


A Proactive, Systematic Approach to Building the Capacity of Technical Assistance Providers

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Technical assistance (TA) is a major capacity building strategy used by the government sector to promote health outcomes in the United States. However, there is minimal literature about how to develop TA provider capacities. This article describes a systematic and proactive approach for developing TA provider capacity, referred to as Technical Assistance for Technical Assistance Providers (TAFTAP), which draws on three implementation science frameworks (Interactive Systems Framework for Dissemination and Implementation, Getting To Outcomes, and $R = MC^2$). We present an application of TAFTAP within a federal agency providing a readiness-informed TA approach to health departments of states, territories, and tribal areas implementing comprehensive tobacco prevention control programs. Pilot data suggest that TAFTAP is a promising approach for improving the quality of TA delivery. At the end of the 2-year project period, TAFTAP recipients provided generally positive qualitative feedback about the support they received. They chose to sustain the readiness-informed TA by incorporating it into a future funding announcement. Downstream state-level TA grantee recipients reported positive outcomes (e.g., accelerated progress, enjoying more one-on-one time with TA providers) from receiving the TA innovation from TAFTAP recipients. We suggest that funding agencies and training and TA centers consider this approach to bolster the capacity and motivation of TA providers for downstream benefit to health and human services staff and their clients. Practical steps for employing TAFTAP to advance health outcomes are included in this article.

Keywords: technical assistance; capacity building; readiness; $R = MC^2$; Getting To Outcomes

► BACKGROUND

Federal agencies play a critical role in the promotion of population health and community well-being. Technical assistance (TA) is a major strategy used by federal agencies to build local, state, and national capacity for achieving targeted community health outcomes (Centers for Disease Control and Prevention [CDC], 2017a; Katz & Wandersman, 2016; Mitchell et al., 2002; Ray et al., 2012; Substance Abuse and Mental Health

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Services Administration [SAMHSA], 2016). Delivering knowledge, resources, and recommendations nationwide requires skilled labor from TA providers. TA refers to “an individualized, hands-on approach to capacity building in organizations and communities” (Katz & Wandersman, 2016). This approach involves the provision of tailored guidance by a TA specialist to meet the specific needs of recipients through collaborative communication (CDC, 2022). TA providers offer supports to their recipients through a variety of activities, including coaching, consultation, facilitation, training, professional development, site visits, and referral to resources (Dunst et al., 2019a; West et al., 2012). Within the Interactive Systems Framework for Dissemination and Implementation (ISF; Wandersman et al., 2008), TA providers are part of an ISF support system, and TA recipients represent the ISF delivery system, providing programs and services directly to a targeted population. TA is a key approach for systems-level capacity building and facilitating implementation efforts (Dunst et al., 2019a; Wandersman et al., 2012).

Despite the ubiquity of TA, the typical delivery of TA rarely involves systematic methods for planning, implementation, and/or evaluation (Katz & Wandersman, 2016). Furthermore, existing TA frameworks vary considerably (Dunst et al., 2019b). This has important implications for the quality of TA services and the ability to measure TA effectiveness. However, two well-established features of TA delivery are as follows: (1) proactive TA (i.e., TA that involves provider anticipation of recipient needs) is associated with positive outcomes (Dunst et al., 2019a; Olson et al., 2018), and (2) TA recipient readiness is important for TA outcomes (Chilenski et al., 2018; Rushovich et al., 2015; West et al., 2012).

To increase adoption of evidence-based recommendations for TA, workforce development of TA providers is called for. Through the lens of social cognitive theory, which posits that observational learning can enhance self-efficacy for engaging in the task (Bandura, 1999), if TA providers feel prepared and provide evidence-based recommendations, they are more likely to succeed (West et al., 2012). Workforce development is often provided in the form of train-the-trainer approaches, in which experienced trainers provide instruction to new, less experienced trainers (CDC’s National Center for Chronic Disease Prevention and Health Promotion, n.d.; Pearce et al., 2012). Although training is a critical element of capacity building (Wandersman et al., 2012), it can have limited outcomes on trainees when provided only episodically (e.g., a one-time event; Joyce & Showers, 1981). As a value-add to training, we propose an ongoing engagement and behavioral modeling process for developing TA capacity: Technical Assistance for Technical

TABLE 1
Acronyms

<i>Acronym</i>	<i>Description</i>
CDC	Centers for Disease Control and Prevention
CQI	Continuous Quality Improvement
GTO	Getting To Outcomes
ISF	Interactive Systems Framework for Dissemination and Implementation
OSH/PSB	Office on Smoking and Health Program Services Branch
RDS	Readiness Diagnostic Scale
TA	Technical Assistance
TAFTAP	Technical Assistance for Technical Assistance Providers

Assistance providers (TAFTAP). Key acronyms in this article are available in Table 1.

► PURPOSE

This article (1) describes the development of TAFTAP, a systematic, proactive approach to developing readiness of TA providers to apply evidence-informed TA strategies, (2) outlines steps for TAFTAP delivery, and (3) describes preliminary outcomes of TAFTAP in a federal agency. It focuses on the process of building capacity within the ISF support system, specifically the capacity of a cohort of CDC TA providers. The implementation aim discussed in this article regards the use of evidence-informed TA strategies (“readiness-informed” TA).

► METHODS

Setting

The CDC’s (2019) mission is to protect the health, safety, and security of Americans by fighting diseases. Federal agencies, such as the CDC represents a support system to state and territory public health departments, which represent delivery systems (Wandersman et al., 2008). The CDC Office on Smoking and Health Program Services Branch (OSH/PSB) supports the implementation of tobacco prevention and control interventions on a national scale. OSH/PSB provides funds and resources to health departments of states, territories, and tribal areas to implement comprehensive tobacco prevention and control programs that include state and community interventions, mass-reach health communication interventions, cessation interventions, surveillance and evaluation, and supporting infrastructure (CDC, 2014).

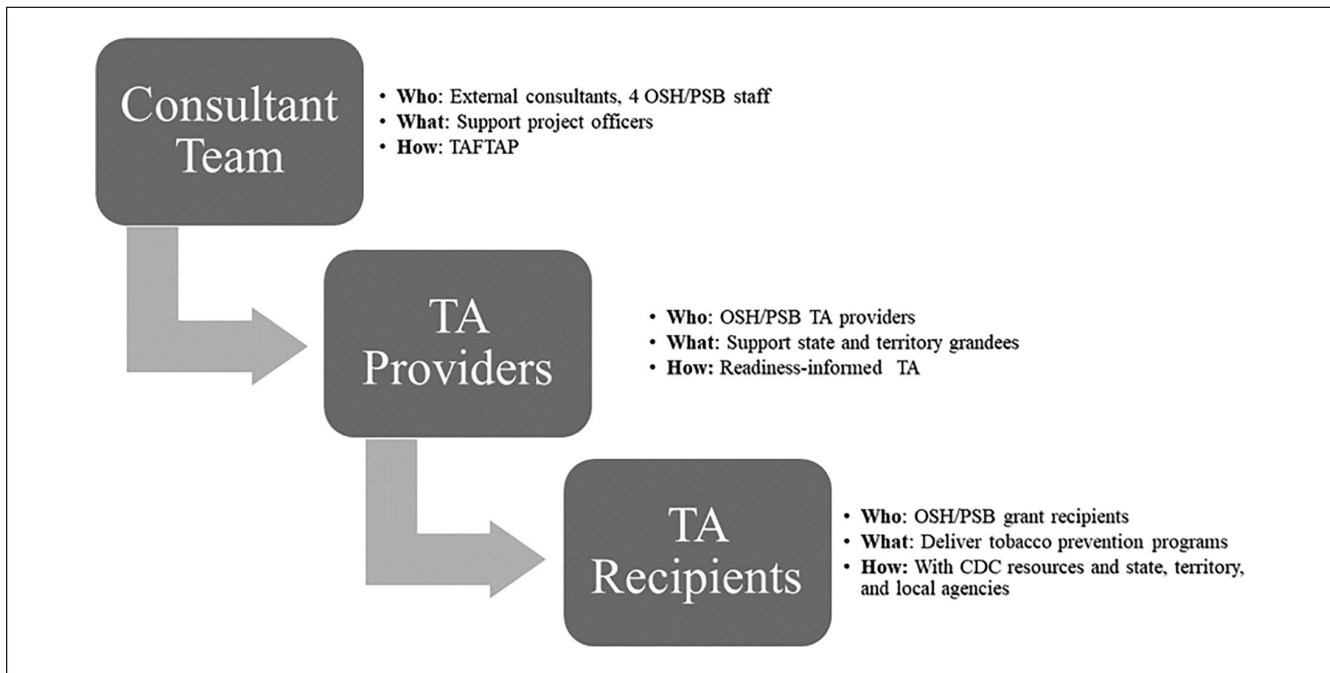


FIGURE 1 Key Actors

OSH/PSB project officers serve as TA providers to state and territory-level program managers, who lead local agencies to deliver interventions.

The Robert Wood Johnson Foundation provided funding support for OSH/PSB to partner with a team of implementation science researchers and practitioners affiliated with the Wandersman Center. The collaborative goal was to develop the capacities of OSH/PSB project officers to pilot an innovative approach to TA involving the use of the $R = MC^2$ (Readiness = Motivation \times General Capacity \times Innovation-specific Capacity) framework. This approach is detailed elsewhere (Domlyn et al., 2021), but it is synonymous with the readiness component of TAFTAP (described below in “TAFTAP Development”). The researchers and practitioners joined with two OSH/PSB administrators and two project officers to form the “consultant team” for this project. Ten OSH/PSB project officers served as “TA providers,” paired with 10 program managers from state health departments (“TA recipients”; see Figure 1). The consultant team developed and implemented TAFTAP to build TA provider capacity for delivering proactive, systematic TA. Each TA provider–recipient pair identified a tobacco control policy to be implemented in their state or territory; specific program components and timelines varied by location. The efforts of the delivery system are beyond the scope of this article; our focus

here is on TAFTAP—a process for building the capacity of the support system.

Timeline

The project took place from July 2017 to July 2019. Figure 2 depicts the project timeline, delineated by implementation stage. These stages include the exploration stage, when first discussions are being held and an innovation is selected; installation, when the implementation plans are being conducted and support is built; initial implementation, when the intended audience is starting to use the innovation; and full implementation, when more than 50% of intended users are taking the innovation to scale (Metz et al., 2015).

TAFTAP Development

Conceptual Frameworks. TAFTAP was developed with the dual aims of (1) outlining a systematic, proactive approach for TA provision and (2) assessing and building TA provider readiness for piloting new TA strategies. Three implementation science frameworks informed the design of TAFTAP: ISF, Getting To Outcomes (GTO), and $R = MC^2$. In the following section, we briefly describe each implementation science framework and linkages between these frameworks.

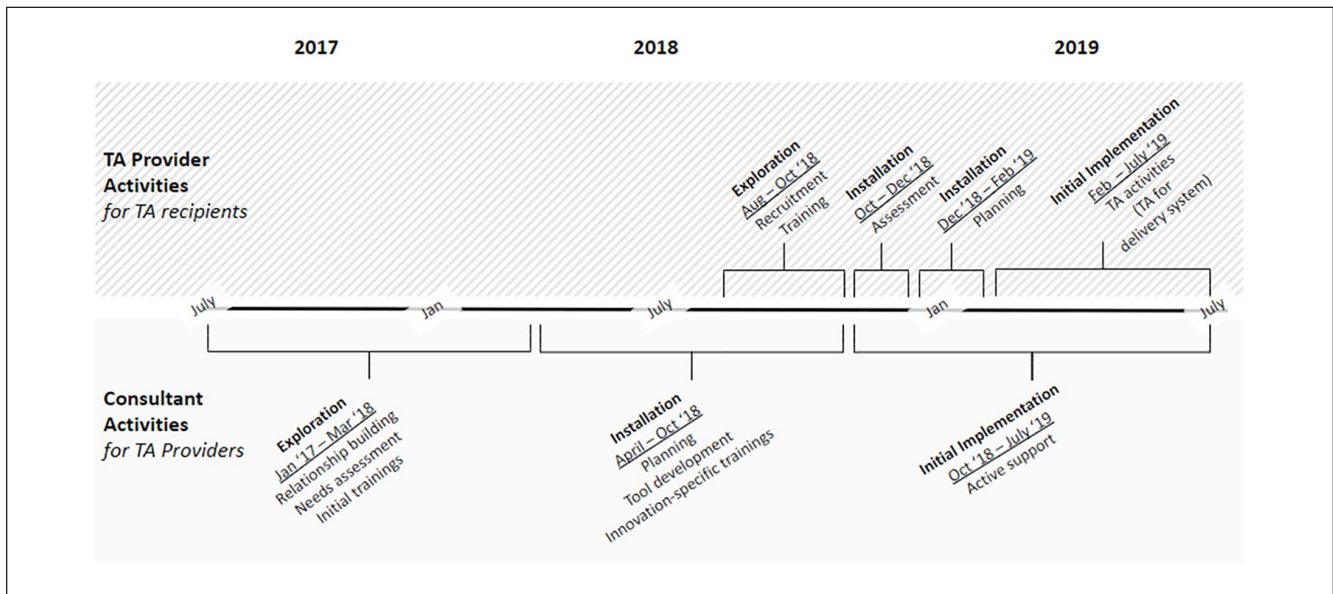


FIGURE 2 Project Timeline by Implementation Stage
 Note. The results focus on consultant activities, by implementation stage.

Interactive systems framework for dissemination and implementation. The ISF (Wandersman et al., 2008) describes key stakeholder roles for implementing new programs, policies, or practices. These roles are described as interacting systems. Here, we emphasize capacity development of the support system (TA providers in OSH/PSB) for aiding the delivery system (state and territory health departments) to achieve public health outcomes. See Figure 3 for a visual integration of the ISF and TAFTAP.

Getting To Outcomes. GTO is a 10-step evidence-based framework to guide planning, implementation, and evaluation efforts (Chinman et al., 2004; Wandersman et al., 2000, 2016). GTO provides a structured and proactive process for program development and improvement. GTO has previously been used to operationalize the role of TA providers (Wandersman et al., 2012). However, previous GTO applications of TA emphasized time-limited training rather than ongoing support and focused on delivery system outcomes rather than support system effects (Chinman et al., 2013; Fernandez et al., 2014).

$R = MC^2$. Organizational readiness is the extent to which an organization is both willing and able to implement a particular innovation (i.e., a program, practice, or policy new to a setting). Readiness is widely recognized as a critical precursor of successful implementation (Drzensky

et al., 2012; Holt & Vardaman, 2013; Scaccia et al., 2015). According to the ISF, readiness can be enhanced via support system elements (e.g., tools, training, TA).

$R = MC^2$ (Readiness = Motivation \times General Capacity \times Innovation-specific Capacity) is a readiness framework composed of three major components of readiness (motivation, general capacity, and innovation-specific capacity) and a series of associated subcomponents (see Table 2). With developmental roots in implementation science, the $R = MC^2$ framework and the widely referenced Consolidated Framework for Implementation Research (CFIR; Damschroder et al., 2009) reflect several overlapping constructs (e.g., trialability, complexity, relative advantage, culture, climate, priority, leadership, and champions). $R = MC^2$ has been operationalized into tools and processes to assess and build the readiness of delivery systems, including in primary care practices, behavioral health clinics, pharmacies, and pregnancy prevention organizations (Domlyn et al., 2021; Livet et al., 2020; Scott et al., 2017). However, the value of $R = MC^2$ for developing support systems has been unexamined. We applied $R = MC^2$ to assess and build readiness of TA recipients at both the support and delivery system levels through a process called readiness-informed TA (Domlyn et al., 2021).

Implementation of TAFTAP. Throughout the project, the consultant team provided direct support to TA providers by modeling a systematic, proactive approach to

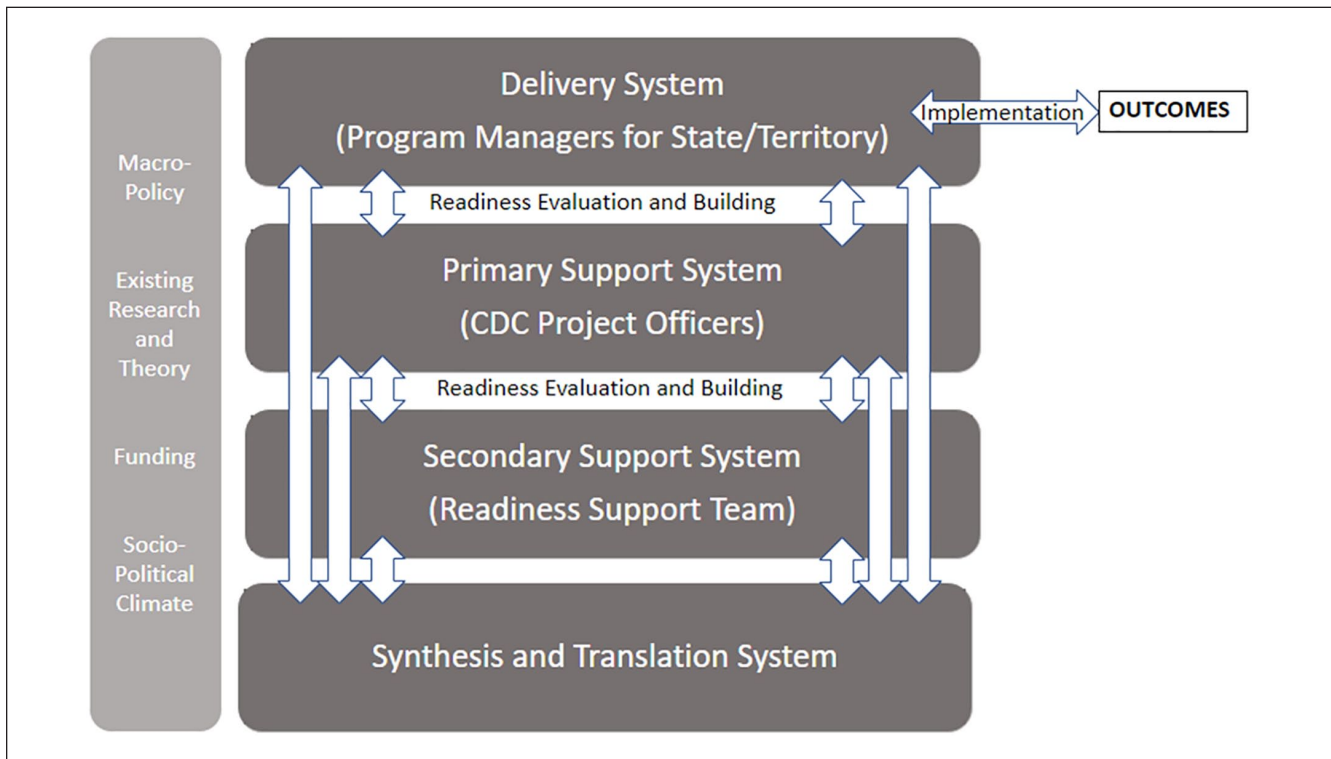


FIGURE 3 Integration of ISF and TAFTAP

TABLE 2
R = MC² Subcomponents and Simplified Definitions

<i>Component</i>	<i>Subcomponent</i>	<i>Definition</i>
Motivation	Relative advantage	If this innovation seems better than what we are currently doing
	Compatibility	Whether this innovation fits with how we do things
	Observability	How easy it is to see small wins in the short term
	Simplicity	The simplicity of the change
	Priority	How important this innovation is compared to other TA recipient priorities
	Ability to pilot	The degree to which the innovation can be tested and experimented with
	Innovation-specific capacity	Innovation-specific knowledge and skills
	Champion	If there is an important person who supports the innovation
	Supportive climate	If there are necessary policies and processes to enable this innovation
	Inter-organizational relationships	If there are the organizational connections required for the innovation
General capacity	Culture	Norms and values of how we do things here
	Climate	How we feel about being in this branch
	Innovativeness	How open we are to change in general
	Leadership	How effective our leaders are
	Resource utilization	How good we are at connecting with potential resources
	Internal operations	How effective we are at communication and decision-making
	Staff capacity	How many staff and how experienced we are

Note. Adapted from Readiness Building Systems (2018).

TA. The goal was to prepare TA providers to use the readiness-informed TA approach with their TA recipients. This modeling of the support process by the consultant team allowed simultaneous quality improvement of the method (see Results for GTO Step 9: Continuous Quality Improvement [CQI]) prior to and during implementation by the intended users (i.e., TA providers). TAFTAP activities are shown in Table 3 with associated readiness tools. These steps were additionally informed by best practices in community engagement, empowerment evaluation, and quality improvement (Wandersman et al., 2012). GTO steps are described sequentially in Table 3; however, the steps of GTO are best engaged iteratively in practice to ensure alignment among planning, implementation, and evaluation.

Readiness Tools

Readiness Diagnostic Scale. The Readiness Diagnostic Scale (RDS) was adapted from previous iterations of $R = MC^2$ assessment tools (e.g., Scott et al., 2017) to assess organizational readiness for readiness-informed TA. The RDS is a 61-item survey that uses a Likert-type scale (1 = lower readiness; 7 = higher readiness) to assess $R = MC^2$ components and subcomponents. It was administered to OSH/PSB staff twice, during exploration ($N = 17$, representing all staff) and initial implementation ($N = 9$, representing staff actively engaged in the project at that time). Items were averaged across respondents to create department/unit-level scores, which were reported in an RDS score report. The report highlighted areas of higher and lower readiness, concept definitions, summary tables, and suggested discussion points to determine priorities for action planning.

Readiness Action Plan. A readiness action plan was developed as a template for delineating areas of readiness for improvement and related action steps for building readiness. Included in the plan were selected strategies per subcomponent, people responsible for each action item, and a target date for completion. This plan was revisited regularly throughout implementation. See Supplemental Materials (Table S1) for a sample action plan. One support system action plan was developed collaboratively by the readiness consultants and OSH/PSB staff and updated monthly during installation and initial implementation. This modeled the process for the TA providers to create delivery system action plans ($N = 9$), which were updated monthly during initial implementation.

Readiness Thinking. Readiness thinking is a cognitive appraisal process for informally evaluating facilitators

and barriers in terms of $R = MC^2$ subcomponents (Readiness Building Systems, 2018; Wandersman Center, n.d.). Use of readiness thinking was developed via meeting facilitation with trained readiness consultants. Readiness consultants modeled and reinforced use of $R = MC^2$ as a guiding framework to develop TA capacity. Notes from 22 consultant–support system group interactions during installation and initial implementation were reviewed to examine the presence of readiness thinking.

Note that additional planning and TA tools are necessary for the delivery of TAFTAP (e.g., project timeline, logic model), and Table 3 only describes the readiness-related tools.

Process and Outcome Measurement

To assess the process of TAFTAP, an anonymous process evaluation survey was administered to TA providers three months into initial implementation. Two items assessed awareness of TA supports on a five-point Likert-type scale (1 = strongly disagree, 5 = strongly agree) and with a binary response (yes/no) for which supports were perceived as valuable by participating project officers. Data were also collected from written quarterly evaluation reports synthesized from document review and key informant reports. Three reports were composed during the month of transition from installation to initial implementation, then three and six months into initial implementation. Documents included detailed notes taken during 22 consultant–support system interactions and supplementary materials collected during installation and initial implementation (e.g., TA note log, list of TA support resources, meeting agendas, training slides). In addition, an external evaluator conducted an outcome evaluation via document review, interviews with OSH/PSB staff ($N = 15$), TA recipient interviews ($N = 7$), and consultant interviews ($N = 2$). Two evaluators employed pattern-matching (Yin, 2009) to identify key themes and illustrative quotes across documents and transcripts.

► RESULTS

Example of TAFTAP With CDC Office on Smoking and Health Program Services Branch

The consultant team used the TAFTAP framework to guide the identification of needs, planning, implementation, and evaluation of a TA innovation (i.e., a readiness-informed TA approach). Both TAFTAP and the TA innovation incorporated readiness-informed tools and processes; thus, the consultant team modeled a readiness-informed approach to TA for TA providers. See Domlyn et al. (2021) for details of the TA innovation provided to the delivery system. These results focus on

TABLE 3
TAFTAP Activities and Relevant $R = MC^2$ Readiness Tools

<i>GTO step</i>	<i>GTO question</i>	<i>TAFTAP activity for consultants</i>	<i>R = MC² tool</i>
1. Needs and resources	What are the existing needs and resources for TA?	<ul style="list-style-type: none"> - Meet with TA providers to assess needs for TA provider capacity building (the “innovation”) - Assess TA providers’ readiness for the innovation using RDS completed individually by each TA provider 	RDS survey
2. Goals	What are the TA goals and desired outcomes (objectives), based on the needs/resources assessment?	<ul style="list-style-type: none"> - Translate RDS scores into a report, highlighting areas of relatively high and low readiness - Debrief with TA providers on areas to improve - Determine long-term and mid-term goals - Create a project timeline 	RDS report Readiness action plan
3. Best practices	What are the existing best/promising TA practices for achieving the established goals/objectives?	<ul style="list-style-type: none"> - Conduct a literature review (e.g., change management literature) to determine best practices for delivery the innovation to stakeholders - Identify feasible, evidence-based practices to incorporate into TA 	N/A
4. Fit	Does the best/promising TA practice selected align with the needs of the stakeholders?	<ul style="list-style-type: none"> - Crosswalk the TA best-practices identified in Step 3 with needs identified in Step 1 - Observe TA provider current work processes and identify areas of synergy or conflict with innovation - Recruit TA providers and leadership to join consultant team as advisors 	N/A
5. Capacity	What are the existing capacities (e.g., human, financial, technical, intellectual) for TA strategies and addressing any capacity gaps?	<ul style="list-style-type: none"> - Take stock of funding, personnel, time, and resources required for this innovation 	N/A
6. Plan	What is the plan for conducting TA that will meet the goals/objectives set forth in GTO Step 2?	<ul style="list-style-type: none"> - Follow convention planning prompts: “who, what, where, when, how” (Wandersman et al., 2012) - Create planning documents with readiness areas to be improved, strategies for improvement, goal completion date, and people accountable 	Readiness action plan

(continued)

TABLE 3 (continued)

<i>GTO step</i>	<i>GTO question</i>	<i>TAFTAP activity for consultants</i>	<i>R = MC² tool</i>
7. Implementation/ process evaluation	How will you implement and monitor implementation of the TA plan?	<ul style="list-style-type: none"> - Determine the extent to which the plan (Step 6) is followed (Wandersman et al., 2012). For example, review and update readiness action plan monthly - Assess implementation outcomes, such as perceived acceptability, feasibility, and dosage (Proctor et al., 2011) - Host weekly meetings with consultant team and TA advisors - Have TA advisors conduct informal quality checks and report back to consultant team - Develop quarterly process evaluation reports using FORECAST method (Katz et al., 2013) 	Readiness action plan
8. Outcome evaluation	How effective is the TA?	<ul style="list-style-type: none"> - Assess perceptions of the novel TA process by both TA providers and TA recipients - Conduct external evaluation (recommended) 	N/A
9. Continuous quality improvement (CQI)	What short-term (mid-course) and long-term (strategic) corrections are needed across the stages of TA implementation?	<ul style="list-style-type: none"> - Meet monthly with TA providers to ask about barriers, facilitators, and suggested improvements - Interpret feedback from TA advisors and TA providers through the lens of readiness thinking (i.e., barriers or facilitators to capacity or motivation) - Update readiness action plan as mid-course corrections are identified - Conduct quality checks on TA provider materials to identify additional TAFTAP needs 	Readiness thinking tool Readiness action plan
10. Sustainability	What plans are needed to sustain the TA?	<ul style="list-style-type: none"> - Re-administer readiness assessment to determine capacity needs for full implementation stage - Meet with organizational leaders and TA providers to assess next steps - Incorporate CQI methods (Step 9) into usual processes, such as annual staff evaluations 	RDS survey Readiness thinking tool Readiness action plan

GTO = Getting To Outcomes; TAFTAP = Technical Assistance for Technical Assistance Providers; TA = Technical Assistance; RDS = Readiness Diagnostic Scale.

TAFTAP at the support system level and are structured using the 10 steps of GTO.

Step 1: Needs and Resources. During exploration, the consultant team met with OSH/PSB leadership three times and all staff twice to conduct initial needs assessment via conversations. Staff feedback identified a need for systematic, proactive TA. In Step 3, this was identified as readiness-informed TA. To further assess needs, the RDS was administered to all staff ($N = 17$) to gauge readiness for changing their approach to TA.

Step 2: Goals. Consultants reviewed the RDS scores with OSH/PSB staff in a semi-structured, all-staff meeting. Based on relatively low areas of readiness highlighted in the RDS report and discussion about priorities with staff, the following areas of readiness were identified for targeted improvements: innovation-specific knowledge and skills ($M = 4.71$, $SD = 1.49$), priority ($M = 4.59$, $SD = 0.94$), compatibility ($M = 5.19$, $SD = 0.66$), and observability ($M = 3.50$, $SD = 1.11$). Available and needed resources were also discussed.

Goals were established to address TA provider readiness for using the innovation in the four areas of readiness identified above. The short-term goal was to improve TA provider innovation-specific knowledge and skills through two trainings conducted during initial implementation. Mid-term goals aimed to improve perceived priority (demonstrating the importance of readiness-informed TA to project officers), compatibility (demonstrating how readiness-informed TA fits with how things are done at OSH/PSB), and observability (demonstrating small wins of the readiness-informed TA process).

Step 3: Best Practices. After initial needs assessment conversations were conducted, consultants considered available methods for creating a systematic and proactive TA process. The $R = MC^2$ framework was selected (1) due to its compatibility with collaborative and power-sharing processes, which are favorable approaches for TA (Wandersman et al., 2012), (2) because it has been proposed as a promising framework for developing the capacity of federal agencies (Dymnicki et al., 2014), and (3) because of consultants' familiarity with the framework. In addition, the FORECAST (FORmative Evaluation Consultation And Systems Technique) method was selected for creating a project logic model and conducting process evaluation (Step 7; Katz et al., 2013).

When drafting the action plan to build TA provider readiness (Step 6), a search was conducted of change management and implementation science literatures to identify appropriate strategies to improve priority, compatibility, and observability.

Step 4: Fit. Consultants needed a better understanding of TA providers' usual practices to assess innovation fit. This was accomplished during installation by observing four monthly meetings with TA recipients and soliciting TA provider questions and concerns about changing the TA process. During initial implementation, fit was revisited via weekly advisement from four OSH/PSB staff members on the consultant team. Advisements influenced modifications to the team's approach to better serve project officer needs and work processes. This included specific logistical items (e.g., timing of meetings) as well as broad CQI (e.g., discontinuing one support method described later in Step 9).

Step 5: Capacity. The Robert Wood Johnson Foundation provided funding for two external consultants to devote time to creating and executing TAFTAP. Funds were also allocated to support travel for in-person meetings and digital platforms for remote meetings. OSH/PSB contributed physical training and meeting space and organizational time allocation. OSH/PSB also contributed human resources; external consultants lacked content-specific knowledge on tobacco prevention. In sum, supporting TA providers required the consultants to learn about OSH/PSB TA provider work processes (Step 4), and the two OSH/PSB TA providers (as tobacco content experts) and two OSH/PSB administrators (as CDC policy experts) to join the consultant team.

Step 6: Plan. TA providers received assistance from the consultant team (who) remotely and in-person (where), bi-weekly or monthly depending on format (when), via office hours, email, and meetings (how). The "what" guiding TA consisted of a readiness action plan (Supplemental Material, Table S1). This plan delineated areas of readiness identified and prioritized in Steps 1 and 2: compatibility, priority, and observability. Strategies for building each subcomponent were selected in Step 4. For example, compatibility was linked with the strategy to co-design materials to be compatible with current work processes. Specific action steps included listening in on project officers' regular calls with grantees to learn more about their work processes (Step 4), cross-walking project materials with existing CDC tools (e.g., Component Model of Infrastructure; CDC, 2017b; Lavinghouze et al., 2014), and co-designing final drafts of materials with advising TA providers. Each action step was linked with the person responsible for completion and a target deadline.

Step 7: Implementation/Process Evaluation

Completion of readiness action plan. The readiness action plan was reviewed and updated at least monthly.

Challenges to completing tasks were noted on the plan and addressed in Step 9, CQI.

Dosage. During the exploration stage, dosage of TAFTAP included two trainings, 17 consultant team meetings, 10 hours of one-on-one support provided via phone and email, and five hours of group support. During the installation stage, there were two trainings, 17 consultant team meetings, four learning calls, two all stakeholder meetings, and four office hours. During initial implementation stage, there were no trainings, 20 consultant team meetings, four all stakeholder meetings, seven office hours, eight support-specific email exchanges, and six individually requested support calls.

Acceptability. Mid-initial implementation process survey ($N = 8$) revealed high TA provider awareness of TAFTAP supports ($M = 4.25$, $SD = 0.71$; on a 5-point scale). Asked to indicate the most valuable supports, 50% marked “individual discussions with the support team” and only one respondent indicated that the biweekly office hours were valuable. Other supports each garnered 25% of responses as valuable.

Feasibility. Quarterly reports showed that during the transition from installation to initial implementation, the consultant team was conducting all TAFTAP supports: daily monitoring of email support account, weekly support meetings, biweekly office hours, monthly staff trainings, and bimonthly staff meetings. By 3 months into initial implementation, the biweekly office hours were discontinued due to low perceived value and monthly staff trainings concluded as they were deemed unnecessary at this stage. Three months later, all support activities ceased except support meetings, which transitioned from weekly to biweekly. This decision was made because the initial implementation stage was concluding and the support team moved into evaluation and reflection, a necessary step prior to engaging in scale and sustainability planning.

Step 8: Outcome Evaluation. An external evaluator report summarized that 67% of TA providers initially enrolled in the project administered the innovation, with remaining providers stymied due to external issues, not readiness issues (e.g., staff turnover at either TA provider or TA recipient level). It was reported that the consultant team provided critical assistance to project officers. One OSH/PSB staff member stated,

I appreciated the problem solving that [the consultant team] brought to the table—really helping us dig

into problems that we were having. Keeping it front and center in our priorities. That’s always difficult when you are trying to balance a lot of balls in the air. I appreciated the tenacity to help us balance and keep that in the center of what we are doing.

When asked to reflect upon their readiness for the innovation, TA providers reported feeling positively. One noted: “It took us a long time as a team to come around to this, because we weren’t sure how it related to what we were doing. But once we had a shared understanding, we were able to move forward.” There were also positive outcomes of the innovation noted by TA recipients. One recipient described that the readiness-informed TA process had allowed them to make “more progress with this health systems change project. . . in these short few months than the 1.5 years prior.” This recipient explained, “It’s created a little more focus and momentum and excitement and connection. That’s helped us gain more partners. The partners that we’re working with are indicating they’re seeing more momentum too.” Another recipient noted that few challenges were encountered while engaging in readiness-informed TA and saw clear alignment with their state’s existing work. This recipient reflected positively on having more one-on-one time with their TA provider instead of receiving directives from a central office.

Step 9: Continuous Quality Improvement. Readiness thinking influenced CQI, as demonstrated when one advising TA provider created a list of colleague concerns. Concerns were framed by $R = MC^2$ subcomponent. The question, “How do we explain the project [readiness-informed TA] to our grantees?” was interpreted as a lack of innovation-specific knowledge and skills and addressed via additional tools and training. The consultant team disseminated a document explaining readiness-informed TA, then held a meeting with TA providers to explore communication tactics for relaying the innovation to recipients. The question “How does this project relate to our regular work?” was deemed a question of compatibility, for which the readiness support team elected to learn more about existing OSH/PSB work processes by interviewing and shadowing project officers (Step 4).

Readiness thinking also impacted readiness action plans. An advising TA provider identified an additional need (supportive climate) 3 months into initial implementation, which was added to the action plan. The quarterly process evaluation identified that “engagement of project officers needs to be a priority.” Meetings were held to strategize course corrections. To capitalize on preferences

for peer support (noted in Step 7), consultants facilitated a TA provider meeting for peer-to-peer learning.

The consultant team monitored the completion and quality of TA providers' readiness action plans monthly. Six of the 10 TA providers submitted readiness action plans over the course of implementation. Completeness and monthly updating of the action plans varied widely between TA providers (e.g., one TA provider completed the plan fully; another listed only a subcomponent to target, but no additional plans; others fell somewhere in-between). Given these challenges, reminders were provided regularly about when and how to complete the action plans and individualized support was recommended as needed.

Step 10: Sustainability. The RDS was administered again to all OSH/PSB staff actively participating in the project ($N = 9$) at the end of initial implementation to determine needs for full implementation; $R = MC^2$ subcomponent salience varies by implementation stage (Domlyn & Wandersman, 2019). Scores revealed relatively strong staff capacity ($M = 5.67$, $SD = 0.78$), culture ($M = 5.81$, $SD = 0.57$), and program champion ($M = 5.50$, $SD = 0.97$), yet relatively weak observability ($M = 3.78$, $SD = 0.61$), relative advantage ($M = 3.85$, $SD = 0.82$), and priority ($M = 4.06$, $SD = 1.01$). See Supplemental Materials (Table S2) for additional details of the RDS scores. During a debrief conversation (Step 2 revisited), OSH/PSB staff indicated that they would continue using the TA innovation. One TA provider noted it "help[ed] them formalize their work and to give them a framework." A very important indication of sustainability was that readiness was built into a new funding announcement, requiring grantees to complete an assessment of their readiness to engage in the tobacco control project; this would require the use of readiness in follow-up TA.

► DISCUSSION

This descriptive study presents the development of a proactive, systematic TA support framework: TAFTAP. TAFTAP integrates and expands upon existing implementation science frameworks, and specifically achieves the following: (1) identifies key professional roles for implementing new programs, policies, or practices (ISF), (2) offers a 10-step planning, implementation, and evaluation process (GTO) for TA, and (3) provides a readiness ($R = MC^2$)-informed assessment and strategizing method, along with behavioral modeling. TAFTAP was developed and applied over 2 years with a federal agency, the CDC Office on Smoking and Health Program Services Branch (OSH/PSB). We proposed critical steps

for building capacities of TA providers who support a delivery system. Preliminary evidence shows that TAFTAP was well-received by federal agency TA providers and TA recipients and supported sustainability of an evidence-based approach to TA through a new funding announcement. While downstream effects on delivery system implementation and outcomes were beyond the scope of this study, the integration of TAFTAP with the ISF suggests that effective support systems can lead to improved outcomes (see Figure 3). Most implementation science efforts focus exclusively on developing delivery system capacity for achieving implementation outcomes. Implicit is the assumption that those supporting the delivery system (the support system, e.g., TA providers) already have sufficient skills, knowledge, and interest for conducting their work with high quality. The present work complements existing implementation science practices by developing a method to systematically enhance support system capacity via readiness building.

► IMPLICATIONS FOR PRACTICE

Consultants, Training Centers, and TA Providers

Table 3 provides clear steps and tools for practitioners and others to use TAFTAP in practice. Additional recommendations for practice include ensuring collaboration with TA providers, understanding TA provider learning style and adjusting methods accordingly, and celebrating small wins.

Collaboration is critical, especially when consultants do not work in a federal agency. Significant time was spent understanding the needs of the OSH/PSB team and determining how our resources could fit their needs. It was important to have a unified workgroup composed of external consultants, OSH/PSB administrators, and OSH/PSB TA providers. Time should be dedicated to relationship building and understanding the work culture. Many have emphasized the importance of relationship quality for effective TA (Albers et al., 2020; Chilenski et al., 2016; Domlyn et al., 2021; Katz & Wandersman, 2016; Mitchell et al., 2002), and some have suggested core competencies for developing relationships (e.g., Metz et al., 2020) that could be applied in a more systematic fashion in future endeavors.

Despite efforts to build relationships and understand the working culture at OSH/PSB, readiness consultants implemented some TA strategies that were ultimately ineffective, such as offering support via office hours. It may be helpful to borrow from adult learning literature and assess upfront how the TA providers learn best (e.g., listening or doing, in a group or alone; Bryan et al., 2009), then provide the support formats that fit best with the organization's preferences.

Addressing capacity of TA providers presents unique challenges relative to working directly with delivery systems. Most notably, being one level removed from direct implementation impacts the observability of the efforts. By the end of this project period, the TA providers had not fully completed their project period with TA recipients, and TA recipient perspectives had not been fully shared with OSH/PSB staff. The final RDS showed that TA providers did not yet see an impact from using readiness-informed TA. To protect against waning motivation as implementation progresses, it may be especially important when delivering TAFTAP to harness the power of small wins; people are motivated when they can see that they are making progress (Amabile & Kramer, 2011).

Funders

Given the widespread use of TA, funders should consider investing in building the capacity of TA providers to provide systematic, evidence-informed approaches to TA, thereby improving the probability of positive outcomes. In the ISF, TA providers are responsible for building the capacity and motivation of staff representing the delivery systems, who then must implement an innovation. In essence, greater TA provider readiness is assumed to increase the delivery system capacity for implementing with quality and achieving health outcomes. However, TA expectations vary by project (Dunst et al., 2019b), and not all TA providers shoulder responsibility/authority for downstream delivery system outcomes. Funders bear significant responsibility for maximizing the potential of TA providers' efficacy by clarifying the role of TA, the resources for TA, and the authority/responsibility of the TA provider in relation to the delivery system.

The costs of TA are mainly relegated to salary and travel, but the efforts of program staff to identify TA needs can also be significant (West et al., 2012). This project took over 1.5 years of development (e.g., developing concepts, creating collaborative processes, and designing plans and procedures). Much of this time was devoted to identifying needs and creating TAFTAP. Having designed a systematic method for identifying and addressing TA needs, the amount of time and related funding should be significantly streamlined if funders desire to adopt/adapt TAFTAP (see Table 3). Table 3 provides our summary of a streamlined, accountable approach to TAFTAP with steps and tools.

► LIMITATIONS

As a descriptive study, the present findings should be interpreted with caution. First, TAFTAP was developed

with one department within a particular federal agency. While designed to be generalizable, the process and findings may vary by context. Relatedly, this project had significant funder support, which may limit replicability. Second, measures were selected based on relevance for program evaluation, not a research study. As such, there are challenges to measuring capacity changes over time using the $R = MC^2$ framework because implementation stages presume that different factors are relevant at different times (Metz et al., 2015) and $R = MC^2$ subcomponents are shown to be differentially salient by implementation stage (Domlyn & Wandersman, 2019). Third, our study presents the qualitative success of TAFTAP, but it is not a comparative study with a comparison group. Fourth, the downstream impact of this approach may not be known for years to come, since it takes years to measure outcomes of tobacco control policies.

► CONCLUSION

We present a systematic, proactive process of TAFTAP that addresses gaps in TA literature and practice. Recent literature identifies core competencies of TA providers (Dunst et al., 2019a; Metz et al., 2020). Here, we propose how to support capacity building of TA providers using an approach rooted in implementation science frameworks (ISF, GTO, and $R = MC^2$). Given that evidence-based programs alone are insufficient for achieving health outcomes in different settings (Wandersman et al., 2016), which was the genesis of the entire field of implementation science (Bauer & Kirchner, 2020), understanding and improving the support system is vital. Despite limitations of this descriptive study, this process for improving the quality of TA providers' work is promising.

While the present project describes TAFTAP within a federal agency targeting tobacco control policies, the process is designed to be a generalizable method of building TA provider capacity and motivation. Like the multiple sectors and innovations in which the three underlying frameworks of TAFTAP have been used, we suggest that TAFTAP could be effectively employed across settings (e.g., other federal agencies, organizations) that aim to build capacity and motivation of their TA providers. Furthermore, improving the quality of TA could lead to downstream benefits (e.g., programmatic outcomes).

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Supplemental Material

Supplemental material for this article is available online at <https://journals.sagepub.com/home/hpp>.

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