



THE VALUE-ADDED RESEARCH DISSEMINATION FRAMEWORK

OPRE Report #2013-10

February 2013

FINAL REPORT

OPRE Report #2013-10

February 2013

Jane Macoubrie, PhD, and Courtney Harrison, MPA

Submitted to:
Project Officers Matthew Borus, Ann Rivera, and Colleen Bayus
Office of Planning, Research and Evaluation
Administration for Children and Families
U.S. Department of Health and Human Services

Contract#: HHSP233201000599G

Project Director: Wendy Shreffler, MBA
Public Strategies
3 East Main Street
Oklahoma City, Oklahoma 73104

This report is in the public domain. Permission to reproduce is not necessary. Suggested citation: Macoubrie, J., & Harrison, C. (2013). The Value-Added Research Dissemination Framework. OPRE Report # 2013-10, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

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THE VALUE-ADDED RESEARCH DISSEMINATION FRAMEWORK

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THE VALUE-ADDED RESEARCH DISSEMINATION FRAMEWORK

Created for the Office of Planning, Research and Evaluation

BACKGROUND AND APPROACH

Public Strategies (PSI) developed a research dissemination framework for the Office of Planning, Research and Evaluation (OPRE). OPRE conducts human services research and policy analyses, and develops and oversees research and evaluation projects to assess program performance and inform policy and practice for the U.S. Department of Health and Human Services Administration for Children and Families (ACF). OPRE also synthesizes and translates research findings, with an emphasis on informing the ACF program offices, federal and state policymakers, the human services research community, and program administrators across the United States. OPRE's interest in a framework responds to the evidence that passive diffusion, or simply placing new information where it can be found—even if targeted to a specific audience—is insufficient to encourage its spread.

The Value-Added Research Dissemination Framework was developed based on the results of a broad, multidisciplinary literature review which is discussed in Appendix A. The framework emphasizes six elements. 1) The **core challenges**, or the persistent issues that face disseminators, lie at the heart of the framework. The challenges are drawn from the literature and impact dissemination outcomes. Many of these dissemination challenges arise from 2) **organizational factors**, such as institutional logics and limited time and access to research. These barriers can affect the ability of people in organizations to engage with research. By understanding how organizational factors influence dissemination, we can begin to consider what strategies may be needed to overcome them. Strategies identified in research and current practice informed 3) the **disseminator's role**, which is to perform or guide 4) a **flow of activities** that address the core challenges. 5) **Communication concepts** that can help disseminators respond to common dissemination obstacles were also incorporated. Finally, 6) the **characteristics of the research finding** being shared and those of the target audience also can substantially affect the success of dissemination.

The framework is a functional approach to dissemination, meaning that it describes how factors act to affect dissemination results, and shows the relationships between those factors. Other approaches to frameworks¹ might describe key concepts, the structure of the processes, or barriers, without a functional focus. The Value-Added Research Dissemination Framework created for OPRE emphasizes the disseminator's role to overcome common dissemination challenges. This includes, but is not limited to, research design, translation, messaging, format, distribution, and evaluation.

The framework emphasizes dissemination as a strategic communication process, incorporating concepts from the communication field. The framework also considers the decentralized, complex

¹ Other frameworks include: Conceptual Framework of Diffusion (Bradley et al., as presented in Yaun, 2010, p. 2) and A Conceptual Model for the Spread and Sustainability of Innovations in Service Delivery and Organization (Greenhalgh et al., 2004, p. 296).

structure of human services policy and practice in the United States. This is in contrast to the more centralized health care systems abroad, which are the subjects of the vast majority of the dissemination literature to date. Literature from human services, communication, and organization studies has been largely missing from prior reviews and frameworks. These areas strengthen our understanding of why dissemination is such a persistent challenge and also highlight solutions.

The present dissemination framework is informed by an interdisciplinary literature review that identified both challenges and potential solutions to sharing research information. Before describing the framework itself, key concepts from the literature are summarized.

Key Concepts and Definitions

Diffusion of innovation theory has informed dissemination work across many fields of practice and study. Because of the interdisciplinary nature of the literature review, the following definitions clarify the distinctions. A Glossary of Terms is in Appendix B.

The distinction between diffusion and dissemination. As defined in the theory, *diffusion* is the process in which an *innovation* is communicated through certain channels over time among the members of a social system (Rogers, 2003). An innovation, in diffusion of innovation theory and in this report, means any new finding, technology, product, or program based on research. Diffusion, in its original definition, is an active effort and has continued to be studied as such in business and management studies, organizational psychology, social psychology, information technology, and communication studies. Dissemination emerged as a concept distinct from diffusion in the health care literature in the late 1980s. In these areas of work, diffusion was redefined as passive or non-agent driven, while dissemination was defined as active spread of new information. For the purpose of this report, *dissemination* is defined as a “planned process that involves consideration of target audiences and the settings in which research findings are to be received, and where appropriate, communicating...in ways that will facilitate research uptake in decision-making processes and practice” (Wilson, 2010). The dissemination literature is largely practice-focused as opposed to theory-focused.

The **disseminator**, in this framework, is the person or organization responsible for planning the dissemination strategy; **pushing** research information into the field of practice, policy arena, or research community; **encouraging pull** from the target audience; and evaluating the use of and/or the process for dissemination of research information. Actively directed efforts from top-down or lateral agents are called *push* marketing activity. Push marketing is the corollary of active dissemination, where the spread of a new innovation is encouraged by an organization or agent. Consumer or user-led spontaneous demand and utilization is called *pull*. Pull is driven by audience desire or demand for information and can occur spontaneously without marketing push.

The disseminator plays a value-added role in moving information. *Value-added* is a business term that refers to activities that add value by addressing expectations and concerns of audiences. The current research dissemination framework is constructed with the idea that the role of overcoming common dissemination challenges is the responsibility of the disseminator.

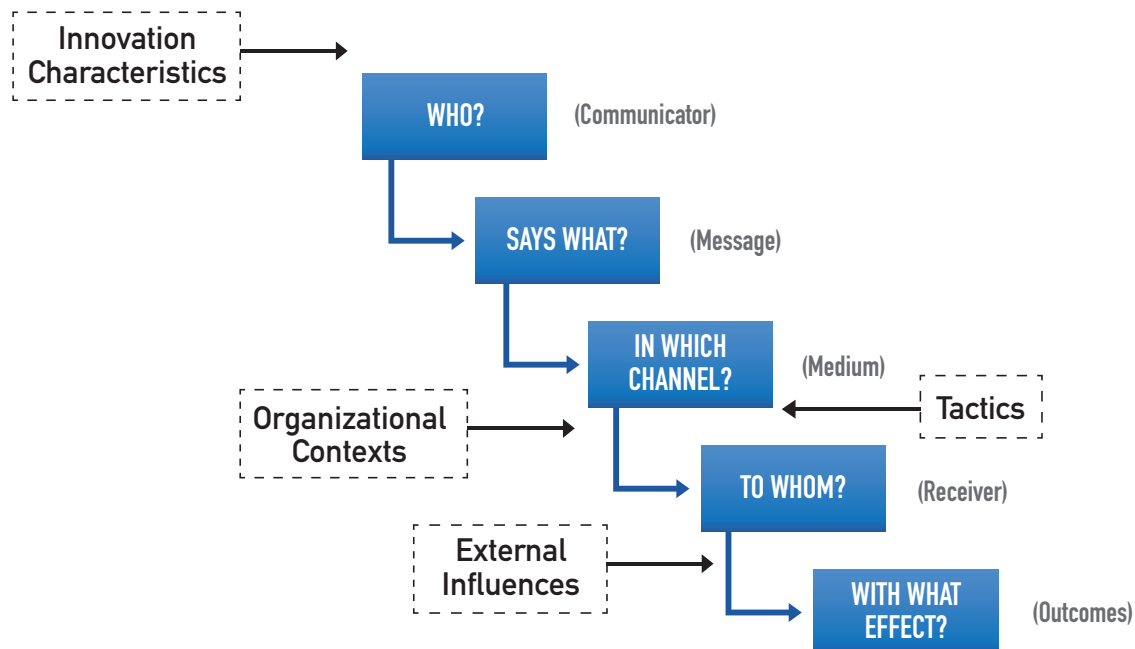
Two final concepts in The Value-Added Research Dissemination Framework are **reach** and **utilization**. *Reach* is the percentage and representativeness of audience members who receive the innovation. It is a measure of successful dissemination. Another way to measure dissemination is how the research is utilized. *Utilization* can be broadly defined as how the research is used. For example, successful utilization could include reading the research, citing it, or sharing it.

Describing Dissemination as a Communication Process

The Value-Added Research Dissemination Framework is distinctive in describing dissemination as a communication process. For the purposes of this project, we define *communication* as the conveyance of information about certain subjects to others to create shared knowledge. The disseminator is the communicator who takes on that process role.

Lasswell's classic model of communication has five elements, depicted in solid boxes in the following diagram (in Shoemaker et al., 2004). Dissemination as a communication process requires four additional elements (depicted in boxes with dotted lines); these elements reflect key variables that the literature review showed significantly affect dissemination outcomes. These are: the innovation characteristics, the organizational contexts in which dissemination is received, the tactics chosen within channels, and the external influences that are always present. Incorporating these four additional elements into Lasswell's communication model improves clarity about all layers of influence on dissemination success.

The Classic Communication Model, Plus Dissemination Elements



Beginning with the innovation itself, all of these nine elements should be recognized as part of the dissemination process. Outcomes are included to emphasize that these are intentional objectives, in planned processes. Dissemination as a communication process thus involves:

- The innovation itself and key characteristics
- The communicator or disseminator
- Messages (format and content)
- Channels (e.g., Internet or written word)
- Tactics (e.g., webinars, briefs, or podcasts)

- Organizational contexts (of the receiver)
- Receivers (the target audience)
- External influences (e.g., politics, budgets, timing)
- Outcomes (utilization goals)

Describing dissemination as a communication process implies that it is interactive. In The Value-Added Research Dissemination Framework, the disseminator is overcoming common communication challenges. The next section describes these challenges as highlighted in the dissemination, diffusion, and knowledge utilization literature.

THE VALUE-ADDED RESEARCH DISSEMINATION FRAMEWORK: CORE CHALLENGES AND DISSEMINATOR'S ROLE

The Value-Added Research Dissemination Framework is shown on page 10. The two case studies on page 11 illustrate the core challenges and the disseminator's role in action. The framework has two layers: the persistent challenges or barriers to dissemination, and the roles disseminators must take on in different phases to overcome these barriers. External influences are present throughout the dissemination process and can hinder or enhance the process.

The next few pages describe the core challenges as presented in the literature and highlight the disseminator's related role, by phase. There are four distinct phases in the dissemination process described here: 1) planning; 2) translation and packaging; 3) strategic distribution; and 4) follow-through and evaluation. OPRE generally aims to begin the dissemination process in the planning phase; however, other organizations may begin in a different phase. The framework does not represent a linear process. A disseminator can begin in any phase and the dissemination process may loop back from one phase to another before moving on to the next phase. The process of moving through the phases of dissemination is likely to draw on lessons and feedback from previous experiences.

■ Planning Phase

Challenges – Characteristics of Research Outputs

Research has consistently demonstrated that the initial characteristics of the innovation or research output being disseminated have a significant impact on how it is received. Two things are central to that impact: the actual features of the innovation or research output and its **relevance** to use or application.

For example, new findings may be delivered with intense layers of technical jargon, words with multiple meanings across fields, complex sentence structures, dense tables and statistics, and little discussion of the relevance to the target audience. The level of **technical knowledge** needed to process and use the information is an important consideration in dissemination. The **reliability** of

the research and **how it compares with other research** also can impede a receiver's ability to use the information, unless the research findings are explained in context. All of these issues interfere with the utilization of research by anyone outside the research community, including policymakers.

Salience—or immediate relevance to practice—and **complexity** are key issues. Diffusion of innovation studies show that features of the innovation itself predict its utilization and that complexity reduces utilization.

The Disseminator's Value-Added Role – Planning

Research disseminators should consider dissemination objectives, the **target audience** and **their needs** when designing research and planning for dissemination.

First, to achieve success in all phases, those who **design research** can identify research questions and methods to respond to the information needs of their target audiences. Policymakers, for example, are often moved by quotes and stories from the field. Case studies are useful alongside statistics when disseminating in the field of practice. If collected during the research process, this information will be available for dissemination and can make new information more accessible and interesting.

Second, disseminators can **plan for evaluation** of their dissemination efforts. This will likely include setting **utilization and/or distribution goals and objectives** and devising evaluation plans in the Planning Phase. Disseminators also might want to consider results of others' dissemination efforts to inform strategies. Ideally, plans will include investigating in what ways dissemination did or did not work, thereby adding to the body of useful knowledge. Distribution or utilization outcomes are helpful, but the reasons for the success or challenge of the strategy are frequently unknown.

Third, once the research findings are available, disseminators need to analyze which characteristics of the findings or innovation most require the translation, synthesis, and formatting that takes place in the Translation and Packaging Phase.

Planning Phase questions to ask. There are a number of questions one could ask to help address dissemination challenges. For example: Are the research results truly value-added, or does the value need unpacking or linking back to critical issues? Have research questions addressed core problems of complexity, salience, and relevance to key audiences? Are the research findings generally reliable across all populations? If work includes dissemination activities, do plans include follow-through and address linkage intensity? Can planning include work to specify audiences, linkage mechanisms, and dissemination tactics? Is there an evaluation plan that would further understanding of what works in translation or distribution, and what contributed to certain outcomes? Considering these questions will help disseminators identify what supports are needed for the Translation and Packaging, Strategic Distribution, and Follow-through and Evaluation Phases.

■ Translation & Packaging Phase

Challenges – Communication to Specific Audiences

Language issues, format, accessibility, and appeal all affect utilization by the target audience. Content and message also matter to dissemination efforts. For example, complex and technical language can prevent research from being used. What is said and how it is said may have a significant impact on dissemination success. Audiences uniformly prefer formats such as syntheses, synopses, and other packaging that help with absorption and lessen time demands.

Whether audience members are policymakers, administrators, or human services professionals in the field of practice, their capacity to evaluate work intended for research audiences is often limited. **Linking the new research with other findings** and facts can help provide the necessary context for consumers of the information.

Another barrier to effective communication with specific audiences can be the **frames and motivations of those audiences** that influence their consumption of new research. *Frames* are the filters or means for interpretation that people use to understand new information. Frames can influence one's motivation for accessing and utilizing research, as can professional affiliations, workplace culture, and personal value placed on research. Considering how this information can be used and addressing why the new research finding/output matters to the target audience can help overcome these barriers.

The Disseminator's Value-Added Role – Translation & Packaging

Making language accessible and **relevant to your target audience** requires the disseminator to consider complexity, technical language, and messaging issues when preparing research for distribution. In some fields, this is thought of as translation between fields that use different terms and speak different “languages.” Even among experts and specialists within a field, there are language issues. To overcome barriers related to language, dissemination efforts should include strategies to identify common language and related knowledge.

Messages should be distinctively tailored to appeal to certain audiences. One research finding may be shared with different audiences in different ways based on the **format** that works best for that audience. Findings or innovations may also be **packaged** to best meet the needs of the target audience.

Understanding what the target audience needs, linking new research findings to existing ones, and **considering the frame** in which a receiver is operating are critical to effective dissemination efforts. To accomplish this, recommendations that emerged from the literature review include making adaptations for readability and appeal; simplifying formats to reduce intellectual processing and time demands; making explicit potential benefits and harms; and/or providing operational recommendations or implementation tips when possible.

Comprehension and decision making are also affected by content in a couple of key ways. First, people follow conversations and complex text by tracking the global or larger issues. Without these larger-frame guides, reading comprehension is difficult. Second, people change their minds based on new reasons necessitating the presentation of **existing research and how the innovation fits with current research**. Research finds that organizational logics also can prevent utilization of new practices, even if driven by regulations. Thus, explaining the logic underlying the new information might be needed.

Other tools to improve **accessibility** include examples, stories, graphics, etc. Using **stories or quotes** by someone other than the researcher or disseminator can also help convey the context or highlight research findings. The **visuals** that can accompany an idea, along with simplifying metaphors and models, and the tone of the text (i.e., warm, formal, memorable, inviting) also can help to make information accessible and appealing. Finally, speaking to values or standards of audiences may help disseminators better communicate the research information.

Translation & Packaging Phase questions to ask. There are a number of questions one could ask to help address dissemination challenges in the Translation and Packaging Phase. For example: What frames or filters may influence how the target audience receives and interprets the information? How does the target audience prefer to receive information? What other facts and research findings

provide necessary context for the new information? How can this research information be shared succinctly? What translation is needed to make the information accessible to the target audience(s)? What stories or quotes can be used to share the information effectively? Which formats works best for the target audiences? What different formats should be used to move information (e.g., facts sheets and briefs and web content)? How should the information be packaged to appeal to the target audience?

■ Strategic Distribution Phase

Challenges – Reach, Access, Intensity

Access to research-based innovation is a persistent problem, even in the Internet age. Few people have complete **access** to journal articles or relationships with researchers. Therefore, retrieving research findings requires a reliable and trusted information source (i.e., **knowledge broker**) from whom consumers seek (or **pull**) information.

Information is abundant, so the distribution of one particular innovation is unlikely to be easily perceived or acted upon. Distribution needs to occur repeatedly and through **different channels and/or tactics**. (See Table 1 for examples.) Each channel offers different opportunities and has different limitations (e.g., print materials have limited ability to convey emotion or to foster interaction). Channels also have differing effects on cognition and utilization.

The Disseminator's Value-Added Role – Strategic Distribution

Messages travel or are transported via channels of communication (e.g., Internet, video), and disseminators should utilize **multiple appropriate and cost-effective channels and tactics**. Materials need to be tailored appropriately for the medium since, for example, people consume and read information differently online than they do in print. The primary channels are shown in Table 1. Determine what channels would be best for conveying the information the audience(s) need. Then, choose specific *tactics* within a channel; tactics are the various ways channels are used. Using the Internet, for example, means choosing specific tactics such as an interactive community of practice (CoP), an e-training strategy, a clearinghouse, and/or social media.

A general rule for distribution is to use multiple channels and tactics and to **push information out repeatedly**. Most people need to see or hear a message multiple times before they access the information. In distribution, success will be related to *reach*, or the extent and representativeness of the audience that comes in contact with the innovation. This does not occur spontaneously most of the time. To achieve reach, thoughtful planning and persistence are required. Disseminators can add value by choosing channels, tactics, networks, and linkage mechanisms to both push information out and create pull by audiences.

One strategy for overcoming distribution challenges is to create or identify **linkage mechanisms**. A *linkage mechanism* is a network or series of systems that connect people or organizations such as a technical assistance (TA) provider, inter-organizational task force, or regional policy network. Multiple **networks** exist across states and nationally in the field of human services in the United States, so increasing reach involves considering how to use or create linkages between organizations. A disseminator may have to create a linkage mechanism to improve reach. To the extent that linkages are systematic, intentional, and perform specific functions, they are likely to be more effective than ad hoc or occasional networks. Peer networks may be influential in dissemination/diffusion, including by providing feedback about what worked or was encountered by other organizations. There are two

key aspects of linkage mechanisms: 1) What entities in each part of the system should be linked? and 2) What actions or activities should link these entities? Understanding the roles and connections within a linkage mechanism can inform the distribution process.

Planning for the Translation and Packaging Phase and the Strategic Distribution Phase should be integrated. Disseminators could consider how linkage mechanisms and reach could be increased by distributing to policy entrepreneurs, knowledge brokers in organizations, **champions**, coalitions of credible sponsors, policy networks such as regional policy and administrator groups, networks of individuals regularly involved with multiple groups. They should also consider how these organizations may translate or package information.

Strategic Distribution Phase questions to ask. Questions for the disseminator to consider in the Strategic Distribution Phase include: What other organizations share the same dissemination goals and could contribute their own efforts to further enhance dissemination and utilization? Which recipients would use—but not further distribute—the information, except in peer to peer interaction? What channels and specific tactics within those channels should be used to effectively reach each target audience? How many different channels and tactics will be used? Who are the champions and knowledge brokers within key networks who can further distribute information? How can those champions and knowledge brokers be engaged? How frequently will information be shared? What existing professional associations or networks are available to share this research? Which distribution strategies are likely to encourage pull from the target audience?

Table 1. Channels and tactics discussed in the literature reviewed

Channels	Communication Tactics
Web, Internet	Computer-mediated group discussion and/or decision making ♦ E-learning, courses, or online training (2) ♦ E-newsletter* ♦ Listserv ♦ Webinars ♦ Informal email messaging (e.g., short summaries of Cochrane Reviews) ♦ Web clearinghouse (3) ♦ Blog ♦ Community of Practice
Print Material	Formal guidelines ♦ Manuals ♦ Practice guide ♦ Policy Brief* ♦ Tool kit distribution ♦ Tip sheets ♦ Executive summaries* (2) ♦ Case studies
Mass Media	Attention-getting activities to generate press ♦ Media campaign (1)
Audio/Visual Media	Interactive CD or DVD training (1) ♦ Phone information service (1) ♦ Phone conferencing ♦ Coaching or phone consultation after TA
Face-to-face	Interactive CD or DVD training (1) ♦ Phone information service (1) ♦ Phone conferencing ♦ Coaching or phone consultation after TA ♦ Interlocking networks (2) ♦ Conference presentation, workshops (1), seminars for policymakers (1) ♦ Training or Train-the-Trainer (2) ♦ Two-way dialogue or debate (1) ♦ Group or team process to resolve concerns and issues (1) ♦ Testimony to authorities ♦ Respond to questions (1) ♦ Coalition of credible sponsors ♦ Technical assistance ♦ Knowledge broker, linking agent, interlocks (4) ♦ Legislative staff interaction ♦ Embedded researcher (1)

Notes: Numbers in the table are the number of empirical studies that evaluated these tactics in the Human Services Research Dissemination: What Works? Literature review (total = 21). An asterisk (*) indicates a tactic that audience members expressed as a preference. All other tactics were discussed but not evaluated.

■ Follow-through and Evaluation Phase

Challenges – Utilization Issues

Distribution needs to occur repeatedly and in different ways to ensure the research reaches the target audience(s). Beyond reach, utilization is an objective of dissemination. The varying stages of utilization can include reception, cognition, reference, adaptation, efforts, influence, and application (Belkhdja et al., 2007). Utilization is affected by **trust** of the source and organizational biases, so overcoming these biases through peer example may be important to end results. **Organizational situations and logics** also affect the uptake of the research by the recipient as these elements influence whether an innovation is valued, how information is shared, and what the attitude is toward change.

Individuals in organizations have **time, budget, and staff constraints**, as well as local political and philosophical constraints that can inhibit access to or use of an innovation. The **need** (or perceived need) and feasibility of using the research is another barrier to effective utilization. Some of the perceived need is related to the frames through which individuals filter information.

The Disseminator's Value-Added Role – Follow-through and Evaluation

Working with organizations, measuring utilization, and evaluating the dissemination process begin in the Planning Phase and are actively engaged in the Follow-through and Evaluation Phase. For example, utilization goals should be established in the Planning Phase and measured in the Follow-through and Evaluation Phase.

Follow-through is essential since in most cases target audience members are embedded in organizations. Closing the feedback loop to learn about **what worked** in dissemination, and why, is a critical role for the disseminator. It is helpful for the disseminator to understand situational fit, or the organizational circumstances in which an innovation is being considered. Since organizational challenges are so common, the process of understanding **how research information was or was not used** is valuable for subsequent translation, packaging, and distribution efforts. Follow-through could include telephone support to answer questions and help solve utilization problems. Other strategies for follow-through include developing interdisciplinary knowledge within and across groups (techniques for this are described in the literature review) or using tiered networks of intermediaries to implement a train-the-trainer model to improve the reach of training.

Disseminators also need to accept the challenge of discovering what did or did not work—and why. When evaluation of dissemination occurs, it often does not ask the “why” question. For example, we might know manuals rarely work, but not why they do not work. Understanding why something worked **can inform future dissemination efforts**. Evaluation questions may include: Did messages in the disseminated information connect with core motivations of the audiences? What reasoning was in use that prevented utilization? Can implementers work with original researchers to adapt with fidelity? Did disseminated information reach the full extent of organizations and other recipients as intended? Did measures of ‘reach’ include the percent of audience members and their representativeness? Were **organizational linkages** maximized across organizations? What gaps between research and practice most affected utilization? What forms of utilization took place? To further inform evaluation strategies, these resources may be useful: Glasgow et al. (2006); Belkhdja et al. (2007); and Dearing (2006).

The results of the evaluation can not only improve the future process, but also identify areas for additional research or translation of information. As described previously, dissemination is a communications process. Evaluation and follow-through provide the disseminator with insight to inform the next iteration of the process.

Follow-through and Evaluation Phase questions to ask. Questions for disseminators considering follow-through and evaluation may include: Will the process or the outcomes of the dissemination effort be evaluated? What methods will be used for evaluation? What mechanisms are available to follow-up with the target audience and to understand if/how information was used and why? What networks encouraged utilization of the innovation? Does the target audience trust the source of the information? Did the innovation meet a need that the target audience had? Or, as a result of receiving the information is the target audience now aware of the need for additional information? Are additional translation/packaging or distribution efforts necessary to more effectively share the innovation?

At The Core: External Influences

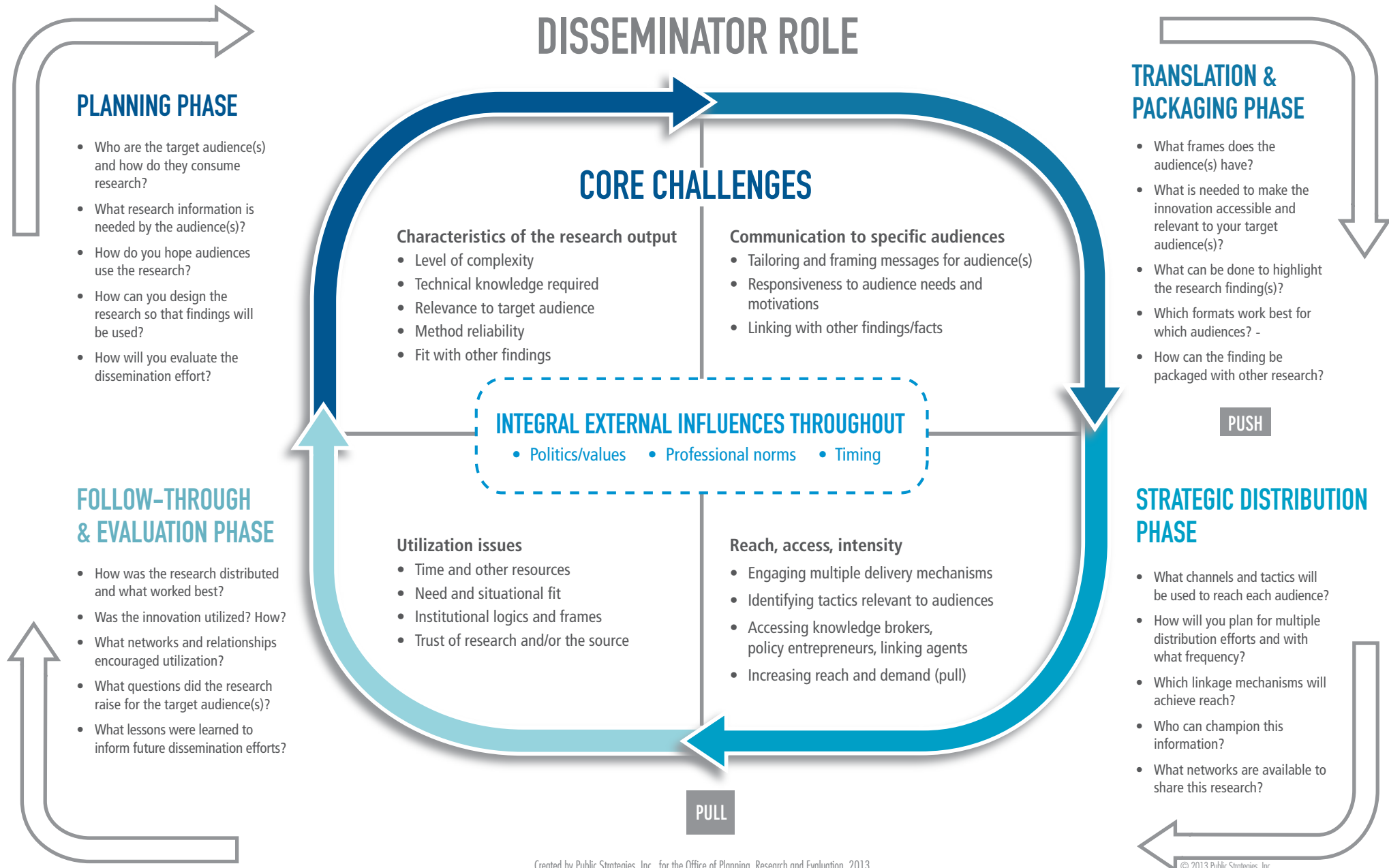
External influences are always present and can positively or negatively impact dissemination. The **political environment**, the **values** of the receiver, **professional norms** among different groups receiving the research information, and the **timing** of the distribution effort can all influence receipt of the research finding. These factors are always present and must be considered by the disseminator. The disseminator may choose to restart the dissemination process based on current events or available funding opportunities. Similarly, if a new linkage mechanism is created that provides an opportunity for an innovation to be utilized, the disseminator may choose to engage in the Strategic Distribution Phase with something that was previously distributed, based on need. For example, if a new, inter-agency workgroup was created, a previously released report that targeted one agency could be repackaged or redistributed to the new workgroup to inform a specific issue the group is tasked to address. Because of the long duration of the research process, attention to the external influences is imperative to successful dissemination.

THE VALUE-ADDED RESEARCH DISSEMINATION FRAMEWORK

The Value-Added Research Dissemination Framework created for OPRE is presented on page 10. As described in this report, it is a functional framework that highlights the core challenges of dissemination and the role of the disseminator in overcoming these obstacles to disseminate research successfully. It has four phases, but the process can begin in any phase, based on the disseminator's needs. For OPRE, dissemination most often begins in the Planning Phase. On page 11, two case studies from the research literature are presented to provide examples of the process.

The Value-Added Research Dissemination Framework

Created for the Office of Planning, Research and Evaluation (OPRE), Administration for Children and Families, U.S. Department of Health and Human Services



Created by Public Strategies, Inc., for the Office of Planning, Research and Evaluation, 2013

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The core challenges are drawn solely from the literature reviewed in Human Services Research Dissemination: What Works? (Macoubrie & Harrison, 2013). The disseminator's proposed role draws on the communication literature and on reasoning about useful tasks disseminators can do to improve dissemination outcomes. Our goal was also to map dissemination as a process, and to highlight the challenges at different stages of that process. This framework is discussed in detail in the report The Value-Added Research Dissemination Framework (Macoubrie & Harrison, 2013).

CASE STUDIES

CASE STUDY: Building Capacity of State Adolescent Pregnancy Prevention Coalitions to Implement Science-based Approaches (Rolleri et al., 2008)

Objective: The Centers for Disease Control and Prevention (CDC) examined how to effectively disseminate adolescent reproductive health research to practitioners.

Background: Three national and five state adolescent pregnancy prevention organizations were funded to promote the use of science-based programs and approaches. The CDC used these intermediary organizations, referred to as the prevention support system, to build capacity among practitioners and to communicate the needs of practitioners to researchers.

Planning Phase

The intermediaries recognized the varying levels of organizational capacity and sophistication among the organizations that implement programs and practices. This factored into understanding the needs of the target audience. The plan included a seven-step model: 1) relationship building; 2) needs assessment; 3) logic model development; 4) developing training and technical assistance (T/TA); 5) delivering T/TA; 6) evaluating T/TA; and 7) follow up.

Translation & Packaging Phase

Prochaska's Stages of Change model was used to assess the practitioners' needs, based on stages of understanding and embracing science-based practices. The numbers of practitioners in different stages across the organizations supported different approaches to information sharing. The intermediaries addressed language issues by defining key terms and providing a common language for the practitioners.

Strategic Distribution Phase

Distribution tactics used include FAQs about science-based approaches, weekly e-gram updates, customized technical assistance, coaching, online training, and face-to-face training. Trainings taught participants to recognize steps needed to acquire and master a skill, modeled skills, and included practice and reinforcement.

Follow-through & Evaluation Phase

Follow-up activity (encouragement, support, and technical assistance) was provided to reinforce the trainings through face-to-face meetings, phone calls and e-mail communication. Evaluation of both the process and the outcomes was conducted. Outcome evaluation examined changes in participants knowledge, attitudes, and skills, and the intent to use the skills. Evaluation was a continuous process, used to inform future translation efforts and distribution strategies. Lessons learned include:

- 1) Practitioners can be confused by the motives of those who promote programs as 'effective.'
- 2) Practitioners required assistance understanding how to evaluate and select an effective program.
- 3) Practitioners need help gaining the skills needed to engage in new practices.
- 4) Translation and synthesis into practitioner-friendly products such as fact sheets and issue briefs was necessary.
- 5) Practitioners needed support in order to amend some aspects of programs to meet client needs so as not to compromise critical components.

CASE STUDY: Media Analysis of Early Dissemination of Canadian Child Maltreatment Surveillance Data (Tonmyr & Jack, 2010)

Objective: The Public Health Agency of Canada (PHAC) assessed the ways in which child maltreatment data was disseminated through the media (as part of a comprehensive dissemination strategy).

Background: PHAC collects, analyzes and disseminates data on child maltreatment investigations every five years. To optimize the dissemination efforts, a media strategy was developed to facilitate the movement of key messages.

Planning Phase

PHAC used a five-point framework to guide their dissemination effort: 1) develop key messages; 2) identify target audiences; 3) identify/use knowledge brokers; 4) use appropriate communication channels; and 5) evaluate the dissemination strategy. Planning also included the coordination of a media launch or press conference.

Translation & Packaging Phase

Key messages were constructed through a collaborative effort engaging government officials, researchers, and stakeholders. Five messages were developed to share positive and negative findings, target common misconceptions about child maltreatment, and to highlight the collaboration of many agencies to address the problem. Information was presented in terms accessible to those not versed in scientific language.

Strategic Distribution Phase

Verbal communication and written materials were used to deliver information to the media. Distribution strategies included a press conference with high-profile ministers and knowledge brokers (experts), a press release, fact sheets, an executive summary, and information about a website with additional data. The media launch was timed to take advantage of national child abuse and prevention month.

Follow-through & Evaluation Phase

To follow-through with distribution of information to the media, knowledge brokers were available to the media after the press conference. The evaluation effort included a review of news stories one week following the media launch. The language used in the media was analyzed and compared to the key messages' intended effect. Lessons learned and recommendations included: 1) Local context is important; press releases alone are not sufficient because journalists need a personal interest or local context for reporting. 2) The five key messages were not equally effective. 3) Key messages should express not two ideas but one. 4) Timing is a key issue: time was needed to debrief local leaders on the report to prepare them for local media contacts; knowledge brokers needed to be prepared to issue a subsequent press release when a maltreatment event occurred; and data should be released periodically to encourage continued interest in the data. 5) It is important to develop relationships with reporters and give them the opportunity to interact with issue experts.

CONCLUSION: THE DISSEMINATOR'S VALUE-ADDED ROLE IN ADDRESSING THE CORE CHALLENGES

Research dissemination should be, above all, an informed, strategic process that considers the needs of the target audience and evaluates the receipt and use of the information being shared. Barriers to dissemination will continue to exist as they are related to organizational and individual ways of thinking and interacting that are unlikely to change quickly. The barriers to dissemination are well known, but their solutions have been less well understood. Seven solutions or key principles were found by synthesizing the multi-disciplinary literature reviewed for this project and were developed further by PSI. The dissemination, diffusion and knowledge utilization literatures together yielded a number of solutions relevant to OPRE's audiences: other researchers, policymakers, intermediaries, and the field of practice. Each principle described below is applicable to all audiences, unless otherwise noted. More information about these solutions, including examples and source information, is presented in the Human Services Research Dissemination: What Works? literature review conducted on behalf of OPRE.

Seven key literature-informed solutions or principles

1. **Understand audiences.** A key problem identified in a number of scholarly articles is disseminators' inability to decipher what the potential adopter will need and to target messages so that they will be understood well.
2. **Create and use linkage mechanisms.** Linking agents such as policy entrepreneurs, knowledge brokers, change agents, and information specialists can be individuals or organizations improving knowledge transfer. Multiple studies in diverse fields have found that **networks** of people and organizations are a key way to increase utilization of new information. *Linkage mechanisms* are networks or a series of systems that can support research utilization. Internal champions (of an innovation) facilitate the identification, access, assessment, interpretation, and translation of research evidence into policy and practice.
3. **Demonstrate salience.** The salience of an innovation is very important. Believing that the new information is **clearly relevant to utilization**, and worth the challenge of change, is the natural starting point for potential adopters.
4. **Pay attention to message design and content.** New information that is easily processed or digestible is far more likely to gain attention and be used. Five dimensions of research translation, or message transformation, are critical: contextualizing or enrichment; comprehensibility; making explicit any potential harms and benefits; applicability and relevance; and straightforwardness and appeal.
5. **Transform interdisciplinary knowledge into related knowledge.** Creating **knowledge representations** that merge understandings helps groups or organizations to develop a shared language and common understandings of complex problems. Representations that expose the **intersections** of the different groups' knowledge are powerful tools in comprehension. (POLICYMAKERS, FIELD OF PRACTICE, RESEARCHERS)
6. **Consider situational fit** of the research in the context of the target audience. Organizational circumstances and need for the innovation may affect utilization.

7. **Plan for follow-through and linkage intensity.** Distribution alone is not enough for dissemination. Processes are needed for policymakers and program administrators to utilize the research information being shared.

The Value-Added Research Dissemination Framework incorporates the key challenges of dissemination, the solutions drawn from the literature, and the disseminator's role in enacting those solutions. This role must be a value-added one, since the literature makes clear that mere publication of new findings is insufficient. The disseminator should plan for translation, synthesis, and packaging (formatting and 'wrapping') of information, so it can be easily absorbed and utilized. Dissemination tactics directly contribute to satisfying the consumer's or recipient's expectations. To address barriers, the disseminator should contribute to a process that enhances the sharing of research findings with the target audience to increase utilization.

APPENDIX A

THE SUPPORTING LITERATURE REVIEW

OPRE contracted with PSI to conduct a literature review in support of a dissemination framework, integrated strategic marketing/communication plan, and other related work. Full information about search strategies and databases used can be found in the literature review report: *Human Services Research Dissemination: What Works?* The review began from thirteen (13) recent literature reviews in relevant areas. From these reviews, the PSI team then worked forward in time, adding the recent years of published knowledge, and extending knowledge by searching in fields not included in previous reviews. Those fields are the human services, communication studies, management and organizational psychology, and sociology. The reviewers also specifically sought out empirical studies. Empirical studies generally begin by summarizing past key findings that are directly relevant to the questions asked. Thus, the present review summarized older knowledge, incorporated studies' results forward to 2010, and included many more fields relevant to dissemination. Of 182 articles retrieved in full text, 134 articles, book chapters, and books were reviewed in depth. Of the 134 studies in PSI's review, 31% came from health care. Among the 69% that were not health care related: 28% focused on human services; 17% were mental health; 10% were business/management; 8% were political science, public policy and administration; and 6% were education. Fifty-five percent of the articles reviewed were empirical studies.

Synthesis of the literature, both the articles reviewed and existing literature reviews that summarize the current knowledge base, informed the challenges and solutions to the dissemination problem. This research is the basis for The Value-Added Research Dissemination Framework.

APPENDIX B

GLOSSARY OF TERMS

Channels – The medium or transmission method of communication (e.g., print, face-to-face, television, etc.)

Communication – The conveyance of information about certain subjects to others to create shared knowledge.

Diffusion – Diffusion is contrasted with dissemination to mean a passive process by which an innovation may spread organically among the members of a social system (Lomas & Haynes, 1988; Dearing & Kreuter, 2010). Usually thought of as a social process, and may or may not follow after dissemination tactics take place. In diffusion of innovation theory, diffusion was active and led by change agents (Rogers, 2003).

Dissemination – “The transfer of knowledge within and across settings, with the expectation that the knowledge will be ‘used’ conceptually or instrumentally” (Hutchinson & Huberman, 1994). “Actively spreading a message to defined target groups” (Greenhalgh et al., 2004). “A planned process that involves consideration of target audiences and the settings in which research findings are to be received, and where appropriate, communicating ... in ways that will facilitate research uptake in decision-making processes and practice” (Wilson et al., 2010). See contrasting definition for diffusion.

Disseminator – The person or organization responsible for planning and pushing research information into the field of practice, policy arena, or research community; encouraging pull from the target audience; and evaluating the use of and/or the process for disseminating research information.

Frames – The filters or means for interpretation that people use to understand new information.

Framing – Organizing principles or meanings that are persistent over time, that work to meaningfully structure the social world. “Each word or image we use evokes a conceptual structure that includes more extensive images and knowledge, a structure of meaning that is literally triggered by the cues built into a community” (Bales, 2008).

Innovation – Any new idea, research result, program, technology, etc. (Rogers, 2003).

Institutional Logic – Thornton and Ocasio defined an institutional logic as a “socially constructed, historical pattern of material practices, assumptions, values, beliefs and rules by which individuals produce and reproduce their material subsistence. . . and provide meaning to their social reality” (Shipilov, Greve & Rowley, 2010).

Intermediary – An individual or organization positioned between other organizations, and playing a fundamental role in encouraging, promoting, and facilitating linkages of information.

Key stakeholders – Someone (or a group) who can affect or is affected by an organization (e.g., consumers, funders, researchers, practitioners and policymakers).

Knowledge Broker (KB) – One who is trained specifically in information exchange and has set aside time for the process (Mitton et al., 2007). Synonyms that may be used interchangeably in the literature across disciplines include change agent, boundary-spanner, gatekeeper, and infomediary (Ziam, Landry and Amara, 2009). Knowledge brokers are a popular knowledge translation and exchange (KTE) strategy emerging in Canada.

Linking agent – Orlandi defines a linking agent as members of the resource or user system or an interested third party, who serve as connections between resource and user systems (Peterson et al., 2007).

Linkage Mechanism – A network or series of systems that connect people or organizations. These may be informal or formal networks. Examples include linking agents in ‘bridge’ organizations (e.g., TA providers), networks of knowledge brokers, formal cross-system linkages such as tiered train-the-trainer programs (linking research to regional trainers and then local trainers), inter-organization task forces, consortia, and regional policy networks.

Push Marketing – Systematic efforts by specific organizations or individuals to reach out to potential adopters; active marketing. In relation to the history of dissemination practice and research, the concept of “push” is characterized by trying to do more: more messages, more channels, more support and outreach staff, more control and process monitoring, more partnerships and meetings and coordinated action (In Dearing & Kreuter, 2010).

Pull Marketing – As opposed to push marketing, pull in markets is driven by what potential adopters want, their pre-existing dispositions, preferences, perceptions, capacities, and behaviors as they relate to the innovation in question. Effective dissemination triggers “pull” and the triggering of pull should be the basis for designing dissemination tactics (Dearing & Kreuter, 2010).

Reach – Percent and representativeness of audience; implies more than a one-time distribution.

Situational Fit – The alignment among different situational variables: environment, organizational size/ownership, strategy, technology, organizational climate, and leadership preferences (Gupta, Gollakota, & Srinivasan, 2007).

Tactics – The ways in which communication channels are used in a given situation.

Utilization – An outcome of dissemination; how research information is used. For example, varying stages of utilization can include reception, cognition, reference, adaptation, effort, influence, and application (Belkhdja et al., 2007).

Value-added – Activities that add value by addressing expectations and concerns of audiences.

APPENDIX C

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Mary Myrick, President
mary.myrick@publicstrategies.com

Wendy Shreffler, Project Director
wendy.shreffler@publicstrategies.com

3 East Main Street
Oklahoma City, Oklahoma 73104
405.848.2171
publicstrategies.com