Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE)

Training Effectiveness Toolkit

5 AUG 2011

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1 Preface

The Military Health System (MHS) is a complex system with the primary mission of providing for the health and readiness needs of the members of the U.S. Armed Forces and their family members. It is critical that MHS personnel receive appropriate and effective training so that they are equipped to execute mission objectives. However, in many cases the development, delivery and/or evaluation of training is a collateral duty, and the training lead may have little or no experience in this area. Given the various authorities, polices, regulations, instructions and laws that may be associated with any given training assignment, it can be daunting for training leads to know how to begin developing an effective training course. To address this challenge, DCoE developed the Training Effectiveness Toolkit to provide an overview of an adult learning model, an evidence-based model employed by both the services and civilian trainers and tools and resources that can be used to develop, deliver and evaluate training programs.

This toolkit is intended to complement existing MHS and service-level guidance, offering a practical, step-by-step process to assess training needs as well as design, develop, implement and evaluate training. It also offers several templates that can be used to facilitate this process. The toolkit is not intended to replace existing standards, instructions or regulations; rather, it is intended to be used to facilitate development of effective training programs based on adult learning theory.

2 Introduction and Background

The purpose of training and development is to equip learners with the knowledge, skills and attitudes they require to succeed. This makes training and development vital for maintaining and improving individual, unit and organizational performance. A structured and well-focused approach to training and development can provide high value for the relative cost and produce higher returns than other forms of investment (Almeida, 2008). Well-designed and implemented training and development can enhance

- Standards of quality, service and stakeholder care
- Organizational and process efficiency and effectiveness
- Individual knowledge, skills and attitudes
- Employee development, contribution, satisfaction and retention

The Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) identified the need for a resource that would support the military services' goal to align educational programs/courses with their mission, vision and goals, assist in the development of effectiveness metrics and collect data to measure impact. This document serves as a toolkit to assist training leads in the planning, development and delivery of psychological health and traumatic brain injury (TBI) training. Training leads may find this toolkit useful for

- Determining training needs and target audiences within the organization
- Creating training objectives and selecting the most appropriate training method and format
- Selecting the appropriate instructional design and technology to develop content and materials
- Assisting in the selection and assignment of experienced and respected instructors/facilitators
- Evaluating training effectiveness using the appropriate tools and techniques
- Implementing a continuous performance improvement process using evidence-based practices

2.1　How to Use This Toolkit

This toolkit may be used at any stage in training development from assessing the need to developing a new training or evaluating an existing training. This toolkit aims to shorten the learning curve and assist training leads, regardless of their previous formal learning and development experience, with developing and managing training. Whether the toolkit is used as a step-by-step guide or for reference, training leads should consider the importance of evaluation and metrics throughout the entire training lifecycle. The sooner an evaluation component is built into training, the easier it is for training leads to identify risks and issues, track progress towards goals, demonstrate success and communicate impact. As federal organizations transition to a results-oriented operating model, training leads must be able to demonstrate stakeholder impact or risk vulnerability to budget cuts. This toolkit includes best practices that, when followed, support a standardized and measurable approach to training design, delivery and continuous improvement through appropriate evaluation. As an organization evolves, training may need to be repeated or expanded, and this toolkit serves as a reference tool training leads can use throughout the training lifecycle.

The toolkit is based on the assess, design, develop, implement and evaluate (ADDIE) model (depicted in figure 1), which is widely used in adult learning theory. The remainder of the document offers guidance through each step of the model and provides tools and templates that support a consistent approach to training implementation.

Figure 1 - ADDIE Model Process Diagram

Assess	Design	Develop	Implement	Evaluate
Complete Needs Analysis	**Determine Scope and Strategy**	**Develop Course Materials, Develop and Conduct Instructor Training**	**Conduct Pilot Training Sessions and Conduct Training Sessions**	**Measure and Maintain Training Course**
Key Activities: • Conduct needs assessment • Determine required training resources • Develop training budget **Inputs:** • Performance requirements **Outputs:** • Training needs assessment • Training staff requisitions • Training budget	**Key Activities:** • Define training scope • Develop training strategy • Develop high-level course design • Define performance measures **Inputs:** • Training needs assessment **Outputs:** • Training plan • High-level design document • Performance measures • Data collection plan	**Key Activities:** • Develop course materials • Build course outline • Create training implementation schedule • Conduct instructor training **Inputs:** • Training plan • High-level design document **Outputs:** • Course outline • Course materials • Training implementation schedule • Trained instructors	**Key Activities:** • Conduct pilot training sessions (if needed) • Conduct training sessions **Inputs:** • Training plan • Training implementation schedule • Presentation and associated course materials **Outputs:** • Trained personnel • Participant/instructor feedback	**Key Activities:** • Establish ongoing course maintenance and subsequent training responsibilities • Review metrics and create a performance report • Distribute, collect and analyze course evaluations **Inputs:** • Performance measures • Data collection plan • Participant feedback **Outputs:** • Course feedback • Training maintenance plan • Summary evaluation report

3   Assess

The main objective of the assess phase is to analyze needs, gaps and potential solution options in alignment with the intended curriculum for the organization. This process is fluid and constantly shifting as operational needs change. Collaboration between training leads and other leaders within the organization is critical when identifying, articulating and prioritizing the learning strategy as well as identifying relevant existing learning assets and expertise. The assess phase also includes a needs assessment that helps training leads identify the knowledge and skill gaps that exist between what the intended audience knows and what they need to know and be able to do as a result of the training. The audience demographics and needs should be considered in relationship to the organization's mission, goals and priorities when determining the overall scope of the training effort.

The assess phase is broken into three sections:

- Conduct needs assessment: Perform a high-level assessment of performance requirements, current competencies and the training needs to bridge the gaps
- Determine required resources: Identify target audience(s), assemble training team and develop training budget to design training
- Develop training budget: Develop cost estimates for managing the training from inception to evaluation

Assess

Complete Needs Analysis

Key Activities:
- Conduct needs assessment
- Determine required training resources
- Develop training budget

Inputs:
- Performance requirements

Outputs:
- Training needs assessment
- Training staff requisitions
- Training budget

3.1   Conduct Needs Assessment

Training needs assessments will help identify and assess the knowledge, skills and attitudes that are required to maximize performance and achieve the organization's goals and objectives. It will support training leads' efforts to

- Determine whether there is a need for a particular training and then prioritize its development
- Provide evidence of identified problems or gaps between performance requirements and current capabilities
- Provide a baseline or context in which to evaluate or judge the effects of the training
- Determine the environment or context in which the training will take place. This includes software (such as content, methods and media) and hardware (such as facilities).

Often needs assessments are conducted by leadership rather than at the training lead level. If this is the case, training leads should request information pertaining to the needs assessment in order to determine the appropriate scope and strategy for the training.

For these reasons, a needs assessment is the foundation on which training is built. Needs assessments can look and feel different depending on the unique nature, structure and goals of an organization. Conducting a training needs assessment is a critical step in developing a curriculum that will effectively bridge any gaps between the knowledge, skills and attitudes that learners currently possess and what they require to perform their jobs. Training needs assessments are best conducted before the curriculum is scoped, designed or delivered. Involving the organization and obtaining approval at key decisions points throughout this phase is critical to avoid wasting

time and effort producing material that will not be useful later. The training needs assessment and target audience analysis drive the development of the training strategy, design of training solutions and implementation of the training. Figure 2 depicts the process used to complete a needs assessment. An example of a training needs assessment is included in section 8.1.

Figure 2 - Training Needs Assessment Activities

The output of the needs assessment is a clear outline describing the training needs of learners, based on the gap between performance requirements and current capabilities.

3.1.1 Determine Performance Requirements

First, performance requirements are determined by assessing the competencies required to perform a given set of work activities and the desired level of proficiency. In order to form a complete picture, requirements should be collected from appropriate professional accrediting bodies (depicted in figure 3), subject matter experts and staff who perform the work and leadership who oversee the work. Any discrepancies should be resolved by validating requirements with all groups, either separately or together.

Figure 3 – Licensure or Credentialing Organization by Specialty

Specialty	Licensure or Credentialing Organization
Alcohol and Substance Abuse Counselors	• International Certification and Reciprocity Consortium http://internationalcredentialing.org/MemberBoards.asp
Audiologists	• American Board of Audiology www.americanboardofaudiology.org • American Speech-Language-Hearing Association www.asha.org
Physical Medicine and Rehabilitation Specialists	• American Board of Physical Medicine and Rehabilitation Specialists www.abpmr.org • Subspecialty in Brain Injury Medicine proposed
Brain Injury Specialists	• Academy for the Certification of Brain Injury Specialists (AACBIS) www.acbis.pro
Marriage and Family Therapists	• American Association for Marriage and Family Therapy www.aamft.org
Occupational Therapists	• National Board for Certification in Occupational Therapy www.nbcot.org
Physical Therapists	• American Board of Physical Therapy Association www.apta.org • American Board of Physical Therapy Specialties www.abpts.org

Physicians	• American Council for Continuing Medical Education www.accme.org
Psychologists	• American Psychological Association (APA) www.apa.org
Registered Nurses	• American Nurses Credentialing Center (ANCC) www.nursecredentialing.org/ContinuingEducation.aspx
Rehabilitation Counselors	• Commission on Rehabilitation Counselor Certificate CE Providers www.crccertification.com/pages/ce_providers/113.php
Social Workers	• National Association of Social Workers (NASA) Credentialing Center www.naswdc.org/credentials/ • Association of Social Worker Licensing Board www.aswb.org/
Speech-Language Pathologist	• American Speech-Language-Hearing Association www.asha.org

Determining performance requirements allows training leads to identify the individual competencies required to complete a particular task or job or to operate in a new environment. The following knowledge, skills and attitudes (KSAs) are common military healthcare requirements:

- Knowledge and skills to use medical equipment and health care technology systems (K, S)
- Knowledge and skills to use tools, technology and media (K, S)
- Detailed technical knowledge in specialty (K)
- Detailed product or service knowledge (K, A)
- Staff management and supervision skills (S)
- Adherence to established procedures (K, A)
- Regulatory or legislative requirements (K)
- Health and safety regulations (K, A)

3.1.2 Document Current Capabilities

Once requirements have been documented and validated, current capabilities are assessed. Current capabilities are the competencies individuals already possess. Again, collecting data from both staff and leaders is important to identify current capabilities. As with requirements, capabilities should also be validated. The following inputs provide evidence of current staff capabilities:

- Self-assessments
- Leader interviews
- Stakeholder interviews
- Surveys or questionnaires
- Existing performance data
- Skills tests
- Focus groups
- Job shadowing
- Feedback from social networks, blogs or listservs
- Third-party feedback

3.1.3 Identify Gaps

The last step in completing a needs assessment is to identify gaps between the current and target competency levels. Training leads should analyze performance gaps to determine whether there are

- Training requirements: Where performance gaps are caused by lack of requisite skills and knowledge that can be addressed through training
- Issues: Where performance gaps are not caused by lack of skill or knowledge

These gaps should be analyzed to determine whether training is an effective way to close the gap. For all performance gaps, consider potential non-training solutions that can be used in conjunction with or as a replacement for training to help achieve the desired impact. Issues may be addressed in a variety of ways, including changes in an incentive/reward system, amendments to service-level agreements or new policies and procedures. Training requirements can be prioritized using a weighted assessment, risk/impact analysis, cost/benefit analysis or other means to align its relative importance to achieving organizational goals.

3.2 Determine Required Training Resources

Training leads should define the resources required to execute training before its design. These resources will determine how the training should be designed, developed and implemented. The first step to defining the required training resources is to identify the demographics of the target audience by conducting a stakeholder/audience assessment. Audience characteristics will help training leads determine how many instructors are needed and the skills and qualifications they require to address the audience and topic appropriately. Figure 4 describes considerations when identifying the target audience as well as determining instructor skill profiles and number of instructors required.

Figure 4 - Activities to Identify Resources Required

Activity	Considerations
Identify target audience (through interviews, surveys or focus groups)	• Position within organization (e.g., administrative, clinical, operational) • Level or rank within organization • Responsibilities (e.g., existing, changed or new function) • Experience level • Working conditions • Organizational culture • Current capabilities • Values
Determine instructor skills profile for each course (through review of instructor resumes and feedback from previous courses taught)	• Overall level of teaching skills as well as those related to the specific delivery methods • Depth of experience in the topic and content to be taught • Familiarity with the course materials • Leaders as teachers
Determine the numbers of instructors required	• Overall duration for completion of all of the courses (e.g., four weeks after implementation of new business processes)

(through alignment of budget to planned offerings)	• Numbers of courses • Course duration and course prerequisites • Number of students • Number of locations • Preferred instructor to student ratios

Matching the target audience with the appropriate training maximizes benefits to the audience and the organization. For an effective match, information about the target audience should include consideration of the overall working environment, culture, current capabilities and values. Tailoring training to the unique characteristics of each target audience enhances the learning opportunity. For example, training could incorporate videos in which senior military personnel discuss the purpose of the class. For this role, military leaders in the same service as the training participants may be best as they share a common language.

The numbers and locations of each target audience may have a major influence on the delivery approach chosen, training resources required (including media and technology), course content, number of training sessions scheduled and/or training time. For example, when training a global audience on a process change, it may be appropriate to use an electronic learning technology. When a behavioral or cultural change is required, as may be the case with senior medical managers, training is usually more effective when conducted in a classroom with interactive and application exercises that allow participants to engage in peer-to-peer discussion and knowledge sharing. Experiential methods can be used to encourage discussion and learning from each other's real-world experiences. The required number of instructors and their skill profiles will assist training leads with developing staff requisitions to assemble the training team.

3.2.1   Assemble the Training Team

The key to delivering training that is on time, within budget and of high quality is to assemble knowledgeable staff able to manage the wide array of tasks associated with delivering successful training. Figure 5 outlines roles and responsibilities of team members who should be involved in creating and delivering successful training. Information on securing training specialists should be obtained from the appropriate personnel at the training lead's organization before designing the training.

Figure 5 - Roles and Responsibilities of the Training Team

Role	Responsibilities
Course Manager	• Develop and manage training budget, project plan and risks/issues • Procure facilities, material, equipment and systems required for presenting instruction • Provide input into training strategies • Monitor policy changes that may impact curricula or training • Evaluate course effectiveness and efficiency and provide appropriate feedback to the training development proponent

Role	Responsibilities
Instructor	- Maintain an environment conducive to learning - Stimulate and sustain learner engagement - Supervise and guide the learning process - Demonstrate mastery of and show enthusiasm for the topic - Authenticate material with experience - Maintain professionalism in the training environment - Provide appropriate feedback on learner performance - Facilitate group activities and intercede when learners have difficulty - Comply with ethical and legal standards related to training - Adjust presentation methods, use of language and group management style according to the target audience - Conduct pre- or post-training examination, if required - Review post-course evaluations and recommend changes to meet the needs of participants - As required, train staff, faculty and learners to comply with military safety regulations
Instructional Design Specialist (may also be the development technologist)	- Identify the structural elements of a training curriculum and apply the principles in the development of each element - Formulate specific learning and application objectives for each section of a curriculum - Identify, recommend and incorporate the most appropriate training methods - Create slides and/or other course materials - Consider demographics and culture of audience when preparing materials to support maximum comprehension and relevance - Arrange curriculum sequence to achieve a logical flow - Identify and incorporate the most appropriate training methods to achieve the learning objectives of each module - Design and include a variety of strategies to be implemented before, during and after the training, that promote application of new learning back on the job - Assemble the images, typography and motion graphics for electronic learning tools - Responsible for illustration, user interface and web design - Present information in a visually appealing, accessible and memorable manner
Subject Matter Expert	- Apply professional knowledge and experience to improve quality of materials development and presentation - Provide scientific or technical review of materials - Consult with instructional design specialists on storyboards to provide authoritative input into the course structure

Role	Responsibilities
Development Technologists (may also be the instructional design specialist)	• Provide input on the technologies available, their ideal uses and limitations, including costs, time and resources necessary to develop electronic learning • Select the best suite of development tools • Build the course using completed, approved storyboards
Train the Trainer (may be the course manager, instructional design specialist or both)	• Train staff and faculty to present and manage training • Engage novice trainers by jointly setting goals, objectives and expectations • Encourage novice trainers to assess their own developmental needs in the areas of training preparation, training delivery and managing group dynamics • Explain the rationale for specific trainings, including the design and sequencing of a curriculum; adjusting a curriculum for target audiences at different developmental levels; and the most appropriate uses of individual training strategies or time management • Evaluate the accuracy of the novice trainers' delivery, the quality and appropriateness of training strategies and their effectiveness in managing group dynamics

3.3 Develop Training Budget

When training leads develop courses, they must understand the organizational requirements of a training budget. Organization-specific financial guidance should be obtained from the appropriate personnel at the training lead's organization before designing the education.

While the Defense Department has a two-year budget cycle, within the military health system (MHS), military treatment facilities (MTFs) are required to develop operating plans for the work to be accomplished in the upcoming fiscal year. Chiefs of departments, services and divisions estimate the resources necessary to carry out the training components of their mission. These proposed operating budgets are then submitted for approval using service-specific approval processes. Typically, it is the commander who establishes priorities and approves the final allocation of resources.

Training leads should estimate training financial needs according to established procedures, regulations, available resources and organizational goals. Plans may also include exploration of funding sources and lower cost training delivery methods. For example, training leads who can coordinate training across multiple departments may be able to create efficiencies in the use of facilities and equipment while at the same time promoting a culture of collaboration and knowledge sharing. Similarly, older equipment at MTFs can be repurposed as training aids in simulated environments offering participants a more practical real-world experience and reducing capital costs.

When estimating costs, training leads may use one or multiple strategies to determine cost and value; using the median or mean of the values may increase accuracy. Training leads should consider the following:

- Needs assessments: Includes the identification and assessment of beneficiary needs. If the staff required to conduct the needs assessment are in-house, the amount of time spent on the assessment

divided by the cost of staff annual/hourly wages and benefits can provide a close estimate. If contractors are used, consider the actual cost of the contract for their services.

- Design and development of the training or purchase of an off-the-shelf training. Either may be prorated over the life of the training.
- Training delivery:

    o Participant and instructor materials: Includes both the up-front costs of development and production as well as the incremental cost of providing materials to each participant and instructor

    o Instructor/facilitator fees: Includes preparation and delivery time. If the instructor is in-house, the amount of time spent on the course divided by the cost of the instructor's annual/hourly wages and benefits can provide a close estimate. If contractors are used, consider the actual cost of the contract for their services.

    o Facilities: If an on-site facility is used, a portion of the rent and operational expenses can provide an estimate. If the event needs to be held off site, an estimate from the facility (e.g., hotel, conference center, or university) would be used.

    o Travel, lodging and per diem costs: As with facility costs, if the event needs to be held off site, an estimate of these costs for participants and instructors could be calculated.

- Historical costs: When available, organizational cost data can be used to define value. Typically, the last cost paid is used to estimate future costs.
- Market value: The value of products and services using published prices or vendor bids.
- Opportunity cost: This is a way to estimate the value of personnel working on the training rather than another activity.

The cost estimate should be documented in a training budget, which should be approved by the organization's leadership.

3.4 Summary

In the assess phase, training leads identify an organization's training needs by identifying the gaps between performance requirements and current capabilities. Once training needs have been agreed upon, training leads define the required resources to meet those training needs. The target audience, instructor skills and number of instructors form the basis for assembling the training team and budget. Training teams should complete the following deliverables to facilitate the assess phase:

- Needs Assessment: Performance requirements, current competencies and training needs
- Staff requisitions: Required subject matter expertise to design and deliver the courses
- Training Budget: Cost estimates to design, deliver and implement the training

It is essential that leadership approve deliverables throughout the training lifecycle so training decisions align with organizational objectives. Obtaining leadership approval at the end of each phase minimizes potentially costly changes and time wasted.

4   Design

The progression into the design phase assumes the skill gap identified in the assess phase would be best addressed (at least in part) through training or education. The main objective of the design phase is to create the training strategy and plan. In this phase, training designers will collaborate with subject matter experts, project managers, course developers, instructors and members of the target audience to design a course that meets the training needs of the organization and will establish an overall plan for developing, delivering and evaluating the training or education. Bringing the right people together early in the process allows the team to establish the foundation upon which successful training courses can be developed. Some of the initial work in the design phase will overlap with both the assess and the develop phases as the details of the design evolve.

The design phase is broken into five sections:

- Define training scope: The scope includes the type and number of courses to be developed, the purpose and the likely number of training sessions required.
- Develop training strategy: The strategy includes overall training goals as well as a detailed training plan, which defines the specific activities that will be conducted to carry out the strategy.
- Develop high-level course design: The course design includes learning objectives, key learning points, duration of each module and sequence of modules.
- Define performance measures: Measures are a way to demonstrate whether the learning objectives have been met and allow training leads to assess the training's impact on four different levels, according to Kirkpatrick's Four Levels Evaluation Model™(Kirkpatrick, 1996).
- Select data collection methods: Data must be collected as a means to measure training performance.

Design

Determine Scope and Strategy

Key Activities:
- Define training scope
- Develop training strategy
- Develop high-level course design
- Define performance measures

Inputs:
- Training needs assessment

Outputs:
- Training plan
- High-level design document
- Performance measures
- Data collection plan

4.1   Define Training Scope

Defining the training scope will guide the development of the training strategy as well as the individual courses. The training scope sets the parameters for what will and will not be included in the training. Budget, legislative or regulatory requirements, available resources, organizational goals and objectives, training requirements, timing and service doctrine may impact the training scope. Figure 6 presents a description of activities that will help training leads define the appropriate training scope. A training scope example is included in section 8.2.

Figure 6 – Training Scope Considerations

Activity	Description	Considerations
Identify the number and purpose of the courses	A course is a discrete set of learning activities/solutions. The purpose describes the training needs the course is designed to meet, based on the needs assessment. A course can consist of a single module or multiple modules, depending upon the complexity of the need.	• Needs assessment • Stakeholder/audience assessment • Training budget • Legislative or regulatory requirements
Define the type of courses	The course type may be either classroom-based training or electronic learning. The course type will determine the delivery methods available.	• Competency complexity • Number of target participants • Geographic location of participants • Participant access to computer and Internet
Estimate the number of sessions	The number of sessions indicates how many times a course will be repeated. Mandatory courses may require more sessions to provide target audiences with ample opportunity to take the course.	• Number of target participants • Number of participants that can be trained during a single session • Training approach • Participant motivation to take course (i.e. mandatory or elective) • Geographic location of participants (for local trainings) • Availability of participants • Training budget

4.2 Develop Training Strategy

The training strategy articulates the priority areas for development and the range of training and development solutions that will close the gap between existing and required competencies and skill levels. It is a key element in the successful operation of the organization since it determines how staff members are trained to fulfill their roles effectively. The training strategy lays out the desired end state or vision for the training while the training plan, described in the following subsection, provides the necessary structure and activities to achieve the desired vision.

As depicted in figure 7, the training needs assessment and the scope will help define the strategy for the overall training. This strategy, in turn, informs the design of training elements for the individual courses.

Figure 7 – Development of Training Elements

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│  ┌────────────────────────┐ │        │                             │
│  │  Training Needs        │ │        │      Training               │
│  │  Assessment            │ │───────▶│      Strategy               │
│  │  ┌──────────────────┐  │ │        │                             │
│  │  │  Training        │  │ │        │                             │
│  │  │  Scope           │  │ │        └──────────────┬──────────────┘
│  └──┴──────────────────┴──┘ │                       │
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TRAINING ELEMENTS		
• Training plan • High-level course design • Training environment	• Training objectives • Delivery methods • Pre-requisites	• Performance measurement • Quality assurance approach
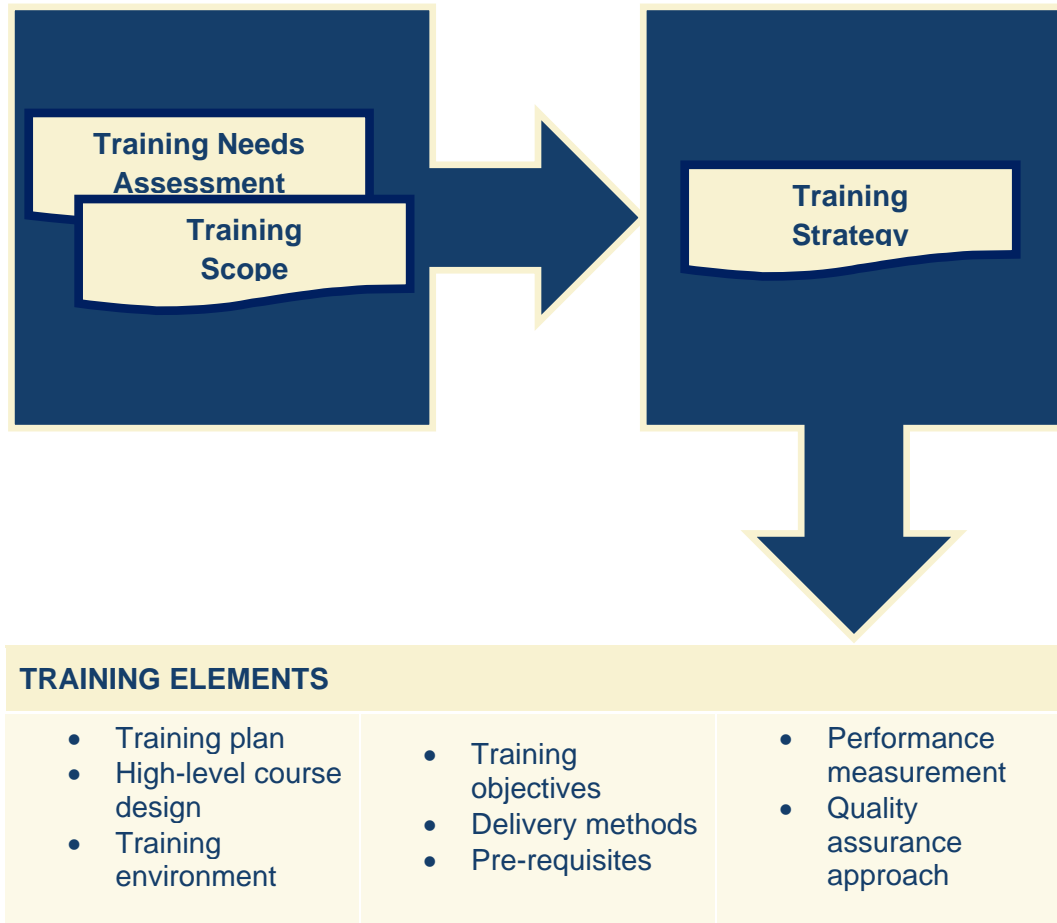
4.2.1 Develop Training Plan

The training plan documents specific activities for carrying out the training strategy. The training plan provides an overview of the

- Training scope: The scope sets the parameters for what will and will not be included in the training course or program
- Organizational training needs: The gap between performance requirements and current capabilities, which can be addressed through training (as documented in the needs assessment)
- Training methods: The specific online or classroom-based method used to facilitate learning (e.g., case study, role play, simulation)
- Training materials: The administrative, learner and instructor materials that facilitate the learning process
- Training roles and responsibilities: The roles and responsibilities necessary to carry out the training, as described in the assess phase, section 3.2.1 and figure 5
- Instructor requirements and skills: The necessary qualifications, credentials and past experience for instructors

- Course modules and descriptions: The independent components of a training course and the succinct summaries of content. If the training plan is for a single course, a high-level design plan, described in the following section, may be included.
- Training schedule: The timeline for accomplishing critical milestones and deliverables for developing and delivering training. The dates may be adjusted during the implementation schedule, described in detail in the develop phase, section 5.2.
- Training coordination and logistics: Training coordination and logistics include communications about the course (e.g., invitation, registration confirmation and reminders), facility location (or facility requirements if not secured yet) and the equipment and supplies necessary to carry out the training.
- Evaluation of the training impact: The process of determining how training has influenced a participant's job performance and how that impact translates into results for the larger targeted group
- Continuous improvement process: A process for adjusting future iterations of the course based on participant and instructor feedback
- Course change control process: A process for requesting, reviewing, approving, carrying out and controlling changes of the course content and materials

A sample training plan template is included in section 8.2 of this document.

4.2.1.1 Identify Training Standards for Developing Training

Training standards foster a predictable, efficient and dependable learning environment and facilitate the sharing and reuse of resources. Applicable DOD or service-level standards for course structure, content, materials and presentations should be reviewed and followed. Training leads may develop additional training standards for courses within their purview to maintain consistency across courses. Figure 8 describes common training standards and the considerations they may address.

Figure 8 – Considerations for Training Standards

Standard	Considerations
Content	- Style (e.g., language, text format) - Format (e.g., print/electronic, templates/stationery, binding for printed materials) - Graphical user interface/web/screen design standards (e.g., style guides, colors, font, icons) - Curriculum based on specialty scope of practice prescribed by the state of licensure or credentialing or certifying organization
Delivery	- Delivery method(s) (e.g., slides, video, audio, simulation) - Technology platform - Participant workbooks (e.g., format, style, content) - Instructor guidance (e.g., format, style, content) - Level of interactivity
eLearning	- Shareable Content Object Reference Model (SCORM) version (i.e., a collection of standards and specifications for web-based eLearning) - Learning Management System (LMS) compatibility

	• Computer-based training (CBT) authoring software (e.g., programming, macro, storyboard, data definition and storage and accessibility standards)
Evaluation	• Pre- and post-testing • Examination (e.g., type, format) • Participant feedback • Periodic chart reviews to document improvement over time

Training leads should refer to overarching Defense Department, inter-service and service-specific training regulations, directives and instructions before implementing training.

4.3 Create High-Level Course Design

The high-level course design outlines the overall structure for the training course, including the names and descriptions of modules and the details required to develop the courses. Designing courses is an iterative process. During course development, adjustments may need to be made to the sequence of course sessions, the content and the duration/timing to meet the overall training objectives. The design document includes

- Session structure and timings: The sequence of courses, including breaks (ideally each session lasts less than 90 minutes)
- Learning objectives: Use the SMART (specific, measurable, actionable, realistic and time-bound) objectives for each module, written from the learner's perspective. See figure 10.
- Key learning points: Specific content (written as statements of fact with examples or stories) to support learning
- Method of delivery: How the objectives and key learning points will be addressed (e.g., instructor-led discussion, case studies, role playing)
- Instructors: Requisite skill set of instructor or name, if known

Figure 9 is an example of a high-level design document, including the course topics, content, flow, length, instructor and instructional methods. It shows what will be taught (content) and how the instructor will teach it (through activities, discussions, lectures, etc.). The high-level design document should be modified to best fit the needs of the training lead.

Figure 9 – Excerpt of a High-level Design Document

Module Title	Time	Objectives *By the end of the session participants will be able to:*	Key Learning Points and Instructional Method Description	Content Developer/ SME	Course Designer

A **Welcome & Introduction**	10 min	• List the major areas covered in this training	• Key Points
			  – Space orientation, emergency exits, restrooms
			  – Icebreaker
			  – Introductions
			  – Agenda and objectives
			• Method: Lecture and discussion
				Clinical social worker or registered nurse with case management and training experience	Instructional designer with related military health care experience

B **Mild Traumatic Brain Injury (mTBI)**	50 min	• List symptoms of mTBI
		• Describe recommended treatments for mTBI patients
			• Key Points
			  – Concussion and mTBI basics
			  – mTBI Symptoms:
			    – Headache, insomnia, vision and hearing difficulties, fatigue, cognitive difficulties, psychological difficulties
			  – Possible treatments:
			    – Neurofeedback
			    – Cognitive behavior therapy
			    – Memory and attention exercises
			    – Medication for somatic complaints
			  – Comparisons to moderate and severe TBI
			  – Normal clinical course of mTBI
			  – Case management process
			  – Service-wide referral system
			• Method: Lecture, discussion, slides and case studies		

Break	10 min				

C **Assessments**	50 min	• Discuss case management assessments	• Key Points
			  – Service members with persistent concussion/mTBI symptoms
			  – Post-concussive symptoms
			  – Assessment domains and referral rules
			• Method: Lecture, discussion, slides and case studies		

Break	10 min				

The learning objectives and teaching methods, described in the following two sub-sections, provide the foundation for developing course modules in the develop phase. A high-level course design document is described in section 8.3.

4.3.1 Create Learning Objectives

The training needs, identified in the needs assessment conducted in the previous phase, provide the basis for writing learning objectives. Course designers create learning objectives to define what learners will be able to do as the result of the training. Specifically, learning objectives

- Document the intended training impact on individual performance
- Document the knowledge, skills and attitudes that participants will acquire as the result of the training
- Guide the design, development and delivery of the training
- Enable stakeholders to prioritize participant invitations, if necessary
- Provide potential learners with information necessary to decide whether an elective course would advance their knowledge or skills

The SMART framework guides the development of measurable learning objectives. Well-defined, prioritized SMART objectives include action verbs, such as "list," "describe" or "evaluate," and characterize a desired outcome. Avoidance of vague verbs such as "understand," "appreciate" or "promote awareness" reduce variations in instructor and learner interpretation.

Figure 10 – SMART Framework

S (Specific)	M (Measurable)	A (Actionable)	R (Realistic)	T (Time-Bound)
• Detailed, well-defined • Do the objectives specify what the program needs to achieve?	• Numeric, observable • Can you measure whether the program is meeting course objectives?	• Achievable, appropriate • Are the objectives set achievable and attainable?	• Relevant, reality-based • Can the objectives be met with the available resources?	• Defined end point • By when do you want to achieve the set objectives?

Figures 11 and 12 provide examples of SMART learning objectives associated with the knowledge, skill and attitude competencies for a family medicine residency program that trains doctoral residents in basic psychological health and traumatic brain injury, respectively. See section 3.1.1 in the assess phase that describes KSAs in greater detail.

Figure 11 – KSA Examples for Psychological Health Course

Competencies	Learning Objective
Knowledge: Demonstrate understanding of the *Diagnostic and Statistical Manual of Mental Disorders*	By the end of the two-year course, the resident will be able to diagnose clients correctly based on the DSM-IV criteria.

Skill: *Assess clients with the mental status examination tool*	By the end of the first rotation, the resident will be able to correctly administer and score the mental status examination.
Attitudes: *Awareness of stigma (from self and others)*	By the end of the two-year course, the resident will demonstrate respect for the patients' dignity and privacy and show sensitivity in the delivery of behavioral health care.

Figure 12 – KSA Examples for Traumatic Brain Injury Course

Competencies	Learning Objective
Knowledge: *Demonstrate understanding of TBI etiology and sequelae*	By the end of the course, participants will be able to describe the • Anatomy of the scalp, skull and brain • Physiology of cerebral perfusion and intracranial pressure • Intracranial consequences of a head injury (e.g., extradural, subdural, intracerebral hematoma, diffuse axonal injury, post concussion syndrome) • National Institute for Health and Clinical Excellence (NICE) (www.nice.org.uk) and Scottish Intercollegiate Guidelines Network (SIGN) (www.sign.ac.uk) guidelines
Skill: *Assess the head-injured patient using history, examination and appropriate investigation*	By the end of the course, participants will be able to • Stratify patients with brain injury • Identify patients who need computerized tomography (CT) or other radiology • Identify patients who need neurosurgical referral
Attitudes: *Possess the necessary beliefs and values to collaborate with multidisciplinary teams and across hospital departments*	By the end of the rotation, residents will work effectively with critical care neurosurgery and emergency department personnel in the treatment of those with severe brain injuries as evidenced by positive feedback on team building activities from clinical course evaluations.

4.3.2 Select Teaching Methods

In order to select the best teaching method for the training, course designers should first determine whether the course should be conducted online or in-person. Traditional classroom teaching methods offer learners an opportunity for personal interaction and direct application of the new material but may have significant logistical challenges. On the other hand, teaching methods that involve computers such as internet-based and virtual classroom technologies permit wide learner access, especially for those who are geographically dispersed or in remote locations (e.g., deployed service members). However, online training may restrict learners' real-time interaction and can tempt learners to multitask. Figure 13 contains several factors course designers should consider when determining whether online or classroom training is more appropriate and cost effective.

Figure 13 – How to Select Teaching Methods

Considerations	Description
Audience characteristics	Learner characteristics that might impact the method selected include flexibility, self-efficacy, motivation and sense of team. If large numbers of geographically dispersed individuals require training, web-based training is likely the most cost-efficient delivery method.
Availability and access to facilities and technologies	The number and geographic location of participants determine the size of the facility or necessary bandwidth of learning technology.
Availability, effort and cost of skilled instructors	The more certifications, education and experience instructors require, the more difficult it can be to secure their services if they are not on staff already. If the existing pool of trainers is small, this may impact whether online or classroom training is most appropriate. If new instructors need to be hired or trained for the classroom, time to train the trainer must be considered.
Complexity of learning	Complex training, which requires greater participant attention and comprehension, may be best delivered in a traditional classroom environment to allow participants to ask questions. Basic training can often be delivered effectively in a web-based environment.
Course development time	Figure 15 indicates approximately how much time it takes to develop training based on the delivery method, which may influence the selection of online or classroom based training.
Frequency/number of sessions	The marginal costs for each additional session can be significantly lower for online courses.
Interactivity or networking preferences	In-person training allows participants to network with one another and has the potential to be more interactive.

Once the decision has been made to conduct training in person or online, course designers must select the specific training delivery method. The teaching method selected should be based on the identified learning objectives. For example, if a learning objective aims for learners to demonstrate a clinical procedure, teaching and evaluation through simulation may be ideal. Figure 14 below highlights some common teaching methods and their respective features. This information, when coupled with the training's learning objectives, can prepare training leads to develop the course.

Figure 14 – Common Teaching Methods

Teaching Method	Type of Competency	Features
Case study	Knowledge or Attitudes	Participants practice problem-solving with relevant examples. Participants demonstrate high-level cognitive skills (e.g., evaluation, analysis) and form arguments and counterarguments.
Coaching	Knowledge, Skills or Attitudes	Participants apply knowledge on the job, unlock participant potential, increase knowledge sharing and reinforce other training methods.
Discussion	Knowledge or Attitudes	Participants evaluate two or more positions on an issue, practice critical thinking, draw on learner knowledge and expertise, form arguments and defend positions. Some discussions consist of an expert panel, which allows learners to understand discipline nuances and areas of debate, relate knowledge to real-world examples and listen to different opinions on a topic.
Labs	Knowledge, Skills or Attitudes	Participants receive and respond to immediate feedback, develop process skills, practice physical or manual skills and evaluate results of own work.
Lecture	Knowledge or Attitudes	Conveys information to supplement reading or self-study, responds to learner misconceptions or difficulties and stimulates interest in a new area.
Online learning	Knowledge or Attitudes	Allows geographically dispersed participants to learn, often at their own pace, through online technologies or delivery methods (e.g., webinars, podcasts, and videos).
Simulation	Knowledge, Skills or Attitudes	Demonstrates in person or via technology the application of a participant's knowledge to different scenarios (laboratory setting or role plays). A clinical setting (real or simulated) would be required for a subject matter expert (SME) to facilitate the exercise and give feedback.
Small group activities	Knowledge, Skills or Attitudes	Provides hands-on skill building and problem-solving. Participants are divided into small groups and assigned a timed task to complete as a team. The output of these activities will be shared with the larger group and used as input to the next segment of the module.
Role play	Knowledge, Skills or Attitudes	Provides a simulated experience in the situation being acted out. Gives opportunities for participants to develop solutions to unpredictable situations and conditions.

Because each method has distinct advantages and challenges, when feasible, a combination of methods yields the greatest benefit for adult learners. Instructors for clinical subject matters often begin teaching with lecture and discussion, then followed by case study, labs, coaching and/or team-based problem-solving. For

continuing medical education, expert panel discussions are an appropriate way to present new techniques or a change in practice.

Generally accepted guidelines exist for estimating the level of effort required to develop every hour of presentation-ready training. These guidelines vary by training approach used and are provided in figure 15 as a ratio of hours of development to one hour of delivered training. *These guidelines assume the course developer has experience in the topic and in building training courses using the relevant methods.*

Figure 15 – Development Level of Effort

Medium/delivery approach	Development ratio*
Instructor-led training	30-60 : 1
Paper-based training	30-60 : 1
Video tape	60-80 : 1
Computer-based referencing	60-80 : 1
Computer-based training	200-500 : 1
Interactive video disc	500-800 : 1
Digital video interactive	500-800 : 1
Compact disc	500-800 : 1
• For one hour of instructor-led training course delivery, 30-60 hours of training course development is required to create all components of the course (PricewaterhouseCoopers, 2010)	

4.4   Define Training Performance Measures

Performance measures are used to determine progress toward meeting certain strategic, operational or tactical course or program objectives. Performance measures can determine the degree to which an individual module meets its learning objectives, a course meets training program objectives and whether training meets higher-level organizational goals. Performance measures may address

- Target audience and stakeholder satisfaction
- Achievement of established learning objectives
- Application of acquired knowledge, skills and attitudes to the job
- Impact on organization

Although measured at the end of a course or program, performance measures should be defined after learning objectives have been established. Developing performance measures is an iterative process. Initial performance measures may be streamlined or tweaked as courses are designed and developed. It is imperative that data sources for each measure are identified and can provide timely and accurate data. Performance measures and data collection methods, described in the following section, should be considered in tandem.

In order to effectively measure the knowledge, skills and attitudes acquired through training/education, it may be appropriate to apply multiple evaluation techniques. Kirkpatrick's training framework for evaluation (see figure 16) is a straightforward means for measuring the impact of training-specific interventions on participant

reaction, learning, behavior and outcomes. Figure 17 highlights Donald Kirkpatrick's Four Levels Evaluation Model™ and related data collection methods.

Figure 16 – Kirkpatrick's Four Levels Evaluation Model™

Kirkpatrick Level		Description	Data Collection Methods
Level 1	**Reaction**	The degree to which participants react favorably to the training.	Course evaluation forms, verbal feedback, post-training surveys, increased participants through referrals.
Level 2	**Learning**	To what degree participants acquire the intended knowledge, skills, attitudes, confidence and commitment based on their participation in a training event.	Pre- and post-training tests, performance-based skill evaluations, interviews or simulations.
Level 3	**Behavior**	To what degree participants apply what they learned during training when they return to the organization.	Observation and interviews of participants and their supervisors, chart reviews and self-assessments. Employing these methods over time will measure the degree of change and sustainability.
Level 4	**Results**	To what degree targeted outcomes occur as a result of the training event and subsequent reinforcement.	Observation, interviews and focus groups; cultural assessment; financial information; statistics.

4.5   Select Data Collection Methods

Relevant data must be collected in order to measure performance. In a data collection plan, training leads document how and when data will be collected, consolidated and reported, including whether data will be collected manually or using computer-based systems. Frequently, there are legal and ethical guidelines to consider prior to developing a data collection plan. Such guidelines include the protection of personally identifiable information, informed consent and the qualifications of test administrators and interpreters. As such, training leads must first determine what data may be collected, legally and ethically, to measure training performance.

Data may be collected before, during and at the conclusion of training and at various intervals post-training. For example, for a five-day training, a pre-test may be conducted before the training, course evaluations may be provided for each day of the training, a post-test may be conducted after the training and follow-up surveys may be distributed six months and one year after training to determine whether participants are applying the knowledge learned during the training. The timing of data collection should be built into the training implementation schedule, described in section 5.2.

To select data collection methods, consider the advantages and challenges of each as described in figure 17.

Figure 17 – Advantages and Disadvantages of Kirkpatrick's Four Levels Evaluation Model

Kirkpatrick Level	Data Collection Methods	Description	Advantages	Challenges
Level 1	Participant course evaluation forms	Participants' reactions to the instruction, which may address • Course materials • Learning environment • Instructor • Exercises/activities • Applicability to job	• Feedback gives ideas about what worked and what did not work • Applicable to all training venues/media • Identifies areas for improvement and potential solutions	• Low return rate via computer or email • Participants' evaluations may be biased (i.e., positive evaluation if participant passed examination)
Level 1	Instructor course evaluation forms	Instructor's reactions to training implementation, which may address • Content • Logic and flow or course • Exercises/activities • Instruction manual	• Seasoned instructors can compare to previous courses • Applicable to all training venues/media	• Low return rate via computer or email • Relies on instructors' perception
Level 2	Pre- and post-training tests	Measures the knowledge and skills acquired before and after the training	• Offers real-time feedback • Determines whether level (e.g., basic, intermediate) is audience appropriate • Applicable to all training venues/media • Flexible test format	• If both pre- and post-training exams are given, testing conditions for both tests should be consistent • Low return rate for optional tests
Level 2	Performance-based skill evaluations	Participants demonstrate competency by using actual equipment, materials, simulations or training aids	• Provides participants with real-time feedback • May evaluate both skills and knowledge	• Errors early in the performance sequence may affect task outcome • May require lab space or other equipment • Requires detailed curriculum (e.g., realistic scenarios and coding methods)

Kirkpatrick Level	Data Collection Methods	Description	Advantages	Challenges
Level 2	Simulation	Participants demonstrate objective using actual or model equipment in realistic situations	• Works best when embedded in controlled educational settings • Participants can make, detect and correct patient care errors without consequences	• Relatively expensive • Time and resource intensive preparation
Levels 2, 3, 4	Interviews with participants and/or supervisors	Evaluators discuss the acquisition of knowledge, change in behavior or impact on the organization due to training. Participant interviews reflect self-assessment and supervisor interviews reflect a more objective assessment.	• High response rates • Flexible format	• Relatively expensive and time consuming • Interviewer training and supervision is required • Possible interviewer bias in results
Level 3	Self-assessment survey	Participants evaluate their own mastery of the knowledge, skills and attitudes acquired through the training	• Automated survey can ease collection of self-reported practices • Option to survey participants over time to evaluate degree of change and sustainability	• May capture unbalanced data (those who are applying the training information may be more likely to self-report) • Low response rates poor may require follow up
Levels 3, 4	Chart review	Evaluators review patient data and medical records to determine if prescribed course of treatment meets the standards of care taught in training	• Exposes correctable deficiencies in patient care • Improves clinical documentation	• Training is not the only variable providers consider • Lack of documentation may have legal implications; if not documented, the law considers care was not given • Health Insurance Portability and Accountability Act (HIPAA) implications

Kirkpatrick Level	Data Collection Methods	Description	Advantages	Challenges
Levels 3, 4	Observation	Evaluators note and document participant demonstration of skills and its impact on the organization	• Observation of actual performance allows identification of problems, task steps, etc.	• Time consuming and resource intensive • Relies on observer perception
Level 4	Focus groups	Evaluators ask groups of stakeholders about their perceptions, opinions, beliefs and attitudes towards the training and its impact on the organization	• Group interaction may produce insights • Experience validated by other participants	• Less control over a group than a one-on-one interview • Lack of confidentiality discourages some from sharing • Outspoken members can lead to groupthink
Level 4	Cultural Assessment	Evaluators collect data on cultural impact due to participants' change in behavior (due to the training)	• Accurate since determination of success rests with stakeholders or management	• Difficult analysis to achieve – involves many factors

Level 4	Financial Information	Evaluators calculate return on investment in terms of financial gains, savings or outcome for the training investment	• Valuable when
			  o Training is ongoing
			  o Represents sizable investment of resources
			  o Large target audience
				• Impractical when
				  o Training is brief
				  o Small organizational investment
				  o Small target audience

Level 4	Statistics	Evaluators collect, organize and interpret data to measure training impact, noting correlations and trends	• Representative sampling is possible	• Lacks subjective findings

Ideally, training will be evaluated at multiple levels in order to determine its full impact on participants and the organization. The most common method for collecting effectiveness data is the use of course evaluations and post-training surveys. However, several factors may impact the quality of data such as the

- Types of questions: Participant or instructor assessments may include true-or-false or multiple choice questions pertaining to the entire training milieu (e.g., course administration, training methods, course materials).
- Level of question detail: Course evaluations and post-training surveys may range from a five-question general survey to a multi-page evaluation.
- Assessment of participant application: Course evaluations and post-training surveys assess how participants expect to apply the acquired KSAs and how the training impacts their work. Questions that simply assess participant satisfaction with the training facility, instructor and course only provide data on how to improve course delivery.

A more in-depth discussion of collecting and analyzing data is beyond the scope of this guide, but is addressed in DCoE's Program Effectiveness Guide.

4.6 Summary

In the design phase, the training leads determine the training scope and strategy for developing training courses. Once the scope and strategy have been established, course designers develop the high-level design document and training performance measures. Training teams should complete the following deliverables to facilitate the design phase:

- Training Plan: Specific activities for carrying out the training strategy, including learning objectives and descriptions for each module, training approach and logistics, evaluation plan, course change control procedures
- High-Level Course Design: Outlines the overall structure for the training course, including the names and descriptions of modules and the details required to develop the courses
- Performance Measures: Measures to assess progress towards achieving training objectives at a variety of levels
- Data Collection Plan: Describes how data will be collected, consolidated and reported, including the time intervals and whether data will be collected manually or using computer-based systems

These documents serve as inputs for the training development, implementation and evaluation.

5 Develop

In the develop phase, course materials and instructor training are constructed in accordance with the training plan and applicable training standards, particularly with respect to style, format and technology guidelines. The high-level course design guides the development of course materials by specifying the learning objectives, key learning points, delivery method and instructor for each module in a course.

The develop phase is divided into three sections.

Develop

Develop Course Materials, Develop and Conduct Instructor Training

Key Activities:
- Develop course materials
- Build course outline
- Create training implementation schedule
- Conduct instructor training

Inputs:
- Training plan
- High-level design document

Outputs:
- Course outline
- Course materials
- Training implementation schedule
- Trained instructors

- Develop course materials: Identify existing materials that can be leveraged, develop a course outline, acquire third-party content (if needed) and develop course materials
- Create training implementation schedule: Construct a framework that outlines how instructional activities are conducted, tests or exercises are delivered, training evaluation is conducted, and student education records are updated
- Conduct instructor training: Conduct train-the-trainer activities so instructors are knowledgeable about course content and training materials

5.1 Develop Course Materials

The assess and design phases provide the foundation for developing course materials. Building on that foundation, the training team will identify and leverage applicable materials from existing courses and develop course outlines.

Once those steps have been completed, course developers can develop administrative, learner and instructor course materials, which include presentation and supplemental materials.

5.1.1 Identify Existing Training Courses

Before developing training materials, training leads should first identify what already exists. Leveraging existing material, in whole or in part, will help avoid duplication of effort and costs. Evaluating the existing course's content, learning aids, instructors and feedback will help course developers determine whether the materials can be leveraged or adapted to meet the needs of the new course or program. Figure 19 describes the elements of existing courses training leads may leverage.

Figure 18 – Considerations When Evaluating Applicability of Existing Courses

Element	Considerations
Course activities or exercises	To determine if course activities or exercises from existing courses can be leveraged, assess • Participant/instructor feedback on activities or exercises • Whether they contribute to learning objectives of course in development • Whether the target audience is the same or if activities or/exercises can be easily adapted to the target audience
Course content	To determine if slides, speaker notes or other content can be leveraged, assess • Latest version of course content (literature searches may be conducted to determine whether the latest practice trends have been incorporated) • Permissions (if course or content was developed by a third party, the training team needs to ascertain whether material can be re-used) • Participant feedback of course content

Instructors	To determine if instructors from existing courses may be appropriate to instruct courses in development, assess the instructor's • Skill level • Familiarity with target audience • Licenses held to deliver specific training (i.e., therapeutic modalities should only be delivered by practitioners) • Feedback from participants • Availability
Learning aids	To determine if process flows, diagrams and other learning aids can be leveraged, assess • Whether the processes, procedures and similar materials are the same for the target audience • Whether they support learning objectives • Level of detail
Video segments	To determine whether video vignettes can be leveraged, assess • Video segments that may be leveraged if they apply to the same target audience

If materials will be leveraged from other courses, the training lead must determine if the material is copyrighted and obtain the rights, if required, before the material can be used. If contractor resources are required to develop or deliver training, the training lead should coordinate with the appropriate acquisitions or contracting department to generate a request for proposal. If equipment is required, the training lead should document specific requirements and work with the acquisitions or contracting office.

5.1.2 Develop a Course Outline

The course outline is a more detailed version of the high-level course design. For the outline, the course developer will validate and adjust the flow of information and activity sequence from the high-level course design. The outline provides additional content in support of each learning objective and specifies supplemental learning materials for each module (e.g., videos, audio, application exercises, case studies or role-plays). Subsequent activities may build on previous activities to reinforce learning. Employing a range of training methods and media will achieve the desired level of interactivity. Course outlines may also include the following components:

- Target audience
- Course title
- Course prerequisites or advanced preparation and where the learner can find these courses or materials
- Estimated number of sessions and their locations
- Optimum class size
- Summary of all special requirements (e.g., automation requirements, special facility/equipment needs, and audiovisual capabilities)

5.1.3 Develop Administrative, Learner and Instructor Materials

Course materials include presentations, learning aids and instructor guides can be used to facilitate and standardize the learning process. Training standards from section 4.2.1.1 should be reviewed to ensure course materials comply with service-specific training and education policies. Course materials are divided into the following categories:

- Administrative materials: Provide the necessary documentation to track course registration, participation, participant performance and feedback. They also provide a means to assess the training's efficiency and effectiveness.
- Learner materials: Help learners acquire and retain knowledge, skills and attitudes to improve their job performance
- Instructor materials: Prepare instructors to deliver training content and guide learning

More information about these types of course materials are presented in figure 19.

Figure 19 – Course Materials

Administrative Materials	Description
Accreditation and certification materials	• Each credentialing and continuing education body has its own requirements and forms required to request credit for a course
Course description and agenda	• May be two separate documents or one combined document • Describes the course content • Sets expectations for the course • Includes duration, breaks, objectives and prerequisites
Course evaluations	• Measure participant's reaction to various aspects of the training including satisfaction with content, instructors, learning environment and appropriateness of material for the target audience • Measure the achievement of learning objectives
Course registration forms	• Request participant demographic information • Confirm registrant has taken prerequisites or meets other requirements (e.g., rank, education and certification)
Invitation or course announcement or advertisement	• Announces the course and requests the presence of the recipient • Should include course objectives; target audience (if mandatory, this should be noted); location, date and time of course (may include transportation options and/or a map)

Participant records	• Records should be created and maintained in a secure environment
	• Academic records are governed by multiple regulations, laws and accreditation standards
	• Official records may include
	  – Dates of enrollment
	  – Courses taken with the units of credit or time allotted to each subject
	  – Examination results

Administrative Materials	Description
Pre- and/or post-assessment exams	• Pre- and/or post-assessment exams measure knowledge gained during the training • Measure the achievement of learning objectives
Sign In Sheet	• Participants document training attendance

Learner Materials	Description
Activities and Exercises	• Provide immediate practice opportunity for new skills • Allow instructor or facilitator to monitor transfer of learning and adjust pace • May include scenarios or real-world examples
Handouts	• Include pertinent course summaries to be used for reference during and after the course
Job Aids	• Graphics, flow charts, process flows, checklists to be used for quick reference after the course
Manuals	• Support course instruction • Provide post-course reference
Presentations	• Used to support verbal presentation • Reach visual learners
Visual aids	• Flip charts and posters to be used for posting frequently referenced training concepts
Workbooks	• Provide post-course reference

Instructor Materials	Description
Attendee list	• Allows instructor to prepare for and tailor group exercises to the number of participants
Contact list	• Lists important points of contact (e.g., training team members, computer and technology support, venue managers and dining and hotel information)
Facilitator or instructor guides	• Provide clear guidance and procedural notes on the event timing, content, delivery style and delivery methods instructors/facilitators should follow • Support consistent delivery from session to session and between different instructors • Describes equipment and supply needs • Background on a specific technical topic, guidance and questions to raise on role playing

Instructor notes	• Provide direction to the facilitator regarding
	  – Ideas, points and examples the instructor may use during content delivery
	  – Frequently asked questions and appropriate answers
	  – How to set up exercises
	  – How to de-brief exercises
	  – References for the content presented

5.2   Create Training Implementation Schedule

In order to effectively use training at multiple locations, an implementation schedule should be created to guide the implementation of the training. For trainings that apply to a single location, these details may be captured in the training plan (described in section 4.2.1). However, an implementation schedule includes the level of detail necessary for conducting a complex training, which may encompass multiple locations, courses and participant groups. The implementation schedule specifies how and when

- Training resources will be used (e.g., trainers, equipment, course materials), delivered and/or shared among numerous training locations
- Instructors will be trained
- Targeted participants will be invited and registered (including contact information or the data source for such information)
- Course materials will be produced and disseminated
- Data will be collected for evaluation purposes

The implementation schedule will vary depending on the type of training being conducted. Large-scale, classroom-based training may be implemented by geographic location or participant group, depending upon the availability of trained instructors. For electronic learning, the number of participants may be limited by the bandwidth of delivery systems and help desk support options.

The implementation schedule will also specify whether a pilot course should be conducted before training is extended to the entire target population. Pilot courses allow course developers to incorporate feedback and make adjustments as necessary, but they can also extend the implementation timeline. For additional information on conducting pilot courses, refer to section 6.1.1. Most training implementation schedules conclude once priority participants (if training is voluntary) or all participants (if training is mandatory) are trained.

5.3   Conduct Instructor Training

Once the courses have been fully developed, instructor training begins. Instructor training establishes the baseline competencies instructors must possess to effectively deliver training. Train-the-trainer instruction is an instructor training technique where an initial group of trainers is educated on the subject materials and methods, and they, in turn, train participants and the next echelon of trainers. This strategy is effective in military environments when trainers may be deployed or change stations frequently. It is also an effective technique for training large groups of people quickly.

The mix and experience of instructors will determine the depth and type of instructor training required. The content of the train-the-trainer course might include

- Overview of course content, training material and equipment operation
- Effective openings (ice breakers, overviews) and closings (summaries, answering questions)
- Techniques to manage an effective training environment
- Presentation strategies
- Time management tips
- Room preparation procedures (general room set-up, training materials and equipment)
- Approaches to encourage interaction and engage participants
- Techniques for dealing with difficult course participants or questions

Multiple techniques can be combined to deliver effective instructor training. Instructors may be trained in a group setting, through self-paced instruction or via one-on-one sessions with peer instructors. Pairing a novice trainer with an experienced trainer allows the novice trainer to receive immediate feedback and model effective instruction techniques. Instructor training should also be tailored to an individual's training experience. For example, subject matter experts with limited training experience may require additional instruction in facilitation or public speaking as part of their preparation.

When the instructor training is complete, presenters can modify their delivery based on what they learned. The implementation phase begins once all instructors have been trained and are prepared to teach participants.

5.4 Summary

The develop phase is complete once course materials have been prepared and instructors have been trained. The documents and plans developed during this phase will guide training leads in the successful implementation of the training course. These documents include

- Course Outlines: Specify additional content to support each learning objective as well as supplemental learning materials for each module (e.g., videos, audio, application exercises, case studies and role-plays)
- Course Materials: The administrative, learner and instructor materials that facilitate the learning process
- Training Implementation Schedules: Details when instructors will be trained, target participants will be invited and registered, course materials will be produced and disseminated and the course will be evaluated

These deliverables serve as inputs for the implementation and evaluation of the training.

> **Implement**

6 Implement

Previous phases have described the steps leading up to training delivery. During the implement phase, the training plan and implementation schedules are executed to train participants in accordance with learning objectives and guide the overall implementation of the course. Before training is provided to the target audience, a pilot course may be conducted to allow the training team to collect and incorporate feedback from select participants. The implement phase is characterized by one overarching task to

- Conduct training sessions: Deliver training to participants in order to equip learners with the knowledge, skills and attitudes necessary to successfully perform their jobs

6.1 Conduct Training Sessions

If all activities leading up to this point has been completed successfully, training implementation is a relatively straightforward process. Conducting training involves the following steps:

Conduct Pilot Training Sessions and Conduct Training Sessions

Key Activities:
- Conduct pilot training sessions (if needed)
- Conduct training sessions

Inputs:
- Training plan
- Training implementation schedule
- Presentation and associated course materials

Outputs:
- Trained personnel
- Participant/ Instructor feedback

- Conduct a pilot course (if required)
- Prepare for training classes
- Execute training classes
- Solicit feedback (a critical input to the evaluate phase)

The remainder of this section provides more detail around each of these steps. Once these activities are completed, training needs should be met. The evaluate phase, presented in the next section, measures the degree to which objectives have been met and establishes a process for continuous improvement.

6.1.1 Conduct Pilot Course

Pilot courses offer the opportunity for training leads to collect and incorporate feedback from instructors and select participants before training is provided to a larger audience. Pilot courses may increase training costs and extend the implementation schedule, but they can also help training leads avoid costs associated with implementing a large-scale training that is not effective.

Pilot participants should be selected strategically, balancing the need to receive feedback from key stakeholders with the utility of selecting participants who are representative of the larger audience. Selecting key stakeholders as participants builds their support and commitment to the training, whereas selecting representative participants increases the likelihood that feedback will reflect the opinions of the target audience. Before pilot participant selection is finalized, organizational leaders should review and approve the participant list. Ideally, a pilot course will allow the training team to

- Confirm the appropriateness of learning aids and exercises as learning reinforcement mechanisms
- Measure the actual time required for each module and activity
- Identify issues related to logistics, timing and flow of activities and exercises
- Detect points where material or exams may be too easy or difficult
- Confirm instructors are familiar with the course content and materials
- Address audience questions in revised content or instructor notes

Modification of the training approach and materials may be required as a result of feedback from the pilot training sessions. Incorporating participant feedback and collecting lessons learned is discussed in more detail in the evaluate phase.

6.1.2 Prepare for Training Classes

When conducting training for a single location and session, the training plan (described in section 4.2.1) will often provide the necessary information to implement classes. For multi-session, multi-location training, the training implementation schedule (described in section 5.2) guides how training resources will be deployed. Based on the guidelines in the training plan and training implementation schedule, the team will

- Select dates and locations for each training session
- Schedule instructors for each session
- Invite and register participants
- Distribute prerequisite materials (if required)
- Confirm when training items, equipment/supplies and learning materials (e.g., participant guides) will be acquired and assign staff to oversee acquisition, development and delivery

- Upload presentations and other learner aids into learning management systems (if applicable)
- Prepare data collection instruments for evaluation purposes

Once the training team has prepared for the training classes, training will be delivered to participants.

6.1.3 Deliver Training Classes

To conduct effective training, significant preparation is required. After completing the train-the-trainer sessions (described in section 5.3), instructors will be well prepared to facilitate the learning experience for participants. Instructors use presentations and associated course materials, created in the develop phase, to deliver training courses. If a pilot course was conducted, participant and instructor feedback will be addressed in the post-pilot training time period. For evaluation purposes, data will be collected according to the timeline specified in the training implementation schedule.

6.1.4 Solicit Participant/Instructor Feedback

Following training delivery, instructors distribute course evaluations to solicit participant feedback on instructor performance, training environment, training delivery method and relevance of training to the participant's job. Instructors may complete evaluation forms to collect information on the course materials from an instructor's point of view as well as use informal feedback received from participants. Analysis of this feedback and resulting modifications to course materials or the training approach is discussed in more detail in the evaluation phase. Example course evaluation forms are included in sections 8.5 and 8.6.

6.2 Summary

In the implement phase, instructors conduct pilot courses (when applicable) and make necessary adjustments based on feedback received, deliver training to the target audience and collect participant feedback. If initial pilot courses or participant feedback indicate that the training is not effective, training leads may employ further field testing or additional piloting while collecting feedback from the intended audience in order to refine the course. Implement phase outputs include

- Trained personnel: Individuals who acquired knowledge, skills or attitudes as the result of their participation in training courses
- Participant/instructor feedback: Input from course participants and instructors collected via course evaluation forms. Feedback will be analyzed in the evaluate phase to determine whether the training is effective

Once personnel are educated, training leads institute processes to operate and maintain the course or program with a focus on continuous improvement, discussed in the evaluate phase.

7   Evaluate

In the evaluate phase, data is collected to measure training performance. Collected data is analyzed and findings are incorporated into future iterations of the training. Course maintenance and subsequent training responsibilities are documented. The evaluate phase is divided into two sections:

- Evaluate training: Analyze information collected to confirm learning objectives were met and measure the degree to which longer-term benefits were achieved
- Establish maintenance procedures: Implement protocols for continuation and revision of training materials

7.1   Evaluate Training

Training can be evaluated on four different levels, according to the Kirkpatrick method depicted in section 4.4. Level-one evaluations require minimal effort but can yield valuable feedback to improve future iterations of the course. Level-two evaluations, which often consist of pre- and/or post-tests, may be required for continuing education credits. Refer to the appropriate credentialing organization or licensing body for requirements by specialty some of which are depicted in figure 3.

Analysis at levels three and four includes isolating the training impact compared with various other factors, which require a more sophisticated level of analysis. For these types of evaluations, training leads may consider consulting with an expert in statistical analysis. Sophisticated analyses can empower training leads with the information necessary to demonstrate training impact and return on investment. Training leads will collect and analyze data to evaluate the training, as described below.

Evaluate

Training Course Measurement and Maintenance

Key Activities:
- Establish ongoing course maintenance and subsequent training responsibilities
- Review metrics and create a performance report
- Distribute, collect and analyze course evaluations

Inputs:
- Performance measures
- Data collection plan
- Participant feedback

Outputs:
- Course feedback
- Training maintenance plan
- Summary evaluation report

7.1.1   Collect and Collate Data

Training data may be collected before, during and after the course. The implementation schedule describes when and how training data will be collected. At a minimum, course evaluations should be collected at the end of the course. Course evaluation templates can be utilized to conduct a level one evaluation. Additional post-training data may be collected to conduct deeper levels of evaluation, measuring learning retention, changes in participant behavior or organizational impact. Each subsequent level of evaluation requires more time and expertise to collect. Additional information on how to select data collection methods is presented in section 4.5.

7.1.2   Analyze data and assess training performance

Once data has been collected, it will be analyzed to assess training performance. The data collected provides valuable insight into how participants, their supervisors and the organization itself view the training. Course feedback is analyzed to identify
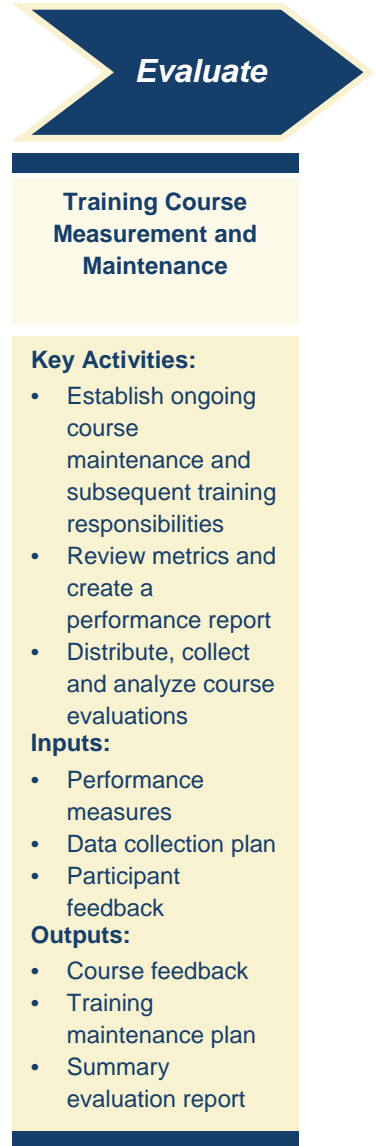
- Lessons learned
- Met and unmet objectives
- Risks and issues
- Areas for improvement
- Potential solutions
- Proposed action plans

This information is documented in a summary evaluation report, which should be provided to organizational leadership. When analyzing data to measure performance, training leads must consider whether other factors contributed to training outcomes. Although outside the scope of this document, DCoE's guidance for self-evaluating training programs describes techniques that may be used to isolate variables and measure return on investment.

7.2 Establish ongoing training course maintenance and measurement

Once training is implemented, it may be transferred to another organizational function for continued operation. If course design and development specialists were contracted or hired, they may move on to another project. Training leads must establish ongoing course maintenance and measurement processes so training can continue with minimal support staff (if necessary). Ongoing course maintenance processes govern how materials and equipment will be stored and how training content will be reviewed and refreshed. Based on the lessons learned, training leads can develop a plan for continuous improvement.

7.2.1 Define the ongoing training course or program

The ongoing course or program should address the educational requirements of new recruits and internal transfers as well as learning reinforcement for trained staff. Often, learning reinforcement is characterized by informal learning (Bear et al, 2008). Informal training is defined as learning activities that are not easily recognizable as formal training and performance support that takes place without a conventional instructor and learning that is employee-controlled in terms of breadth, depth and timing. Informal training may include online social networking, knowledge obtained through Internet or intranet searches and peer-to-peer coaching. Training courses may have a set duration followed by learning reinforcement activities or may continue to be offered at less frequent intervals after priority staff are trained. Training for new recruits, internal transfers and trained staff may use the formats depicted in figure 20.

Figure 20 – Course Materials

Training group	Training format
New recruits	Depending on the individual's background and previous work experience, training may include - On-boarding training modules - Complete training course - Peer-to-peer coaching - Reference materials

Internal transfers (includes change of station and retiree recalls)	Depending on the individual's background and previous work experience, training may include • Complete training course • Peer-to-peer coaching • Reference materials
Trained staff	• For trained staff, learning will be reinforced through informal learning. Informal learning may include online social networking, knowledge obtained through Internet or intranet searches and peer-to-peer coaching. • Trained staff may also need to take the training, in whole or in part, after a specified period of time has elapsed. Ideally for these types of training, content, format and exercises will be refreshed to keep participants engaged.

If the training was outsourced, training leads should be provided copies of all materials and supplemental course data, documents, programs, software, hardware, equipment or records at the completion of the training. Training leads should obtain formal written approval for ongoing training, and they should create and maintain ongoing course maintenance procedures.

7.2.2   Define the ongoing course content maintenance procedures

Training leads are responsible for establishing procedures for ongoing maintenance and delivery of the training and assigning personnel to manage the process. Ongoing maintenance procedures may address

- Ongoing course delivery plans and schedule
- Instructor availability
- Training new instructors to maintain a qualified resource pool
- When content will be reviewed and refreshed
- Linking individual training needs to the overall program or course to ensure the appropriate type and number of courses are available for delivery in the appropriate timeframes
- Linking specific organizational needs to the training program or course (e.g., launch of new products, services, facilities or systems)

Course materials must be reviewed and updated periodically. In health care training, literature searches may be conducted to determine if course content still reflects the most current practice guidelines. Additionally, course materials must be revised to reflect new regulatory or credentialing standards. The maintenance plan will also include guidance on developing new modules, if required.

Training leads must also determine how course materials and equipment should be stored and maintained. Course materials will likely be kept electronically in a content repository, whereas equipment may require a physical storage location if not otherwise in use. For online training, training leads should establish criteria for replacing or updating hardware and software and designate who is responsible for making such decisions.

7.2.3   Develop Continuous Improvement Plan

Ongoing course measurement procedures will be established to facilitate continuous improvement. After the evaluation of initial training and its impact, performance measures may be revised to reflect new objectives and priorities. As discussed in section 4.4, developing performance measures is an iterative process. If level three and four evaluations were not conducted previously, enough of the audience may be trained and time elapsed to do so at this time. To select data collection methods for these evaluations, refer to section 4.5.

To pursue continuous improvement, training leads should periodically evaluate whether the learning objectives, target audience and delivery methods are still appropriate given organizational changes and course feedback. Training leads should develop a continuous improvement plan to guide how and when data is collected, performance is measured and feedback is incorporated into the training.

7.3 Summary

The evaluate phase measures the course's efficacy and identifies opportunities to improve the training. Proper evaluation of training courses requires consideration of the training purpose, clear definition of performance measures and careful selection of data collection methods. Training leads should complete the following deliverables and receive approval from leadership:

- Course feedback: Provides feedback about educational activity from participants, instructors and possibly observers
- Training maintenance plan: Outline roles and responsibilities for those involved in maintaining course materials and establishes maintenance rules about revising and editing course content
- Summary evaluation report: Outlines feedback received and the degree to which performance measures are met
- Continuous improvement plan: Describes the process for continuously improving the training program or course

8   Samples

Sections 8.1 through 8.6 consist of templates that training leads can use as they assess training needs and design, develop, implement and evaluate training. Some of these templates have been completed with fictional examples to illustrate their utility to training leads.

8.1   Sample Training Needs Assessment

INTRODUCTION TO TEMPLATE

As described in section 3.1, a needs assessment will help leaders identify and assess the knowledge, skills and attitudes required to maximize performance and achieve organizational goals and objectives. To illustrate the template's utility to training leads, the template has been completed using a fictional example (see figure 21).

Figure 21 - Training Needs Assessment Activities

Background

The background describes the scenario precipitating the needs assessment. In this example, a large military regional medical center learns that over the course of the next two months, it will lose more than half of its uniformed inpatient behavioral health staff—three psychiatric technicians, two nurses, one social worker, one psychologist and one psychiatrist—for up to one year due to rapid force mobilization. Activated reservists will be arriving as backfills.

The regional medical center must ensure that the backfill staff meets all minimum performance requirements necessary to provide services in an MTF commensurate with their position, level of medical training and military rank. The training needs assessment identifies specific capabilities that will be lost upon mobilization of the individuals currently filling each billet and determines whether backfill staff is competent to provide those capabilities as it steps in to fill the gapped positions. .All backfill staff will receive standard hospital, department and workspace orientation and training required of all new staff. In order to identify which additional training courses may be necessary, the following information must be obtained:

- Minimum performance requirements by position type at the facility
- Additional services and collateral duties currently performed by deploying staff
- Training requirements for backfill staff

Determine Performance Requirements

Determining performance requirements allows training leads to identify the individual competencies required to complete a particular task or job or to operate in a new environment. In this example, the regional medical center's chief of staff directed the senior staff (the director for personnel services, director of nursing services, director of professional services and head of the behavioral health department) to document performance requirements for each position type that will need to be backfilled, summarized in figure 22.

Figure 22 – Example of Minimum Performance Requirements by Position Type

PERFORMANCE REQUIREMENT	POSITION TYPE				
	Psychiatrist	**Psychologist**	**Social Worker**	**Nurse**	**Psychiatric Technician**
Degree	MD/DO	PhD/PsyD/EdD	BA	AA	AA
Licensure and/or Certification	• Unrestricted license, any state • national board certification • Unrestricted DEA number	• Active clinical, any state • national board certification	• Active LCSW, any state	• Active RN, any state • Psychiatric or behavioral health certification	N/A
Life Support	BLS, ACLS	BLS	BLS	BLS, ACLS	EMT-I
Level/Type of Privileging and/or Competencies for behavioral (bx) health treatment (tx) at MTF	• Independent • Full core psychiatric privileges per executive committee of the medical staff (ECOMS)	• Independent • Full core psychological privileges per ECOMS	• Independent • Full core social worker (clinical and case management) per ECOMS	• Physician supervision • Core nursing competencies per executive committee of the nursing staff (ECONS)	• Physician and/or nursing supervision
Additional Behavioral Health Clinical Performance Requirements	• Proficient in evidence-based psychotherapies (EBT) for post-traumatic stress disorder (PTSD) and acute stress disorder (ASD) • Practices within 2010 VA/DoD Clinical Practice Guideline (CPG) on the management of post-traumatic stress • Practices within 2009 VA/DoD CPG on management of mTBI	• Proficient in EBT for PTSD and ASD • Practices within 2010 VA/DoD CPG on management of post-traumatic stress • Practices w/in 2009 VA/DoD CPG on management of mTBI	• Proficient in EBT for PTSD and ASD • Practices in 2010 VA/DoD CPG on management of post-traumatic stress • Practices in 2009 VA/DoD CPG on management of mTBI	• Familiar with 2010 VA/DoD CPG on management of post-traumatic stress • Familiar with 2009 VA/DoD CPG on management of mTBI	• Familiar with 2010 VA/DoD CPG on management of post-traumatic stress • Familiar with 2009 VA/DoD CPG on management of mTBI
Additional Specific Work Space (inpatient behavioral health) Performance Requirements	• Safety (harm to self or others) • Precautions or restrictions (ordering, monitoring, discontinuing) • Seclusion and restraint (ordering, monitoring,	• Safety (harm to self or others) awareness • Elopement precautions	• Safety (harm to self or others) awareness • Elopement precautions	• Safety (harm to self or others) Watch • Seclusion and restraint (execution, monitoring) • Elopement precautions	• Safety (harm to self or others) Watch • Seclusion and restraint (execution, monitoring) • Elopement precautions

PERFORMANCE REQUIREMENT	POSITION TYPE				
	Psychiatrist	**Psychologist**	**Social Worker**	**Nurse**	**Psychiatric Technician**
	discontinuing) • Life-threatening emergency management (neuroleptic malignant syndrome, alcohol withdrawal) • Elopement precautions				

Supplemental Services and Collateral Duties

The head of the behavioral health department also provides the hospital chief of staff with a list of current primary and collateral activities or services within the department that are dependent upon the individual performance or functional capabilities of deploying staff members who currently occupy the positions (see figure 23). In order to determine the future course of these activities/services, the behavioral health department head must determine whether incoming backfill staff members are

- Competent to perform the activity or service under supervision
- Not competent to perform, but they do have required credentials to become trained in time for performance period
- Not competent to perform and they do not have required credentials to become trained, or it is not possible to acquire competence via training in time for performance period

Figure 23 – Example of Supplemental Services Currently Provided by Deploying Staff

POSITION	SERVICE/COLLATERAL	# of retained BH dept staff currently providing service	# of retained BH dept staff competent to provide
Psychiatrist	Clinical and case supervision of psychiatric residents and interns	2	2
	Electroconvulsive therapy (ECT) services	0	0
	Quarterly psychopharmacology course to psychiatric and family practice residents	0	2
Psychologist	Clinical and case supervision of psychology interns	1	1
	Quarterly cognitive behavioral therapy course to psychiatric residents and psychology interns	0	1
	Weekly off-site combat and operational stress peer-support training and collaboration for senior line officers	0	?
Social Worker	Wounded warrior (W2) regiment/brigade (Medical Hold) group therapy 2x/week	0	0
Nurse A	Psychiatric nurse practitioner able to prescribe medication and provide inpatient services commensurate with core	0	0

POSITION	SERVICE/COLLATERAL	# of retained BH dept staff currently providing service	# of retained BH dept staff competent to provide
	psychiatry privileged		
Nurse B	Department training coordinator	0	2
Psych Tech 1	EMT-paramedic (responds to base emergencies)	0	0
Psych Tech 2	Hospital peer support coordinator for prior-deployed corpsmen/medics	0	0
Psych Tech 3	Psychotropic med-check rounds, W2 regiment/brigade (Medical Hold) 2x/week	0	0

Document Current Capabilities

Once requirements have been documented and validated, current capabilities are assessed. Current capabilities are the competencies the incoming individuals already possess. In this example, the hospital chief of staff and behavioral health department head coordinated with the reserve detailer and specialty leaders. As reserve personnel are identified and mobilized, a matrix of performance readiness is completed as documented in figure 24.

Figure 24 – Example of Backfill Staff Readiness

POSITION	Reservist Available?	Rank/Rate	PME up to date?	Education / Degree	Licensure / Certification	Required Life Support up to date?	Level / Type of Privileging and/or Competencies for Bx Health Tx at MTF	Additional Clinical Competencies for PTSD/ASD	Workspace (inpatient bx health) Competencies	MTF Experience?	Familiar w/ Disposition of Active Duty Patients with Behavioral Health Conditions	Prior Active Duty Service?	Deployment History?
					MINIMUM PERFORMANCE REQUIREMENTS								
Psychiatrist	Y	0-4	N	DO	Y/Y	Y, N	Y	Y	Y	Y	Y	Y	Y
	Not certified to provide ECT services.												
Psychologist	Y	0-6	Y	PhD	Y/Y	N	Y	Y	N	N	N	N	N
	Experienced PTSD researcher with VA Hospital; clinical experience treating Vietnam era PTSD												
Social Worker	N												
	Reserve social worker not available												
Nurse A	Y	0-5	N	MSN	Y/N	Y/Y	N/A	N	N	Y	N	Y	N
	ICU nurse with significant administrative experience; not psychiatric/behavioral health certified												
Nurse B	Y	0-3	Y	RN	Y/Y	Y/Y	N/A	Y	N	N	N	N	N
	Psychiatric nurse, inpatient child/adolescent ward at a university hospital												
Corpsman/	Y	E-5	Y	BS	N	Y	N/A	N	N	Y	N	Y	Y

Medic (Psych Tech 1)					EMT-P								
Available reserve medic is a radiology technician – Reserve psychiatry tech not available													
Corpsman/ Medic (Psych Tech 2)	N												
Corpsman/ Medic (Psych Tech 3)	N												

Identify Gaps

The last step in completing a needs assessment is to identify gaps between the current and target competency levels. When possible, gaps will be addressed through training. For simplification, only training needs are addressed in this example. For a more comprehensive gap analysis, all needs (e.g., policy change, new procedures and amendments to service-level agreements) should be documented.

In this example, reserve personnel are available to fill five of the eight critical billets. The top half of the training gap matrix describes how minimum performance requirements can be addressed through training. Education and degree requirements have been met for the five positions, and other minimum performance requirements can be met through training. As the minimum performance requirements for three of the billets cannot be met during the period of performance, temporary contract staff must be hired to fulfill those roles.

Unless noted in the bottom half of the table, supplemental services and collateral duties can be completed by reserve staff members without additional training. Where gaps exist, the training needs column identifies whether training will close the gaps. Training to meet minimum performance requirements is prioritized over training to address supplemental services and collateral duties. As such, collateral duties may be temporarily reassigned, and supplemental services may be temporarily discontinued.

The training gaps for both minimum performance requirements and supplemental services and collateral duties are documented in figure 25.

Figure 25 – Example of a Training Gap Matrix

GAP MATRIX		
MINIMUM PERFORMANCE REQUIREMENTS		
Position	**Gaps**	**Training Needs**
Backfill Psychiatrist	No gaps with minimum performance requirements	N/A
Backfill Psychologist	Psychologist has never worked at MTF before	Comprehensive workspace orientation and training
Backfill Nurses	Senior nurse is credentialed for ICU and general nursing but is not certified to provide psychiatric nursing	Training and plan of supervision sufficient for acquiring required minimum competency
	Senior nurse has little experience treating patients with PTSD and mTBI	VA/DoD CPG training on PTSD and mTBI
	Neither nurse has experience at MTF before	Comprehensive workspace orientation and training
Medical Technician	Medic is a radiology technician, not a psychiatry tech but has significant experience with assessment of acute TBI	Training and plan of supervision sufficient for acquiring required minimum competency

GAP MATRIX		
	Little experience treating patients with PTSD and mTBI	VA/DoD CPG training on PTSD and mTBI
	Medic has never worked at MTF before	Comprehensive workspace orientation and training
SUPPLEMENTAL SERVICES AND COLLATERAL DUTIES		
Position	**Gaps**	**Training Needs**
Backfill Psychiatrist	Not competent to provide ECT services	Competency *cannot* be addressed through training during performance period
Backfill Psychologist	Not competent to provide weekly off-site combat/operational stress peer-support training or collaboration for senior line officers	Competency *cannot* be addressed through training during performance period
Backfill Nurses	Not competent to prescribe medication or provide inpatient services commensurate with core psychiatry privileged (not nurse practitioners)	Competency *cannot* be addressed through training during performance period
	Not competent to provide psychotropic medication check rounds at W2 regiment/brigade (medical hold)	Competency may be met via training during the performance period if no alternate personnel available

8.2 Sample Training Plan

INTRODUCTION TO TEMPLATE

As described in section 4.2.1, a training plan will help define the specific activities that will be conducted to carry out the training strategy. To illustrate the utility to training leads, this template has been completed using a fictional example. Please note that this example addresses a single course provided over a six-month time period. A more complex training would require significantly more detail.

Background

The background describes the scenario precipitating the training plan.

This training plan is designed to increase awareness of mTBI in the non-deployed setting. All clinical staff at the ABC MTF must complete training on mTBI within the next six months. The ABC MTF is a 50-bed facility with multiple outpatient clinics. There are approximately 80 clinical staff members, including shift workers.

Per a service-specific surgeon general (SG) directive, within the next six months, all MTFs will implement an 80-minute lecture/case study training for all staff members. The training will focus on screening, diagnosis and management of mTBI in the non-deployed setting. The training will also include an overview of symptoms which may overlap with other common co-occurring disorders (e.g., post-traumatic stress disorder, major depressive disorder, substance use disorder). The SG also directs the primary care clinics to provide TBI educational and resource-related brochures in patient treatment and staff work areas.

An agenda and standard PowerPoint slide presentation will be provided. An optional 10-minute break is included in the training. Several slides require MTF specific updates. Sample case studies of mTBI web-based cases are provided by the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

Scope

The training scope sets parameters for what will and will not be included in the training program or course. The scope of this training is limited to a single 80-minute training to address training needs related to mTBI. All 80 clinical staff members must complete the course within six months. Additional details include

- Provider schedules must be blocked six weeks in advance
- As one third of staff is shift workers, sessions must be provided both day and night
- Approximately five sessions will be scheduled in the MTF training classroom
- Class size will range from 15 to 20 participants (training room limitation)

Organizational Training Needs

This section highlights the training needs of the organization, which can be taken directly from the needs assessment conducted in section 3.1. In this specific example, the training requirement was a mandate from the SG.

Based on an increased need due to greater numbers of mTBI seen in MTFs, all clinical staff will be trained in the following areas over the next six months:

- TBI screening procedures for use in the primary care setting, including the validated tools recommended by the Defense Department
- Information to assist with differential diagnosis of mTBI, particularly when other common co-occurring conditions are present
- Major treatment strategies for mTBI based on the DoD/VA CPG on the management of mTBI in the non-deployed setting

- Local, national and on-line resources related to mTBI, including those for families and caregivers

Training Methods

This section describes the training methods that will be utilized. Training leads can use the applicable methods column in figure 26 to indicate which methods are applicable for the training program or course. The comments column can be used to include additional information specific to each training.

Figure 26 – Example of Training Methods

Applicable Methods	Teaching Method	Features
✔	Case study	Participants practice problem-solving with relevant examples. Participants demonstrate high-level cognitive skills (e.g., evaluation, analysis) and form arguments and counterarguments.
✔	Coaching	Participants apply knowledge on the job, unlock participant potential, increase knowledge sharing and reinforce other training methods.
✔	Discussion	Participants evaluate two or more positions on an issue, practice critical thinking, draw on learner knowledge and expertise, form arguments and defend positions. Some discussions consist of an expert panel, which allows learners to understand discipline nuances and areas of debate, relate knowledge to real-world examples and listen to different opinions on a topic.
	Labs	Participants receive and respond to immediate feedback, develop process skills, practice physical or manual skills and evaluate results of own work.
✔	Lecture	Conveys information to supplement reading or self-study, responds to student misconceptions or difficulties and stimulates interest in a new area.
✔	Online learning	Allows geographically dispersed participants to learn, often at their own pace, through online technologies or delivery methods (e.g., webinars, podcasts and videos).
	Simulation	Demonstrates in person or via technology the application of participant knowledge to different scenarios (laboratory setting or role plays). A clinical setting (real or simulated) would be required for a subject matter expert (SME) to facilitate the exercise and give feedback.
	Small group activities	Provides hands-on skill building and problem-solving. Participants are divided into small groups and assigned a timed task to complete as a team. The output of these activities will be shared with the larger group and used as input to the next segment of the module.
	Role plays	Provides a simulated experience in the situation being acted out. Gives opportunities for participants to develop solutions to unpredictable situations and conditions.

Course Materials

This section describes the course materials that will be used. Training leads can use the applicable materials column in figure 27 to indicate which materials will be used for the training program or course. The comments column can be used to include additional information specific to each training or course.

Figure 27 – Example of Course Materials

Applicable Materials	Administrative Materials	Description	Comments
✔	**Accreditation/ certification materials**	• Each credentialing and continuing education body has its own requirements and forms required to request credit for a course	
✔	**Course description/ agenda**	• May be two documents or one combined document • Describes the course content • Sets expectations for the course • Includes duration, breaks, objectives, prerequisites	
✔	**Course evaluations**	• Measures participant's reaction to various aspects of the training including satisfaction with content, instructors, learning environment and appropriateness of material for learner group • Measure the achievement of learning objectives	
✔	**Course registration forms**	• Requests participant demographic information • Confirms registrant has taken prerequisites or meets other requirements (e.g., rank, education, and certification)	
✔	**Invitation or course announcement/ advertisement**	• Announces the course and requests the presence of the recipient • Should include course objectives; target audience (if mandatory, this should be noted); and location, date and time of course (may include transportation options and/or a map)	

✔	**Participant records**	• Records should be created and maintained in a secure environment
		• Academic records are governed by multiple regulations, laws and accreditation standards
		• Official records may include
		  – Dates of enrollment
		  – Courses taken, with the units of credit or time allotted to each subject
		  – Examination results	

✔	**Pre- and/or post-assessment exams**	• Pre- and/or post-assessment measures knowledge gained during the training • Measure the achievement of learning objectives	
✔	**Sign In Sheet**	• Participants document training attendance	
Applicable Materials	**Learner Materials**	**Description**	**Comments**

Applicable Materials	Administrative Materials	Description	Comments
✔	**Activities and Exercises**	• Provide immediate practice opportunity for new skills • Allow instructor/facilitator to monitor transfer of learning and adjust pace • May include scenarios or real-world examples	
✔	**Handouts**	• Include pertinent course summaries to be used for reference during and after the course	
	Job Aids	• Graphics, flow charts, process flows, and checklists to be used for quick reference after the course	
✔	**Manuals**	• Support course instruction • Provide post-course reference	
✔	**Presentations**	• Used to support verbal presentation • Reach visual learners	
✔	**Visual aids**	• Flip charts, posters to be used for posting frequently referenced training concepts	
	Workbooks	• Provide post-course reference	

Applicable Materials	Instructor Materials	Description	Comments
✔	**Attendee list**	• Allows instructor to prepare for and tailor group exercises to the number of participants	
✔	**Contact list**	• List of important points of contact (e.g., training team members, computer and technology support, venue managers, and dining and hotel information)	
✔	**Facilitator guides**	• Provide clear guidance and procedural notes on the event timing, content, delivery style and delivery methods instructors/facilitators should follow • Support consistent delivery from session to session and between different instructors • Describes equipment and supply needs • Background on a specific technical topic, guidance and questions to raise on role playing	

✔	**Instructor notes**	• Provides direction to the facilitator regarding
		  – Ideas, points and examples the instructor may use during content delivery
		  – Frequently asked questions and appropriate answers
		  – How to set up exercises
		  – How to de-brief exercises
		  – References for the content presented	

Training Roles and Responsibilities

This section identifies the specific roles and responsibilities required to deliver the training.

ABC MTF will require personnel identified in figure 28 to execute the training.

Figure 28 – Example of Training Roles, Responsibilities and Requirements

Role	Responsibility	Requirements
Training Lead (1)	• Coordinate with cadre to develop MTF-specific course material • Provide weekly status report to staff development officer-in-charge (SD OIC) • Prepare biweekly report for MTF senior leadership on status of training • Assign instructor pairs to training sessions • Document individual staff training completion in education database (may delegate)	• Ability to perform training lead role as collateral duty • Experience managing training course of program, preferred

Instructors: 6 total, 3 officer/ enlisted pairs	• One behavioral health specialist (enlisted)
	  – Assist in course development
	  – Provide training where assigned
	• One credentialed provider (family physician, internist, social worker, psychologist or psychiatrist - officer)
	  – Assist in course development
	  – Provide training where assigned
	  – Provide oversight and leadership responsibility for assigned training sessions
		• Ability to deliver a full spectrum of effective training delivery methods
		• Evidence of positive feedback from participants from previous trainings
		• Recognized expertise and understanding of subject area
		• Ability to adapt instructional methods and strategies to meet participants' diverse learning styles and skill levels
		• Ability to listen effectively, phrase questions that stimulate learning and deal effectively with diverse ideas and opinions

Course Modules and Descriptions
The following section should be used to provide an overview of course objectives, content, timeframes and instructors.

The course modules for ABC MTF's training have been defined in figure 29.

Figure 29 – Example of High-Level Course Design

Module	Time (Min)	Objectives	Overview of content & method	Instructor
1	5	Obtain baseline information on audience, set expectations	• Content: Brief introduction of instructors and students, course overview, location of emergency exits and restrooms	Behavioral health specialist or credentialed

Module	Time (Min)	Objectives	Overview of content & method	Instructor
			• <u>Method</u>: Lecture; facilitated introductions	staff member
2	10	Overview of mTBI in the military, including etiology, common symptoms, course and prognosis	• <u>Content</u>: Slides provide an overview of mTBI, including common causes in the military, most frequent symptoms reported and expected course of recovery • <u>Method</u>: Lecture/discussion; PowerPoint slide presentation	Behavioral health specialist or credentialed staff member
3	10	Present DoD instructions on screening for mTBI	• <u>Content</u>: Slides provide the most current DoD guidance on screening patients for mTBI in the primary care setting • <u>Method</u>: Lecture/discussion; PowerPoint slide presentation	Behavioral health specialist or credentialed staff member
	10	**Break**		
4	10	Present information and discuss key features of a differential diagnosis of mTBI	• <u>Content</u>: Slides provide the most current evidence-based guidance on diagnosis of mTBI, including common co-occurring conditions and information about DoD/VA clinical practice guidelines • <u>Method</u>: Lecture/discussion; PowerPoint slide presentation	Behavioral health specialist or credentialed staff member
5	10	Present information and discuss clinical practices to manage mTBI	• <u>Content</u>: Slides provide information about management strategies for mTBI in the primary care setting • <u>Method</u>: Lecture/discussion; PowerPoint slide presentation	Behavioral health specialist or credentialed staff member
6	25	Discuss mTBI case studies	• <u>Content</u>: Web-based mTBI case studies are reviewed • <u>Method</u>: Computer-based learning; small group break-out sessions	Behavioral health specialist or credentialed staff member
7	10	Post-course test Course evaluation	• <u>Content</u>: Post-course test and course evaluations • <u>Method</u>: Test	Behavioral health specialist or credentialed

Training Schedule

This section can be used to develop a timeline for developing and delivering training. The schedule also includes necessary coordination and logistics tasks (see figure 30).

The training for ABC MTF must be completed within six months. The training sessions will take place over five consecutive weeks to minimize impact to patient care and ensure all shift workers have access to a class (although they may need to attend on a day off).

Figure 30 – Example of a Training Schedule

Timeline	Activity
D - 11 weeks	• Review materials • Seek potential instructors • Select training lead and cadre • Training lead reserves MTF training room • SD OIC approves instructor selection • Block providers' schedules six weeks in advance
D - 10 weeks	• Review SG-provided material and work with instructors to customize • Training lead or designee obtains equipment (e.g., computer, LCD projector, screen, flip charts on easels and markers) • Training lead or designee obtains course materials (e.g., handouts, pamphlets on TBI resources) • Biweekly report due
D - 9 weeks	• Send 'Save the Date' message, highlighting mandatory training date options, purpose and location • Continue to review SG-provided material and customize course, identify all local resources and obtain brochures • Instructor training • Send agenda for the following week's class
D - 8 weeks	• Wednesday 8 a.m. training session 1 • Send agenda for the following week's class • Biweekly report due • Course reminder sent day before course, highlighting details from previous two messages
D - 7 weeks	• Wednesday 8 a.m. training session 2 • Send agenda for the following week's class • Course reminder sent day before course, highlighting details from previous two messages

Timeline	Activity
D - 6 weeks	- Wednesday 8 a.m. training session 3 - Send agenda for the following week's class - Biweekly report due - Course reminder sent day before course, highlighting details from previous two messages
D - 5 weeks	- Wednesday 8 a.m. training session 4 - Send agenda for following week class - Course reminder sent day before course, highlighting details from previous two messages
D - 4 weeks	- Wednesday 12 a.m. training session 5 - Send agenda for following week class - Biweekly report due - Course reminder sent day before course, highlighting details from previous two messages
D - 3 weeks	Compile information for final training report to SG, submit to SD OIC
D - 2 weeks	SD OIC submit report to MTF commander for signature and forwarding to SG

Evaluation of Training Impact

This section describes the process that will be used determine how training has influenced a participant's job performance and how that impact translates into results for the larger targeted group (see figure 31).

Figure 31 – Example of Evaluation Methods

Kirkpatrick Level		Description	Data Collection Methods
Level 1	Reaction	The degree to which participants react favorably to the training.	Participants will be asked to complete brief course evaluations to measure - Organization and visual appeal of training content - Instructor's ability to effectively demonstrate his or her command of the subject matter and engage participants - Comfort and suitability of training environment - Participant's comfort with locating local, national and on-line mTBI resources

Kirkpatrick Level		Description	Data Collection Methods
Level 2	Learning	To what degree participants acquire the intended knowledge, skills, attitudes, confidence and commitment based on their participation in a training event.	Post-course tests will be administered to demonstrate achievement of the following learning objectives: • Given a list of symptoms, identify those related mTBI, TBI and PTSD as evidenced by selection of 90 percent in the correct categories • Given a list of help seeking behaviors, identify the role of stigma as evidenced by selection of 90 percent of the correct components If participants do not pass test, one make-up exam will be provided. If participants fail make-up exam, they must retake the course.
Level 3	Behavior	To what degree participants apply what they learned during training when they return to their primary duties.	Not planned for this course.
Level 4	Results	To what degree targeted outcomes occur as a result of the training event and subsequent reinforcement.	Not planned for this course.

Continuous Improvement Process
This section documents the process for adjusting the future iterations of the course based on participant and instructor feedback.

Course evaluations will be reviewed weekly by the training lead, who will report weekly to the SD OIC.

Course Change Control Procedures
This section is the process for the requesting, reviewing approving, carrying out and controlling changes of the course content and materials

Course evaluations will be reviewed weekly to determine whether changes to the curriculum or instruction are necessary. All changes must be approved by the SD OIC.

8.3   Sample High-Level Course Design

INTRODUCTION TO TEMPLATE

As described in section 4.3, a high-level course design document describes the overall design of each training module, including the time and flow of courses and delivery method(s). The high-level design document should be modified to best fit the needs of the training lead. For example, the brief example included here delineated the name or required experience for instructors, whereas the example in this section includes the content developer and the course designer. Training leads should customize this template to best meet their needs.

High-Level Course Design Document Example – Training for TBI case manager

The following example outlines a training course based on this scenario:

In November 2010, guidance documents providing standardized mild traumatic brain injury (mTBI) case management interventions were issued to military case managers. These directives included basic mTBI information, guidelines with critical case management interventions, staffing, training and procedures related to symptoms and treatments. Figure 32 outlines a training course based on this guidance.

Figure 32 – Example of a High-Level Design Document

Module Title	Time	Objectives *By the end of the session participants will be able to:*	Key Learning Points and Instructional Method Description	Content Developer/ SME	Course Designer

A
 	
Welcome & Introduction
	10 min	• List the major areas covered in this training	• Key Points
			  – Space orientation, emergency exits, restrooms
			  – Icebreaker
			  – Introductions
			  – Agenda and objectives
			• Method: Lecture and discussion
				Clinical social worker or registered nurse with case management and training experience	Instructional designer with related military health care experience

Module Title	Time	Objectives *By the end of the session participants will be able to:*	Key Learning Points and Instructional Method Description	Content Developer/ SME	Course Designer

B
 	
Mild Traumatic Brain Injury (mTBI)
	50 min	• List symptoms of mTBI
		• Describe recommended treatments for mTBI patients
			• Key Points
			 – Concussion/mTBI basics
			 – mTBI Symptoms:
			  – Headache, insomnia, vision and hearing difficulties, fatigue, cognitive difficulties, psychological difficulties
			 – Possible treatments:
			  – Neurofeedback
			  – Cognitive behavior therapy
			  – Memory and attention exercises
			  – Medication for somatic complaints
			 – Comparisons to moderate and severe TBI
			 – Normal clinical course of mTBI
			 – Case management process
			 – Service-wide referral system
			• Method: Lecture, discussion, slides and case studies		

Break	10 min				
C **Assessments**	50 min	• Discuss case management assessments	• Key Points – Service members with persistent concussion/mTBI symptoms – Post-concussive symptoms – Assessment domains and referral rules • Method: Lecture, discussion, slides and case studies		
Break	10 min				

Module Title	Time	Objectives *By the end of the session participants will be able to:*	Key Learning Points and Instructional Method Description	Content Developer/ SME	Course Designer

D Interventions	50 min	• Summarize case management intervention and follow-up parameters	• Key Points
			  – Interventions for mTBI
			  – Interventions for comorbid conditions
			  – Key points to consider when case managing mTBI cases
			• Method: Lecture, discussion, slides and cases studies		

Break	10 min				

E Procedures	60 min	• Discuss procedures to be used by case managers when working with clients with mTBI	• Key Points:
			  – Procedures:
			    – Review medical records
			    – Communicate with chain of command
			    – Coordinate referrals
			    – Follow up at periodic intervals
			• Method: Lecture, discussion, slides and cases studies		

F Summary	15 min	• Summarize the topics covered	• Key Points
			  – Conclusion
			  – Questions and answers
			  – Participant evaluation
			    – Course evaluation
			    – Post-training test
			  – Administrative concerns
			• Method: Lecture, discussion and test		

8.4   Sample Data Collection Plan

INTRODUCTION TO TEMPLATE

As described in section 7.1.1, the purpose of this template is to assist training leads in documenting data collected about courses. Figure 33 provides an overview of what types of information should be included in the template.

Figure 33 – Example of a Data Collection Plan

Data Collection Plan: Overview & Instructions
Objectives and Performance Measures
Include the learning objectives and performance measures that will be used to guide the data collection process.
Sources of Data
Include existing sources of data (e.g., database), if applicable.
Data Collection Method
If data will be collected, list the methods that will be used to collect data (e.g., survey or focus group).
Data Repository
List where collected data will be stored after it is collected.
Data Collection Personnel
Name specific clinical or administrative personnel responsible for retrieving or collecting the data.
Data First Collected
Include the date of when data should be first collected.
Duration Between Data Collections
If data will be collected at regular intervals, include the amount of time that should elapse between each data collection/retrieval. If it will not be collected at regular intervals, include the time until the next data collection, if applicable.
Data First Analyzed
Include the date of when data should first be analyzed.
Duration Between Data Analysis
If data will be analyzed at regular intervals, include the amount of time that should elapse between each analysis. If it will not be analyzed at regular intervals include the time until the next analysis, if applicable.
Data First Reported
Include the date when data should be first reported to leadership, if applicable.
Duration Between Data Reports
Include the amount of time that should elapse between each data report.

Objective	Performance Measure (Brief Title or Description)	Source of Data (if data already exists in the necessary format)	Data Collection Method (if data must be collected)	Data Repository (where data will reside once collected)	Data Collection Personnel	Data First Collected	Duration Between Data Collections	Data First Analyzed	Duration Between Data Analysis	Data First Reported	Duration Between Data Reports
A.	i.	Source 1	Method 1	Repository 1	Staff 1	Date	Duration Between Data Collections	Date	Duration Between Data Collections	Date	Duration Between Data Collections
	ii.	Source 2	Method 2	Repository 2	Staff 2	Date	Duration	Date	Duration	Date	Duration
	iii.	Source 3	Method 3	Repository 3	Staff 3	Date	Duration	Date	Duration	Date	Duration
B.	i.	Source 1	Method 1	Repository 1	Staff 1	Date	Duration	Date	Duration	Date	Duration
	ii.	Source 2	Method 2	Repository 2	Staff 2	Date	Duration	Date	Duration	Date	Duration
	iii.	Source 3	Method 3	Repository 3	Staff 3	Date	Duration	Date	Duration	Date	Duration
C.	i.	Source 1	Method 1	Repository 1	Staff 1	Date	Duration	Date	Duration	Date	Duration
	ii.	Source 2	Method 2	Repository 2	Staff 2	Date	Duration	Date	Duration	Date	Duration
	iii.	Source 3	Method 3	Repository 3	Staff 3	Date	Duration	Date	Duration	Date	Duration
D.	i.	Source 1	Method 1	Repository 1	Staff 1	Date	Duration	Date	Duration	Date	Duration
	ii.	Source 2	Method 2	Repository 2	Staff 2	Date	Duration	Date	Duration	Date	Duration
	iii.	Source 3	Method 3	Repository 3	Staff 3	Date	Duration	Date	Duration	Date	Duration
E.	i.	Source 1	Method 1	Repository 1	Staff 1	Date	Duration	Date	Duration	Date	Duration
	ii.	Source 2	Method 2	Repository 2	Staff 2	Date	Duration	Date	Duration	Date	Duration
	iii.	Source 3	Method 3	Repository 3	Staff 3	Date	Duration	Date	Duration	Date	Duration

Data Collection Plan

8.5 Sample Participant Course Evaluation Form

INTRODUCTION TO TEMPLATE

As described in section 6.1.4, course evaluation forms can be utilized to conduct a level-one evaluation of a training course. Before using this form, please consult with the organization's education office to determine if a standard form is required. For continuing education credits, check with the relevant licensure or credentialing organization for data collection requirements.

Figure 34 – Example of a Participant Course Evaluation Form

[Course name]

[Course date and location]

RATE THE COURSE

Directions: Please use this scale to *indicate the extent to which you agree with the following statements*:

1	2	3	4	5	n/a
Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree	Not Applicable

ABOUT ME

I was personally interested in taking this course................................. .... 1 2 3 4 5 n/a

I had the necessary prerequisite knowledge for completing this course ...... 1 2 3 4 5 n/a

MATERIALS

The handouts and use of media (including graphics, audio and/or video materials) were satisfactory and effective.. 1 2 3 4 5 n/a

The course materials were accurate.. 1 2 3 4 5 n/a

The course materials (job-aids, templates, glossary of terms, etc.) were relevant and contributed to the achievement of the learning........................ 1 2 3 4 5 n/a

RELEVANCE AND EFFECTIVENESS

This course met the stated learning objectives.. 1 2 3 4 5 n/a

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This training was relevant to my responsibilities... 1   2   3   4   5   n/a

I will be able to perform my responsibilities better as a result of completing   1   2   3   4   5   n/a
this course ....

This course helped increase my knowledge, skills or changed my attitudes   1   2   3   4   5   n/a

Facilities and/or technological environment and equipment were   1   2   3   4   5   n/a
appropriate and effective ....

The time allotted to each learning activity/topic was appropriate. The   1   2   3   4   5   n/a
training environment was conducive to learning...

Overall, the instructors were effective (e.g., demonstrated mastery of the   1   2   3   4   5   n/a
subject matter, responded fully and completely to questions, provided
relevant examples, etc.)...

Overall, the course was effective... 1   2   3   4   5   n/a

Rate the Individual Instructors (if applicable):

Instructor A

This instructor was effective 1   2   3   4   5   n/a

Instructor B

This instructor was effective. 1   2   3   4   5   n/a

Instructor C

This instructor was   1   2   3   4   5   n/a
effective…………………………………………………………….

……….   1   2   3   4   5   n/a

Optional Questions:
Please provide any comments you have about any of the instructors.

What do you feel were the most valuable aspects of this course?

What do you feel were the least valuable aspects of this course?

What recommendations do you have for enhancing this course?

What other comments do you have?

8.6 Sample Instructor Course Evaluation Form

INTRODUCTION TO TEMPLATE

As described in section 6.1.4, course evaluation forms can be utilized to conduct a level-one evaluation of a training course. This form collects data from the instructor's point of view.

Figure 35 – Example of an Instructor Course Evaluation Form

<div style="border:1px solid black; padding:1em;">

[Course name]

[Course date and location]

RATE THE COURSE

Directions: Please use this scale to *indicate the extent to which you agree with the following statements*:

1	2	3	4	5	n/a
Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree	Not Applicable

MATERIALS

The information in the slide presentation and instructor notes was accurate……………………….   1   2   3   4   5   n/a

The instructor manual prepared me to teach this course   1   2   3   4   5   n/a

The instructor manual prepared me to answer participants' questions…………………   1   2   3   4   5   n/a

The instructor manual provided the appropriate level of detail   1   2   3   4   5   n/a

RELEVANCE AND EFFECTIVENESS

The information in the slide presentation and instructor notes was at an appropriate level for the audience   1   2   3   4   5   n/a

The information in the slide presentation and instructor notes was at an appropriate level for the audience   1   2   3   4   5   n/a

The application exercises included in the instructor manual were relevant and facilitated learning...   1   2   3   4   5   n/a

</div>

The application exercises fostered interaction among participants .... 1 2 3 4 5 n/a

The recommended classroom set-up and supply list were appropriate .... 1 2 3 4 5 n/a

The time allotted to each learning activity or topic was appropriate .... 1 2 3 4 5 n/a

Overall, the participants provided positive informal feedback on the course 1 2 3 4 5 n/a

Optional Questions:
Please provide any comments you have about the instructor manual.

What do you feel were the most valuable aspects of the course materials (e.g., slide presentation, instruction notes and instructor manual)?

What recommendations do you have for improving the course materials?

What informal feedback, if any, did you receive from students regarding the course?

What other comments do you have?

9   Works Cited

Almeida, R. and Carneiro, P. (2008). *The return to form investments in human capital.* London: University College London, Institute for Fiscal Studies and Center for Microdata Methods and Practice. Retrieved on March 28, 2001 http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/Labor-Market-DP/0822.pdf

"Tapping the Potential of Informal Learning: an ASTD Research Study," by Donna J. Bear, Holly B. Tompson, Carol L. Morrison, Mark Vickers, Andrew Paradise, Mike Czarnowsky, Maureen Soyars, and Kristi King, American Society for Training and Development, 2008.

"Great Ideas Revisited. Revisiting Kirkpatrick's Four Level Model." Kirkpatrick, Donald. *Training and Development* (January 1996), pp. 54-59.

PricewaterhouseCoopers, LLP. Transform Methodology: Training. (2010).