



Data Collection in Program Evaluation: How to Ensure Quality and Security

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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 fourth 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 "Data Collection in Program Evaluation: How to Ensure Quality and Security." 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 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.

[Slides 5 through 8]

If you preregistered for the webinar and want to obtain CE certificates or a certificate of attendance, you must complete the online CE post-test and the evaluation. After the webinar, please visit continuingeducation.dcri.duke.edu to complete the online CE post-test and evaluation and to download your CE certificate or certificate of attendance. The Duke Medicine website online CE post-test and evaluation will be open through March 24th, 2015, until 11:59 p.m. Eastern Time. Additional details regards continuing education can be found on slides 6, 7 and 8.

[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 10]

Our first 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 next presenter is Mr. Carter Frank. Mr. Frank is also 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 master's degrees in counseling and management information systems. He is a licensed clinical professional counselor.

[Slide 11]

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 12]

This training presentation will describe how to carry out quantitative and qualitative data collection using new and existing sources of information. In addition, it will discuss ways to ensure accuracy and security throughout the data collection process.

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

- Identify key structures and procedures needed to begin data collection
- Describe quantitative and qualitative data collection methods
- Incorporate best practices to enhance accuracy and security
- Select and implement strategies to address common data collection challenges

[Slide 13]

As seen on slide 13, Captain Thoumaian will begin with a discussion of how to initiate data collection. Dr. Sawyer will then provide an overview of how to collect data using quantitative and qualitative methods. Mr. Frank will then discuss considerations for storing and securing 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 a question-and-answer session with our presenters, and you will have an opportunity to provide anonymous feedback.

[Slide 14]

Capt. Thoumaian: Thank you, Ms. Aguirre. In this section, I will describe important processes and structures that must be in place prior to initiating data collection activities, such as high quality training and ongoing support.

[Slide 15]

Business executive Carly Fiorina once said, "The goal is to turn data into information, and information into insight." Data collection activities produce the data that program evaluators interpret to produce results, and then evaluators use those results to make improvements to programs so that they may better serve the individuals who participate in them. Because data

collection activities are the source of data, it is important that they be done right so the foundation for results is strong. Today, we hope to provide some useful information toward that end.

[Slide 16]

On slide 16, we reintroduce a figure that shows the phases and steps involved in a program evaluation. Previous webinar episodes in the 2015 Program Evaluation and Improvement series have focused on the preparation phase. Today, we transition to the execution phase of program evaluation activities by focusing on data collection. Future episodes will focus on analyzing different types of data and how to report on findings and make targeted improvements based on the results of program evaluations.

[Slide 17]

Before moving fully into data collection activities, the structures listed on slide 17 should ideally be in place.

1. First, as mentioned in the previous webinar episode, a data plan is needed to provide details about data collection, including timelines, metrics and resources.
2. Second, standard operating procedures, or SOPs, should be developed to further spell out how each specific step in the data plan will be executed.
3. Third, training in data collection activities should be carried out, and personnel should have opportunities for practice and feedback.
4. Fourth, as we will mention several times today, ongoing support and quality assurance are needed after initial training in order to maintain accuracy and data security.

[Slide 18]

The end result of the preparation phase of an evaluation effort is a data plan that forms the starting point for the execution phase. A data plan is a comprehensive written strategy for how data collection and storage will be accomplished. 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 19]

As mentioned in Episode 3 of the 2015 webinar series, a data matrix like the one shown on slide 19 can be used to specify important details about a data plan. A data matrix is basically a table representing key aspects of the data plan. You may wish to use this template to assist you in developing one or more data matrices representing each major measurement area of your data plan.

[Slide 20]

Standard operating procedures, or SOPs, may be included in a data plan as well. SOPs help to standardize how data collection is carried out, thereby resulting in less variation and fewer errors that could bias results.

In addition, SOPs are a valuable way to ensure continuity, which is especially important given the frequent staffing transitions that occur in many military settings.

The content of SOPs may include:

- Scripts or guides for data collection that explain in detail how data are to be collected
- Procedures for how to store data, such as a checklist with steps for how to enter data and ensure data security
- And also frequently asked questions and responses that personnel may be asked by superiors, including questions about data access and regulations.

Thus, SOPs are much like a seasoned staff member on which new personnel can rely for sound advice on how to collect data. The great thing is that you don't have to pay SOPs a salary or provide them with an office.

[Slide 21]

It may seem obvious that training is needed for new personnel or in implementing new procedures. However, the key features of good training are often overlooked. In the checklist on slide 21, we list several best practices for training in data collection:

- First, it is important to provide clear instructions and in some cases a script for personnel who will collect the data.
- Second, supervisors should review examples of completed data collection activities, such as measures or transcripts and provide feedback to personnel about their performance.
- Third, it is essential to practice or rehearse procedures to ensure consistency.
- Fourth, it is important to assess proficiency in data collection procedures prior to beginning an evaluation. Too often, a "once-and-done" training approach is used, which fails to ensure that training is effective and that personnel are sufficiently prepared.
- Fifth, supervisors should provide appropriate support and use quality assurance checks to monitor quality on an ongoing basis. Supervision and support can often be built into existing staff meetings and does not need to be overly burdensome. Quality assurance checks involve examining the results of data collection activities to determine whether SOPs were followed or whether scores are accurate.
- Finally, as we will describe in more detail later, make sure all personnel are aware of applicable rules and regulations and that they have up-to-date training.

[Slide 22]

To reiterate one point from the previous slide, pilot testing of procedures, or in other words practicing before they "go live" can be quite useful in identifying potential problems and working through them. That way, the procedures are smoothed out ahead of time before any official data are collected.

It is also important as part of pilot testing and quality assurance to seek feedback from both personnel and participants. If personnel are not able to adhere to SOPs, or if participants express that the procedures interfere with services, then procedures may need to be modified. Again, it is better to determine this before formally beginning data collection than after, but improvements to data collection activities can and should be made at any point in time when possible.

[Slide 23]

Lastly, ongoing support and accountability are needed to ensure data accuracy and reduce risks to data security, such as privacy violations or misuse of data.

A qualified individual, such as a program manager, should take responsibility for supervising each step in the data collection process.

Supervision should involve regular quality assurance checks and provision of feedback. The point of these checks is not to punish those who are not proficient, but rather to maintain quality and accountability.

Finally, just as program evaluation results can be used to guide program improvements, the results of quality assurance checks should be used to guide future training and support.

Now, Dr. Sawyer will describe key concepts underlying measurement in program evaluation.

[Slide 24]

Dr. Sawyer: Thank you, Captain Thoumaian. In this section, I will provide an overview of important concepts to keep in mind as you carry out quantitative and qualitative data collection efforts.

[Slide 25]

Data collection methods are chosen to match the evaluation design selected during the preparation phase, with specific methods to match each individual evaluation question. As mentioned in our previous episode, there are often multiple questions of interest. For example, an evaluation may focus on whether participants are satisfied with the program's staff and activities or the overall quality of a program's implementation.

Quantitative and qualitative methods have unique advantages and disadvantages relative to specific questions, and it is often advisable to use a mix of both types of data collection methods.

We recommend using two to three metrics for each area of interest, with varying in data collection methods and sources of information. By varying methods, you will produce a more complete picture of a program operations and effects, and you may compensate for the limitations of any one method.

Finally, it is important to note that data collection may lead to new evaluation questions, and it may be important to modify initial plans to pursue information that could be used to improve a program, so remain flexible where possible.

[Slide 26]

On slide 26 are three commonly used quantitative data collection methods. Questionnaires and learning assessments are both multi-item forms completed on paper or using a computerized format. Questionnaires ask for responses about some quality or characteristic, like quality of life or symptoms of traumatic brain injury. Learning assessments are tests or quizzes in which responses indicate the degree of learning or knowledge; they are commonly used to examine the results of training programs.

Structured screening protocols are like questionnaires delivered in an extended interview format. The interviewer gathers specific information that can be scored using a set of rules to generate quantitative data, like a diagnosis or a symptom total.

In the next several slides, I will provide additional details on how to use these common quantitative data collection methods for your program evaluation effort.

[Slide 27]

For questionnaires and learning assessments, be sure to provide standardized written and/or verbal instructions for how to complete a measure, and be prepared to answer questions as appropriate. You should not assume that people will know how to complete a form, even though they may have seen similar forms in the past.

For all data collection methods, it is important to remain neutral and avoid providing information that may bias participants' responses. Evaluators should be on guard for clues they may provide about which responses are desirable.

Also be sure to follow administration and scoring instructions exactly to ensure consistency. If no instructions are available, then develop SOPs that cover administration and scoring.

A few examples of questionnaires include the Patient Health Questionnaire Depression Scale, or PHQ-9, and the Short-Form 36 Health Survey, SF-36. These forms are used routinely in many military and non-military settings to assess depression symptoms and general health functioning, respectively. Learning assessments include many post-training quizzes or tests. For example, if you signed up for continuing education for this event, you will be asked to complete a five-item quiz.

[Slide 28]

Structured screening protocols are generally longer and more resource-intensive than questionnaires and learning assessments. They may require a clinical license and should be practiced several times before administering a live protocol, followed by supervision and feedback.

Structured screening protocols also generally require that the user follow a standardized script and use only the provided probes for follow up information. Scoring rules for structured screening protocols are provided in the administration manual.

Examples include the Clinician-Administered PTSD Scale for DSM-V, or CAPS-5. The CAPS-5 is used to diagnosis posttraumatic stress disorder in many clinical settings across the

Department of Veterans Affairs and the Department of Defense.

Another example is the Military Acute Concussion Evaluation, or MACE, which is used to assess symptoms of mild traumatic brain injuries, or mTBIs.

[Slide29]

Slide 29 illustrates the most commonly used qualitative data collection methods: Qualitative interviews involve a one-on-one discussion and may vary in their degree of structure from informal to highly scripted.

- Focus groups are group discussions organized and run by a moderator. They make use of a discussion guide or protocol to guide the interactions.
- Open-ended comments include free-response areas asking individuals to provide written information following a prompt. They are most commonly seen on feedback forms.
- Observations include a log or a description of activity as it occurs. They often include checklists and can be conducted through direct observation methods or indirect, discreet methods.
- After Action Reviews, also known as “hotwashes,” are group process reviews following an event. Their purpose is to identify strengths and opportunities for improvement.
- Case studies involve tracking someone’s progress through a process over time.

In the next several slides, I’ll say a bit more on how to use each of these qualitative methods effectively in your program evaluation effort.

[Slide 30]

Interviews are best when you need in-depth information from an individual or set of individuals with substantial experience or knowledge about a subject. They work well for sensitive and complex issues, like how to improve a program or identifying which program practices best suit individual participants’ needs.

All interviews should employ some sort of discussion guide or outline to structure the interview process. However, the degree of structure may vary depending upon the evaluation. For example, if you plan to conduct a large number of interviews, then more structure will help to ensure consistency.

Interviews should be recorded or transcribed when possible to enhance accuracy. In many cases, however, privacy or security issues may limit recording to simple notes.

Interviewers should provide active guidance to participating individuals in the form of prompts or repeating back participant information and asking for clarification. However, it is very important throughout interviews to remain neutral to allow participants to express what they really think or feel and to avoid biasing results.

Like other qualitative data collection methods, data obtained through interviews can help you understand not just what people think, but why they think the way they do.

[Slide 31]

Focus groups are a flexible discussion-based method used to explore awareness, concerns, beliefs, motivations and plans related to a particular topic.

- A moderator skilled in managing group interactions should lead the discussion.
- The group should include between 4 and 12 participants who are similar in status or rank. Especially in a military setting, it is important that high-ranking individuals not be in the room with their subordinates, so that participants can feel comfortable expressing themselves openly.
- A discussion guide should be used, and as with interviews, focus groups may vary in their degree of structure.
- The meeting room should be arranged with group members facing each other in a private setting.
- A recording method is needed, and if notes are used in place of audio or video recording, you may wish to use a note-taker so that the moderator can focus on managing group interactions.

The general structure of the focus group should be organized to bring out a robust discussion of the discussion guide topics. In order for that to happen, focus group interactions must be:

- Perceived as safe and allow for varying perspectives
- They should encourage all participants to express themselves
- And they should be free-flowing and interactive
- Finally, focus groups should preserve dignity by showing respect for diverse perspectives

As with interviews, it is often useful to conduct multiple focus groups to obtain a wide range of data.

[Slide 32]

Open-ended comments include a blank space and a prompt to provide brief written responses, most often on feedback forms. For example, we use open-ended comments in gathering feedback for this webinar series using Interactive Customer Evaluation, or ICE, cards.

Social media sites like Facebook, Twitter or blog postings may also provide open-ended comment responses. These sources are often readily available and may be representative of the opinions or concerns of service members, their families and service providers.

Prompts used to generate information may be either broad, such as “Use this space to provide comments,” or more specific, such as “Tell us how we can improve our services.”

It is important to note that evaluators have relatively little control over how many participants respond or the type of information they provide. Thus, open-ended comments should not be over-interpreted or over-generalized. You may hear only from participants with strong positive or negative opinions but not the larger group in the middle.

[Slide 33]

Observation is the most direct way to assess behavior in context—that is, what people actually do in realistic settings rather than what they say they do. Observations can be completed using direct in-person means, or they may use indirect documentation such as audio or video recording.

The key to observation is focusing on observable behaviors or conditions. For example, an observer could document how program personnel interact with participants, but he or she could not directly identify attitudes or intentions, which require additional interpretation.

A checklist may be used to standardize data collection and to reduce the amount of writing that occurs during the observation period.

Be aware of the effect of observation on those being observed. In general, people being observed will try to create a good impression, and they may be distracted by the observer's presence and even ask questions about why he or she is there.

Thus, observers should take care to remain objective and to reduce the impact that their presence has to the extent that is possible.

[Slide 34]

After Action Reviews, or AARs, are reviews conducted after an event or process. Also known as “hotwashes,” these reviews seek to identify strengths and areas for improvement.

In general, AARs should be conducted immediately after the event's completion and led by the person responsible for the event. AARs should be relatively brief, unless the event raised serious concerns.

During the AAR, make sure to provide all personnel involved with opportunities to voice their thoughts. Too often, only a few individuals speak, even though others may have valuable ideas.

Finally, summarize the review in meeting notes or a brief report. Whenever possible, action items specifying how the event will be improved and who is responsible should be generated.

AARs are highly useful in that they provide opportunities for personnel involved with a process to provide feedback. The downside to AARs is that the feedback is not always objective or sufficiently critical, because program personnel may not want to voice negative opinions that may reflect poorly on a colleague. However, if AARs are approached in a constructive manner, their results can be used to enhance quality.

[Slide 35]

Case studies follow a person or group over time using a detailed description of experiences. For example, a case study might examine how a service member engages with treatment and the

consequences of treatment.

At a minimum, case studies should provide coverage of the period between program entry and exit, although additional detail about a person's life before and after the program helps to provide context.

Individuals or groups chosen for case studies should be representative of that population. Even though there may be a very compelling story, it may not be the best one to show how a program works for most people. However, you may wish to consider providing several brief case studies to provide a range of stories about how diverse individuals experience the program.

Case studies in many cases will involve multiple data collection methods, such as observation and qualitative interviews to help produce a well-rounded picture of a program or the people it serves.

Case studies may be featured on program websites, in social media or in program reports as a way to explain to stakeholders and potential participants how a program works.

[Slide 36]

Regardless of whether you are using quantitative or qualitative methods to collect data, it is important to follow informed consent regulations by communicating with participants about privacy and confidentiality. Written statements should be provided prior to collecting data, and program personnel should be prepared to answer questions like those posed in the table on slide 36.

Participants will likely want to know about the following issues:

- First, how will data be collected? That is, will there be recordings, or will participants be filling out paper or electronic forms?
- Second, who else is expected to participate? Participants will likely want to know who else they will encounter during data collection, such as unit members or commanding officers, especially if the data collection effort involves discussion of sensitive information.
- Third, who will have access to the data? As above, participants will likely be concerned about sharing of any sensitive information or any data that could be linked to performance. So be clear about who can access data or how results will be communicated to others.
- Fourth, how will privacy and confidentiality be maintained? For example, will a participant ID number be used in place of a name and government ID number?
- Fifth, how will data be stored? What security precautions such as locked file cabinets or file encryption will be used? Data breaches make headlines in the news, and participants will want to know that program personnel are making every effort to protect their information from theft or misuse.
- Finally, when will data be destroyed? If paper files or electronic records will be destroyed after some mandatory storage period, make sure to let participants know.

[Slide 37]

Up until now, we have been discussing data collection in terms of new sources of information. Most program evaluation efforts will also include existing data sources. The main advantage to using existing sources is that they require minimal effort to incorporate into evaluation datasets, which increases overall efficiency.

Using existing data is likely to involve combining information from different data systems. This may entail recoding data or merging datasets electronically. It may be useful to consult someone with expertise in data management to ensure that these procedures are accomplished effectively.

Ideally, all of the data needed for your program evaluation can be placed in a single database. When incorporating existing data into this database, a key element will be matching data to individual participants or, if relevant, to intervention providers. That way, it will be possible to examine multiple outcomes in comparison to relevant characteristics of the program and target population.

Lastly, there may be useful sources of external data available to programs with the appropriate data use agreements and permissions. Accessing these sources may require some extra work in the short term but can be extremely useful in terms of linking program activities to the outcomes that are of interest to stakeholders, such as job performance and health care utilization.

[Slide 38]

As an example of the types of existing data that may be available, on slide 38, we link each major component of a program's logic model to data sources.

- For inputs, a program budget may be used to track costs
- For activities, there may be recordings or transcripts of events already in existence. Likewise, meeting minutes may be useful sources of qualitative data.
- For outputs, programs may regularly track registration or intake information that can be linked with outcomes. Similarly, satisfaction questionnaires can provide informative feedback about areas of strength and opportunities for improvement.
- For outcomes, short-term outcomes may include quiz results from trainings. Alternatively, short-term outcomes for a clinical program might include patient questionnaires about symptoms or progress that are regularly collected as part of treatment planning. Long-term outcomes might include documentation of date and reason for separation available in service-level databases.

Before I hand off the presentation to Mr. Frank to discuss data storage and security, take a few moments to consider what forms of existing data your program may already be able to access.

[Slide 39]

Mr. Frank: Thank you, Dr. Sawyer. Personally, I find the topic of data storage and security to be

fascinating, which is why I chose to pursue a master's degree in management information systems. However, for many of you, data storage and security are roughly on par with watching grass grow in winter in terms of excitement.

[Slide 40]

While data collection may not be particularly exciting, most programs are subject to stringent regulations regarding how to manage data. In addition, data storage is a critical part of the data collection process, because errors commonly occur during this step that can have a major impact on evaluation results.

As such, proper handling of data is critical to the success of program evaluation efforts, because it supports the accuracy and security of data, protects participants' privacy and confidentiality, and ensures ongoing access to program data over time.

Data storage activities do require resources that must be included in program management considerations. These resources include:

- Time, training and support from program managers, including time for quality assurance checks and feedback to program personnel.
- In addition, data storage requires media in which to place program data, such as database software, storage discs and containers for paper items. In addition, off-site secondary storage is advisable as an added measure of protection.
- Lastly, security measures are needed, such as locks, software encryption, and standard operating procedures for how to handle and maintain data.

[Slide 41]

It may be helpful to think of data collection as a series of steps beginning with the initial collection of data, followed by scoring or coding of data, then to database entry and/or filing data in a storage system. Next, quality assurance activities are conducted to determine whether entered data are in fact accurate and that SOPs have been followed. Finally, data must be maintained over time, which may include updating software and managing any paper files.

At each step in this process, make an effort to protect the accuracy and security of data. This includes reporting on program evaluation results to stakeholders, which will be discussed in a future episode in the series.

[Slide 42]

Database entry in this era is almost entirely electronic, even though paper forms like questionnaires or feedback forms may be used initially to collect data. So, the question is, how will you transfer the information from data collection media to storage media?

Electronic storage may be accomplished using database programs such as Microsoft® Excel or Access, or IBM's Statistical Package for the Social Sciences, known as SPSS.

These programs vary greatly in their functions, such as the ability to validate data or limit the range of responses, and the ability to conduct statistical analyses. In addition, it is important to

consider compatibility with other programs. For example, data may be stored in Microsoft® Access but analyzed using a specialized program for quantitative or qualitative analyses, so it is important that the database be set up in a way that supports other applications.

Specialized training may be needed to operate these programs. Formal training programs may be available through your service branch or employer; in addition, there are often useful “how to” materials available on-line or embedded within the program’s help features.

[Slide 43]

On slide 43, we present a simple example of a Microsoft Excel database for a training program. From left to right, the database contains information about the following:

- In Column A, there is a participant identification number used in place of a participant name or government ID number. This is a security measure used to protect privacy and confidentiality. However, if participant ID numbers are used for a program that involves repeated attendance, then there must be a mechanism to match data collected in the future to that same participant, such as a cross-walk table.
- In Columns B through F, participant data include service branch, duty status, rank, sex and age. The available values for each of these can be programmed to make data entry easier and reduce errors. For example, for rank you should limit responses only to possible ranks. Nonexistent ranks like an E15 should not be listed, since there are only nine grades, or levels, for enlisted personnel.
- Columns G and H contain information about the training presentation – the date it was delivered and the primary person responsible for delivering the content.
- Columns I and J contain information from learning assessments conducted before and after the training session. You could also add a column reflecting changes from pre- to post-test to calculate an average for how much learning occurred.
- Columns K and L are based on satisfaction questionnaires handed out after events, or they could be drawn from an electronic form like the Interactive Customer Evaluation card we use for this webinar series. The key thing to note here is that the database contains both quantitative data for satisfaction – a numerical rating – and qualitative open-ended comment responses.

Your own database should be customized according to the specific nature of your program and the purpose of your evaluation.

[Slide 44]

As with any procedure performed in the course of your professional duties, you should be aware of applicable rules and regulations for collecting and handling data during program evaluations. These rules and regulations will depend on the type of data and standards for the organization or service branch in which you work.

Examples of commonly applicable regulations may include:

- The Health Insurance Portability and Accountability Act, known as HIPAA

- Defense Department regulations such as those governing transmission of information at various security levels
- Informed consent and debriefing requirements that involve providing information about privacy and confidentiality to participants
- Duties to warn or inform authorities in the case of child abuse or imminent risk to self or others
- And finally, ethical guidelines such as those of the American Medical Association or American Psychological Association, which govern the conduct of medical and mental health services, respectively.

[Slide 45]

On slide 45, to expand briefly on the previous slide, any sensitive information should be stored and maintained in a way that protects participants' privacy and confidentiality. Many programs are subject to HIPAA regulations, which are referenced in the slides at the end of this presentation. HIPAA regulations apply to many sites and have specific rules governing how Personal Identifiable Information and Protected Health Information, known as PII and PHI, are handled. Respectively, PII and PHI refer to information that can be used to identify a program participant and information about a program participant's health status.

Inappropriate disclosure of PII and PHI can have serious consequences for a program, including fines and, for serious violations, possible elimination of a program. In addition, inappropriate disclosure can have repercussions for participants, including impacts on their careers, relationships and quality of life.

[Slide 46]

Slides 46 and 47 contain a list of ten best practices based on available research that you should consider when taking steps to protect participants privacy and confidentiality. Note that if your evaluation collects data from others, such as service providers or program stakeholders, many of these practices apply to protecting their interests as well.

- First, don't collect data you don't need. Extra information simply increases the risk for data breaches and creates additional burden on program resources.
- Second, only disclose data on a "need to know" basis. Data access should be limited. Also restrict or limit personnel from taking data off-site, whether in paper or electronic form.
- Third, if you do transfer data, make sure to use safeguards such as encryption software, password protection or a lockbox. At your program site, be sure to lock file cabinets and computers when not in use.
- Fourth, include policies for data collection and storage in SOPs so that all personnel know what is expected of them, and make sure that everyone actually reads and understands the SOPs.

- Fifth, conduct training and quality assurance checks on an ongoing basis. This will help to assess whether data are accurate and also whether security procedures are being followed.

[Slide 47]

Continuing on slide 47:

- Sixth, obtain consent from participants and approvals from institutional review boards and chain of command. Basically, you must inform relevant parties about what data you will be collecting and how you will use data.
- Seventh, destroy data after any mandatory storage period. If there is no reason to keep data, dispose of it appropriately.
- Eighth, it may be possible to de-identify data so that parties who do not need identifying information do not have access to it. This may be accomplished by using random ID numbers and separating identifying information from other data.
- Ninth, it may be possible to use anonymous data in some rare cases, such as with feedback forms. However, making data anonymous makes it nearly impossible to gather data from the same participant at multiple points in time.
- Finally, tenth, pilot test procedures before the formal data collection period. Well-rehearsed procedures are less likely to result in errors and inconsistencies.

[Slide 48]

There are a number of challenges that arise when conducting data collection activities. In this section, we discuss possible ways to address some of the most common concerns we have heard in our work with program managers while carrying out evaluations.

[Slide 49]

In the next several slides, we have prepared a brief FAQ on common challenges based on questions we have received as part of DCoE's program evaluation effort.

[Slide 50]

On slide 50, "What is the best way to carry out training for data collection?" A take-home message for training on data collection activities and any other area is that a brief once-and-done training effort is unlikely to be effective. Good training takes time and effort at the outset of data collection but increases efficiency and reduces errors in the long run, making it a good investment of program resources.

Best practices for training include:

- Having reference materials like a data collection manual or SOPs available
- Practicing data collection activities using role-plays and other techniques

- Gathering information on data collection proficiency and performance, and providing feedback to program personnel
- Providing ongoing support and consultation
- And using quality assurance checks

You can evaluate your training effort in several areas, such as measure administration, scoring or coding of data, accuracy of database entry procedures, data analysis and database maintenance.

[Slide 51]

On slide 51, another common concern we hear is, “How do I handle intense emotional responses that may occur during data collection?”

Data collection may draw out emotional responses and sensitive information from participants, including statements about their medical and psychological health, thoughts about suicide or harming others, intense frustration, relationship problems, and possibly child or spousal abuse. Therefore, evaluators should be aware of risks and have a plan for dealing with them.

Having a plan in place for dealing with such statements means having SOPs and making sure all staff are effectively trained and supervised. SOPs should make clear when confidentiality should be broken, what to do in emergencies, how reports should be made, and referral resources for participants reporting concerns. The specifics of these procedures will vary greatly from setting to setting, and it is often necessary to consult with your leadership to ensure they are in line with all ethical and legal regulations.

[Slide 52]

Lastly, on slide 52, “How structured should my interview or focus group be?” The answer to this question, like so many others is, “it depends.” Specifically, the degree of structure depends on the intent of the interview or focus group and whether the evaluator wants only answers to specific questions or, alternatively, is seeking out new information and is therefore more open.

In either case, a guide should be used that contains priority questions and neutral prompts for more information, like, “Please say more on that subject.” A highly structured interview or focus group will have a guide that resembles a script, whereas a less structured guide will be more like a general outline.

In addition to questions and prompts, an interview guide may contain sample language for how to redirect wandering participants, such as re-asking the question or asking for a response from someone else. At the very least, it is a good idea to rehearse strategies for gently redirecting participants in a respectful manner.

Now Captain Thoumaian will provide concluding comments before we begin the Q-and-A.

[Slide 53]

Capt. Thoumaian: Thank you Mr. Frank, Dr. Sawyer, Ms. Aguirre.

You've heard a great deal today about data collection and ways to ensure accuracy and data security throughout the program evaluation process. Diligence during the data collection process will help to ensure the success of a program evaluation effort.

[Slide 54]

A key takeaway is that data collection forms the foundation for program evaluation results. Thus it is important to take care when gathering this valuable information.

Both quantitative and qualitative methods can help to provide a comprehensive picture of how a program operates and how it affects its participants. Different data collection methods have different strengths and weaknesses. When multiple methods are used, they produce a more complete account than any single method can produce.

Finally, training and regular quality assurance checks are needed to ensure the success of an evaluation effort. Support for data collection activities will make for more accurate and secure data while minimizing risks.

I hope you will continue to attend these training presentations and also consult the Program Evaluation Guide and other resource materials on the DCoE website.

Now back to Ms. Aguirre.

[Slides 55 through 58]

Thank you, Captain Thoumaian. There is a great deal of useful information available to programs on program evaluation. On slides 56 through 58, we provide a list of relevant references and resources that we think may be useful. These include a number of resources to help you identify specific measures and metrics relevant to your program.

[END]