"Just Do It"

Communicating Implementation Science and Practice

A FrameWorks Strategic Report

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TABLE OF CONTENTS

I. INTRODUCTION

This report provides a set of key strategies for communicating about implementation science and practice. It is grounded in a detailed understanding of how implementation is understood by experts, human service professionals[1] and members of the American public. By mapping the ways that these different groups reason about implementation, we identify a set of challenges that must be addressed in order to allow non-experts to access and use knowledge and perspectives from implementation science. In short, these challenges must be reframed in order to communicate effectively about implementation.

The report not only identifies these challenges, but begins to outline the contours of a strategy to pursue in navigating the complex set of understandings and assumptions that become active when people think about such topics as "the use of evidence," "improving practice," "effective implementation" and "institutional change."

This research was conducted with support from, and in collaboration with, the National Implementation Research Network (NIRN) at the University of North Carolina at Chapel Hill. The research presented here is distinct from opinion research in that it documents the thought processes and deeply held beliefs that not only inform what people say, but structure their judgments. This cultural-cognitive approach identifies *ways of thinking*, which is key to developing more effective and strategic communications. FrameWorks refers to these deep, implicit but highly shared patterns of understanding as the **swamp of understanding** on a given issue. By understanding the swamp — or the various ways that people are and are not able to reason about an issue, communicators can craft messages that avoid unproductive understandings, and engender ways of thinking that structure judgments, opinions, decisions and actions that are better aligned with the practice and goals of implementation science.

This report is designed to answer the following five questions:

1. What are the central features of implementation science and practice that experts want to be able to communicate? The answers to this question comprise the **untranslated expert story of implementation science and practice**. This represents the body of knowledge that subsequent communications strategies and recommendations seek to and are held accountable for translating.

2. How do "professionals" — individuals who work in various fields related to evidence, implementation, and social programs and policy — think about implementation science? The answers to this question comprise the **professional swamp of implementation**. In many respects, these professionals are the primary targets for strategic communications efforts, as they are the people who have a significant role in deciding whether, and how, implementation science and practice is attended to in the work of their organizations.

3. How do members of the general public think about issues related to implementation? The answers to this question comprise the **public's swamp of implementation**. Attention to how the broader public thinks about these issues is premised in the recognition that public opinion plays an important role in policy and practice change.[2] The actions and decisions of policymakers and professionals are highly

attentive and attuned to, and in many cases beholden and conscribed by, public opinion. In addition, past FrameWorks research — as well as that of other social scientists — has found that, at the level of deep understandings, the differences between policymakers/professionals and members of the public aren't very dramatic.[3]

4. Why is communicating about implementation difficult? The answers to this question comprise the key **communications challenges on implementation science**. These challenges emerge from a comparison of the untranslated expert story with the understandings in the professional and public swamps of understanding.

5. What can implementation science experts do to address these gaps in understanding and encourage more effective communication, uptake, and application of their knowledge and perspective on implementation? The answers to this question comprise a set of **initial reframing recommendations**. It is important to note that these recommendations have not been empirically tested in relation to communicating about implementation science and practice but, rather, represent *initial* recommendations and *potential* hypotheses to test in future research.

The ultimate goal of this work is to increase support for policies and programs that promote investment of resources (e.g., time, funding, staff, infrastructure) in the science and practice of implementation. To this end, FrameWorks' research provides strategic communications recommendations designed to help people understand that supporting successful implementation is critical to improving outcomes for children, families and communities. These recommendations can be used by those seeking to more effectively engage public officials, community leaders, practitioners and members of the general public in understanding and valuing the science and practice of implementation.

A description of the research methods employed in this project can be found in the Appendix.

II. THE UNTRANSLATED EXPERT STORY

Below, we present a distillation of the themes that emerged from the analysis of expert interviews and our review of relevant materials. These themes can be categorized as responding to five foundational questions:

1. What is implementation?
2. What predicts high-quality implementation?
3. Why is high-quality implementation important?
4. What are the policy implications?
5. What are the challenges facing the fields of implementation science and practice?

1. What is Implementation?

At the most basic level, experts explained that implementation is *the process by which an innovation, program, intervention or practice is put into use*. Five features of this definition were central to experts' understandings:

- **The *innovation* is distinct from its *implementation*.** The expert definition emphasizes that the implementation of an innovation is distinct from the innovation itself. That is, the activities and metrics of a particular innovation are different from the activities and metrics of the *implementation* of that innovation. These differences also extend to outcomes of interest. While the critical outcome of a human-services innovation is improvement in health and well-being, *high-fidelity use* — that is, whether the innovation is being used in the manner and to the degree intended — is a critical outcome of successful implementation.

- **Implementation is about the *real world*.** Experts emphasized that implementation is about taking programs outside of controlled research settings, and into what they referred to as "routine" or "typical" service environments.

- **High-quality implementation is purposeful.** Experts asserted that implementation should be an *intentional* endeavor. Although they used a variety of terms to make this point — including "active," "methodical," "planned," and "non-haphazard" — they universally characterized implementation as a process that requires deliberate and thoughtful action. In this sense, they distinguished implementation from the more passive processes of diffusion or dissemination.

- **Implementation is a *process*, not a discrete set of activities.** Experts generally agreed that implementation is a process that proceeds through stages and extends over time. They emphasized that planning and consensus-building periods should precede the actual installation of a new program or practice. Experts also noted that implementation is iterative and nonlinear, in that organizations may find themselves moving back and forth between stages. As one expert noted, "Wherever you start [in the implementation process], you are going to end up going through all of it anyway."

- **Implementation *science* and *practice* are distinct, but related.** Experts distinguished implementation *science* from implementation *practice.* They explained that implementation science

refers to the emerging scientific study of variables that influence the use of new innovations in practice, while implementation practice refers to the activities that are necessary to support the use of new innovations in typical service environments. Experts noted that, as in other fields, implementation science and practice should inform each other: Implementation science provides the generalizable principles that guide implementation practice, while implementation practice provides the settings in which implementation science is conducted, and drives the questions it asks.

2. What Predicts High-Quality Implementation?

Experts noted that a number of conceptual models exist to describe and predict the process of implementation. While acknowledging differences across these frameworks, they also pointed to a set of common principles:

- **High-quality implementation is evidence-informed.** Experts emphasized that a deep and broad literature defines and informs the core components of implementation and implementation practice.

- **High-quality implementation requires dedicated resources and dedicated time.** Experts uniformly asserted that high-quality implementation does not happen on its own — instead, the default trajectory for most programs and interventions is poor implementation, poor fidelity and poor sustainability. Experts emphasized, therefore, that successful implementation requires dedicated resources (e.g., a system for using data to monitor implementation quality, or protected time for members of an implementation team to meet).

- **High-quality implementation requires an ecological perspective.** Experts asserted that successful implementation attends to factors at multiple levels of influence. These include individual and interpersonal factors, such as practitioner training and the opportunity to practice and receive feedback; organizational factors, such as supportive leadership, an organization's general capacity for and willingness to change, and the presence of a team to drive implementation forward; and broader contextual and systems-level factors, such as the existing policy environment and the political, cultural and social contexts in which a given organization operates. Experts emphasized that successful implementation efforts must attend to each of these levels simultaneously. They were particularly adamant that training, on its own, does not predict the successful use of an innovation. As one expert put it, "Change can't occur only within the individual."

- **Monitoring, measurement and continuous learning are key.** Experts emphasized that continuous data collection and reporting is critical to high-quality implementation. They explained that data should be used to guide decision-making, monitor whether implementation activities are "on track," measure key outcomes, and make adjustments to implementation activities when needed. Underlying experts' focus on monitoring and measurement was the view that high-quality implementation requires an organizational culture that values the use of data for learning and improvement.

3. Why is High-Quality Implementation Important?

- **High-quality implementation improves outcomes.** Experts emphasized that the motivation for high-quality implementation is to *improve outcomes.* They explained that a program or intervention alone — even one with demonstrated evidence of impact — will have limited or no effect on the outcomes it is intended to address if it is not implemented well. Thus, improving outcomes requires both an effective innovation *and* effective implementation of that innovation. As one expert put it, "Paying attention to how you implement something is as important as the evidence for how effective it is."

- **High-quality implementation helps realize the potential of evidence-based programs.** Experts frequently pointed to implementation science and practice as a means of realizing the potential of evidence-based programs. They explained that the past several decades have yielded an enormous amount of knowledge regarding "what works" to improve outcomes for children and families — but that, as one expert explained, "As these programs are starting to be implemented and trying to scale up, people are realizing [that] it's actually all about implementation." Implementation science and practice, according to the expert perspective, is critical to bridging the gap between research and practice, and ensuring that evidence-based interventions reach the populations they are intended to serve and that core intervention components are delivered as intended.

- **High-quality implementation builds capacity.** Experts explained that the processes and activities that an organization must go through in order to implement a new program or practice with high fidelity will yield benefits that extend beyond the goals of that particular program. They asserted, in short, that the process of implementation builds capacity to "do anything well." For example, experts described how organizations that carry out a high-quality implementation effort learn how to use data to inform decision-making and develop a more collegial and open approach to problem-solving — both of which have broad applications.

- **High-quality implementation is cost-effective.** Experts asserted that there is growing evidence that investing in systems and structures to support high-quality implementation is cost-effective in the long term. They explained that directing resources to support implementation at the outset avoids wasting money on programs that may be evidence-based but are not implemented well — and therefore have little chance of achieving the effects they were intended to achieve.

4. What are the Implications for Policy and Practice?

- **Fund the "how" — not just the "what."** Experts explained that funding for human services is directed overwhelmingly towards the "what" — that is, *what* programs, policies and activities should be put in place to improve outcomes — rather than the "how" — that is, *how* to build the capacity of organizations and systems to implement interventions well. They asserted that both federal and non-federal funders should devote more resources to strengthening capacity (for example, building systems that support high-quality training, supervision and coaching, and data monitoring) and supporting planning periods, rather than the actual delivery of specific services and programs.

- **Invest long-term.** Experts asserted that policymakers' and funders' focus on immediate, visible outcomes is at odds with the simple reality that implementing with quality takes *time.* They explained that federal agencies "expect miracles to occur" during a three-to-five year grant cycle when, in fact, the implementation process alone typically takes two to four years. Experts argued, instead, for longer-term funding models that provide support to both *implement* and *sustain* high-quality programs.

- **Link science and practice.** Experts emphasized the importance of facilitating linkages between the science and practice of implementation (see the final bullet under Challenges, below). They asserted, in particular, that greater attention should be devoted to building partnerships between implementation scientists and implementation practitioners; evaluating the effectiveness of implementation strategies as they are actually used in routine environments; sharing implementation lessons across communities of practice; conducting research that identifies the *core* components of interventions and provides insight into how and when adaptation is appropriate; and identifying the contextual and socio-political factors that facilitate high-quality implementation.

5. What are the Challenges Facing the Field?

- **Building a science of implementation.** Experts characterized implementation science as an "emerging," "infant, " "growing" and "early adolescent" field, and several drew parallels between the state of implementation science now and the state of prevention science 20 years ago. They described the need to study, in a systematic way, *how* implementation happens and the *particular activities* that contribute to its success, to test different theoretical frameworks against one another, and to clarify the specific relationship of implementation science to other areas of science (e.g., efficacy research, dissemination research).

- **Reconciling frameworks, constructs and terminologies.** Experts noted that, as with any emerging field, there is little agreement on terminology and frameworks. Experts explained that those who work in the field of implementation research and practice come from many different disciplines, and bring with them a variety of theoretical perspectives. As a result, there does not yet exist an agreed-upon language to describe the work of implementation science and practice.

- **Bridging an internal research-to-practice gap.** Several experts expressed concern over a persistent gap between implementation *science* and implementation *practice*. They explained, for example, that implementation science is often not translated or communicated in a way that is useful for implementation practitioners. Experts who perceived this disconnect maintained that this kind of schism would be particularly problematic for a field whose work centers on bridging the divide between research and practice.

Figure 1 provides a summary of the expert account of implementation science and practice.

<u>Untranslated</u> Expert Story of Implementation Science and Practice

What is implementation?

- *Purposeful process:* Implementation is the purposeful process by which something is put into use in the real world.

- *Distinct:* Implementation of an innovation is distinct from the innovation itself.

- *A focus on "doing as intended":* High-fidelity use is a critical outcome — whether the innovation is being used in the manner and to the degree intended.

- *Stage-based but nonlinear:* Implementation proceeds in stages, but is iterative and nonlinear.

Why is high-quality implementation important?

- *Improves outcomes:* Improving outcomes requires both an effective innovation and successful implementation of that innovation.

- *Realizes the potential of evidence-based programs:* Implementation science and practice bridge gaps between research and practice by ensuring that evidence-based interventions reach consumers, and that core intervention components are delivered as intended.

- *Builds capacity:* Implementation processes and activities build organizational and individual capacity to implement other initiatives (or innovations) well.

- *Is cost-effective:* Directing resources towards implementation at the outset avoids wasting resources in the long term.

What predicts high-quality implementation?

- *Dedicated resources:* High-quality implementation requires resources and time.

- *An ecological perspective:* High-quality implementation attends to individual, interpersonal, organizational, systems and political/social factors.

- *More than training:* Supportive organizational leadership and policy environments, and opportunities for practitioners to practice and receive feedback, are particularly important.

- *Monitoring, measurement and continuous learning:* Continuous data collection and reporting is critical to keeping implementation on track.

- *Evidence-informed:* High-quality implementation draws upon an extensive literature to define its core components.

What are the implications for policy and practice?

- *Fund the "how" — not just the "what"*: Devote more resources to capacity building (e.g. planning periods, data infrastructure), rather than just the delivery of services.

- *Invest long-term:* Provide longer-term funding models that provide support to both implement and sustain high-quality programs and practices.

- *Link science and practice:* Develop partnerships between implementation researchers and practitioners; evaluate different implementation strategies; share lessons learned; identify core intervention components; and describe contextual factors that support implementation.

III. THE PROFESSIONAL SWAMP OF IMPLEMENTATION

Below, we present the dominant professional cultural models — shared assumptions and patterns of thinking — that guide and shape how human service professionals understand the science and practice of implementation. These understandings represent the patterns of reasoning that professionals rely on to make sense of implementation issues, and which implementation experts must learn to navigate to more effectively communicate about their work.

A *Core Principles* Model

Participants defined implementation primarily in relation to *fidelity*. According to this understanding, successful implementation is about demonstrating fidelity to the original evidence-based program or intervention design by *faithfully following its structure, sequence, and content as laid out in a manual or plan of action*. Indeed, many participants directly equated fidelity with the idea of "manualization," asserting that fidelity to a manualized, evidence-based process is critical to achieving improvements in outcomes.

> **Researcher:** What does good implementation look like, or how do we know if implementation is successful or not?
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> **Participant:** We have to be measuring what we are doing, so understanding, like, fidelity and process measures. So we know that we are doing what is prescribed to be doing and then also measuring the outcomes to make sure what we are doing. Again, because there are so many, moving from research into the field, there are so many variables that can impact the result that we are constantly learning and so, to me, the only way to really do that is to be measuring it, measuring what we are doing and what's happening. Like following a recipe.
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> **Participant:** Let's start with the assumption you actually know it works — that it's not so much of a black box. So, that implies there's a manualization of effective interventions in the model itself. There's a manual that says, "Here's all the things you have to do in order to make this work." You know, there's a great quote that a friend of ours from the U.K. said, "It's not like if you get it 60 percent right, it's 60 percent of the good benefit." If you do it 60 percent right and 40 percent wrong, you'll probably get none of the benefit, right? It's not like if you have a car that has everything except the wheels, you know? Well, the wheels are a pretty small percentage of the overall car, so probably instead of being able to go 70 mph, maybe you can do 50 percent? Well no, right?

At the same time, the need for implementation efforts to be *adapted* to local contexts was also a dominant pattern across professional talk. Participants were highly attuned to the importance of context, as differences across populations, location, language and organizational culture were thought to powerfully shape how the implementation process plays out and is realized. As such, many argued that *adaptation to context has to be part of any successful implementation plan*.

Participant: There's so many things that are just not static, right? You know, once you've named something a best practice, how long does it stay a best practice. Is it just for today? Today this is the best practice, but tomorrow the world around us might shift and that's a really stupid way to do things tomorrow. And so, you know, context needs to be taken into account always. One of the things we try real hard at is adaptability — trying to always pay attention to the cues and clues out there, and trying to figure out what that means for us and what we need to change based on that.

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Participant: It certainly cannot assume that an intervention that works well with a particular demographic wouldn't need some adaptation in working. The question is, how do you do that? It's a tough one. All you know about what works, you've got to have that in the back of your head, but sit down with everybody and sort of, you know, retrofit the model. Say, "Well, is there something different about how the model would work in this particular community? And if there is, let's put that in and then let's test that." 'Cause you know, it might be a significant kind of change.

The prominence of both *fidelity* and *adaptability* in participants' thinking resulted in a clear cognitive tension. Participants viewed these two principles as simultaneously contradictory (adaptability comes at the expense of fidelity, and vice versa) *and* equally critical to successful implementation. Participants resolved this tension by referencing the idea of *faithfulness to core principles*. They asserted that every implementation effort should identify certain core features of the innovation that are not subject to adaptation or elimination, but, rather, held inviolate as necessary features of the innovation no matter the context. In contrast to these core features, other secondary or tertiary features of the innovation can be adapted according to local circumstances and feedback. Importantly, professionals struggled when asked to think about how the differentiation between core and peripheral elements should be made, and did not implicate implementation science in this differentiation process.

Participant: I'm much more for building interventions that are adaptable and much more about doing research that helps us understand the processes, the essential ingredients, the mechanisms, so that actually that's what gets implemented instead of, like, this program X. And I know that some people think this way, and other people are really — they're interventionists who believe that they have a program, and it's got these components, and it's got these scripts, and you do it this way or you're not being faithful to the intervention, and that's why it's not having effects. But I think that people really need to think about interventions again as — what are the essential ingredients, and how do implementers actually learn how to adapt it for their current situations?

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Researcher: How do we know if a program has been effective?

Participant: Well, I guess I don't have confidence that a program is effective at a point in time — that a program, once effective, is always effective. I believe that programs are as effective as the contexts they're in, the people that run them, and then their ability to shift over time. So, that's why the notions of evidence base are really important, because they give you a really

good starting point, but that any good model is based on a set of principles and a set of things that can, over time, include and support the world that changes.

⌐⌐ A *Human Element* Model

The "human element," as one participant put it, loomed large in professional thinking about implementation. Participants asserted that even the best implementation plan depends, in the end, on the attitude, preparedness, competency, priorities and "buy-in" of the people on the ground — both within organizations and within communities. At the end of the day, it is this "human element," they explained, that determines the success of implementation efforts. According to this view, no matter how good the plan or manual, successful implementation ultimately depends on the people doing the implementing. Participants' focus on the human element also structured the understanding that, in order for a given innovation to be successful, leaders must advocate for, and understand, the importance of effective implementation practices.

> **Participant:** So there's good and bad implementers, you know? Even if they're doing it the right way, they're boring, so you can't pay attention. And then there's people who are lazy and don't really follow it. Or there are people who think they know better, and they want to add their own elements into it, and … you know? That's okay if you have extra time, but if you're cutting out some of the effective things by putting in stuff that is your favorite. It's the human element of the implementer, or the human element of the audience, the human element … you know?

⌐⌐ An *Overwhelming Complexity* Model

Human service professionals recognize that social problems are complex, as are the people embedded in them and those working to address those problems. This "real world" environment, as several participants called it, means that implementation itself is inevitably a complex endeavor that includes many moving parts for which implementers must try to account. At times, professionals drew explicit contrasts between implementing programs in the "real world," and "controlled research environments" where factors can be controlled. Participants variously talked about time, costs, training, infrastructure, support from supervisors, organizational culture, funding continuity, and a range of other factors that impinge upon implementation practice in ways that either facilitate or derail those efforts. The underlying sentiment revolved around the difficulty in predicting the interplay among all of those moving parts, and the need for implementation efforts to be flexible in response to them.

> **Participant:** Whether an implementation is successful is really lots of nuts and bolts kinds of things. You know, did the stuff show up on time? Did the people get the training? Did they understand what they were doing? Did they have the supports that they needed? Did they have the time that they needed? Did they have the material equipment? Those are huge challenges in a real-world environment. Some of that just-basic stuff is often overlooked.
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> **Participant:** The challenge that's in the real world — the question of whether it's being implemented as designed — is a much more complicated one than a controlled research environment, even if the research environment is in the field and it's actually working.

⬚ *Ideal vs. Real* Modeling

Across professional talk, there was a pervasive contrast between what *is* and what *should be* with regard to the place of implementation practice in the human services. Professionals' discussions of the *reality* of what implementation practice looks like contrasted sharply with their expressed *ideals* about how it should look. This *ideal vs. real* thinking among professionals structures the follow understandings:

- Ideally, the central importance of implementation to effective social policy would be broadly acknowledged and acted upon in the human services sector. Instead, professional participants described that, in practice, policymakers and funders assume a direct line from program to outcome, and devote little attention or resources to the process of *implementing* innovative practices and programs.

    Participant: I was talking about this person that I know who works for a state agency who really understands the research, but also understands the demands, and she says, "You know, there's not enough written on how to execute, how to implement. There's not enough research around how implementation occurs, and under what conditions it's favorable" and so forth. So, I think there's quite a bit of need for this kind of work.

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    Participant: Well, there's not a value on implementation. I live in a world where I hear from a lot of funders, and I hear from a lot of people that have private funders. And I don't think there's yet a value on what it really takes to implement well. And I think we have a lot of work to do around that. I don't think we, as a society, articulate that.

- Ideally, leaders and funders would recognize how systemic and organizational factors shape the success of implementation efforts, including things like leadership training, organizational infrastructure, and larger funding cycles and priorities. Instead, all too often, this larger systemic perspective is lacking. Professionals described an unwillingness to invest time and resources in the creation of stable, sustainable systems to support effective implementation over time; instead, organizations rely on short-term solutions to immediate problems.

    Researcher: What kinds of things would make the same program effective when implemented in one place and not another?

    Participant: If people haven't been supported to do the work, then that's where you find the gap. I think one of the things about implementation is it can't be person-dependent. So, you might have an agency that hired a really amazing person, and they somehow can pull it all together because they're just smart. But it has to be sustainable. So, what happens if they leave? What systems are in place to support implementation? Implementation shouldn't be driven by one person — like, just because I'm a great program manager, it shouldn't be dependent on me. So, for me, I guess that's the biggest problem in general — that there aren't systems in place to support the program doing well.
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> **Participant:** I think it's incredibly difficult, and the reasons for it being so difficult are that, sort of, scalability is one thing. Something that works in some community somewhere may or may not work on a larger scale. Often they are based on personalities or individual relationships or individual talents that the success of a program is based on those things. And then you take it somewhere else and you don't have those things or you don't have the buy-in or the commitment to making it work. Sustainability is another problem.

- Ideally, there would be sufficient attention given to the human element of implementation, and to the complexity and messiness of "real world" situations. Instead, professionals described how an overemphasis on strict fidelity too often results in a "manualization" of implementation, and insufficient attention to complexity.

> **Participant:** We've got to really look at, what are the underlying principles? What are the essential ingredients? What are the processes — what are the ideas that we've got to get across? The arguments for the manualized stuff is, "Well, we don't have the capacity to teach people what the underlying principles are, so it's easier to go with a manualized approach."
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> **Participant:** I think that complications and challenges are where the workforce gives up. And if you're wanting to implement something — a change in practice — I think [you] have to be aware of all of these various variables and be able to address them. I sort of see it as an octopus, you know, where you've got all of these legs and arms that are coming at you, and it's a way to, in my experience — it's a way to think through sort of the steps, not necessarily in a linear way, but to be as clear and to document the kinds of changes in the — in a way that you can ensure that something is more sustainable over the long run.

- Ideally, all organizations would have a well-defined mission. Professionals perceived that, in reality, the lack of a shared and well-defined mission often jeopardizes successful implementation, and makes it difficult for staff to appreciate how a particular innovation furthers their organizational mission.

> **Participant:** A leader that doesn't support the implementation of something — and what we find is it becomes very challenging. I also think, you know — when I talk about stable workforce, if you have to sort of retrain people over and over and over again, then it does make it challenging. I think that, uh, a culture shift, you know, that sort of promotes innovation, that promotes a value — you know, that doesn't promote the value or the vision of a leader — I think then that also gets in the way, you know. I'm beginning to recognize that you can't be all over the map.
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> **Participant:** So, that's one thing that helps ensure effective implementation. A second is aligned goals. So, if we have multiple players — let's say we need three agencies to collaborate on a social policy, and one of them is driven by health concerns, another is driven by environmental concerns, and a third is driven by cost concerns. Implementation is unlikely to be effective, because each group optimizes on its own variables.

- Ideally, organizations would maintain sufficient continuity of leadership and funding to sustain a commitment to high-quality implementation efforts. Professionals' perception, however, was that implementation efforts are often compromised by government fickleness, turnover in leadership, and the fact that funding is often driven by politics, ideology and other factors, rather than by conditions on the ground in communities.

> **Participant:** The enormous resources, energies, capacities, technical assistance that has to go into training and oversight and staying on top of it and making it a priority and sticking with it so it's not another fad that comes and goes, but something that's, you know, maintained with fidelity over time. I think it's the biggest challenge, because we go from thing to thing to thing to thing. The annual appropriation cycle in the government, which is the biggest funder, the new presidents that come in to run the foundations and the new leadership … they're all challenges to doing things over the long haul.
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> **Participant:** My personal perspective is that politics is always going to be volatile and because of the structure of our system, you know the people who are making decisions change pretty frequently and so it's a constant battle to keep people up to speed.

The contrasts between ideal and real identified above contributed to an undercurrent of fatalism about whether the broader human services sector will come to value and support implementation practice as it should. Professionals' hope that leaders and funders would pay more attention to implementation was challenged by their expectation that business-as-usual is the more likely outcome.

An *Emerging Discipline* Model

Countering the fatalism described above was the recognition that the field of implementation science and practice is an emerging one — and it includes people who are working to develop a more rigorous and well-defined approach to implementation. That is, professionals recognized that there is emerging consensus around the importance of implementation and some of the best practices that good implementation entails — but that the field is a work in progress, with much research still to be done. Importantly, professionals did not recognize implementation as a *science*.

> **Participant:** I think science — implementation science has yet to be science. We've got implementation theories, and we really need to begin to pick apart more closely what are the core things that we need to be doing around implementation. We still don't know if we left out one, could we find what the other four … magic ingredients in it are — even with evidence-based practice? We don't really know, if we leave out one or two of the core things, will that still be an effective practice? So, that kind of work — so, that's ongoing.
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> **Participant:** I definitely think of implementation science as a framework for implementation and I think there are definitely programs out there that are familiar with it and attempting to really address quality and fidelity through that kind of framework. And then there are others who just, they haven't had the exposure to it … again we get to the capacity issue.

IV. THE PUBLIC SWAMP OF IMPLEMENTATION

Recognizing that many members of the general public have limited experience thinking or talking about efficacy and implementation at the programmatic or policy level, FrameWorks researchers focused questions at the level of a community-based organization. FrameWorks researchers asked people to "Think about an organization that is working to improve life for people in your community …" and then engaged people in a series of follow-up questions.

In addition to the original research conducted on behalf of NIRN for this strategic report, FrameWorks conducted a secondary analysis of past FrameWorks research from relevant topical areas, including education, early childhood development, human services, criminal justice, child mental health, epigenetics, demographic change, race, government, budgets and taxes, and health care. This research identified a set of deep and pervasive cultural models that structure how the American public thinks in general terms about human behavior and outcomes, programs and policy, and science and research. These models are important to consider in understanding public thinking about implementation, and are discussed alongside those patterns of reasoning that emerged from the on-the-street interviews. Note that not all of the models discussed below are consistent or mutually reinforcing. Instead, people can and do hold multiple and even inconsistent models in mind around a given topic or domain.

The patterns of public thinking described below represent the larger cultural context in which human service professionals operate and policymakers make decisions. It is the larger public cultural "swamp" that surrounds them on a daily basis, and contributes to the context of their professional discourse, decisions and actions. As such, public understanding exerts an influence on professional discourse and decisions that cannot be discounted.

The set of models resulting from these interviews and our re-analysis of past data represents the dominant conceptual constructs that orient public thinking about implementation.

⌞⌝ An *Individualism* Model

Among the most foundational cultural models in American society is an assumption that *individuals* are largely — and in many cases *exclusively* — responsible for shaping their own outcomes and determining their own fates. Across the scope of FrameWorks research, members of the public repeatedly attribute disparities in outcomes — in education, health, wealth, legal status, residency, etc. — to the choices and decisions made by individuals. This model of "self-makingness" blinds people to the importance of factors other than the gumption, self-discipline and vision of self-realizing individuals. Notably, this *Individualism* model provides sufficient explanatory power for many people to account for differences across populations by race, class or gender — for example, racial differences are frequently attributed to differences between individuals and groups in "values" and levels of motivation.

A *More = Better* Model

The public's focus on individualism can, at times, lead to the conviction that human service programs breed dependency by undermining self-sufficiency and self-discipline. However, the public also holds a dominant understanding that better outcomes result from *more* resources or *more* services. This focus on *quantity* overrides appreciation of *quality.* That is, the public assumes that the way to improve outcomes is to establish *more* programs, not higher-quality programs. The *More = Better* model, and its focus on quantity, mutes attention to the importance of program and implementation *quality*. It puts the focus squarely on the *what*, not the *how*, and suggests that it is the former that requires increased funding. This is clearly problematic in fostering a more informed and productive public conversation around implementation science and practice.

Relative to implementation practice, this model mutes public attention to the *features* of programs and policies that make them more or less effective, including implementation. Instead, this deep cultural model directs focus to the *people* receiving the service, program or intervention. *If the effectiveness of programs depends on the individual choices or characteristics of program recipients, then the actual design and implementation of programs is less important.*

A *Programs = Government and Government = Inefficient and Ineffective* Model

A series of strong negative models of government have broad distribution in our national culture and discourse. These include models of government as a monolithic bureaucracy compromised by inefficiency and waste, and as a body of disconnected elites who lack sufficient accountability to their public.[4] Prior FrameWorks research has also found that members of the public conflate these models of *government* with models of *programs*, *policies* and *interventions*. In short, "programs" are equated with "government action," bringing all of people's unproductive models of government to bear in how they think about interventions and programs. These unproductive patterns of thinking about government action, and their application to thinking about intervention, are likely to depress support for the resources necessary to support implementation science and practice.

A *Just Do It* Model

The public's dominant model of implementation is a highly simplified one best characterized by one participant's call to "just do it." This model holds that, once a clear vision has been established and there is "buy-in" from staff, the actual carrying-out of a plan of action is a straightforward endeavor of simply "doing" it. In this simplified model of organizational dynamics, there is no need to attend to an intentional *practice* of implementation, or to appeal to any kind of expertise in realizing that implementation, because it is not seen as necessary. This model mutes attention to the entire field of implementation practice, and to the existence of a science of implementation. It is therefore the primary challenge associated with communicating about the field and work of implementation to members of the public.

The application of the *Just Do It* model can be seen powerfully in the way that people reason — or, more appropriately, do not reason — about applying a given program or intervention across contexts. While demonstrating some attention to organizational culture (see below), people assume that if an intervention

works in one context, it will have similar effects anywhere. The assumption is that, "If it has worked somewhere else, it will work here." This lack of attention to the role of context in shaping implementation and intervention effectiveness mutes recognition of the many challenges, complications and contingencies that accompany efforts to translate and apply effective programs from one location to another.

A *Commercial* Model

As noted above, our line of questioning in on-the-street interviews focused on how *organizations* work to improve people's lives in communities. This was an attempt to appeal to people's everyday action scenarios in order to engage them in thinking about the relatively abstract idea of "implementation." In response to this line of questioning, most participants oriented their thinking around commercial, for-profit organizations. This default evidenced an underlying cultural model in which "organizations" are assumed to be for-profit entities. In other words, our research showed that for-profit companies serve as the prototype when people think about organizations and how they function.

This default to a commercial model has implications for how people think about implementation. In particular, this assumption leads people to explain that the outcomes of implementation are easily measured numerically in terms of new customers and, most importantly, financial profits. The ease with which people default to these two outcomes — new customers and increased profits — makes it hard to engage them in considering more complex outcomes, and in the challenges of assessing the outcomes of implementation efforts in the non-profit and human services sectors.

A *Shared Vision* Model

When asked what an organization needs in order to be effective, the public's dominant model, by far, centers on the need for a clear organizational vision. Members of the public emphasize that organizations must have a clear mission, shared by all employees, about what they are trying to achieve. As multiple participants noted, a shared sense of mission is particularly important when changes are being implemented, as change is seen as difficult and requires people to understand, and be convinced of, its merits.

A *Human Element* Model

Like professionals, members of the public have a strong sense that it is the people in an organization who determine the organization's success or failure, and that an organization has to have the "right people" in place if it is going to be effective. Furthermore, an organization's success depends on the culture or climate of the organization — that is, whether there is a spirit of collaboration, respect and common endeavor. Our participants paid particular attention to the quality of leadership, and argued that organizations need consultative, non-autocratic forms of leadership. Participants understood and emphasized that if changes are implemented without buy-in from employees, efforts are doomed to fail.

⌐ A *Feedback* Model

There is a strong public model that it is the people who do the work, and those who are most directly affected by it, who are best equipped to assess how well something works. Good leaders will reach out to both of these populations to access this "on the ground" knowledge in order to improve the effectiveness of an organization and maintain buy-in to mission and outcomes.

⌐ A *Science Skepticism* Model

While our culture includes a model of science as an authoritative practice, it also includes a robust model that is skeptical of science. This *Science Skepticism* model has appeared over the years in FrameWorks' research on climate change, as well as in our recent research on the social and behavioral sciences.[5] In this model, science is treated with suspicion, its claims often assumed to be bogus or overstated and its motives called into question. Embedded in this model is the understanding that scientific research is often conducted to advance a political, ideological or financial agenda. Rather than being seen as objective inquiry, science is viewed as subjective, partisan and therefore unreliable.[6]

Alongside this questioning of scientific interest is a more basic skepticism about scientific competence. This skepticism is evident in comments like "There's a new study every week, so I don't know what to believe anymore," wherein science itself is thought to be too capricious to provide a solid basis for knowledge or action.

V. COMMUNICATIONS CHALLENGES

Mapping the gaps in understanding between the expert story and the professional swamp of understanding reveals the following communications challenges.

- **Benefits are understood as limited in scope and scale.** Experts see high-quality implementation as a process that yields broad and long-term benefits within organizations. Professionals have a much more narrow focus on specific interventions, and are not attuned to larger or longer-term organizational benefits.

- **Implementation is seen as added cost.** Experts assert that there is growing evidence that high-quality implementation is cost effective, while professionals are focused on the cost of implementation and the fact that it is rarely a funded activity. In short, professionals understand implementation as something that *imposes*, rather than *reduces*, costs.

- **There is no shared language.** Research showed a clear lack of shared implementation language between professionals, and between professionals and experts. This lack of a common language is problematic for many reasons. For example, it leads to confusion about what "fidelity," "adaptability" and other key terms mean to implementation scientists and practitioners, as well as human service professionals. This confusion over terms and underlying concepts makes it difficult for implementation scientists and practitioners to move their field forward and gain traction with the professionals they seek to engage.

- **Implementation is not a science.** Experts see the field of implementation as an emerging science informed by a deep and broad literature, and a growing evidence base. Professionals see implementation as a field of expertise, but not as a science.

- **There is little that we can "really" do.** Experts emphasize the necessary linkages between the science of implementation and its practice, while professionals are not attuned to the need for a better science-practice link. Instead, professionals are fatalistic about the future of the field of implementation, and the possibility of using implementation to improve outcomes more generally. This fatalism is structured and reinforced by many of the most dominant parts of the professional swamp. For example, when coupled with a lack of knowledge about what implementation science is, the focus on daunting complexity contributes to fatalism. In addition, the pattern of always contrasting the ideal (the way things should be implemented) and the real (what professionals deem realistic or likely) creates strong feelings that better implementation, and the improvement in programmatic effectiveness that might result, is nothing more than a pipe dream. This powerful sense of fatalism is one of the most imposing challenges identified here, as it hampers meaningful support for, and engagement with, the field of implementation.

In addition to these challenges, communicating about implementation with members of the general public presents an additional set of impediments:

- **Quantity = quality makes quality "hard to think."** The *More Is Better* model will likely lead the public to dismiss the importance of high-quality implementation practice — because, according to this pattern of thinking, the characteristics of program recipients are far more important than the characteristics of programs themselves in determining outcomes.

- **Application of models of government to thinking about programs attaches negative understandings to implementation.** People are likely to assume that efforts to improve outcomes by directing resources towards high-quality implementation practices are pointless, given that they are in the government domain, and thus characterized by inefficiency and effectiveness.

- **Process is missing.** The public assumes that implementation is largely a straight-forward, common-sense endeavor — in order for a program to be effective, "just do it" goes the thinking. This way of thinking mutes attention to implementation science and practice.

- **Contextual thinking is narrow.** The public is not well attuned to broader contextual factors, and how they shape and complicate implementation.

- **Outcomes of importance are clear and limited.** The public, from its for-profit understanding, judges effectiveness in terms of attracting new customers and making a profit. Outcomes of human service work and implementation practice are difficult to understand and engage with from this perspective on outcomes of importance.

- **The importance of context is absent from thinking about implementation.** The public assumes that programs are easily transferable from one location to another and does not have a way of thinking that engages considerations of the way in which context complicates implementation and program effectiveness. From this perspective, it is hard to see the multiple factors that interact in complex ways to influence successful implementation of a given innovation.

- **Science skepticism complicates efforts to discuss the science of implementation.** People's underlying skepticism about the nature of scientific inquiry suggests that the public may treat research on the science of implementation with particular skepticism.

- **There is mixed comfort with "implementation."** Most people do not understand this term, which constitutes a direct challenge and highlights the importance of developing and testing explanations and examples as aspects of a communications strategy.

VI. INITIAL REFRAMING RECOMMENDATIONS

Based on the challenges described above, we provide the following strategic recommendations for communicating about implementation science and practice.

It is vital at this point to recognize that, while the tools and strategies provided below derive from framing theory and past FrameWorks empirical research, the recommendations have not yet been empirically tested for their ability to address the challenges of communicating about implementation presented above. That is, we know that these tools address challenges similar to those identified in relation to implementation, but the ability of these recommendations to navigate around the challenges presented above and generate positive strategic outcomes (for example, issue understanding, support for implementation work, etc.) have yet to be empirically demonstrated. The recommendations below, therefore, represent initial recommendations and potential hypotheses to take up empirically in future research.

The research described above suggests the need to develop and disseminate a **Core Story of Implementation**. A Core Story is a common communications platform that is organized as a narrative, based on empirical research, and allows for creative deployment while still driving to the common, shared core structure of the narrative. In short, a Core Story is shared, research-based, narratively driven and flexible.

A Core Story derives its power both from its constituent tools, including values[7] and metaphors,[8] and the way those tools are embedded in a more comprehensive, coherent and "sticky" narrative structure. In this case, the goal of a Core Story is to produce a powerful narrative of implementation with built-in strategic subplots that can reorient and restructure how people think about the science and practice of implementation. A Core Story provides a shared communications foundation, replete with strategic tools that experts can use to pivot from common messages to more specific accounts of their work.

As mentioned above, it is important to realize that what we suggest below is only the initial contours of a Core Story of Implementation. An empirical approach to communications requires moving from this general outline to *developing* and *testing* tools that can fill in and flesh out the narrative outline — using specific tools to fill in narrative slots in ways that address specific communications goals and challenges.

Developing this story is important, but our past research, as well as that of various social movement scholars,[9] also suggests the importance of having a larger strategy — a "strategy strategy." In other words, implementation experts need both the *content* of a new story and a *strategy* for using it to change understandings of, and practice around, effective implementation. Both the content and strategy elements are required in order to shift professional and public discourse around implementation and, in turn, expand understanding and motivate action. In this case, the strategy component will require creating partnerships in the field that provide the story to implementation experts and support its use in their various activities as communicators. The Core Story will be most effective if it is used to eliminate message competition (which adds to difficulties in understanding a content area), and creates message amplification, whereby a strong and consistent "dose" of the story increases its effectiveness. It is only by turning down message cacophony and turning up message synergy that implementation experts and practitioners stand a chance of changing professional understanding and public discourse about implementation.

The research results presented above suggest that effectively communicating about implementation — that is, navigating various professional models of *Fatalism*, *Complexity*, *Ideal vs. Real* modeling and the public's *Just Do It* understanding — requires developing and disseminating a narrative that addresses the following key questions:

1. Why does implementation matter?
2. What is it?
3. What problem does it address?
4. How is it done?
5. What does it produce?

Each of these narrative slots should be articulated using a framing tool or strategy that addresses the particular narrative question in a way that achieves a desired communications goal.

Why Does Implementation Matter?

Use the values of **Responsible Management** and **Ingenuity** to frame outcomes and inoculate against unproductive cultural models.

Even as professionals are attuned to the importance of implementation, our research shows that, all too often, implementation is taken for granted in the broader human services field and does not receive appropriate attention. This taken-for-grantedness suggests that the larger *Just Do It* cultural model evidenced among members of the public also structures thinking across the human services sector and among policymakers and funders. Thus, despite the rhetoric in support of implementation from our professional participants, it is clear that the case for well-funded and carefully planned implementation still has to be made, explicitly and consistently, in the broader human services field.

Taking on the strength of the default *Just Do It* model is a vital part of the Core Story strategy. Values are essential frame elements in this work. Effective values motivate engagement, generate a belief that problems can be solved, and increase people's receptivity to solutions by helping them see the purpose of specific policies and programs. One way to counter the *Just Do It* model is to employ the value of *Responsible Management* in communicating about implementation, emphasizing that prudent, evidence-based, well-planned implementation practices are necessary to achieve socially useful and cost-effective outcomes. The value's emphasis on a shared commitment to purposeful action for better outcomes is promising in addressing other unproductive professional understandings, such as *Fatalism*, *Ideal vs. Real* modeling and *Overwhelming Complexity*.

> *We can build stronger communities by adopting a responsible, step-by-step approach to implementing programs that improve the outcomes of children and families. This kind of responsible management requires careful planning. For example, we need a process for identifying problems or potential challenges, and using all of the evidence available to develop the best solutions. With such practical measures in place, we can continue to refine programs to ensure their ongoing effectiveness.*

In addition, communicators can deploy the value *Ingenuity* to highlight how implementation science and practice addresses complexity. One of the most prevalent ways that human service professionals describe implementation efforts is as overwhelmingly "complex." This acknowledged complexity contributes to a model of implementation as a *problem* — that is, implementation cannot be successful *because of* contextual complexity. Relative to a larger sense of fatalism, this negative casting can depress, rather than elevate, people's commitment to supporting high-quality implementation efforts. However, recognizing and taking complexity into account is key to making substantial improvements in outcomes. Communicators should therefore "flip the script" on this issue by pointing to the ways that implementation science engages, even embraces, complexity with innovative, evidence-based strategies. In short, emphasize *that complexity is the raison d'être for the practice and field of implementation science*. Rather than seeking to avoid or "control" complexity, high-quality implementation efforts are embedded with innovative strategies and flexibilities that address complexity head-on. The following is an example of the use of the value *Ingenuity* to address the "why does it matter" question:

> *Our nation has a proud tradition of ingenuity: bringing new ideas to life, honing them, and striving for continual improvement. We need to apply that tradition of creativity and resourcefulness to strengthening outcomes for our communities' children and families. We can realize dramatic progress on complex problems by inventing and implementing programs using all that we've learned about putting innovative ideas into place successfully.*

What is Implementation?

Develop and collectively use a short, clear and common definition.

Develop a short and clear definition of the concept, and do not vary from this core definition. In addition, this is an area of the story where developing and testing an Explanatory Metaphor is a promising direction for subsequent research. The metaphor would work to illustrate the core components of implementation through comparison to something that shares these attributes, but is more familiar to professionals and members of the public.

What Problem Does Implementation Science/Practice Address?

Use examples where compromised outcomes can be clearly connected to, and seen as caused by, failures in implementation.

These examples should explain *how* certain features of the implementation led to poor outcomes. In addition to examples, this part of the strategy would benefit from the development and testing of specific "Explanatory Chains." Explanatory Chains are clear, powerful explanations of cause and effect designed to help people understand issues, how they arise, who is responsible, and what solutions are possible. These Explanatory Chains would connect some failure in implementation, through a causal process, to a compromised set of outcomes.

How is Implementation Done?

Use multiple, short examples and **Explanatory Metaphors** to show people one or more of the features of effective implementation.

This part of the Core Story requires developing a set of examples that illustrates the process of *how* implementation works to improve outcomes. These examples should clearly connect specific *factors* of the implementation to specific *outcomes*.

In addition, communicators can take advantage of the language of *Effectiveness Factors* to highlight the way that specific features of implementation lead to specific positive outcomes. The use of *Effectiveness Factors* will help navigate the complexity and tension between fidelity and adaptation. The following is an example of this tool:

> *To ensure the success of the programs and policies that improve our nation's well-being, we need to focus on identifying and using what scientists call Effectiveness Factors. These are the core components that have been shown to contribute to the effectiveness of other interventions aimed at similar goals — in other words, the resources, processes or other attributes of a program or project that we know to be necessary to achieve the intended results. Committing to building, implementing and sustaining programs that include Effectiveness Factors will keep our country moving forward, improving our outcomes while making the best use of our resources.*

In addition, previous FrameWorks research has found that the idea of *Effectiveness Factors* helps members of the public overcome the assumption that "more is better" and, instead, recognize the importance of *quality* programs and interventions.[10] Part of the success of the phrase *Effectiveness Factors* is the embedded assumption that some factors are more effective than others, thereby making an assertion that quality differences both exist and are important. Implementation communicators can make use of this phrase to push home the point that quality is also a feature of implementation practice, and that it is important to use evidence to evaluate quality and in the adoption of proven implementation practices.

While examples and *Effectiveness Factors* will be important here, helping people to think more productively about how to square concepts of fidelity with those of adaptability remains a key challenge in communicating about implementation, and one that might be effectively addressed through the development and testing of an Explanatory Metaphor.[11]

What Does Implementation Produce?

End the narrative with descriptions of salient positive outcomes that have resulted from effective implementation work.

Make sure that these outcomes are of interest to your audience. These outcome examples can be used to reaffirm and bring the story back to the "why does this matter" question — leaving the audience with a firm understanding of the importance and potential of implementation science and practice.

It is of vital importance that this story employ a **shared language of implementation**. Every professional field has a specialized vocabulary that members of the field understand, and use productively. But it is important to recognize that not all professionals working alongside implementation professionals share that jargon — and even if some terminology is shared, the meanings of those terms likely differ across groups. Thus, communicators must be attentive to the fact that the language specific to implementation may not be a shared language. Communicators must be very intentional about building a shared language (making sure that terminology is used consistently and clearly across various modes of communication) and teaching that language (checking for understanding, and translating across groups so that all parties are communicating about the same concepts). This is a first step in building up and disseminating important principles and goals of the implementation science and practice field more broadly.

In addition to this story, there is a set of recommendations that emerge from this research.

Avoid consumerist and commercial language. While professionals were less likely than members of the public to default to a commercial model of organizations, communicators should nonetheless take great care to not trigger this cultural model. As described above, thinking about an organization like a business is conducive to a "just do it" logic, and to the idea that outcomes are easily measured through profits, and customer opinions and behavior. Both assumptions devalue the importance of high-quality implementation practice. Communicators should avoid language that conflates the work of human service organizations with that of businesses by, for example, referring to service end-users as "customers" or to services and programs as "products," or to "the bottom line" more generally.

Use the metaphor of *Public Structures* to inoculate against negative public models of government. While most human service professionals recognize the necessary role of public resources in promoting human service work, they are nonetheless susceptible to a broader public discourse that denigrates government effectiveness. The metaphor of talking about government's role in building and sustaining a set of key "public structures" that facilitate our shared civic life and economic prosperity has shown itself an effective inoculation tool against anti-government models. By helping people understand *how* government supports well-being, the model also helps convince people *that* government supports well-being, helping to undermine anti-government cultural models.[12] As such, the metaphor could be used to set the stage for communications about implementation and its role in enhancing the effectiveness of public programs.

> *America's prosperity and the quality of life it offers depend on the public structures we have created — the health and safety agencies, programs, and policies — to ensure our country's success. We use these public structures as resources to build our economy and social prosperity. They are the machinery we rely on to foster our nation's advancement.*

Leverage the *Human Element* model. Across our conversations with professionals, as well as members of the public, there was consistent talk about how "the human element" complicates implementation efforts — the idea being that even a great implementation plan can go badly if you don't have the right people in place. At times, this talk seemed to set up a false opposition between that "human element" and the implementation process itself. Communicators should be sure to emphasize that implementation is a social science — a

science of people. The "human element" is part of — not separated from — strategic, evidence-informed implementation practice, and part of the reason for a science of implementation is precisely to account for the fact that organizations are not machines but, rather, living ecosystems of people, cultures, habits, etc. Activating this available way of thinking about policy and organizational success can be used to highlight the role of implementers and leadership in effective implementation practice. The language of "on the ground," and the need to be attuned to people and events "on the ground," is a particularly effective and productive way of helping people access this model. The existence of this way of thinking among professionals and members of the public is promising, and should be recruited as part of an effective implementation communications strategy.

VII. CONCLUSION

There is a great deal to be encouraged about in the results of our research with human service professionals. Overall, they recognize the importance of implementation practice, and understand that it is critical to improving outcomes across social policies and programming. In light of its importance, they recognize, too, that all too often, implementation practice does not receive the sustained funding and support that it should. In that vein, many professionals seem pre-disposed to be advocates for efforts to make implementation a more consistent, embedded feature of human service policies and programs. These professionals were also aware that there is an emerging discipline of implementation science, and a field of practitioners who are devoted to helping the larger human services sector do its work more effectively. These advantages represent positive features of the "professional swamp" that can, and should, be leveraged by communicators.

However, there are also very real challenges that communicators face. One challenge presented by research on the public's thinking — thinking which creates and is created by larger discourses — is the *Just Do It* model. This thinking shows a lack of knowledge of what is necessary — beyond collecting an evidence base and having good people involved — for successful implementation. Thus, this cognitive hole needs to be *filled in* by strategically framed communications that assert the important role of implementation science and practice. Another, broader challenge presented by research on the professionals' thinking is *fatalism*. *Fatalism* presents an important challenge because it is addressed not by *filling in* knowledge — professionals understand the importance of implementation science and practice — but by *inoculating against* an overwhelming sense of fatalism that renders the understanding of implementation less than effective.

This report has outlined the deep and pervasive patterns of thinking — among experts, professionals and the public — and the overlaps and gaps between them, which have important implications for future communications about implementation. We have concluded with strategic recommendations to address these challenges. We emphasize again, however, that research and testing is crucial for evidence-based communications, and we cannot be sure of these tools' effectiveness for addressing the challenges associated with communicating about implementation science and practice, beyond our strong hypotheses. We therefore add a final recommendation to our strategic recommendations above: that implementation scientists and leaders consider additional prescriptive research targeted at the specific challenges that they face. New Explanatory Metaphors, Exemplars and Explanatory Chains, in addition to Values, would likely be useful tools for a strategic communicator working to change professional and public thinking about implementation science and practice.

APPENDIX: RESEARCH METHODS

A. Expert Interviews

Summary: To distill the expert view on implementation science and practice, and sketch the untranslated story of the field, FrameWorks researchers conducted 18 one-on-one phone interviews with implementation experts from May through July 2014. FrameWorks compiled the list of interviewees in collaboration with the leadership of the National Implementation Research Network. The final list of expert participants was designed to reflect the diversity of the field, and included implementation scientists and practitioners based in academia, government and the not-for-profit sector. The interviews lasted approximately one hour, and with participants' permission, they were audio recorded and subsequently transcribed for analysis.

Interviews: The expert interviews consisted of a series of questions designed to characterize expert understandings of how implementation science and practice is defined, what constitutes successful implementation and how it is achieved, the relationship between implementation and evidence (and evidence-based programs), the relationship between implementation and policy change more broadly, and the future of the field. The interviewers employed a series of prompts and hypothetical scenarios designed to challenge expert participants to explain their research, experience and perspectives, and to break down complicated relationships between various concepts and explain important principles of the field.

Analysis: To distill the interview data into a coherent single story, researchers employed a basic grounded theory approach in which the interviews were extensively coded, and patterns in the coding were gathered into themes and then categorized. Negative cases were used to refine the categories and themes. This resulted in information that synthesized the most prominent and widely held points from the interview data. Overall, the categories included the following, phrased as questions: (1) What is implementation? (2) What predicts high-quality implementation? (3) Why is high-quality implementation important? (4) What are the policy implications of implementation science and practice? Themes were more-specific content that served to answer these questions.

Following this initial analysis, FrameWorks researchers conducted an "expert feedback session" in August 2014. During this session, a group of implementation scientists and practitioners were assembled to provide additional input and feedback on results emerging from analysis of one-on-one interviews with experts. Session participants were asked to identify important concepts not reflected in the results, winnow out emerging results that were not of central importance, and refine those points that had emerged from analysis of interview data.

The result of this multi-method process is the untranslated expert story of implementation science and practice.

B. Professional Cultural Models Interviews

Summary: In parallel with the expert interviews, FrameWorks researchers conducted separate interviews with professionals working in fields related to the implementation and evaluation of social programs. These professionals were not experts in implementation science and practice per se, but their work inherently involves the process of implementation, and, as such, is influenced (to various degrees) by the principles discussed by experts. The overall goal of these interviews was to distill the data into a description of how these professionals understand implementation science and practice, what they know about it as a field, and how it relates to their work. FrameWorks researchers conducted 21 one-on-one interviews — some by phone, some in person in Washington, D.C. — from May through July 2014. As with the expert interviews, FrameWorks compiled the list of interviewees in collaboration with the leadership of the National Implementation Research Network. The final list of participants was designed to gather the perspectives of professionals working at many different levels across many fields related to the implementation and evaluation of social programs (e.g., program administrators, CEOs of not-for-profit organizations). The interviews lasted approximately one-and-a-half hours and, with participants' permission, were audio recorded and subsequently transcribed for analysis.

Interviews: The interviews allowed the researchers to explore the broad patterns of assumptions — professional cultural models — that participants use to make sense and meaning of information related to their field of practice. Recruiting a range of people, and allowing sufficient time for participants to explore the topic areas of the interview in a nonlinear, semi-structured style, increases the likelihood that the professional cultural models we identify represent shared patterns of thinking about a given topic.

The semi-structured "professional cultural models interviews" are designed to elicit ways of thinking and talking about concepts related to a larger topic of inquiry — in this case, what professionals think about evidence and implementation, and how these concerns relate to the overall running of social programs, broadly construed. The researchers approached each interview with a set of topic areas to be covered — including implementation, evidence, intervention, practice, outcomes, and programmatic and policy efficacy — but left the order in which these topics were covered largely to the participants. As the goal of these interviews was to examine the professional cultural models that participants use to make sense of these issues in the context of their work, it was important to give them the latitude to introduce concepts and relationships between concepts that were touched off by the researchers' questions. Participants were encouraged to pursue any tangents and examples from their work that they judged relevant to the topic.

Analysis: FrameWorks researchers adapted analytical techniques employed in cognitive and linguistic anthropology to examine how participants understand concepts and principles related to evidence, evidence-based social programs, and implementation science and practice.[13] First, we identified common, standardized ways of talking across the sample to reveal organizational assumptions, relationships, logical steps and connections that were commonly made throughout an individual's interview and across the set of interviews. In short, our analysis identified patterns both in what was said (how things were related, explained and understood) as well as what was not said (assumptions).

C. On-the-Street Interviews with the Public

Summary: After the expert interviews and the professional interviews were completed, FrameWorks researchers conducted On-the-Street Interviews with members of the public. These interviewees were diverse in age, ethnicity, education level and professional field; the goal for these interviews was to generate a sense of what the public generally thinks and knows about evidence and implementation. In total, 40 people in Frederick, Md., and Denver, Colo., were interviewed in person in September 2014. Interviews were video and audio recorded for later analysis.
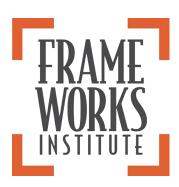
Interviews: These one-on-one, in-person interviews lasted for about 10 to 15 minutes each. Participants were given a small incentive to thank them for their time and contribution to the research. The interviews began with a hypothetical scenario, in which interviewees were asked to imagine that they were in charge of an organization that provides a service to a community (e.g., a school, a hospital). Interviewees were then asked questions about how they would evaluate evidence, and what would be needed to implement a new program within their organization. They were encouraged to bring up any concepts or points that they deemed relevant to the discussion, and most participants were enthusiastic and vocal about the general topic.

Analysis: FrameWorks researchers adapted the analytical techniques employed in the analysis of the expert interviews and the professional cultural models interviews to work with this data set. As in the set of professional cultural models interviews, we identified common, standardized ways of talking across the sample to reveal common patterns, assumptions, relationships and connections that were made in an individual's interview and across the set of interviews. Researchers were also attentive to moments in which participants hesitated, or expressed that they did not know an answer to a question, as this provides useful information about how the public orients to the field of implementation, and whether or not they would be able to identify it as such.

D. Secondary Analysis of Existing FrameWorks Research

In addition to the interviews conducted for this research, past FrameWorks research was reviewed to highlight its relevance and implications for communications work about the field of implementation science and practice. The resulting analysis primarily summarizes relevant cultural models findings from prior work, indicating how these models may bear on public thinking about evidence and implementation.

ABOUT THE FRAMEWORKS INSTITUTE

The FrameWorks Institute is an independent nonprofit organization founded in 1999 to advance science-based communications research and practice. The Institute conducts original, multi-method research to identify the communications strategies that will advance public understanding of social problems and improve public support for remedial policies. The Institute's work also includes teaching the nonprofit sector how to apply these science-based communications strategies in their work for social change. The Institute publishes its research and recommendations, as well as toolkits and other products for the nonprofit sector, at www.frameworksinstitute.org.

Please follow standard APA rules for citation, with FrameWorks Institute as publisher:

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ENDNOTES

[1] Throughout this report, we use the term "professionals" as a label to refer to a particular group of interviewees — those individuals who work in the human services field, broadly construed, and who are involved in the implementation of social programs. They are not, however, experts on implementation science.

[2] See Polsby, N., & Wildavsky, A. (1988). *Presidential elections* (7th ed.)*.* New York, NY: The Free Press; Iyengar, S. (1991). *Is anyone responsible? How television frames political issues.* Chicago, IL: University of Chicago Press.

[3] See, for example: Bostrom, M. (2005). *Educating, not advocating: An analysis of qualitative research exploring public and policymaker views of early childhood policy: Arizona case study.* Washington, DC: FrameWorks Institute.

[4] See Aubrun, A., & Grady, J. (2004). *Mind and monolith: Findings from cognitive interviews about government.* Washington, DC: FrameWorks Institute.

[5] See, for example: Volmert, A., Baran, M., Kendall-Taylor, N., Lindland, E., Haydon, A., Arvizu, S., & Bunten, A. (2013). "*Just the Earth doing its own thing*": *Mapping the gaps between expert and public understandings of oceans and climate change.* Washington, DC: FrameWorks Institute.

[6] See, for example: Kendall-Taylor, N., & Haydon, A. (2013). *Plasticity's promise: Moving public thinking beyond the container and other unproductive models: Mapping the gaps on developmental plasticity.* Washington, DC: FrameWorks Institute.

[7] Research by the FrameWorks Institute and others strongly suggests that the best route toward changing attitudes and moving support for particular policies lies in improving issue understanding via framing. A critical part of this process is the application of the values that are inherent in all frames. Research has shown that, absent a value at the top of a communication, people struggle to see the point of engaging with an issue in the first place. Values therefore can be seen as serving as fundamental organizing principles by which people evaluate social issues and reach decisions.

[8] Explanatory Metaphors are frame elements that fundamentally restructure the ways that people talk and reason about issues. As such, these metaphorical communication tools are useful in efforts to shift the interpretational frameworks that people access and employ in processing information.

[9] McAdam, D. (1996). The framing function of movement tactics: Strategic dramaturgy in the American civil rights movement. In D. McAdam, J. D. McCarthy, & M. N. Zald, (Eds.), *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures and Cultural Framings* (339-340)*.* Cambridge, UK: Cambridge University Press.

[10] See Gilliam, F.D. (2007). *Telling the science story: An exploration of frame effects on public understanding and support for early childhood development.* Washington, DC: FrameWorks Institute; Davey, L. (2010). *How to talk about children's mental health: A FrameWorks MessageMemo*. Washington, DC: FrameWorks Institute.

[11] See, for example: Kendall-Taylor, N., & Haydon, A. (2014). Space to think: Using metaphor to expand public thinking about criminal justice reform. *Studies in Media and Communication, 2*(2), 13-23; Kendall-Taylor, N., Erard, M., & Haydon, A. (2013). The use of metaphor as a science communication tool: Air traffic control for your brain. *Journal of Applied Communication Research, 41,* 412-433.

[12] See Aubrun, A., Grady, J., & Brown, A. (2005). "*Public structures" as a simplifying model for government*. Washington, DC: FrameWorks Institute.

[13] See Quinn, N. (Ed.). (2005). *Finding culture in talk: A collection of methods*. New York, NY: Palgrave Macmillan.