



## **Acting on Findings: How to Use Evaluation Results to Improve Program Quality and Effectiveness**

**Presented on August 18, 2015**

**Episode 9 in the FY2015 Program Evaluation and Improvement Training Series**

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[Video Introduction]

**Capt. Thoumaian:** Hello. My name is Captain Armen Thoumaian of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury or DCoE. Thank you for joining us for this episode of the DCoE Program Evaluation and Improvement webinar training series.

DCoE's Mission is to improve the lives of our nation's service members, families and veterans by advancing excellence in psychological health and traumatic brain injury prevention and care.

DCoE accomplishes that mission in coordination with its three Centers: Defense and Veterans Brain Injury Center, Deployment Health Clinical Center and National Center for Telehealth and Technology. Together, we produce a variety of trainings on subjects ranging from program evaluation to clinical care and prevention practices.

This training series is designed for program administrators and service leadership who are involved with or who plan to conduct program evaluation activities within the Defense

Department's psychological health and traumatic brain injury programs. Our objective is to enhance the capability of these personnel to actively engage in program evaluation activities and, ultimately, make program evaluation an inherent component of everyday program operations.

By supporting enhanced program evaluation capabilities across the Defense Department, this series contributes to DCoE's larger mission to improve the quality and effectiveness of the psychological health and traumatic brain injury prevention and care programs that serve our military members, their families and veterans.

On behalf of DCoE, thank you for participating in this training series.

[Slide 1]

**Ms. Aguirre:** Hello. My name is Carmina Aguirre. I provide contract support to the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury or DCoE. I will be your moderator for this presentation, the ninth and final episode in the 2015 DCoE Program Evaluation and Improvement webinar training series. The webinar is hosted using the Adobe Connect platform and the technical features are being handled by DCoE's webinar support team in Washington, D.C.

Today's topic is "Acting on Findings: How to Use Evaluation Results to Improve Program Quality and Effectiveness." Before we begin, let's review some details.

[Slide 2]

This presentation has been pre-recorded; however, there will be a live Question-and-Answer session at the end of the presentation.

Throughout the webinar, we encourage you to submit technical or content-related questions using the Question pod on your screen. Your questions will remain anonymous, and our presenters will respond to as many questions as possible during the Q-and-A.

At the bottom of the screen is the Chat pod. Please feel free to identify yourself to other attendees and to communicate with one another. Time is allotted at the end of the presentation to use the Chat pod for networking.

All audio is provided through the Adobe Connect platform; there is no separate audio dial-in line. Please note there may be delays at times as the connection catches up with the audio. Depending on your network security settings, there may also be some noticeable buffering delays.

Closed captioning is provided for today's event, and a transcript will be made available at a later date.

[Slide 3]

Webinar materials for this series are available in the Files pod at the bottom left of the screen during the webinar. They are also posted in the Program Evaluation section of the DCoE website. Modules from the newly revised DCoE Program Evaluation Guide will be posted

throughout 2015.

For information about other DCoE webinars and trainings, visit the Training section of the DCoE website by following the link on slide 3.

[Slide 4]

We are pleased to offer continuing education credit for the 2015 Program Evaluation and Improvement webinar series. Instructions for obtaining continuing education through DCoE's collaboration with the Professional Education Services Group were made available during the registration process. Eligibility criteria for continuing education credit are presented on slide 4. Please note that eligible participants will receive one hour of credit.

[Slide 5]

If you preregistered for the webinar and want to obtain CE certificates or a certificate of attendance, you must complete the online CE evaluation. After the webinar, please visit [dcoe.cds.pesgce.com](http://dcoe.cds.pesgce.com) to complete the online CE evaluation and download your CE certificate or certificate of attendance. The CE evaluation will be open through September 1<sup>st</sup>, 2015.

[Slide 6]

This webinar was introduced by Captain Armen Thoumaian. Captain Thoumaian is the Deputy Chief of the Office of Integrated Services at DCoE. He is a Scientist Director in the Commissioned Corps of the U.S. Public Health Service with more than 30 years of experience in health and mental health program design and evaluation. In January 2012, Captain Thoumaian joined DCoE to help design and implement program evaluation and improvement efforts in the Defense Department. He holds a B.A. in psychology and sociology, an M.A. in general experimental psychology, and a Ph.D. in social welfare and social work. Captain Thoumaian has also completed a National Institute of Mental Health fellowship in Community Mental Health.

[Slide 7]

Presenters for this episode include Mr. Carter Frank and Ms. Debra Stark.

Mr. Frank is a research scientist who provides contract support to DCoE. Mr. Frank has over 15 years of experience in program development and management at local, regional and national levels. The breadth of his 33-year career includes 11 years of military service, spans military and civilian environments, clinical and non-clinical mental health operations, training, human resource management, business development and government contracting. Mr. Frank holds a B.S. in mathematical sciences and masters degrees in counseling and management information systems. He is a licensed clinical professional counselor.

Ms. Stark is a research scientist who provides contract support to DCoE. Ms. Stark is a survey methodologist and analyst with more than 15 years of research experience. Ms. Stark's work includes program evaluation and monitoring, qualitative data analysis, and survey instrument design. She has worked on health services evaluation projects with several Federal agencies, including the Department of Veterans Affairs and TRICARE Management Activity. Ms. Stark holds an M.B.A.

[Slide 8]

I am Carmina Aguirre, your moderator for today. I am also a research scientist who provides contract support to DCoE. I have over 14 years of experience within the Defense Department. My background includes executive leadership, psychological health, sexual assault prevention and response, and public affairs. In addition to supporting DCoE, I serve as Chief of Public Affairs in the Florida Air National Guard. I hold a B.A. in psychology and an M.A. in human services with a specialization in executive leadership.

[Slide 9]

This training presentation will describe the final step in the evaluation cycle: making improvements to a program based on evaluation results. It will provide guidance on planning and carrying out improvement efforts and maintaining quality through progress monitoring. Topics will include identifying opportunities for improvement, selecting and implementing an appropriate approach for improvements, establishing metrics for progress toward improvements, and common challenges that arise when programs carry out improvement efforts.

At the conclusion of this webinar, participants will be able to:

- Describe the process of selecting and planning achievable program improvements
- Identify resources and support needed to carry out improvement efforts
- Explain why ongoing evaluation should be an integral part of program operations
- Select and implement strategies to address common challenges faced when program staff seek to improve programs.

[Slide 10]

As seen on slide 10, Captain Thoumaian will begin by discussing how to identify opportunities for improvement. Mr. Frank will present practical approaches to selecting and implementing improvements, Ms. Stark will address how to establish metrics for progress toward improvements, and Mr. Frank will present strategies for overcoming common challenges that arise when program staff seek to improve programs.

Captain Thoumaian will conclude with a summary of key takeaways. We will wrap up this webinar session by providing a list of references and resources, followed by an opportunity to provide anonymous feedback and a brief question-and-answer session with our presenters.

[Slide 11]

**Capt. Thoumaian:** Thank you, Ms. Aguirre. In this section, I will discuss how to use the results from an evaluation to improve a program. I will describe considerations for how to identify opportunities for improvement, including actionable recommendations and considerations for implementation.

[Slide 12]

Let us start with reviewing the definition of program evaluation. Program evaluation is conducted either on an ad hoc or regular basis to assess how well the program is working. The process involves the collection, analysis and interpretation of data. The

results are then used to identify program outcomes, effectiveness of the program, whether the program has adhered to its mission, what areas may need to be improved and opportunities for growth. Now that we have an understanding of what program evaluation is, let's review its purpose and benefits in more detail.

[Slide 13]

The purpose and benefits of program evaluation are to gain insights, refine program practices, and assess program outcomes. Evaluation requires documenting and measuring program activities and outcomes, including the effects on participants. Also, evaluation activities can identify barriers that operate against the program.

An evaluation can also help with the identification of practices that need to be refined. Refinements can include improvements to program satisfaction (where relevant), participant access to the program and their flow through the program, as well as areas where services for program participants and/or their families can be improved. As mentioned previously, evaluation can benefit a program through a better understanding of program outcomes. This may allow for a comparison of program costs to program benefits as programs can benefit individuals, families and communities. This can also provide an opportunity for programs to highlight their successes to stakeholders, program participants and the broader community.

[Slide 14]

On slide 14, we provide a generally applicable blueprint for evaluation in a series of steps organized into three phases. The steps listed here are intended to guide internal program evaluation efforts and may differ somewhat from steps used by external evaluators. Each step in this process can be tailored to meet evaluation needs specific to a given program as those needs will vary according to the type of program, how long it has existed and the population it serves.

First, start with good planning and preparation. This means that the program should be clearly defined in terms of what it is designed to do and how it is organized. Then, evaluation strategies can be developed to address specific evaluation questions and needs, followed by a data plan specifying the details of how the evaluation will be completed.

Second, execute the evaluation. This involves collecting information and storing it for future use and record-keeping, followed by analysis and interpretation to determine what the data mean in relation to the purpose of the program evaluation. For example, it may be that the program is working well for one group but not as well for another group. Additionally, the program may be affecting some outcomes but not others or analyses may reveal that certain subgroups aren't able to access the program despite a documented need.

Third, during the feedback phase, program staff communicate findings and make changes or improvements to the program. Reporting on evaluation findings may include multiple communications directed toward a variety of groups, such as leadership, funding agencies, taxpayers and program participants.

Finally, evaluations reveal potential areas for improvement where program leadership and others can work together to figure out what changes are most important and how those changes can be realistically accomplished given available resources.

[Slide 15]

One should keep in mind, however, that the results of a program evaluation are directly relevant to the program's stage of development or the level of maturity the program exhibits.

The CDC describes three stages:

1. One, programs in the planning stage are just getting started. Their activities are as yet untested, and the focus of formative evaluations at this stage is primarily on refining program plans.
2. Two, programs in the implementation stage are operational but still adapting. A process evaluation during this stage typically focuses on refining and improving operations. At this stage, a program can be expected to produce information about its use of resources as well as its activities and outputs.
3. Three, programs in the outcomes stage should be able to produce desired outcomes and also be able to show that those outcomes are indeed being achieved. Consequently, the focus of summative evaluations in this stage is often on measuring those outcomes and also determining whether any unintended outcomes have occurred.

The divisions between these stages are not clear-cut. Rather, different aspects of a program may be in different stages, such as when implementing a new practice within a mature program. During a program's lifespan, it is likely to move through these stages multiple times as a program's services and activities adapt to the environment in which it operates.

In the slides that follow, we provide examples of evaluation questions and recommendations that address areas of improvement according to evaluation stage or phase.

[Slide 16]

The focus of formative evaluation recommendations may include the needs of a population that call for a program to be developed or the resources required to set up and operate a program over time. Alternatively, an evaluability assessment may be conducted to determine whether a program is capable of producing enough information to undergo a thorough evaluation.

In the box at the bottom of slide 16, we provide evaluation questions and recommendations, taking into account areas of focus, the nature and intent of the program and its maturity level or stage of development. Note that an evaluation effort may address multiple questions that cut across different evaluation designs.

As an example of a formative evaluation question, consider the first question and corresponding recommendation. "Can the program be implemented?" A modification following from this question might gather and analyze data about whether the program has the necessary resources to operate, such as funding, space, and program staff with appropriate training. Examine the next question and recommendation. "Does the program address a specific need within the community and/or the target population?" A needs assessment of the target population and/or the community certainly answers the question.

And finally, the last question refers to an evaluability assessment. "Does the program have well-defined missions, goals and objectives?" This is important in determining a program's ability to actually complete an evaluation and to generate the information needed to answer advanced evaluation questions for a process or summative evaluation.

[Slide 17]

For the process stage, a common area of interest is fidelity, or the degree to which a program operates according to a plan, such as a set of best practices. Likewise, a program may wish to examine whether it provides services, or coverage, to its target population. At the process stage, the results can be used to refine program operations.

Consider the first process evaluation question listed below: “How similar are participants to the target population for which the program was designed?” A modification following from this question would compare the measured characteristics of participants, such as their demographics and presenting conditions, to the target population identified in order to determine if the program is operating as intended. That is fidelity.

Likewise, the last question reads, “Are participants being followed during and upon conclusion of program services?” To address this question, an evaluation recommendation would be for the program to track participant outcomes and perhaps track service utilization after program completion.

[Slide 18]

For the summative stage, the focus is on the overall results of the program, that is, whether the program accomplishes its mission, goals and objectives. Outcome evaluations are typical of the summative stage focusing specifically on whether a program achieves desired changes among program participants, such as reducing symptoms or learning new skills. During this stage the focus can also be on whether outcomes can be attributed to program activities or whether a program’s benefits are worth the costs of operating. Programs in the summative stage are generally more mature programs that have been in existence long enough to stabilize their operations and collect outcome information.

In the box on Slide 18, some summative evaluation questions are obvious, like the one at the top, “To what extent did the program achieve the desired outcomes?” However, there are also more subtle questions, such as, “Did the program impact vary across groups?” The latter question requires that programs be able to tie outcome information to different groups, such as men versus women or active-duty versus the reserve components.

In addition, the last question is another important question: “Does the benefit of the program warrant its costs?” This type of question is of great interest to funding agencies and would require detailed information collection about costs relative to outcomes.

[Slide 19]

When preparing for implementation it is important to select specific opportunities or recommendations for improvement. Selection factors to consider are the compatibility of the specific intervention with the program’s nature and intent, its maturity level or stage of development, the available resources and the stakeholders’ interests.

Another factor is technical merit or best practices. The recommendations that are most likely to be adopted are those that provide advantages over existing practices for both the program and participants, whether in the form of increased efficiency, higher program and participant satisfaction, or improved outcomes.

Lastly, the best recommendation or intervention will be one that addresses the specific problem.

Now we turn to Mr. Frank who will cover “Selecting and Implementing Improvements.”

[Slide 20]

**Mr. Frank:** Thank you Captain Thoumaian. Now let’s turn our attention to the important task of selecting and implementing program improvements based on the results of an effective and comprehensive program evaluation effort.

[Slide 21]

The process of selecting and implementing program improvements consists of four steps designed to maximize program benefits and determine feasibility within the constraints of current program resources.

- The first step is to analyze program results and recommendations for the purpose of identifying the level of effort and resources required to turn them into program improvement initiatives.
- The second step is identifying available and potential resources that can be assigned to support program improvement initiatives.
- The third step is to use the knowledge gained from the previous two steps to develop a strategy for prioritizing program improvement initiatives. And
- Finally, the fourth step is moving forward with the implementation of the improvement efforts and monitoring the progress for quality and reporting purposes.

[Slide 22]

The analysis of program evaluation results and recommendations begins with the understanding that they are based on the program’s stage of development or its maturity. The graphic here on slide 22 is similar to the one presented earlier in this presentation. However, this one highlights the primary categories of results and recommendations generated by a comprehensive program evaluation initiative, depending on the program’s stage of development.

Programs in the Planning stage of development are likely to see results and recommendations for the following areas related to program intent:

- Has the program identified authorization documents and official mandates for their program operations?
- Does the program have organizational clarity regarding official lines of authority and program ownership?
- Is the program’s mission statement sufficiently focused and consistent with official mandates?
- Does the program have unified goals supported by objectives that are SMART, specific, measureable, achievable, relevant and time-bound?

Programs in the Implementation stage of development are likely to see results and recommendations for the following areas related to process-oriented linkages:

- Has the program established a working logic model using
  - identified inputs,
  - clearly defined activities and
  - data-supported outputs?
- Is the program engaged in process improvement efforts and how successful have they been on previous efforts?

And finally, programs in the Outcomes stage of development are likely to see results and recommendations for the following areas related to outcome development and support:

- What efforts is the program engaged in to transition their identified outputs into desired and measurable outcomes?
- Has the program carefully selected outcome measures to support program effectiveness and stakeholder interests?
- Is the program engaged in sufficiently enhanced data collection methods to achieve their desired outcomes?

While the analysis of these areas of program evaluation results represents more of a macro-level approach, it will also be important to engage in some micro-level efforts where specific data points are analyzed to help guide and refine future program improvement initiatives.

[Slide 23]

The graph shown here on slide 23 is an example of a technique that program administrators could use in a micro-level approach to analyzing output and outcome results from program evaluation initiatives. Pareto charts are used to analyze frequency counts associated with potential problem areas and help to rank order the various contributions to the problem as collected in the tracking data.

In this example, the frequency count for each dropout reason is measured by the scale on the left, while the cumulative percentage for all dropout reasons is measured by the scale on the right. The specific dropout reasons contained in the tracking data are listed along the X axis, with frequencies depicted by the blue-colored bars. The cumulative percentage for all dropout reasons is depicted by the maroon-colored line graph and culminates at 100 percent. The great news about Pareto charts, like the one on this slide, is that they can be easily generated using standard functions included in Microsoft Excel and other spreadsheet software applications.

Since dropout rates and reasons are typically of interest for program administrators and stakeholders, it is good to establish data collection activities for tracking it. The example on this slide depicts the incidence of participant dropout from a treatment program. And there are a couple of important conclusions program administrators and stakeholders can easily and quickly identify using this type of graph:

- The most encouraging conclusion is that very few dropouts, only about two percent, are associated with participants who feel the treatment is not helping them.
- While the more concerning conclusion is that the top 3 dropout reasons combined (transportation, insurance and financial issues), represent about 85 percent of the total dropout rate. However, this information is very helpful as it can assist program administrators in focusing their efforts and resources where they can be the most effective in improving dropout rates.

[Slide 24]

The process of identifying resources begins with taking a fresh look at how current resources are allocated and determining if they have been effective and efficient. The ebb and flow of needs and demand for services within treatment-oriented programs can vary for many different reasons, which highlights the need for recurring reviews of resource allocations. For example, initial assumptions about the demand for specific program services may have been too high or unforeseen needs among the target population may have surfaced as a higher priority...all of which would suggest some shifts in resource allocations.

Another important element of resource identification and management is ongoing communications and contact with partnering agencies within a community of practice environment. Partnering agencies will have the same interests in developing resource strategies and may be able to provide additional information and contacts regarding relevant funding streams. It is often the case that individual program administrators are not aware of relevant funding streams due to the stove-pipe approach inherent in most government budget structures.

While current available resources are a known commodity, it may be necessary to quantify and categorize potential resources that have been identified. In preparation for prioritizing improvement efforts, which will be addressed on a later slide, program administrators will need to determine whether manpower allocations or actual funding for services are the most appropriate resources for each potential improvement initiative.

These determinations may also involve the task of assigning probabilities to indicate a program administrators' confidence levels for being able to obtain the potential resources they have identified. In addition, there are potential barriers to improvement that are likely to impact these confidence levels and therefore, should be taken into account. Some of these barriers will be addressed on the next slide.

[Slide 25]

After program evaluation results have been analyzed and available resources have been identified, it will be important to consider any potential barriers that may negatively impact efforts to prioritize and implement improvements. This slide presents some potential barriers program's may encounter.

**Policy:** This barrier includes the lack of a policy or a policy that exists which conflicts with the program and its intent. In such situations an extended time period may need to pass for the policy to be changed or implemented and both can have an effect on the program's ability to make improvements.

In a resource-constrained environment, inadequate funding of the program may limit or restrict improvements to the program due to insufficient funding for additional staff, supplies, equipment, etc.

Some stakeholders may be resistant to changes that are being recommended. When this occurs, it is important for program administrators to initiate discussions with stakeholders for the purpose of understanding which elements of change they are more comfortable with, as well as those they are not likely to support.

Some programs may not have the feasibility to follow participants within or following program completion either because the participants are frequently relocating, deployed, or because of the anonymous nature of the program. Therefore, other outcome measures may need to be considered and developed.

Additional barriers to program improvements include insufficient training of program staff to appropriately conduct the program activities or other programmatic processes.

Similar barriers can also include a lack of program resources. Lack of resources could include insufficient staff, lack of a database to capture program and participant data, and a lack of mechanisms to track participants such as social security numbers or unique IDs provided to participants.

Any one of these items can present a potential barrier to improving a program and acting on recommendations made at the conclusion of an evaluation. So while it will be important for program administrators to consider resolution efforts for these barriers, it will be even more important for them to prioritize their efforts given the resources they are able to bring together in support of program goals.

[Slide 26]

Selecting the most appropriate program evaluation results for implementation is a challenging task that requires careful analysis and culminates in the prioritization of improvement efforts.

One approach to prioritizing improvement efforts prior to implementation is to construct a quad-chart like the one seen on slide 26. The chart on this slide uses stakeholder interests and resource unit cost as a scale for ranking each program improvement initiative. For example, improvement initiatives with the highest stakeholder interest and lowest resource cost will tend to have the highest priority, as shown in green in the upper left corner of the chart. Whereas, improvement initiatives with the lowest stakeholder interest and the highest resource cost will have the lowest priority, as shown in red in the lower right corner of the chart.

Program administrators will need to make other important decisions in the process of prioritizing improvement initiatives, such as deciding whether groupings of low interest, low cost program improvements will provide more benefits to their program than one high interest, high cost improvement. For example, a fully functioning database environment is often a high interest improvement for stakeholders because it supports the development of meaningful outcome measures. However, it also has a high cost. In contrast, low cost improvement initiatives like in-house training, travel associated with public relations, and producing promotional materials are often lower among stakeholder interests. However, a program administrator may choose to implement these three low cost improvement initiatives because the overall benefit to the program, per unit cost, is greater than the database initiative.

[Slide 27]

When program administrators and senior leaders are aware of the potential barriers and have subsequently developed a prioritized list of program improvements, they can work together to:

- Acquire additional staff (either number or types of staff may be necessary)
- Conduct additional staff training to ensure staff proficiency and understanding of roles and responsibilities related to the program

- Determine that the program could benefit from a simpler mission, which helps to align program goals and objectives
- Review and update the program logic model as necessary
- Collect new or additional data that had not previously been considered, or
- Increase the number of staff and work with participants to determine the best approaches for increasing their satisfaction and producing meaningful outcomes within the program.

Now that we've covered the potential barriers and recommendations for improvement, the next two slides provide examples of evaluation findings and potential opportunities for program improvement.

[Slide 28]

Slide 28 shows a common recommendation or finding for programs. This program does not collect follow-up data on participants after program completion. There are several improvements that a program can make in response to this finding.

A follow-up schedule of program participants should be determined based on the objectives the program. Follow-up schedules should be standardized for all participants and can be at three-, six- or twelve-month intervals. Following participants for longer timeframes may facilitate understanding whether the program has had an impact or not.

An additional improvement the program can make is to maintain a database to track participants' baseline and follow-up information, which can then be used to make pre/post program completion comparisons.

If no baseline information is being tracked, start recording baseline information for each participant.

[Slide29]

Another example of using evaluation results to improve program outcomes is a finding that the program could not demonstrate an effect on program participants.

Improvements the program can make would include:

- Comparing participant baseline data to data from participants at program completion on characteristics such as knowledge or attitudes. Ideally, follow-up of participants for a set time would continue and comparisons of these characteristics would be made to demonstrate if the program had an effect on participants.
- Additionally, the program may consider comparing program participants and their outcomes to similar individuals that did not participate in the program. This would also help the program determine its effects on participants if any such effects exist.

[Slide 30]

As we have presented and discussed the importance of analyzing evaluation results, prioritizing resources and initiatives, and implementing program improvements, the underlying message is that program evaluations are intended to stimulate action.

Dale Carnegie, a popular author in business communications, recognized the critical importance of moving beyond knowledge and understanding into the implementation phase. His quote,

“Knowledge isn’t power until it’s applied,” serves as a reminder that the difference between where you are and where you want to be is what you actually do to get there!

The careful analysis of program evaluation results and the meticulous allocation of prioritized resources will form the foundation of successful implementation efforts. In addition, these recurring successes will demonstrate the importance of evaluation results as a core component for ongoing program improvement initiatives.

Now I will turn the presentation over to Ms. Stark who will discuss the importance of establishing metrics for progress toward program improvements.

[Slide 31]

**Ms. Stark:** Thank you, Mr. Frank. Just as with a full-scale program evaluation, which has been the focus of this webinar series to date, you will need to evaluate any modifications that you implement.

[Slide 32]

Once staff decides which processes to modify or outcomes to improve, depending on what is most appropriate and important to stakeholders, the next step is to implement the change.

As the quote from a CDC evaluation coordinator says, “You are never sure any one thing is going to work. Until it does.” Program staff will need evidence in order to perceive that the modification made does work, and that it provides value. You will need to establish an evidence base for the change that you implement and justify using limited program resources for it. In order to do this, you’ll have to consider what data may need to be collected, and the yardstick or metric by which to assess them.

[Slide 33]

Clear facts and figures will be needed to demonstrate the advantages of your program modification. With data, you will be able to analyze and synthesize the evidence you collect, interpret it, and use it to make judgments about the modification’s achievement.

If you are able to embed a sustainable evaluation capacity that allows you to collect and analyze data over time, you will have the evidence you need for action and decision-making. The data you collect may be useful for developing solutions to unanticipated problems that arise during implementation.

As we have advocated throughout this webinar series, an evaluation infrastructure that allows for ongoing data collection should be an integral, built-in part of program operations. Knowing exactly what was implemented and why, makes it possible to assert that your modification was effective.

[Slide 34]

A checklist to gather credible evidence is presented here on slide 34. Essentially, you must select indicators for the processes or activities that will be subject to change. You must determine whether existing measures may be used, or whether new ones are to be developed. You must think about what type of data to collect and what data sources are available. You should develop a set of procedures to be followed and pilot test your modification.

In addition to the items listed here, I want to add the advice to stay alert for unintended consequences. It is not uncommon to successfully target one issue, which then causes a new problem to emerge elsewhere. Be vigilant about detecting unwanted consequences or problem ‘displacement.’

[Slide 35]

Indicators measure activities, processes, and outcomes. They should be clearly defined.

Regarding process indicators, you will need to *specify* how these concepts will be observed and measured. What does it mean, *exactly*, to “establish a good coalition”? What constitutes “*quality* training”? What does “appropriate” mean precisely? It is usually easier to specify indicators for outputs and outcomes by including intensity and duration, as seen in the example on Slide 35.

Your program may already have well-developed process or outcome indicators. If your program objectives were written to be SMART, (specific, measurable, achievable, relevant and time-bound), this information may be readily available. Perhaps it is incorporated into your program logic model.

If you do not have indicators, you may be able to draw on existing or secondary indicators maintained by others, such as the Centers for Disease Control. Some existing sources for public health data include the Current Population Survey and the Consumer Assessment of Healthcare Providers and Systems (or CAHPS) Database.

Be prepared to develop your own indicators: you can find information on indicators in the February 2015 webinar.

[Slide 36]

Standards are benchmarks by which to judge program performance. The program and its stakeholders must articulate the values that will be used to consider a modification “successful,” “adequate,” or “not successful.” Possible standards that might be used to determine these benchmarks are listed here on the top of Slide 36.

The indicator inventories mentioned previously on Slide 35 can allow you to compare performance across other programs or national norms.

It is extremely helpful if everyone is on the same page with respect to performance expectations and outcomes. Ensure that the improvement you implement does not move the program away from its original mission and goals. It is important to remain in alignment with all applicable policies, rules, and regulations.

[Slide 37]

Once your indicators are set, you will need to consider data sources. Common sources of program data are:

- Surveys and interviews, including focus groups,
- Direct observation, and
- Document review, such as medical records, but also diaries, meeting minutes, and so forth.

When selecting data sources, you may want to include referring partners or community entities, in addition to program-based sources.

[Slide 38]

Determine which data collection method and data sources are appropriate to obtain the information you need. Slide 38 displays examples of modifications that might be enacted in the left-hand column, with sample sources of data on the right. For example, looking at the first row, if the modification is to conduct three trainings, the data source for that activity might be training sign-in sheets.

Construct a comprehensive data matrix to establish a data collection plan. Data plans should include information about what will be collected, by whom and when, how data will be stored and analyzed, and how quality assurance will be carried out to ensure that data are accurate.

[Slide 39]

You will need to track your program modification. Without knowing exactly what is being implemented, it will be virtually impossible to show stakeholders linkage between project activities and outcomes.

Even though you may already have a theory of change, or logic model, that outlines a linkage among goals, inputs, activities, outputs and outcomes, you may need to create another logic model for the new specific modification. This will allow you to describe the processes related to the improvement, the results from it, put the data you collect into context, and help identify solutions to barriers that may be encountered, including such things as 'duplication of effort.'

Additionally, you will want to track unintended or unexpected outcomes. Because modifications may produce outcomes that were not identified as original goals, track what happens at multiple time-points. Track not only what happens at the ultimate end-phase, but also track unanticipated interim findings. These may be important.

[Slide 40]

The sustainability of your modification may be vulnerable if it is seen as only one particular person's project. Maintain a Continuity Book: not only for you, but for colleagues and others. It can be critical when in the midst of implementing change.

A continuity book includes points of contact, duties and responsibilities, SOPs, policies, mission statements, personnel and equipment data, and information on how to accomplish common tasks. Keep the continuity book where it will be accessible for daily use, either out in the open or on a shared drive.

In building a good and useful continuity book, you can create additional knowledge about your effort among program personnel. Staff involvement may turn out to be the key to successfully implementing and establishing evidence for your modification. Program staff are in a good position to have insight into problems that arise during the course of your implementation, as we will see on the next few slides.

[Slide 41]

We have used hypothetical Program Sierra, a reintegration program formerly known as Program Echo, in previous webinars. Program Sierra aims to help service members transition to civilian life or return to duty. It includes counseling sessions and referrals. Background information on Program Sierra is included in this deck for your reference starting on Slide 60.

In this scenario, evaluators have identified an area where the program has an opportunity to improve. One of Program Sierra's activities in its logic model is to follow-up on program participants' signs and symptoms. However, when reviewing the data collected, it showed that only 22% of program participants respond to mailed forms requesting that information before a session.

The Program Administrator, leadership and staff consider an improvement that does not require completing it during a session.

[Slide 42]

Program Sierra decides to implement a modification: A secure web-enabled portal is created where participants can complete the behavioral health questionnaire before appointments. Sierra participants are texted access to the secure portal 72 hours in advance of their appointments and reminded to complete the questionnaire. Program staff review the information before seeing the participant. The Sierra team sets a progress metric for this modification: 50% adherence within six months of implementation, and 80% within one year.

[Slide 43]

Program Sierra's Program Administrator collects evidence about the implementation. The established metrics and data sources are shown on Slide 43.

On the second row, for example, participant compliance is assessed through database records. In order to determine that communication was enhanced with providers, provider ratings were examined. Provider rating scores showed an increase on the statement: "My provider took the time to listen to my concerns and what I had to say."

On the third row, we see weekly team meeting minutes in the data source column. The minutes captured when the primary care provider and family therapist said that having sign and symptom information before encounters, obtained through the secure portal, helped enhance the quality of encounters, and allowed them to be more productive.

[Slide 44]

By the one-year mark, it is found that this modification works well for many Sierra program participants, who experience TBI-related memory and focus issues.

In our hypothetical case, the rate of completed self-report follow-ups increased from 22% to 70%. The compliance rate still fell below the established threshold goal of 80%.

During a conversation with a participant's spouse, Sierra's family therapist realized that family members and significant others would also like to have the ability to communicate through this secure messaging platform. The Program Administrator implements another modification and adjusts the web portal to allow input from people who lack a Common Access Card or CAC.

The take-away from this story: enact a small-scale test before rolling something out for the whole program. Be flexible and willing to adapt.

[Slide 45]

You and your team are likely to go through multiple iterations of testing and refinement before specific changes add up to a full-scale program modification. Slide 45 presents a checklist to keep in mind when considering conclusions about program changes and small tests. Small tests of change can be very powerful: they allow for incremental modifications of interventions to improve programs, which can help a larger implementation run more smoothly. They allow you to test ideas quickly with 'volunteers' who are willing to try new things. Because interventions are tested by one or two staff at a time with just a few program participants, you can modify your improvement to resolve problems as you receive feedback from participants and staff. Failure is lower-risk because you have not tried to change an entire culture. You can create enthusiasm and positive 'word-of-mouth' with early success.

Next, we return to Mr. Frank.

[Slide 46]

**Mr. Frank:** Thank you Ms. Stark. There are a number of common challenges that arise when program administrators seek to implement program modifications and demonstrate their effectiveness.

[Slide 47]

On slide 47 we list common questions we have received during our interactions with program and service leadership.

[Slide 48]

On slide 48, "What if I don't have implementation data?"

Are you thinking of numerical data? If you are not able to collect quantitative data due to constraints of time, funding or situation, collect qualitative data. Conduct a case study or studies. As described in the April, 2015 webinar, a case study is a qualitative method for finding

out “how or why” an intervention works.

A case study follows one person as he or she experiences the program. A case study can inform an in-depth understanding of an intervention as a whole and within its context and can be a rich source of data for TBI and psychological health programs.

Conduct focus groups or one-on-one interviews with individuals who typify your population or represent typical situations. Remember--qualitative data are data!

[Slide 49]

On slide 49, “How do I assure staff that the selected change will address the problem?”

You may find that everyone sees a need for improvement in the selected area, but staff members may disagree on how improvements should be accomplished. The interventions you are considering may conflict with teams’ preferred working habits or methods of practice.

Sound scientific evidence is essential to inform the selection and development of any proposed interventions – even when staff need no convincing. Scientific backing is doubly useful when teams are skeptical.

Involving staff in discussions about the evidence and giving them opportunities to challenge and convince each other about the scientific value of the evidence may help enlist their support for an intervention.

Another effective approach is to enlist staff contributions to the intervention’s logic model, encouraging them to consider the intervention’s components and their likely impacts on program participants’ experiences and outcomes, or on program costs.

For both of these discussion-related strategies, good facilitation is a key ingredient. Unfounded assumptions should be identified and challenged, and non-scientific approaches should generally be discouraged.

[Slide 50]

On slide 50, “What are the best ways to engage staff buy-in?”

It is probably clear by now that engaging staff in change can be a big challenge when the staff see the change as conflicting with their usual practices, their preferences or their perceptions of program performance. Engaging staff in quality improvement initiatives can be particularly difficult for middle managers and frontline staff because they already face many demands, some of which may compete with each other for priority. Middle managers and frontline staff may have to adjust their activities to accommodate inadequate staffing, limited resources and equipment shortages.

To facilitate staff engagement, make connections between the intervention and accepted practice or professional norms. Encourage staff commitment and engagement by appealing to team members’ professionalism. Also, you can enlist staff members’ emotional commitment by recalling actual stories of program participants’ experiences with the selected situation. Participant stories can be especially effective when the stories are already known by at least some staff members. One last strategy is to include team members as part of the process when selecting service improvements. Ask staff what they would do first to further improve their

service in the identified problem area.

We now turn it back to Captain Thoumaian who will provide some concluding statements.

[Slide 51]

**Capt. Thoumaian:** Thank you, Mr. Frank, Ms. Stark, and Ms. Aguirre.

[Slide 52]

A key takeaway from this presentation is that program modifications and improvements should be selected according to best practices and stakeholder interests.

Successful implementation of program modifications should be carried out in a systematic manner, which involves careful tracking and monitoring. And finally, although intensive, high-quality measurement efforts will ensure accuracy in evaluating and reporting on targeted program improvements. I thank you for attending this year's Program Evaluation and Improvement webinar series.

[Slide 53]

**Ms. Aguirre:** Thank you Captain Thoumaian. There is a great deal of useful information available to programs on program evaluation and reporting procedures. On slides 54, 55 and 56 we provide a brief list of resources and references that we think may be useful.

[END]