Program Evaluation Overview

One aspect of gardening and providing garden programming that is often overlooked is evaluation.

Benefits

Advantages to providing evaluation information (data) about a garden and garden programming include:

- ✳ Demonstrate accountability to stakeholders including participants and funders.
- ✳ Generate a much clearer picture of program outcomes and impacts.
- ✳ Continue or increase support of the garden and programming.
- ✳ Create an opportunity to:
    - Increase participant satisfaction and success.
    - Streamline and improve programs.
    - Discovering new activities or ways of aggregating tasks.
    - Collect vital feedback about the program providers.
    - Alter the garden and program to better meet participants' critical needs.
    - Find positive secondary outcomes.

Getting started

A plan to evaluate a garden and/or gardening program should be created and implemented at the very beginning, when the garden is in the conceptual phase.

What data to collect

Identify what you want to know about your garden and gardening program. Consider all your invested resources, activities and stakeholders (including paid staff members, volunteers, funders and participants). What are the desired outcomes and impacts? Additionally, determine what evidence do you need to answer your questions?

Quantitative evaluation emphasizes gathering numbers and providing hard data. Some possibilities include:

- How many people actively participate in the garden?
- How many families are positively impacted by the garden programs?
- How many pounds of fresh vegetables and fruits are produced for military families?

Another example of quantitative evaluation data is testing program participants to measure their increase in knowledge, skills, abilities (and even perceptions) after gardening for a set period of time. The easiest way to measure the change is to perform a pre-test/post-test evaluation. Give participants a set of questions when they first begin the program and/or first start to garden, and then give the same participants the same set of questions after they complete a period of programming and/or gardening. Measure the difference in responses.

Sample 1 Pre-test/Post-test (Knowledge Exam)

For each of the following questions, fill in the blanks with the correct answer.

1. What are the three (3) main benefits of mulching plants? _____, _____, and _____

2. The essential nutrient that aids green growth is _____?

3. The pH of the soil is _____ if it is 6.2?

   Multiple choice responses to questions can also be used, just as in standard tests:

4. If the pH of the garden soil is 6.2, it is: A) alkaline   B) neutral   C) acidic

Another way of performing pre-test/post-test evaluation, best used to test skills and abilities, is to ask participants to demonstrate/perform a set of skilled activities (adding compost to soil or planting a vegetable, for examples) as they first begin the program and then again after they finish. Observe and measure the difference.

Participant perceptions can even be measured by giving them a pre-test/post-test set of questions having to do with perceptions and value statements (about themselves, the program, gardening in the military or a combination of whatever you wish to measure).

Sample 2 Pre-test/Post-test (Perception Survey)

For each of the following statements, think about how much you agree or disagree with the statement. Please circle the number that best tells us how much you agree, starting with 1 (Strongly Disagree) all the way up to 7 (Strongly Agree).

	Strongly Agree						Strongly Disagree
Organic gardening is not the best method for growing vegetables	1	2	3	4	5	6	7
Participating in the X Base Garden program has a lasting affect on base families	1	2	3	4	5	6	7
A garden is more successful when team management is used	1	2	3	4	5	6	7
Most military personnel do not understand the significance of gardening as a therapeutic activity	1	2	3	4	5	6	7
Youth involved in the gardening program go home and forget most of what they learn	1	2	3	4	5	6	7
Military rank is very apparent, even in a garden	1	2	3	4	5	6	7
Teaching adults gardening is best done by non-military professionals	1	2	3	4	5	6	7

Quantitative evaluation can perform double duty, providing data for the program managers and educational activities for the participants. For example, experiments can be conducted where one part of the garden receives drip irrigation and the other part of the garden receives overhead watering, measuring how much water is saved and how well plants grow with each watering method. Garden managers save water and discover the best watering method for their garden; participants learn the advantages and disadvantages of different watering methods.

Given its simplicity, a quantitative approach to evaluation might appear to be the easy choice. However, **qualitative evaluation** has its own inherent value, too, and can be relatively easy to incorporate into your approach. Examples of this include:

- Interviewing garden program participants (representative quotes can be powerful additions to reports)
- Observing garden activities
- Videotaping the garden and participants (which is also great for accountability)
- Recording the artwork for and about the garden created by participants
- Encouraging gardeners to keep a journal
- Training participants to interview and record each other's thoughts (both gaining program managers valuable data and teaching participants interview skills)

The impact of qualitative data, if presented in the appropriate way, can be immense. When a funder or base commander reads a participant quote in a report that states "This garden saved my life," the strength of qualitative evaluation data becomes very clear. A fortified way of conducting evaluation is to combine numbers with quotes/visuals through a mixed-method approach, collecting both essential quantitative and qualitative data.

When to collect data and use

Another aspect of evaluation involves when data is collected and acted upon. **Formative** evaluation means collecting garden and/or program data from the beginning and instituting corrections and changes immediately based upon the data. For example, it might become clear that participants are more successful if they garden as a family unit, so the program managers institute changes immediately to allow or encourage this activity. **Summative** evaluation means collecting data throughout the life of the garden or program and then analyzing the data when activities end, mainly with an eye to altering the next garden or program based upon the findings. Both have their advantages and disadvantages. Again, a fortified way of conducting evaluation is to combine both formative – making appropriate changes along the way – and summative – making changes at the end of activities for the next garden or program.

Whichever method or approach is chosen, it is very important to create an evaluation plan and implement it from the very beginning of the garden and programming. Always incorporate a feedback loop to find out how well you, the managers, are doing and what actions can be taken to improve the garden and/or program.

Consents

A few words must be said about obtaining consent from anyone who you choose to interact with for evaluation purposes. Any research or evaluation that is conducted through the auspices of an educational institution in the US must pass through a rigorous review (institutional review board) to insure the health, safety and privacy of participants. This includes, but is not limited to, the following. Research & evaluation participants:

- will be given the choice of participating without any coercion,
- have the option of ending participation at any time,
- have no undue burden placed upon them in the course of the research/evaluation
- can expect their private information to be protected,
- can expect that all reports with their words or video/audio recordings with them included have their expressed, signed consent,
- will be told about any potential physical or emotional harm from participating in the research before participating,
- are told, in detail, what the purpose of the research/evaluation is, and what their participation entails,
- are given contact information to report any misconduct on the part of researchers and/or evaluators,
- are given contact information to obtain a copy of the final report or video.•

Military Installations

Almost all military installations already have similar procedures in place to inform and consent potential participants in studies; you should initially check with the installation administration to find and implement these procedures. If there are none in place with the installation or organization you are working with, consider setting up your own consent procedures; however, don't reinvent the wheel. There are many sources to find an appropriate template to set up and implement consent procedures. For example, the US Dept. of Health & Human Services has an Office for Human Research Protections (OHRP) with a cache of general information, existing protocols and sample documents:
http://www.hhs.gov/ohrp/archive/irb/irb_guidebook.htm