with a way to articulate the idea of systemic barriers to oral health. The easy-to-use language of *keys* and *locks* was "sticky," meaning that people could pick up the metaphor, repeat it, and use it as their own. FrameWorks' research and

experience has shown that stickiness is a critical element of an effective metaphor, as it can predict the likelihood of widespread diffusion once advocates start introducing it into communications.

Another important effect of the metaphor is that it sparked a sense of collective efficacy, or the belief that there are things society can do—programs we can fund, policies we can support—to solve even the most difficult problems. By setting up a problem ("a locked door") that has an easy-to-think solution ("a key"), this frame element channels attention to access and attributes the responsibility for the solution to society, not individuals. In testing, this feature of the metaphor served to destigmatize people with oral health problems. Research participants exposed to *Keys to Oral Health* talked about people "banging on doors that won't open," describing people attempting to access oral health care as hardworking, savvy, and engaged—a stark contrast with the default views of people with untreated oral health problems as lazy, uninformed, or apathetic.

Oral health advocates already have a strong practice of consistently calling attention to systemic sources of inequality that drive disparities in oral health outcomes. By coalescing around the *Keys to Oral Health* analogy, the field can benefit from the unique advantages of metaphor, which include the ability to spark interest, the power to shift perspectives quickly, and the capacity to travel far and wide through social radiation.

AVOID *leaving solutions to the public's imagination.*

When the public hears about social problems but doesn't get information about solutions, it is difficult to build will for a public response. People assume either that the problem is too big to be solved or that it's up to the people experiencing the problem to figure it out for themselves. To avoid fatalism, then, it's also important to avoid leaving solutions to the public's imagination.

The oral health field has clearly already learned this important framing lesson. FrameWorks' analysis of media and advocacy frames found that while news coverage rarely mentioned solutions, solutions were present in almost 95 percent of advocacy materials in the sample.

There was one exception to this strong focus on solutions. When advocates turned to highlighting disparities in oral health, they tended to leave out a call to action or a clear statement about what should be done to address inequities. Discussions of inequities by region or race rarely included any mention of steps that could be taken that would match the scope of the problem. Given the many ways that Americans can readily reach the conclusion that inequities are inevitable (*the poor will always be with us, apples don't fall far from the tree, it is what it is*), it is especially important to show how disparities can be disrupted and interrupted through public responses.

It is also important to advance and foreground solutions that match the scope of the problem. Only a slim majority of solutions discussed in advocacy materials focused on preventive actions and policies at the population level (55 percent of materials). To avoid reinforcing the public's assumption that the solution to oral health problems is for individuals to do *Three Simple Things,* communicators should avoid cues

that attribute individual responsibility for causing and addressing oral health issues (what you can do) and always be very clear and specific about the structural and systemic nature of oral health issues (what we can do).

ADVANCE *the idea that oral health involves a team of professionals that work across the community.*

If communications leave the public with their default understanding that the only important actors in oral health are dentists, hygienists, and receptionists, Americans will struggle to understand proposals that involve providers beyond these familiar types. In addition, the *Dentists' Offices Are the System* model obscures issues beyond the provision of health care, making it harder for the public to appreciate the potential of preventive approaches.

Thus, advocates for a broader public health approach would do well to stay away from language and images that tightly associate oral health issues with this too-familiar site. Avoid stock photos or other images set in dental offices; instead, look for opportunities to use language and images that help Americans visualize the different places where oral health care services can be provided (e.g., primary care facilities, mobile care units, schools). Also avoid vague phrasing like "dentists and other kinds of oral health providers," which is akin to asking people to imagine a color they've never seen before. Instead, fill in the blanks for the public by including concrete examples of a variety of providers.

Communicators can boost public support for oral health policy reforms by broadening public thinking about the *who* and *where* of oral health care delivery systems. The qualitative data collected for this study suggests that a fairly simple framing tactic can be an important way to expand thinking.

FrameWorks recommends that oral health advocates (a) explicitly and consistently name multiple actors who are, or could be, part of an effective approach to oral health, and (b) always include actors who work in locations other than stand-alone dental practices. Here's one example of how this might be done:

> "There are different kinds of health professionals who play a role in oral health care: dentists and hygienists, of course, but also school nurses, pediatricians, and primary care physicians. The public health officials who monitor important health trends and information, like insurance coverage or the number of oral health providers in an area, are also part of our oral health system."

Researchers found that talking about the various oral health providers as part of a "team" helped people think about examples of how oral health care could be provided outside the dentist's office. People could readily envision school nurses as the "teammate" who screened for problems and then referred children to

get the care they need. Advocates can also use "team" language to expand on the theme of collaborative, integrated oral health care, for instance, explaining the skills and expertise that different roles bring.
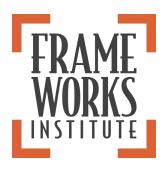
Expanding the team is one way to dampen the default assumption that *Dentists' Offices Are the System.* From there, advocates can more easily make the case that we need to extend policies and funding to train, equip, maintain, or coordinate the team.

Moving Forward

Oral health advocates face the formidable task of raising the salience of oral health issues while the country intensely debates the future of the general health care system. There are risks to entering this conversation. FrameWorks' prior research on health care reform shows, unsurprisingly, that people perceive this issue to be "stuck" in never-ending partisan debate.

And when it comes to oral health, the lack of public understanding presents additional challenges. Americans are generally unaware of the systemic nature of oral health issues and the full scope of their impact. They do not see oral and general health as inseparable, they do not understand the social determinants of oral health outcomes, and they do not recognize the scope of the solutions needed to prevent and address oral health issues.

The research presented here, however, demonstrates that there are ways to forefront oral health issues, explain systemic barriers to care, and awaken Americans to the idea that oral health issues can be eradicated. With potent frames in hand, the field has new tools to engage the public in productive conversations about oral health, building optimism and support for effective change. We offer these recommendations with equal optimism and look forward to working with the field to draw Americans into the creative and innovative ideas that will update our oral health delivery system and finally address the historic rebuff of 180 years ago.

About the FrameWorks Institute

Standard rules for protection of intellectual property and citation apply. Please follow standard APA rules for citation, with FrameWorks Institute as publisher:

O'Neil, Moira, Julie Sweetland, and Marissa Fond. (2017). Unlocking the Door to New Thinking: Frames for Advancing Oral Health Reform. Washington, DC: FrameWorks Institute.

Appendix A: Which frame "works"? That's an empirical question.

A frame "works" when it leads to the desired communications outcome. To arrive at a set of framing tools and tactics that advocates can use with confidence, FrameWorks researchers designed a series of qualitative studies and quantitative experiments that tested the effects of different frame elements on communicating expert perspectives on oral health. The frame elements included different ways of using values, explanatory chains, explanatory metaphors, and solutions.

To determine the effects of alternative frames, researchers first created short messages that incorporated one or more frame element. From a large, nationally representative sample of Americans, participants were randomly assigned different messages to read online, and then asked to complete a survey probing their knowledge, attitudes, and policy preferences about oral health issues. The scales and sample questions below illustrate the outcomes that effective frame elements achieved.

Scales and questions about knowledge, attitudes, and policy preferences

SCALES	SAMPLE QUESTIONS
Connection Between Oral Health and Overall Health	How important is oral health to our overall health and wellbeing? (*not at all important* to *extremely important*)
Systemic/Environmental Influences on Oral Health	People's oral health is affected by where they live and work. (*strongly disagree* to *strongly agree*)
Collective Responsibility for Oral Health	If people in this country have poor oral health, our country has failed in its responsibilities. (*strongly disagree* to *strongly agree*)
Support for Culturally and Linguistically Appropriate Care	Local health clinics should dedicate funding to producing materials in multiple languages to inform people about oral health, no matter what language they speak. (*strongly disagree to strongly agree*)
Support for Equal Access to Oral Health	The government should provide incentives (like tax breaks) for dental offices to open in neighborhoods without many practicing dentists. (*strongly disagree* to *strongly agree*)
Understanding of Mouth-Body Connections	If people have oral health issues, this can create severe health problems in other parts of the body. (*strongly disagree* to *strongly agree*)
Efficacy	How much of an effect can public policy have on people's oral health? (*none, a little amount, a moderate amount, a large amount, a very large amount*)
Intention to Act	How likely are you to call or write a letter to a local, state, or federal official to encourage them to prioritize making good oral health possible for everyone? (*not at all* likely to *very likely*)

The results associated with each frame were compared with each other and with the responses of a control group, which received no messages but answered the same survey questions. This design allows researchers to pinpoint how exposure to different frames affects people's understanding, attitudes, and support for relevant policies. In addition, researchers controlled for important demographic variables (including age, race, class, and gender of respondents) by conducting a multiple-regression statistical analysis. This sound experimental design—a hallmark of Strategic Frame Analysis—allows researchers to feel confident that differences between treatment groups are due to the frame and not extraneous factors.