DEFENSE CENTERS OF EXCELLENCE
For Psychological Health & Traumatic Brain Injury

Initiating the Program Evaluation Process: Define Your Program Using Mission, Goals, Objectives and a Program Logic Model

CAPT Armen H. Thoumaian, Ph.D., USPHS
Aaron Sawyer, Ph.D.
Richard Best, Ph.D.
Carmina Aguirre, M.A.

January 20, 2015

DVBIC Defense and Veterans Brain Injury Center
DHCC Deployment Health Clinical Center
National Center for Telehealth & Technology

Webinar Details

- This webinar presentation has been pre-recorded
- A live question-and-answer session will be held at the conclusion of the presentation
- Questions may be submitted anonymously at any time via the “Question” pod
- Audio for this presentation will be provided through Adobe Connect; there is no separate dial-in
- Live closed captioning is available in the “Closed Captioning” pod through Federal Relay Conference Captioning

Materials for Download

- Sources for materials and additional training information:
  - Materials from this series are available for download in the Files box and at:

    http://www.dcoe.mil/About_DCoE/Program_Evaluation.aspx
  - For information on other DCoE webinar and training series, visit:

    http://www.dcoe.mil/Training/Monthly_Webinars.aspx

Continuing Education Details

- DCoE's awarding of continuing education (CE) credit is limited in scope to health care providers who actively provide psychological health and traumatic brain injury care to active-duty U.S. service members, reservists, National Guardsmen, military veterans and/or their families.
- The authority for training of contractors is at the discretion of the chief contracting official. Currently, only those contractors with scope of work or with commensurate contract language are permitted in this training.
- All who registered prior to the deadline on Tuesday, Jan. 20, 2015 at 3 p.m. (EST) and meet eligibility requirements stated above, are eligible to receive a certificate of attendance or CE credit.

Continuing Education Details (continued)

- If you pre-registered for this webinar and want to obtain a CE certificate or a certificate of attendance, you must complete the online CE evaluation and post-test.
- After the webinar, visit http://continuingeducation.dcri.duke.edu to complete the online CE evaluation and post-test, and download your CE certificate/certificate of attendance.
- The Duke Medicine website online CE evaluation and post-test will be open through Tuesday, Jan. 27, 2015, until 11:59 p.m. (EST)

Continuing Education Details (continued)

- Credit Designation – The Duke University School of Medicine designates this live webinar for:
  - 1.5 AMA PRA Category 1 credit(s)
- Additional Credit Designation includes:
  - 1.5 ANCC nursing contact hours
  - 0.15 IACET continuing education credit
  - 1.5 NBCC contact hours credit commensurate to the length of the program
  - 1.5 contact hours from the American Psychological Association
  - 1.5 NASW contact hours commensurate to the length of the program for those who attend 100% of the program

Continuing Education Details (continued)

- ACCME Accredited Provider Statement – The Duke University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

- ANCC Accredited Provider Statement – Duke University Health System Department of Clinical Education & Professional Development is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's (ANCC's) Commission on Accreditation. 1.50 ANCC nursing contact hours are provided for participation in this educational activity. In order to receive full contact-hour credit for this activity, you must attend the entire activity, participate in individual or group activities such as exercises or pre/post-tests, and complete the evaluation and verification of attendance forms at the conclusion of the activity.

- IACET Authorized Provider Statement – Duke University Health System Clinical Education & Professional Development is authorized by the International Association for Continuing Education and Training (IACET) to offer 0.15 continuing education credit to participants who meet all criteria for successful completion of authorized educational activities. Successful completion is defined as (but may not be limited to) 100% attendance, full participation and satisfactory completion of all related activities, and completion and return of evaluation at conclusion of the educational activity. Partial credit is not awarded.

  Duke University Health System Clinical Education & Professional Development has been approved as an Authorized Provider by the International Association for Continuing Education & Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. In obtaining this approval, Duke University Health System Clinical Education & Professional Development has demonstrated that it complies with the ANSI/IACET 1-2007 Standard, which is widely recognized as the standard of best practice in continuing education internationally. As a result of Authorized Provider status, Duke University Health System Clinical Education & Professional Development is authorized to offer IACET CEU's for its programs that qualify under the ANSI/IACET 1-2007 Standard.

Continuing Education Details (continued)

- NBCC: Southern Regional Area Health Education Center (AHEC) is a National Board for Certified Counselors and Affiliates, Inc.(NBCC) Approved Continuing Education Provider (ACEP™) and a cosponsor of this event/program. Southern Regional AHEC may award NBCC-approved clock hours for events or programs that meet NBCC requirements. The ACEP™ maintains responsibility for the content of this event. Contact hours credit commensurate to the length of the program will be awarded to participants who attend 100% of the program.

- Psychology: This activity complies with all of the continuing education criteria identified through the American Psychological Association (APA) Continuing Education Requirements.

- NASW: National Association of Social Workers (NASW), North Carolina Chapter: Southern Regional AHEC will award contact hours commensurate to the length of the program to participants who attend 100% of the program.

Presenter

CAPT Armen Thoumaian, Ph.D.
U.S. Public Health Service
Deputy Chief of Integration
Office of Shared Services Support, DCoE

CAPT Armen Thoumaian is a scientist director in the Commissioned Corps of the U.S. Public Health Service (USPHS) with more than 30 years experience in health and mental health program design and evaluation.

In January 2012, CAPT Thoumaian joined the staff at the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE) to help design and implement program evaluation and improvement efforts in the Defense Department.

He holds a B.A. in Psychology and Sociology, a M.A. in General Experimental Psychology, and a Ph.D. in Social Welfare and Social Work, and has completed a National Institute of Mental Health fellowship in Community Mental Health.

USPHS Capt. Armen Thoumaian, Ph.D.

Presenters

Aaron Sawyer, Ph.D.
Research Scientist, Contract Support for DCoE

Dr. Aaron Sawyer is a clinical psychologist with extensive expertise in intervention outcome research and program evaluation. He has delivered child, family and adult interventions for more than a decade, including specialization in trauma and experience working with military families. Dr. Sawyer holds a M.S. in Experimental Psychology and a Ph.D. in Clinical Psychology. He completed post-doctoral training at The Kennedy Krieger Institute/Johns Hopkins University and is a licensed psychologist.

Dr. Aaron Sawyer

Richard Best, Ph.D.
Research Scientist, Contract Support for DCoE

Dr. Richard Best is an industrial and organizational (I/O) psychologist with 14 years of experience conducting health services research in both the Veterans Health Administration and the Defense Department's Military Health System. He has extensive experience in research design, qualitative and quantitative data collection and analysis, and collaborating with clinical experts to translate research results into actionable recommendations. Dr. Best holds a M.S. and Ph.D. in I/O Psychology and is certified in Prosci's Change Management Process.

Dr. Richard Best

Moderator

Carmina Aguirre, M.A.

Research Scientist, Contract Support for DCoE

Ms. Carmina Aguirre has over 14 years of experience within the Defense Department. Her background includes Executive Leadership, Psychological Health, Sexual Assault Prevention and Response, and Public Affairs. In addition to supporting DCoE, she serves as Chief of Public Affairs in the Florida Air National Guard. Ms. Aguirre holds a B.A. in Psychology and a M.A. in Human Services with a specialization in Executive Leadership.

Ms. Carmina Aguirre

Overview and Objectives

- This presentation will provide an overview of the development and use of mission, goals, SMART objectives (specific, measurable, achievable, relevant, time-bound) and logic models in program planning and evaluation
- At the conclusion of this webinar, participants will be able to:
  - Develop a mission statement, goals and SMART objectives for a program
  - Explain the major components of a logic model
  - Apply provided guidance to design and construct a logic model
  - Select strategies to address common challenges

Agenda

- Defining Program Intent: Mission, Goals and SMART Objectives
- Introduction to Logic Models
- Building Logic Models
- Common Challenges
- Conclusion
- References and Resources
- Feedback and Question-and-Answer Session

Defining Program Intent: Mission, Goals and SMART Objectives

Introduction

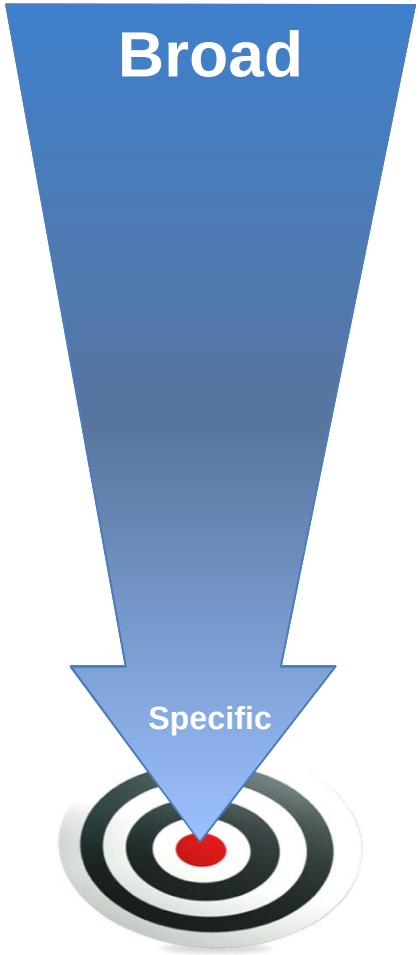
"If you don't know where you're going, how are you gonna know when you get there?"

--Yogi Berra

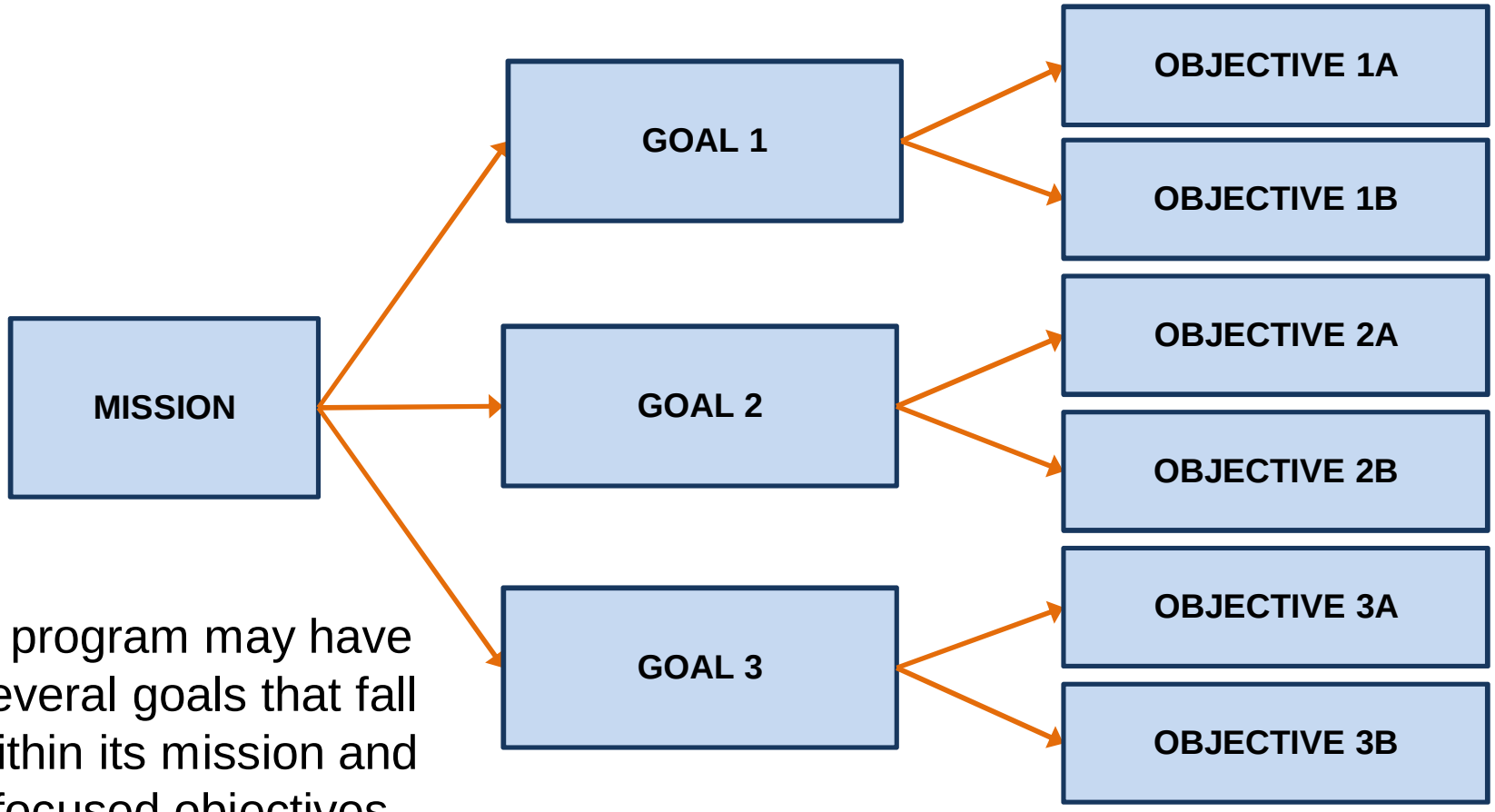
Image Source: *Wikimedia Commons*

Program Evaluation Compares Results to Stated Mission, Goals and Objectives

- **Mission:** Purpose for the program's existence; goals and objectives should support mission
- **Goals:** Statements that outline what the program intends to accomplish
- **SMART Objectives:** Descriptions of goals in terms of specific, measurable, achievable, relevant, time-bound units



Hierarchical Organization



A program may have several goals that fall within its mission and focused objectives within each goal

Mission Statement Examples

Mission should align with organizational priorities

Promote behavioral health and provide quality, compassionate, patient-centered care while developing healthcare professionals and optimizing readiness

-Behavioral Medicine, Brooke Army Medical Center

To encourage Sailors, commands, families and civilians to empower themselves by taking personal responsibility for their health, wellness and growth—the next step in building resilience

-OPNAV N17 21st Century Sailor Communications Campaign, NavyTHRIVE

Goal Examples

Goals should be actionable statements about what a program plans to accomplish

Program A will provide an effective and safe treatment program that meets the unique needs of active duty service members with substance use disorders

Program B will screen all post-deployment Service members for psychological health concerns and ensure that referrals are made for appropriate care and service coordination

Objectives Must Be SMART

Goals will often break down into multiple objectives targeting specific elements within the logic model

Objectives must be

Specific
Measurable
Achievable
Relevant
Time-bound

Questions to Guide Development of SMART Objectives

Specific	Measurable	Achievable	Relevant	Time-Bound
Who will execute or deliver the program and how?	How much change is expected and in what direction?	How will the objective be accomplished?	Will the objective help the program meet its mission and goals?	When will the objective be achieved?
Who is the target population?	What kind of data will be used to determine whether changes have occurred?	Are necessary inputs available to accomplish the objective?	Does the objective help to address the situation or need that drives the program?	If the objective will be achieved in stages, what is the timeframe for each stage?
What are the outputs or products?	How will data be collected and from whom or what?	Is the objective too great, too small or appropriate?	Does the objective have support from staff, participants, and other stakeholders?	Is the time-frame for accomplishing the objective too short, too long or realistic?
What are the intended benefits or outcomes?	Are there other or more accurate sources of data?	Can the objective be accomplished given external factors?	Does the objective align with organizational priorities?	What internal and/or external deadlines are relevant to achieving the objective?

SMART Objective Examples

- **Program X** will provide up to 12 sessions of therapy to each of 500 active-duty service members per year who have been diagnosed with posttraumatic stress disorder or referred by a medical or behavioral health professional for trauma-related concerns

- **Program Y** will deliver two half-day, live web-based trainings per week to unit commanders, who will demonstrate increased awareness of traumatic brain injury symptoms from pre- to post-training assessment

Introduction to Logic Models

Logic Model Definition

- In simple terms, a logic model is an “action-oriented tool for program planning and evaluation”

- Logic models connect program outcomes with its practices or products and also with the theoretical assumptions that underlie the program

Source: W.K. Kellogg Foundation (2006)
Logic Model Development Guide

Benefits of Building a Logic Model

Logic models are useful to programs because they:

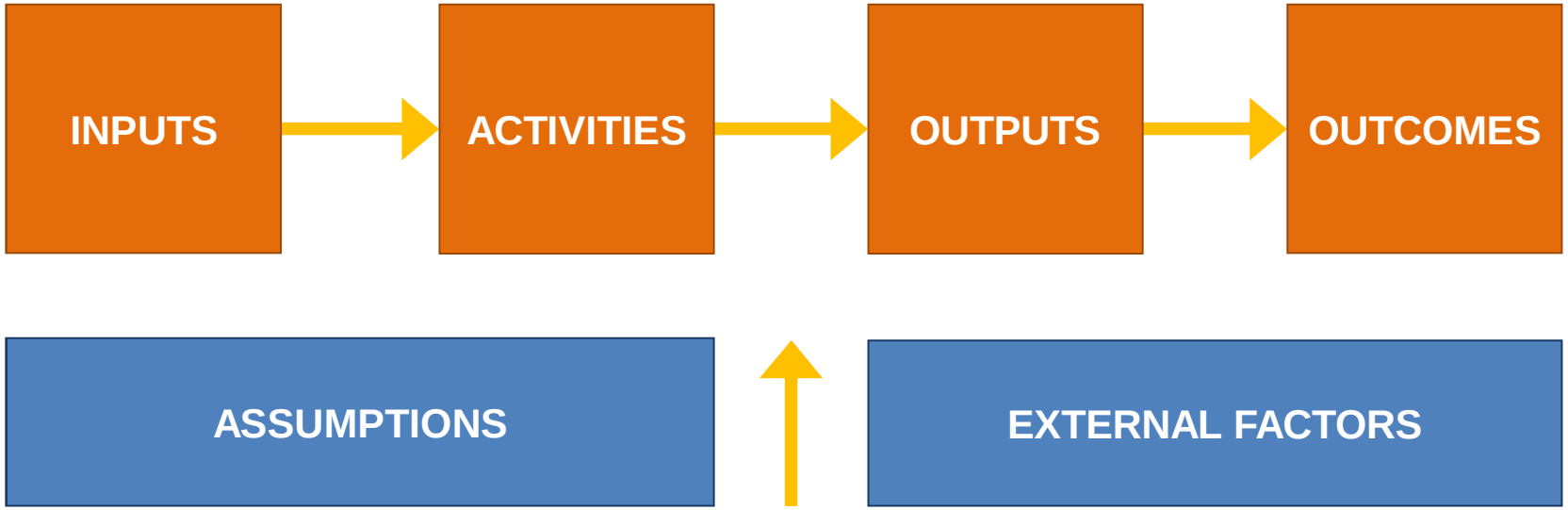
- Provide a roadmap for progress and results
- Specify how activities should be sequenced
- Identify gaps and redundancies
- Guide program evaluation and improvement (PEI) efforts

Using Logic Models in PEI Efforts

- Program evaluators assess the relationship between stated objectives, inputs, activities, outputs and outcomes to determine whether a program is effective

- Improvement efforts target specific components of a logic model to improve quality, outcomes and efficiency

Core Logic Model Components



Definitions of Logic Model Elements

Component	Definition	Example Elements
Inputs	What a program needs to operate; resources used to implement a program's activities and produce its outputs	– Funding, facilities, equipment and supplies (budgeted, in-kind donations) – Staff (administrative, professional, military) – Research and knowledge base – Relationships, time and energy – Defense Department
Activities	What the program does with its inputs in support of its mission; includes activities performed by staff and program administrators	– Clinical (assessment, treatment, medication management, rehabilitation) – Outreach (referrals, networking, advertising) – Education (development/delivery of workshops, trainings, materials) – Ancillary (surveillance, data collection, research, evaluation, reporting)

Definitions of Logic Model Elements (continued)

Component	Definition	Example Elements
Outputs	Products of or participation in the program that are direct results of activities	– Number and characteristics of participants – Units of service provided and products created – Reports and documentation – Referrals and partnerships
Outcomes	Changes that result in program participants or a broader target population as a result of their participation	Intended or unintended changes over short-, medium- or long-term in: – Awareness, knowledge, skills – Symptoms, behavior, rates – Functioning in work and relationships

Definitions of Logic Model Elements (continued)

Component	Definition	Example Elements
Assumptions	Underlying ideas that influence how a program understands its purpose and why its inputs, activities and outputs are organized in a certain way to produce intended outcomes	– PTSD is best addressed through exposure therapy – TBIs can be prevented by wearing helmets – Resources will remain available to the program for the foreseeable future – Evidence-based procedures result in better outcomes
External Factors	Cultural, social, political, economic and technological features of the environment that influence how a program operates and the target population it serves	– Stigma in military against seeking/ receiving care – Funding priorities of Congress and DoD – Hierarchical command structure – Support from family and community

Word Choices for Program Outcomes

Timeframe	Type of Outcome
Short-term	Awareness of campaign, understanding of message, knowledge gained, opinion or attitude change, intentions or motivation to change
Medium-term	Increase in positive behaviors, use of coping skills, decreased symptoms, improved memory functioning, change in addiction or disorder status
Long-term	Increase in health practices, decrease in condition prevalence, improved job functioning, improved unit readiness, change in group norms, improved family relationship quality

An Output ≠ An Outcome

Outputs include measurable **products** of the program, whereas **outcomes** are the **changes** that occur among participants as a result of participation

Outputs

#Participants
#Trainings delivered
#Sessions provided

Outcomes

↓ Completed suicides
↑ Readiness
↑ Awareness

Basic Logic Model Example: Road Rally

Name: Psychological Health and Traumatic Brain Injury Awareness Campaign

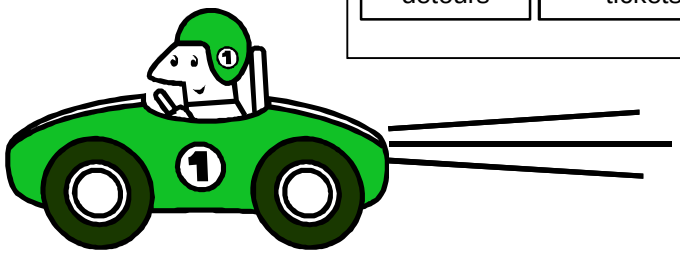
Program Mission Statement: Develop awareness among service members and their families

Goal: Conduct a coast-to-coast car rally with rally points along the way

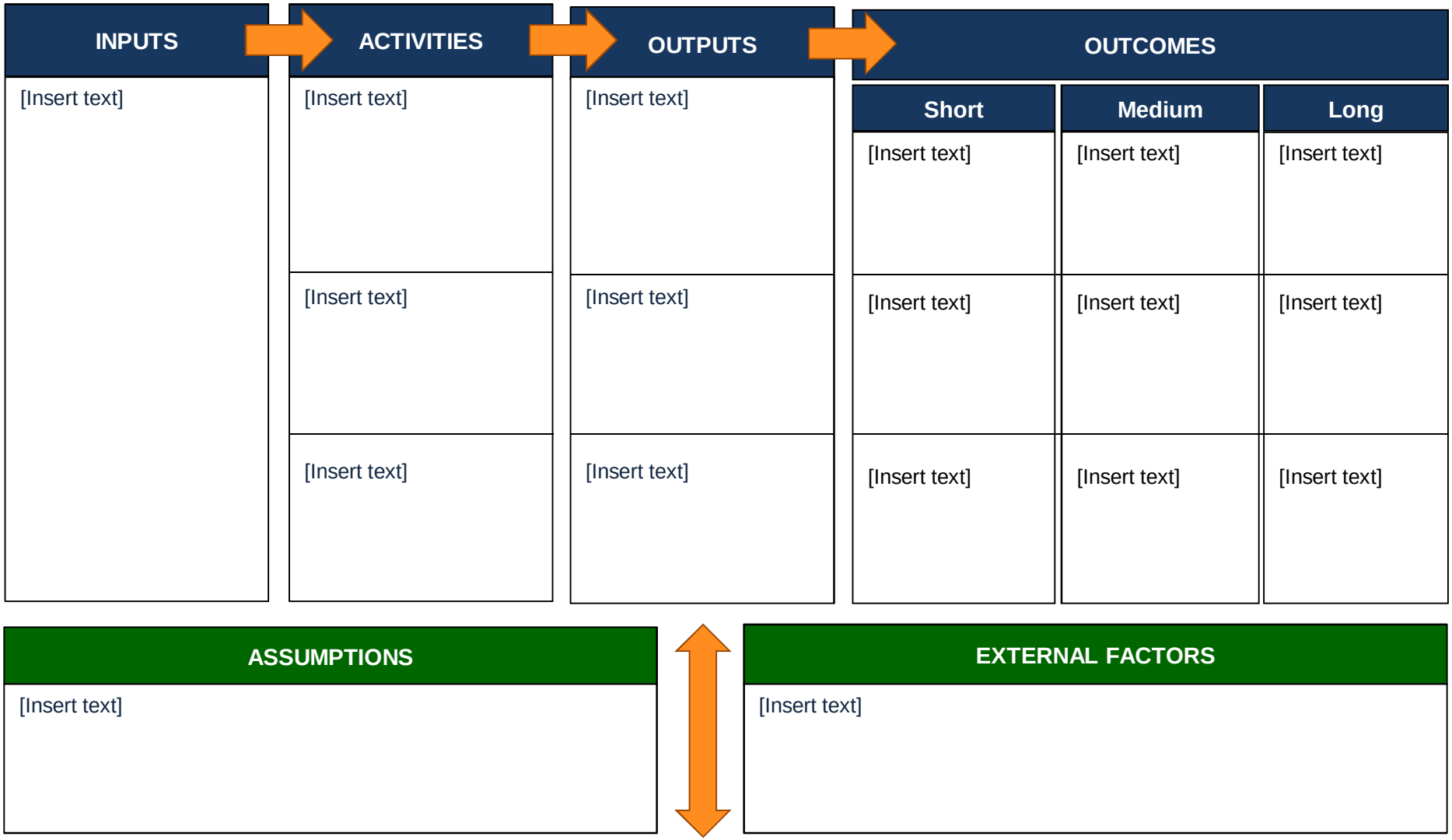
Objective: A cross-country drive from Washington, DC to Seattle, WA in 96 hours

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES
Drivers	Drive	3,000-mile cross country trip	Short-term: Increased psychological health and traumatic brain injury awareness
Gas money	Hold meet-and-greet rally stops	750 giveaways distributed at 5 rally stops	Long-term: Increased resiliency; Reduced risk
Vehicle	Tweet and post on social media	250 social media followers	
GPS, Maps	Conduct local interviews	9 TV interviews	
Promotional giveaways			

ASSUMPTIONS	EXTERNAL FACTORS
No road detours	Weather
No speeding tickets	Leadership support
No breakdowns along the way	Traffic



Logic Model Template



Building a Logic Model

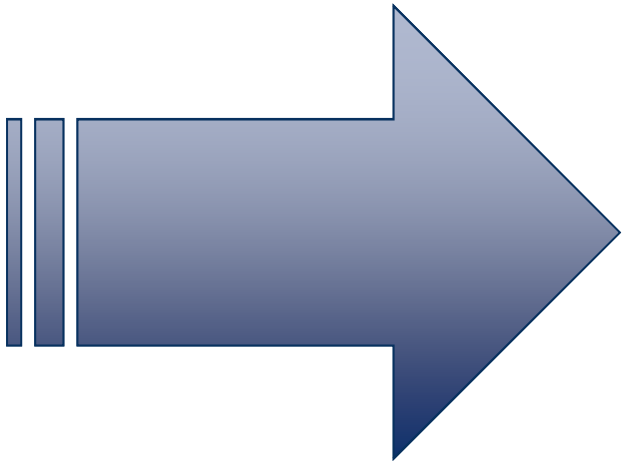
Locating Logic Model Elements in Existing Documents

- Inputs, activities, outputs and outcomes may be documented in several locations, based on program needs and the type of information recorded and program requirements
- Program evaluators also have access to prior evaluation and assessment data
- Locations may include a policy and procedures manual, training manual, program handbook, reports to stakeholders, program budgets, etc.

Construct a Logic Model: Forward Mapping

Identify inputs, activities, outputs and outcomes by:

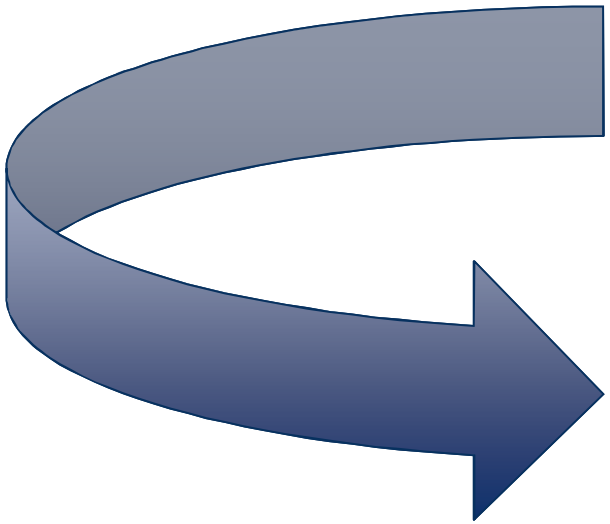
- Forward mapping—starting with program inputs and activities, ask "*so what?*" in order to generate the outputs and outcomes that are expected to result



Construct a Logic Model: Reverse Mapping

Identify inputs, activities, outputs and outcomes by:

- Reverse mapping—starting with program results, ask "*how?*" in order to generate the activities that produce them



Non-Clinical Program Example

Mission: At Program Sierra*, we seek to ensure that service members who are wounded, ill or injured successfully reintegrate into civilian life or return to duty in the military. By performing our mission effectively, we hope to enhance force readiness and improve the quality and efficiency of services across the Defense Department

DoD photo by Pat Cubal

*Program Sierra was formerly known as Program Echo.

Non-Clinical Program Example (continued)

Goal 1: Program Sierra helps service members transition to civilian life or return to duty with increased functioning and a sustainable, individualized system of support and care to meet ongoing needs

- **Objective 1A:** To assess all service members referred to the program and work with the service member and his or her family or caregiver to determine their needs and develop a plan for reintegration, followed by guidance sessions and service referrals
- **Objective 1B:** To increase use of services and supports for participating service members and enhanced functioning in targeted areas measured on an ongoing basis
- **Objective 1C:** To ensure continuous access to medical and non-medical services from point of illness/injury and for as long as needed to secure resilience and stability

Non-Clinical Program Example (continued)

Is this a SMART objective?

Measurable with respect to how many will be served (i.e., all referred)

Specific about who will participate

Objective 1A: To assess all service members referred to the program and work with the service member and his or her family or caregiver to determine their needs and develop a plan for reintegration, followed by guidance sessions and service referrals.

Time-bound in that objective specifies the order of activities (i.e., assess→determine needs →provide guidance/referrals)

Achievable in that objective can be accomplished with available resources detailed in program logic model

Relevant in that these outputs are related to the program's mission

Non-Clinical Program Example (continued)

Goal 2: Program Sierra provides media materials and outreach in order to enhance service members' knowledge and awareness of the support and services available to assist them with reintegration

- **Objective 2A:** To produce and deliver media materials to targeted locations in order to increase awareness of services and supports as indicated by reports from other programs regarding source of referral or knowledge
- **Objective 2B:** To increase service use and improve quality by promoting effective support and care services to those who need them

Non-Clinical Program Example (continued)

Is this a SMART objective?

Time-bound in that objective specifies a clear time-order in which activities and outputs precede the outcome of interest (i.e., awareness)

Specific about what output will be produced

Objective 2A: To produce and deliver media materials to targeted locations in order to increase awareness of services and supports as indicated by reports from other programs regarding source of referral or knowledge

Measurable with respect to the metric used to measure awareness (i.e., an outcome)

Relevant in that these outputs are related to specific outcomes that serve the program's mission

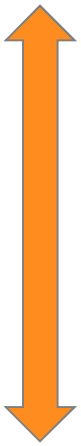
Achievable in that objective can be accomplished with available resources detailed in program logic model

Non-Clinical Program Example (continued)

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES		
			Short	Medium	Long
Target Population Seriously wounded, ill or injured service members and their families *Staff* 21 including non-medical care mangers, recovery care managers and military (Division Chief) *Stakeholders* Service Branch Leadership, Secretary of Defense, Congress *Funding Past 5 Fiscal Years* 2013 - $5.5M 2012 - $1.5M 2011 - $1.2M 2010 - $1.2M 2009 - $800K	*Care Coordination* ▪ Administer assessment checklist to determine needs within 7-phase continuum of care ▪ Complete comprehensive recovery plans and quarterly progress update ▪ Provide consultations and educational material	*Guidance Sessions Completed* ▪ Benefits/ entitlements ▪ Financial ▪ Employment ▪ Integrated Disability Evaluation System *Referrals of participant, family member, caregiver to:* ▪ Local resources ▪ Other DoD programs	Improved attitudes and confidence Increased use of medical and non-medical services and supports throughout recovery and rehabilitation	Improved quality of life and stability Reduced delays and gaps in treatment (medical) and support services (non-medical)	Increased force readiness Improved service continuity
	Outreach ▪ Develop content for articles, news bulletins, Facebook and website ▪ Conduct outreach activities	*Information delivered* ▪ Access service outreach materials (e.g., downloads, hits) ▪ Report of program as source of information by select other programs	Increased knowledge of benefits, entitlements, resources and transition services	Increased resilience and retention Successful reintegration into military or civilian life	Improved service quality and reduced costs

Non-Clinical Program Example (continued)

ASSUMPTIONS	EXTERNAL FACTORS
Care coordination is required for target population to effectively access available services and supports	Program is highly political – care for wounded service members is a priority issue for President, Congress and senior leaders in the Defense Department and Department of Veterans Affairs There is widespread community support for assisting wounded, ill and injured service members



An additional example for a clinical program is provided in DCoE's *Program Evaluation Guide* (2nd Edition), Appendix A

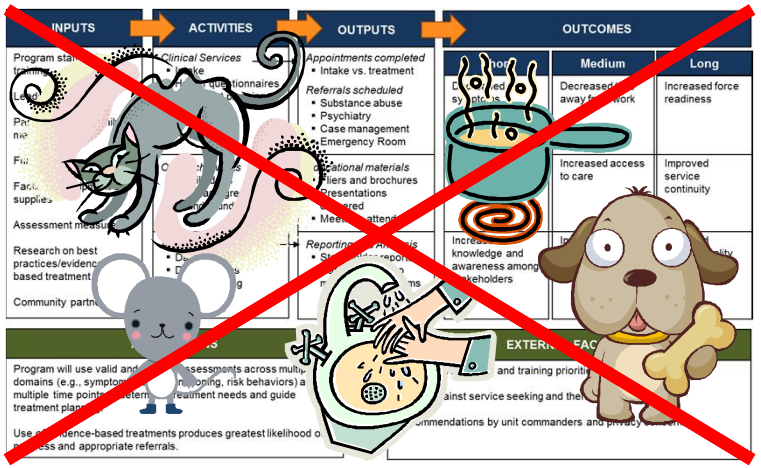
Common Challenges

Common Challenges FAQ

- How detailed does my program's logic model need to be?
- How do I form a logic model that connects the headquarters (HQ) level of a program to the site level?
- How do I deal with absent or insufficient information needed to build a logic model?

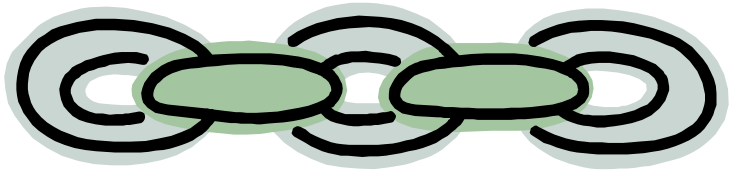
How Detailed Does My Program's Logic Model Need to Be?

- A logic model should contain enough information to be useful but not so much it cannot be understood
- Do include information about: major resources (e.g., staffing, funding), key activities and outputs, and measurable outcomes
- Consider excluding: administrative tasks, itemized lists of resources, infrequent activities and outputs, trainings not specific to program



How Do I Form a Logic Model That Connects the HQ Level of a Program to the Site Level?

- The key issue in developing a logic model is being able to create a logical chain of connections from inputs to outcomes at the site level (i.e., the place where services are delivered)
- A single logic model can specify whether activities occur at either or both the headquarters and/or the site level (e.g., by designating HQ or S)
- Alternatively, a program may have separate logic models for each level if needed, although it is preferable to use a single model



How Do I Deal With Absent or Insufficient Information Needed to Build a Logic Model?

- Programs will rarely have all of the information readily available that is needed to develop a fully functional initial logic model
  - Absent or insufficient information is often informative in terms of identifying areas for growth and improvement when identified as part of a program evaluation and improvement effort
  - In addition, program personnel may compare stated mission, goals and objectives with the logic model to determine needs for further development and measurement

Conclusion

Key Takeaways

- ✪ Mission statements, goals and objectives provide increasingly specific definitions about the purpose of a program
- ✪ Objectives form the standard against which evaluation results are compared and should be SMART (specific, measurable, achievable, relevant, time-bound)
- ✪ Logic models illustrate a program's structured approach achieving its mission

Courtesy photo by Stewart Leiwakabessy

References and Resources

References and Resources

Administration for Children and Families, Office of Planning, Research and Evaluation (2010). *The program manager's guide to evaluation* (2nd ed.). Retrieved from U.S. Department of Health and Human Services website: http://www.acf.hhs.gov/programs/opre/resource/the-program-managers-guide-to-evaluation-second-edition

Centers for Disease Control and Prevention, Program Performance and Evaluation Office: http://www.cdc.gov/program/

Centers for Disease Control and Prevention. (1999). *Framework for program evaluation in public health. MMWR, 48* (No. RR-11). Retrieved from: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4811a1.htm

Centers for Disease Control and Prevention (2006). *Evaluation manual: Step 1 - Engage stakeholders.* Retrieved from: http://www.cdc.gov/getsmart/program-planner/Step1.html

Patton, M. Q. (2014). *Qualitative research and evaluation methods: Integrating theory and practice* (4th ed.) Thousand Oaks, CA: SAGE.

Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (Eds.). (2010). *Handbook of practical program evaluation* (3rd ed). San Francisco: Jossey-Bass.

Wiseman, S.H., Chinman, M., Ebener, P.A., Hunter, S. B., Imm, P., & Wandersman, A. (2006). *Getting to outcomes: 10 steps for achieving results-based accountability*. Retrieved from RAND Corporation website: http://www.rand.org/pubs/technical_reports/TR101z2.html

W. K. Kellogg Foundation (2006). *Logic model development guide.* Retrieved from: http://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide

References and Resources (continued)

DCoE Program Evaluation Trainings and Program Evaluation Guide:
http://www.dcoe.mil/About_DCoE/Program_Evaluation/Resources_and_Training.aspx

DCoE Home Page: http://www.dcoe.mil/

Deployment Health Clinical Center: http://www.pdhealth.mil/

Defense and Veterans Brain Injury Center: http://dvbic.dcoe.mil/

National Center for Telehealth and Technology: http://www.t2health.dcoe.mil/

Agency for Healthcare Research and Quality: http://www.qualitymeasures.ahrq.gov

American Evaluation Association: http://www.eval.org/

Centers for Disease Control and Prevention, Program Performance and Evaluation Office: http://www.cdc.gov/program/

Minnesota Department of Health, Quality Improvement Toolbox: http://www.health.state.mn.us/divs/opi/qi/toolbox/

University of Kansas, Community Toolbox: http://ctb.ku.edu/en