



Analyzing Program Evaluation Data: How to Interpret Qualitative Data

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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 fifth 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 "Analyzing Program Evaluation Data: How to Interpret Qualitative Data." 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 yourselves 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 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 the 2015 webinar series.

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. In an effort to enhance the focus of individual webinar episodes, we have reduced the length of this and future episodes to one hour. As a consequence, please note that eligible participants will receive one hour of credit rather than an hour-and-a-half.

[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 to complete the online CE evaluation and download your CE certificate or certificate of attendance. The CE evaluation will be open through April 28th, 2015.

[Slide 6]

This webinar was introduced by Captain Armen Thoumaian. Captain Thoumaian is the Deputy Chief of Integration for the Office of Shared Services Support 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]

Our next presenter is Dr. Aaron Sawyer. Dr. Sawyer is a research scientist who provides contract support to DCoE. He is a clinical psychologist with extensive expertise in intervention outcome research and program evaluation. He has delivered child, family, and adult interventions for more than a decade, including specialization in trauma and experience working with military families. Dr. Sawyer holds a master's degree in experimental psychology and a doctorate in clinical psychology. He completed postdoctoral training at The Kennedy Krieger Institute of Johns Hopkins University and is a licensed psychologist.

Our final presenter is Dr. Richard Best. Dr. Best is an industrial and organizational psychologist with 14 years of experience conducting health services research in both the Veterans Health Administration and the Defense Department's Military Health System. He has extensive experience in research design, qualitative and quantitative data collection and analysis, and collaborating with clinical experts to translate research results into actionable recommendations. Dr. Best holds a master of science and a Ph.D. in industrial-organizational psychology and is certified in Prosci's change management process.

[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 webinar was introduced by Captain Armen Thoumaian. Captain Thoumaian is the Deputy Chief of Integration for the Office of Shared Services Support 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 9]

This training presentation will describe how to code, analyze and interpret qualitative data. Qualitative data include text from interviews, focus groups, written comments, observations and case studies.

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

- Explain how qualitative data can be used as part of a mixed methods approach to program evaluation
- Describe the steps needed to organize and code qualitative data
- Perform basic qualitative analyses and communicate findings, and
- Select and implement strategies to address common challenges related to qualitative data analysis]

[Slide 10]

As seen on slide 10, Captain Thoumaian will begin with an introduction to qualitative analysis and mixed methods. Dr. Best will then provide an overview of how to analyze and interpret qualitative data. Dr. Sawyer will then discuss considerations for reporting qualitative data, followed by ways to overcome common challenges. We will conclude with a summary by Captain Thoumaian. Then, I will provide 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]

Thank you Ms. Aguirre. Qualitative methods may provide invaluable additions to an evaluation effort. In this section, I will describe some of the key benefits and concepts related to qualitative methods, and I will provide detailed examples that illustrate how they may be integrated into a mixed methods approach that includes both qualitative and quantitative components.

[Slide 12]

In his book *Informal Sociology*, William Bruce Cameron stated: "Not everything that can be counted counts, and not everything that counts can be counted." Indeed, qualitative methods

are often used in evaluation because they tell the program's story by capturing the participant's experiences in their own words. In program evaluation, we frequently have questions that go beyond rates of participation over time or scores on a measure of learning or symptoms. Qualitative methods are in fact ideal for answering program evaluation questions related to the "hows" and "whys" of the program.

[Slide 13]

While qualitative methods may provide useful enhancements to a program evaluation, it is our position that no single method is superior under all possible conditions. Just as there is no single best treatment to address a problem, there is no single evaluation method that can explain everything there is to know about a program.

Qualitative evaluation methods provide a more complete picture than quantitative methods alone, especially with regard to program processes and participant experiences.

In particular, qualitative methods help us understand the richness and complexity of psychological health and traumatic brain injury programs.

Neither method, quantitative or qualitative, is superior to the other. Using mixed methods will likely provide the most complete and robust evaluation findings.

[Slide 14]

To review, qualitative methods are forms of data collection and analysis that are based on textual or non-numerical information. As described in previous webinar episodes, these methods include interviews, focus groups, open-ended comments, after action reviews, observations and case studies.

You have likely been involved in qualitative data collection and analysis processes without realizing it. Logic model development is one example of a qualitative process that requires interviewing stakeholders, interpreting documents, and putting together a visual representation of a program. Other examples of qualitative techniques that you may already be involved in include written notes about program participants, meeting minutes, or gathering feedback from program personnel or participants.

[Slide 15]

Using qualitative methods in program evaluation has several distinct advantages for understanding meaning, context and processes, as outlined on this slide. These include:

- Gathering detailed descriptions
- Identifying unknown or unanticipated phenomena, and
- Generating evaluation questions that are important to address
- In addition, qualitative methods are useful in generating causal explanations, because program personnel or participants can often explain "how" or "why" something happened, such as why a program was useful or why a participant chose not to use available resources.
- Finally, qualitative methods can identify individual narratives that relate to a program. In other words, they can identify how participants understand their relationship to a program, its staff or other participants.

[Slide 16]

Qualitative methods allow evaluators to examine several different types of possible questions, as will be evident in the examples that follow later in this presentation.

First, they may examine descriptive questions. For example, questions about a program's purpose or intent can be clarified by the text of its mission, goals and objectives.

Second, qualitative methods can address causal questions. For instance, an evaluator could identify themes from interviews or open-ended feedback comments about why participants are dissatisfied.

Third, they can be used to examine value questions, such as "Is the program worth continuing?" To address this type of question, an evaluator may conduct interviews with senior-level program stakeholders after they have reviewed initial evaluation data.

Fourth, qualitative methods can be used for action questions. For example, they can generate information used to design and implement program improvements based on evaluation results.

[Slide 17]

Using both qualitative and quantitative methods together is referred to as mixed methods. Mixed methods may enhance the utility of program evaluation by drawing upon the strengths of each method and compensating for their limitations.

For example, mixed methods can incorporate quantitative concepts like the size of an effect or the frequency of a behavior, and they can incorporate qualitative concepts like the meaning of a statement or a participant's understanding of the program's purpose.

Perhaps most importantly, mixed methods allow program evaluators to tailor their methods to answer multiple evaluation questions at the same time in order to provide the most complete findings.

[Slide 18]

There are many practical reasons to view qualitative evaluation methods as complementary to quantitative methods. However, knowing the key differences between qualitative and quantitative methods can help to ensure that evaluators know when one method may be more useful than the other within a robust evaluation plan.

- Among the first key differences between qualitative and quantitative methods are the ways in which data are produced. Qualitative methods include interviews, focus groups, open-ended comments, observation, after action reviews and case studies. On the other hand, quantitative methods involve questionnaires and learning assessments.
- Second, qualitative methods generate text and are often more context-specific, whereas quantitative methods generate numbers and are more easily generalized across situations or contexts.
- Third, qualitative methods answer why, how or what questions; quantitative methods answer questions about how many, who, when, or where.
- Fourth, qualitative data collection and analysis processes are generally more time-intensive, while quantitative methods are typically more efficient.
- Finally, qualitative data collection tools and methods are generally more flexible and

adaptable to changing circumstances and new directions. Quantitative methods are generally fixed at the start of an evaluation effort.

As mentioned earlier, differences between qualitative and quantitative methods do not make one method better or worse than the other. However, these differences should inform choices about when to use one method versus the other to address specific evaluation questions.

[Slide 19]

To help you apply the information just discussed, we revisit Program Sierra¹, a hypothetical reintegration program discussed in previous webinar episodes and in Module 2 of the revised Program Evaluation Guide.

To review, Program Sierra seeks to ensure that service members who are wounded, ill or injured successfully reintegrate into civilian life or return to active-duty in the military. By performing its mission effectively, Program Sierra personnel hope to enhance force readiness and improve the quality and efficiency of services across the Defense Department.

For easy reference, we have also provided Program Sierra's mission, goals, SMART objectives and logic model in the extra slides at the end of this presentation.

[Slide 20]

In a previous webinar episode, we stated that three factors drive decisions about program evaluation design: evaluation goals, a program's nature and intent, and program maturity.

Program Sierra's leadership and stakeholders discussed their evaluation goals and determined that they are reasonably confident that the program is reaching its target population. However, they wanted to know, first, how well the program is being implemented, and second, whether program activities are actually leading to the expected outcomes.

Program Sierra's nature and intent are described in detail in its SMART objectives and logic model, which provide the foundation for focused evaluation questions and measurement.

In terms of program maturity, Program Sierra is in the implementation stage – it has already been operating for a few years. However, because evaluation was built into the program from the outset, it has some of the outcome information needed to address the second evaluation goal, whether program activities lead to expected outcomes.

[Slide 21]

The most appropriate evaluation design, overall, is a process evaluation specifically focused on Program Sierra's direct services to participants. However, since short-term outcome data are available, it is possible to incorporate some aspects of a summative evaluation design.

Relevant evaluation questions help to focus the evaluation effort further. Specifically, Program Sierra's evaluation team, led by its program manager, will examine whether the program was implemented with fidelity, and whether it achieved short-term outcomes. Based on the answers

¹ Program Sierra was formerly known as Program Echo.

to these questions, the evaluation team can determine what should be improved within the program to enhance quality and effectiveness.

On the next slide, we will show how mixed methods can be used to address the third evaluation question: "What should be improved or changed in the program to enhance its quality and effectiveness?"

[Slide 22]

The final slide in this section illustrates the value of using a mixed methods approach to program evaluation, beginning with the evaluation question mentioned on the previous slide pertaining to changes or improvements to enhance the program's effectiveness.

We have two broad classes of methods that can be used to address this question: quantitative and qualitative.

In this example, quantitative methods included a rating scale for satisfaction, which showed decreased average ratings over the past five years from 85 percent to 42 percent satisfied. In addition, quantitative methods showed that while participants' attitudes about reintegration improved, their actual use of services did not change from pre- to post-intervention.

Qualitative methods included focus groups and interviews with various groups. Focus groups conducted with participants indicated that the case managers responsible for their care were perceived as supportive but not especially helpful in terms of identifying specific services relevant to addressing their needs. Interviews with those case managers, themselves, revealed that they may need additional training and that there may be challenges related to high turnover among program staff.

Keep this example in mind. We will return to it in a later section. Now, Dr. Best will provide an overview of how to conduct basic qualitative analysis.

[Slide 23]

Thank you, Captain Thoumaian. The purpose of this section is to provide an overview of the steps involved in qualitative data analysis to help program managers and others conducting an evaluation to get results from raw qualitative data.

[Slide 24]

The qualitative data analysis process is ultimately one of interpretation, which involves reading the data, developing ways to label or code the data, and describing those interpretations using visual displays.

Outlined on slide 24 are the typical steps involved in the qualitative data analysis process:

- An evaluator begins by organizing qualitative data, which may be transcripts from interviews or focus groups or other text-based information. First, the data are read multiple times followed by creating a list of labels, or codes to represent the observed information.
- Next, the definitions for codes are finalized and listed in a codebook. The codes are then applied systematically to the entire data set, and checks may be performed to ensure reliability.

- Finally, the evaluator may create a visual display of findings and communicate findings in a written report or presentation.

I will now move into the specific tasks involved in each of these steps.

[Slide 25]

The first step in the qualitative data analysis process is to read the data you have collected in order to explore the range, depth and diversity of the information provided.

Interpreting involves identifying abstract concepts that correspond to patterns in the data. These concepts will eventually be refined and clarified as “codes” by reading, and re-reading the data over multiple iterations.

There are several ways to read the data including literal, interpretative, and reflexive reading. During literal reading, the evaluator focuses on the actual content of the data, whereas during interpretative reading the evaluator attempts to make sense of participant statements. For example, what similar statements do participants across all of the focus groups make, and in which cases do they differ? Are those differences related to rank, service branch, gender and so on? Lastly, reflexive reading examines the evaluator’s role or biases in collecting the information to ensure that findings are not unduly influenced. For example, an evaluator who thinks that younger service members are less committed than older service members must recognize that bias when reading and interpreting qualitative data.

Keep in mind that qualitative data are read and re-read multiple times during each step in the analysis process.

[Slide 26]

As the data are read and re-read several times, common themes will begin to emerge. Codes are a way of classifying the data into meaningful categories relevant to the purpose of the evaluation.

Documenting notes about potential themes or the meaning of participants’ statements helps to define and clarify codes that can then be applied to the data in a more formal process. Likewise, it is useful to make notes about issues to pursue further in later readings or in further data collection efforts.

Keep the purpose of codes in mind as you develop them. Codes should always be guided by your evaluation questions. Remain aware of personal biases and the tendency to pursue interesting or unique information that may not apply to the specific purpose of your evaluation effort.

[Slide 27]

Once the initial list of codes is created, the next step is to create a codebook to document the total number of themes or categories that are emerging from the data and how each theme is defined. A codebook maps the relationship between the raw data, themes, and key questions guiding your evaluation.

The level of detail presented in the codebook may vary from one evaluation effort to another, but at the very least the codebook should contain code names or labels, definitions, and inclusion and exclusion criteria. As seen on the next slide, these criteria explain when to apply or not apply a code, how to distinguish between one code or another, and provide examples of data or quotes that accurately represent the code.

[Slide 28]

On slide 28, we provide an excerpt of a codebook from an evaluation of health service utilization using focus groups. There are three codes displayed, but I will only discuss the code for stigma. Additional examples will be presented in future modules of the DCoE Program Evaluation Guide.

In reading and re-reading the transcripts from the focus groups, a common theme of stigma emerged when interpreting responses of why service members chose not to attend or pursue services related to psychological health concerns. Many service members described a fear of being identified or labeled as crazy, while others felt that receiving services for psychological health issues would result in a loss of security clearance. Based on multiple cycles of reading the data, the code “stigma” was defined by “service member descriptions of the negative perceptions related to psychological health treatment within the Military Health System.” As is demonstrated on slide 31, the stigma code was applied to all blocks of text from focus group transcripts in which service members described fear or negative perceptions when seeking help for psychological health issues. However, the stigma code was not applied to blocks of text discussing psychological health issues in the civilian health system or issues that were not specific to psychological health, such as medical conditions. The sample text pulled directly from focus group transcripts that reads, “I’m afraid I might lose my security clearance if I seek help for my nightmares” is a good illustration of when to apply this code to text.

Similar examples are provided for codes related to positive and negative experiences with previous health care providers.

[Slide29]

The next step in the process is to finalize the code list by applying the code to the entire data set. This is accomplished by reading and re-reading the data until no new themes emerge.

During this step in the process, codes may be refined, expanded or eliminated to reflect new ideas about the meaning of participants’ statements.

Although new patterns may continue to emerge in the data even at the latest stages, an end date should be set in advance in order to meet reporting deadlines. Consideration should also be given to whether the themes are different enough from one another to warrant their own unique code and whether all of the variations in the focus groups or interviews are captured by the codes that have been created.

Lastly, evaluators may establish the credibility of codes by linking them with data. This can be done through a process of documenting quotes from multiple participants that support the code. For example, focus groups of male and female officers were held to determine the quality of a resilience program. Similar themes were identified across multiple participants including: limited availability, positive cohesion and improved command climate.

[Slide 30]

Once the final adjustments are made to the codebook, an evaluator may want to examine whether another person could use these same categories to code the responses in the same way. This process is known as inter-coder agreement.

Inter-coder agreement is the extent to which independent coders evaluate data or blocks of text and reach the same conclusion. Ideally, two independent raters or coders can apply codes to the same blocks of text and get the same results. Generally, two coders working separately should agree on the definitions and apply the codes in the same systematic fashion.

Establishing inter-coder agreement is not always feasible, particularly when there is only a single evaluator. When multiple coders are not available, a single evaluator could confirm findings using strategies like formulating and testing “if-then” statements to determine if the interpretation of findings is consistent across different types of data.

[Slide 31]

Examining relationships is the centerpiece of the qualitative analysis process because it allows the evaluator to move from a simple description of people and programs to explanations of why things happened as they did with those people in that setting. The process of examining relationships can be captured in a diagram that shows how different concepts are connected, or perhaps what causes are linked with what effects.

One way to visually present this information is to use a network diagram, which presents linkages between categories, variables or events over time. Slide 31 provides an example of a network diagram. A network diagram can provide a visual way to view the evaluator’s interpretation of the full data set in the one location. One additional benefit is that network diagrams supports identification of patterns, themes, and trends.

The network diagram on slide 31 is based on focus group data collected to address the question, “What are the barriers to mental health care seeking among service members?” The diagram was generated based on the larger codebook we reviewed earlier on slide 28.

Findings from the evaluation indicate two key barriers to mental health care seeking: stigma and negative experiences. Perceived stigma from unit members, leadership, family and career concerns all contributed the broader experience of stigma. On the other hand, direct and indirect negative experiences as well as media depictions of mental health services contributed to the broader code of negative experiences. Together, these two factors – stigma and negative experiences – were thought to play a substantial role in care-seeking behavior.

[Slide 32]

Writing up the results of qualitative analyses should result in a clear, logical summary of the data, grounded in quotes and other concrete information to establish credibility.

Always keep in mind that the stakeholders who read program reports or attend presentations about evaluation results are likely to be somewhat unfamiliar with qualitative methods and may in fact have doubts about their value.

For this reason, make sure to clearly describe who participated, how data were collected and

analyzed, and why you came to the conclusions you did.

Finally, always be mindful of participants' confidentiality when reporting qualitative analysis results, because qualitative data are more easily identifiable than most quantitative data.

I will now turn the presentation over to Dr. Sawyer, who will offer additional details on writing up the results of qualitative and mixed methods findings, followed by a discussion of common challenges.

[Slide 33]

Thank you Dr. Best. In this section, I will discuss considerations for reporting on qualitative data, including how to present the results of qualitative and quantitative evaluation methods. In a future webinar, we will also provide more comprehensive coverage of reporting evaluation results.

[Slide 34]

The primary reasons for conducting analyses in program evaluation efforts are to draw conclusions about the quality or effectiveness of a program and to use data to inform program improvements.

Reporting follows naturally from these purposes in that written reports, presentations, and other forms of communication can:

- Demonstrate the importance of the program and its benefit to the community, participants, service branch or Defense Department as a whole
- Likewise, reporting can provide accountability with respect to how funds were spent and what services were provided
- Reporting can also be used to generate additional support and buy-in for the program, especially if buy-in was relatively weak when the program was initially developed
- Finally, reporting helps to inform stakeholders about plans to improve the program and gain their support

[Slide 35]

In quantitative evaluations, there is an emphasis placed on establishing and reporting on the extent to which conclusions are well-founded, accurate, or precise. This concept is known as validity, or the extent to which the evidence gathered supports the conclusions being drawn.

As outlined on slide 35, the concepts and tactics used to assure validity in qualitative methods are somewhat different than those used with quantitative methods. The four major dimensions of validity that should be considered when using qualitative methods are credibility, transferability, dependability, and confirmability. The integrity of the findings you report is a direct function of the validity of your qualitative methods.

Credibility refers to the extent to which the data collected accurately reflect the views of the participants, or whether the findings hold true. One way evaluators establish credibility is by having participants validate these findings, or what is also known as a "member check".

Transferability refers to the extent to which findings are applicable to other populations and settings. For example, could the lessons learned from focus group findings with newly recruited soldiers in Oklahoma be applied to newly recruited sailors in Illinois? One evaluation tactic used to establish such transferability would be to provide detailed descriptions of contextual information about participants and the setting of the evaluation.

Dependability refers to the extent to which data collection and analysis processes are repeatable. One way to establish dependability is to maintain audit trails, or document all aspects of the evaluation process.

Finally, confirmability is the extent to which data support the findings. The calculation of inter-rater agreements among multiple evaluators is a tactic that may enhance confirmability.

[Slide 36]

As with any evaluation methodology, qualitative methods are susceptible to threats to maintaining data validity. The following practices help to guard against such threats and ensure that the data are as accurate and useful as possible.

First, select participants who represent the population to which you wish to apply your findings. If the people providing your data don't have the same experiences or characteristics as the people you want to talk about, then your results will not be transferable.

Second, in general, you should focus analysis and interpretation on re-occurring themes that emerge from the data. Rare occurrences might be very interesting, but they may not reflect the experiences that are common among your participants.

Third, use the data to ground your results in reality. Qualitative data can often be expressed by summarizing themes and using key quotes to let your audience know what the participants are saying that leads the evaluator to draw a particular conclusion.

Fourth, document data collection and analysis procedures. This ensures that the procedures can be reproduced and that anyone who reviews the results will know how the data and results were derived.

Fifth, it is a good idea to check interpretations with participants to see whether the evaluator truly understands what they are trying to get across.

Finally, it is also advisable to use multiple evaluators to check for agreement on interpretations.

[Slide 37]

When qualitative and quantitative methods are used together in an evaluation effort, it is important to present them together.

- You may use a variety of means to present information, including graphs, tables, diagrams and key quotes. The important thing is that these are organized in a coherent way that allows you to effectively tell a story about the results.
- Always interpret your findings and draw conclusions, rather than simply presenting information as an end in itself.
- Support all conclusions with evidence through clear, consistent use of data; for example, use numbers and quotes to ground statements about conclusions.
- Finally, make sure to identify how the results may affect policy and/or practices within the program or beyond the program. For example, what are potential improvements that may be needed to enhance program services?

[Slide 38]

Slides 38 to 40 provide an example from Program Sierra, the hypothetical reintegration program mentioned earlier. This example shows how qualitative and quantitative data may be integrated into a final report to address the question, “Was the program implemented with fidelity?”

As you can see on slide 38, the program manager was asked to provide financial information and records of personnel categories across the past five fiscal years. As can be seen in the change column, the total program budget decreased by roughly 135 thousand dollars, or 18 percent, over those five years. The number of staff decreased in two professional categories and in the administrative category. However, the number of paraprofessional staff tripled. Paraprofessionals are generally defined as those who perform a job but who lack licensure and a professional degree like a master’s or doctorate.

[Slide 39]

On slide 39, qualitative data were collected to address the question of fidelity. Specifically, the evaluator conducted interviews with program managers and focus groups with service providers at two of the program’s four sites.

Themes identified across these interviews and focus group related to prior experience, training needs and provider-client relationships. For example, for prior experience, providers described ways in which their past professional experience or training may have related to the quality of services they and their colleagues provided. A sample quote was, “I had little formal training before coming to Program Sierra, so I had to figure it out as I went.” Example quotes are also provided for your review for the remaining two codes.

[Slide 40]

On slide 40, we integrate the quantitative and qualitative findings in a summary and provide suggested improvements that may be generated from results.

Key findings included the following:

- First, budget reductions appear to have led to gradual replacement of professionally trained providers with increasing numbers of paraprofessionals.
- Second, providers and program managers reported that limited training and experience likely reduced service quality and the ability of providers to navigate the local service systems effectively to serve their clients’ reintegration needs.

Based on these findings, the evaluator identified two primary improvements that may allow the program to operate more effectively under its current budget constraints:

- First, Program Sierra should provide regular ongoing training to all junior staff and paraprofessionals, and this training should be followed by ongoing support and quality assurance mechanisms.
- Second, more experienced personnel should be considered for mentoring or supervisory roles. Given the high staff turnover identified previously, mentoring and supervision from more experience personnel could provide incentives for staff to stay.

[Slide 41]

Lastly, as we have mentioned before, it is important to exercise caution when handling data at all stages of the evaluation process, from data collection to reporting.

- Qualitative data pose extra risks, because they are more detailed in general than

quantitative data.

- As with any data, limit access during analysis to only those who truly need to access them.
- When reporting, use pseudonyms and only general demographic information. For example, use age and rank groupings rather than a specific age or rank. Likewise, use only general information about job roles, location, and other variables to further protect participants' identities.
- Finally, always follow applicable rules, regulations and terms related to data use agreements. Failure to do so may result in fines or sanctions for a program and can have serious personal and professional consequences for individuals who participate in evaluations.

[Slide 42]

There are a number of challenges that arise when evaluators use qualitative methods in program evaluation and improvement efforts.

[Slide 43]

On slide 43, we have listed a few common challenges we have encountered frequently in our interactions with program managers and staff who conduct evaluations.

[Slide 44]

On slide 44, among the most common concerns we hear is "My staff lack the resources, such as time, training and materials, to collect and analyze qualitative data."

Regardless of the methods used, program evaluation represents an important investment in a program's future. Without program evaluation, a program will be unable to determine or demonstrate to others how well it is performing, and it will be unable to make improvements based on objective data.

Qualitative methods do not need to be overly complex or time-consuming. Some methods are conducted infrequently, such as focus groups and formal interviews; other methods are more frequent but can be accomplished with minimal time and costs, such as comment cards.

Also, program evaluation results can be used to refine a program and make it more efficient, so effort expended up front may serve to free up resources later on.

Finally, many materials and training opportunities are relatively inexpensive. They may be accessed through colleagues, universities, federal agencies, and through the resources provided at the end of this presentation.

[Slide 45]

On slide 45, "What types of qualitative data analysis software are available to support program evaluation?"

A variety of software packages may be used to facilitate qualitative data analysis, ranging from traditional word processing and spreadsheet applications to more sophisticated computer packages.

Word processors like Microsoft® Word, and spreadsheet software like Microsoft® Excel, are generally appropriate for basic qualitative analyses, such as key word searches, sorting, filtering and creating visual representations and graphs.

More advanced software packages are available for free, such as the Centers for Disease Control and Prevention EZ-Text program, or for purchase, such as Atlas.ti® or NVivo®. These programs include additional functionality that can be used to create linkages among the data based on common themes, record audio memos such as notes to remind the evaluator of important concepts, or to create network diagrams.

Choices about computer software depend upon the requirements of the data plan and the complexity of the data analyses. Software packages may make qualitative analyses easier to perform, but keep in mind that more sophisticated packages will likely require training and technical support.

[Slide 46]

On slide 46, another frequent question is, “How can I use qualitative methods to improve my program?”

Qualitative methods are incredibly useful in improving programs, because they provide rich information about participants’ experiences with program staff and its practices. These methods can assist program personnel in modifying a program to better fit the context or population. Likewise, qualitative methods are useful in identifying and overcoming challenges with respect to participation barriers, low satisfaction or poor results. They can also be used to gather feedback from staff and stakeholders about their ideas for program improvement.

The number of real-life examples in which qualitative methods have resulted in program improvements is considerable. However, we will provide only a few examples here.

For one, there are several instances in which low participation in traditional clinic-based psychological health and traumatic brain injury programs has been addressed by providing services on-site. These adaptations would not have been possible without hearing directly from service members their reasons for not participating in traditional care.

As another example, many clinical and non-clinical programs have addressed stigma by using different language to describe their target population and the needs they address. For example, the term “customer” has been used in place of “patient” in an attempt to be more empowering.

As a third and final example, qualitative methods have been used to identify barriers that are sometimes created when programs that intend to build resilience unintentionally lead service members to believe they are immune from common issues related to their service, such as depression, traumatic brain injuries and posttraumatic stress.

Now, Captain Thoumaian will provide some concluding statements.

[Slide 47]

Thank you Dr. Sawyer, Dr. Best and Ms. Aguirre.

You've heard a great deal today about qualitative data analysis and the use of mixed methods in program evaluation. We believe that qualitative methods can add a great deal to an evaluation effort in terms of adding depth and being comprehensive.

[Slide 48]

A key takeaway is that qualitative methods produce a rich source of information about how a program operates and how it affects its participants. As such, qualitative methods can be an important addition to program evaluation activities.

Second, the qualitative data analysis process involves identifying common themes or elements that can be used to address evaluation questions. Evaluators can maintain validity in the analysis process by grounding results in the data through the use of graphics, quotes, and clearly defined codes.

Finally, qualitative and quantitative methods are often complementary and have unique strengths. As we have mentioned, qualitative methods provide depth that cannot be achieved through quantitative methods alone. Quantitative methods, on the other hand, offer consistent ways to analyze programs and obtain results that can often be compared across different programs. Employing mixed methods is one of the best ways to ensure accurate results and tailored program improvements.

I hope you will continue to attend these presentations and inform your colleagues about our training opportunities. Please also consult the Program Evaluation Guide and other resource materials on the DCoE website.

Now, back to Ms. Aguirre.

[Slides 49 through 52]

Thank you, Captain Thoumaian. There is a great deal of useful information available on program evaluation. On slides 50 through 52, we provide a list of relevant references and resources that we think may be useful.

[END]