HOW TO EVALUATE CHRONIC DISEASE PROGRAMS

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Learning Objectives:

- By the end of the presentation, participants will:
- Explain the vocabulary and frameworks for evaluating chronic disease programs, and recognize best practices.
- Compare formative, process, impact and outcome evaluation with regard to chronic disease programs.
- Describe health behavior theories to inform program actions and guide evaluation of outcomes, particularly pertaining to prevention programs.
- Identify appropriate data sources and data collection methods for evaluating chronic disease programs.
- Demonstrate how to utilize evaluation results.

Will address the following CHES/MCHES competencies:

- AREA IV: Conduct Evaluation and Research Related to Health Education/Promotion
  - Sub competency 4.1.1 Determine the purpose and the goals of evaluation

DEFINITIONS OF PROGRAM EVALUATION

- The *systematic* collection of information about activities, characteristics, and outcomes of programs to make judgements about the program, improve program effectiveness and/or inform decisions about future program development (CDC).

- The *systematic* method for collecting analyzing and using information to answer questions about projects, policies and programs, particularly about their effectiveness and efficiency (Wikipedia).

EVALUATION IS MUCH MORE THAN JUST OUTCOMES!

- ✓ Are we doing the right work?
- ✓ Can we make better decisions?
- ✓ Are we achieving superior results?
- ✓ Do our staff have the right training?
- ✓ Are we addressing equity?
- ✓ Are we spending money well?
- ✓ Are there unintended +/- outcomes?
- ✓ How well are we adhering to our theory of change?
- ✓ Are we preventing harm (when little to no evidence exists)?

WHY EVALUATE?

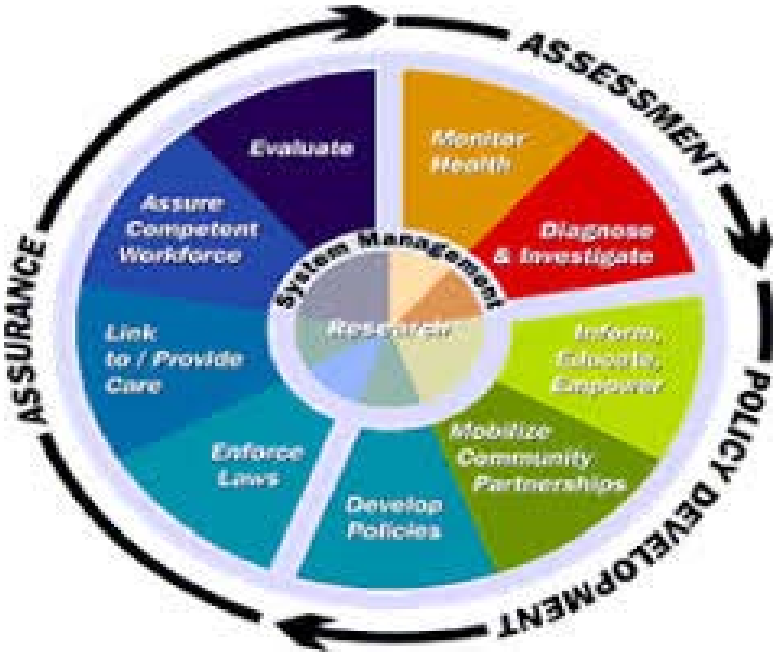
- **Gain insight** about a program and its operations -- to see where we are going and where we are coming from, and to find out what works and what doesn't
- **Assess effects** – to see how well we are meeting objectives and goals, how the program benefits the community, and to provide evidence of effectiveness *DID YOU MAKE A DIFFERENCE?*
- **Build capacity** - increase funding, skills, strengthen accountability
- **Improve practice** – to change practice to enhance the successes of activities

Evaluation results are USED… to make a difference

EVALUATION VERSUS RESEARCH?

CONCEPT	RESEARCH	PROGRAM EVALUATION
Planning	Scientific Method; Rigorous	Framework for Evaluation; Practical; Applied
Decision-Making	Investigator Controlled	Stakeholder Controlled
Standards	Validity (generalizable, accuracy)	Repeatability
Questions	Facts	Values (merit, worth, significance)
Judgements	Implicit	Explicit
Uses	Disseminate to interested audiences	Feedback to stakeholders

EVALUATION AND THE 10 ESSENTIAL SERVICES OF PUBLIC HEALTH SO WHEN DO YOU START?



OVERALL EVALUATION STANDARDS

At each step, the best choice from among options is the one(s) that maximizes:

- ***UTILITY:*** Who needs the information from this evaluation and what information do they need?
- ***FEASIBILITY:*** How much money, time, and effort can we put into this?
- ***PROPRIETY:*** Who needs to be involved in the evaluation for it to be ethical?
- ***ACCURACY:*** What design will lead to accurate information.

BEING EFFECTIVE IN PUBLIC HEALTH – PUBLIC HEALTH PLANNING

NEEDS ASSESSMENTS

- A systematic collection and examination of information.
- A systematic collection and examination to **make decisions**.
- A systematic collection and examination to make decisions **to formulate a plan**.
- A systematic collection and examination of information to make decisions to formulate a plan **for the next steps.**
- A systemic collection and examination of information to make decisions to formulate a plan for the next steps **leading to public health action.**

QUALITIES OF A NEEDS ASSESSMENT

- Conceptual
- Visionary
- Systematic
- Resourceful
- Pragmatic
- Action-Oriented
- Cohesive
- Inclusive

NEEDS ASSESSMENT PHASE 1: IDENTIFY, VERIFY AND PRIORITIZE NEEDS

- **Identify** target population and its needs: What is the health problem (Extent, duration, future)?
- Determine **commitment** at all levels and prepare management plan (Politics, priorities, funding, staffing, etc.)
- Research **agreement** on desired outcomes.
- Identify **indicators** (data) that the need exists.
- Ascertain what **additional data** are needed and where to find.
- **Prioritize** needs of target population.

NEEDS ASSESSMENT PHASE 2: GATHER AND ANALYZE DATA

- Gather and use data to refine definitions and prioritization of needs?

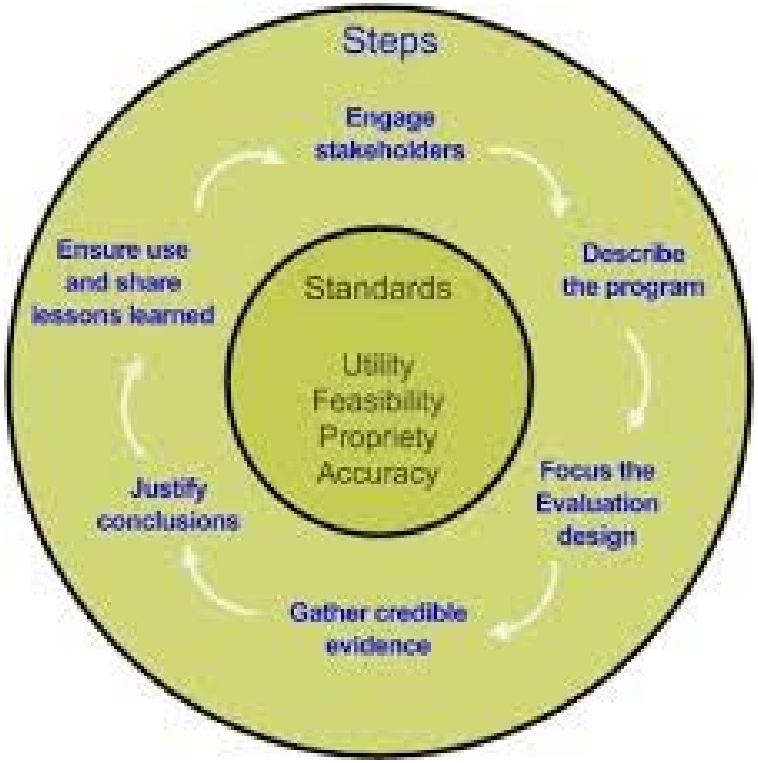
- Identify and analyze causes:
  - Why does the need persist?
  - What influencing factors are within your control to change?

- Build consensus and support.

NEEDS ASSESSMENT DEBATES

- Qualitative or Quantitative?
- Assets or Problems?
- Assessment or Surveillance?
- One time or Ongoing?
- Ourselves or Contract?
- Science or Art?
- Performance or Pretty?

CDC FRAMEWORK FOR PROGRAM EVALUATION



STEP 1: ENGAGE STAKEHOLDERS

Who are the stakeholders?

- Those with a vested interest in the program and potentially affected by the program and its evaluations.
- Both supporters and skeptics of the program.
- Stakeholders versus partners?

Why engage them?

- Ensure usefulness and use (reflect needs and assets).
- Build trust and buy in and gain access.
- Build capacity.
- Ensure sustainability.

GETTING BUY IN

STEP 2: DESCRIBE THE PROGRAM

What is this?

- Describe the purpose of the program, how the program works and intended outcomes.

Why do we need to do it?

- Identify the needs of the program in the first place.
- Understand how the program works – all the pieces.
  - What resources and activities are needed?
  - What is the relationship between program elements and expected changes?
  - What context(s) and larger system(s) does the program operate?

SMART OBJECTIVES

SPECIFIC	**Who? What? (e.g., what is your target population, who is involved, what is being done/delivered)**
MEASURABLE	Can you measure it? How much change? What direction is the change?
ACHEIVABLE OR ATTAINABLE	It is possible? Feasible? Can this be realistically accomplished ? (Think about time, resources, capacity, political environments)
RELEVANT	Does the objective lead to the desired result/goal? Is this objective worthwhile and reasonable?
TIMELY OR TIME-BOUND	Is timeline to achieve objective stated? Is this timetable realistic?

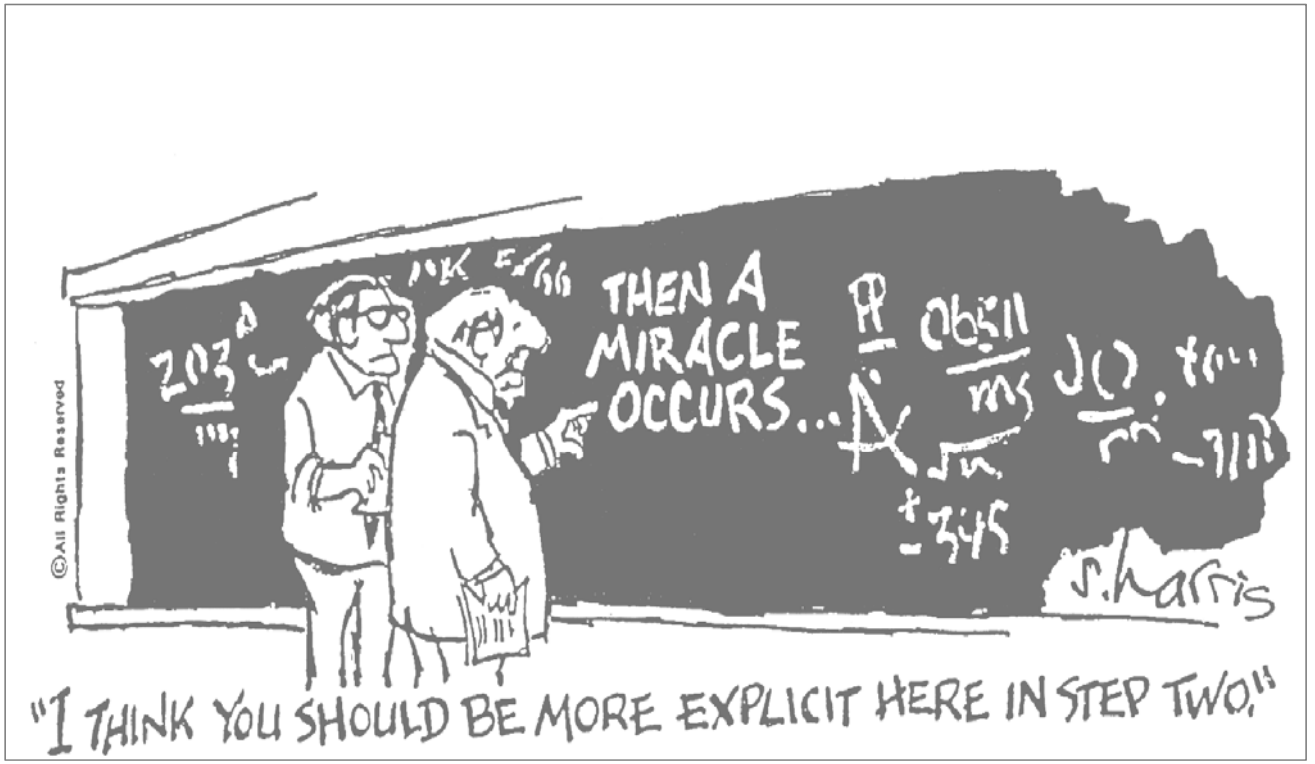
GOOD VERSUS BAD OBJECTIVE

GOAL:	**Improve oral health and overall health among children and families age 0 to 17 years in Brant County.**
BAD OBJECTIVE:	Decrease the number of children who have cavities in Brant County. Specific? Measurable? Achievable? Relevant? Timely?
GOOD OBJECTIVE:	By 2020, decrease the number of children in grade 5 who have one or more cavities as detected by the school surveillance program by 5%.

PROGRAM DESCRIPTIONS MAY INCLUDE:

- **Statement of Need –** Describes the problem or opportunity that the program addresses and implies how the program will respond
- **Expected Effects-** What must be done to be considered successful
- **Activities-** What actions will take us from A->Z
- **Resources-**Time, talent, technology, money
- **Stage of Development-** planning, implement, effects (intended and unintended)
- **Context-**setting and environmental influence
- **Logic model-** A picture is worth a 1000 words

LOGIC MODELS



BASIC STRUCTURE

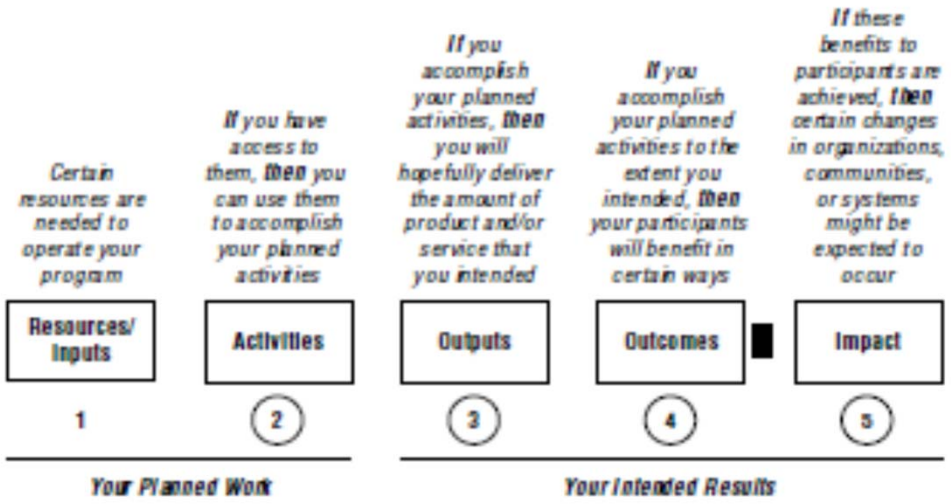
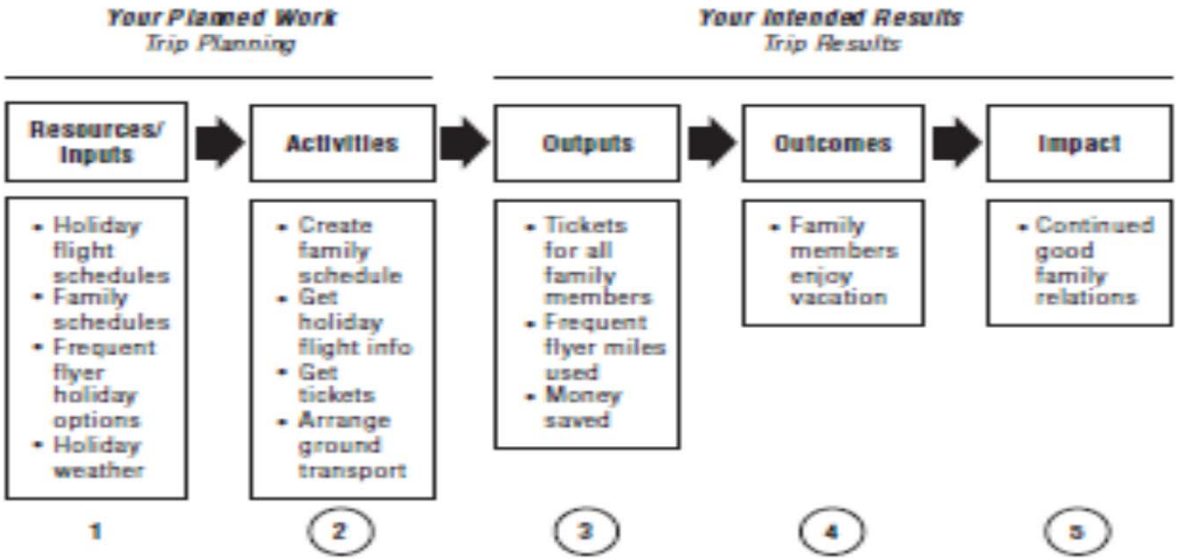
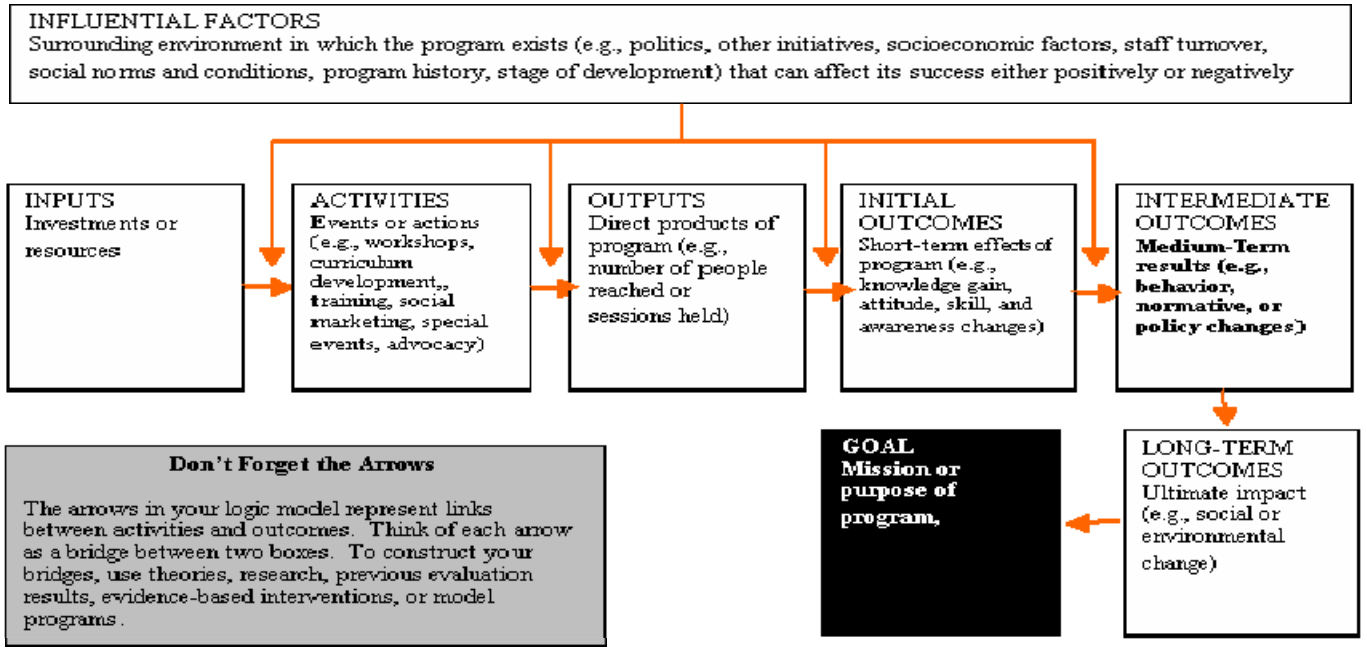


Figure 2. How to Read a Logic Model.

LOGIC MODEL FOR PLANNING A VACATION



LOGIC MODEL



From: Centers for Disease Control and Prevention. *Physical Activity Evaluation Handbook.* http://www.cdc.gov/nccdphp/dnpa/physical/handbook/

STEP 3: FOCUS THE EVALUATION DESIGN

What is this?

- Determine purpose of evaluation, evaluation questions, methods, agreement and uses/users of evaluation.
  - Gain insight? Change practice? Assess effects?
- Plan, plan, and more planning.
  - Design, methods, data sources, data collection/analysis.

Why do we need to do it?

- Quality in = quality out.
- Keep evaluation on track.
- Ensure feasible, useful, cost effective, politically viable.

TYPES OF EVALUATION

- **FORMATIVE/SUMMATIVE**
  - How will my program be viewed by the larger audience?
- **PROCESS EVALUATION**
  - Was the program implemented as intended?
  - Historical record; helps determine dose and fidelity; written protocol
- **OUTCOME EVALUATION**
  - What short or immediate term changes occurred because of the program?
- **IMPACT EVALUATION**
  - What longer-term changes occurred because of the result of the program?

EVALUATION QUESTIONS

An evaluation requires one clear purpose statement and a set of 3-12 clearly worded evaluation questions.

EXAMPLE

- The purpose of this evaluation is to explore the reasons why participants successfully complete this program.
  - How many and for what reasons do participants attend this program?
  - What factors contribute to participants completing this program?
  - What factors are in place in participants' lives post-program completion that lead to continued success?

EVALUATION QUESTIONS SHOULD NOT…

- Address questions that stakeholder's don't value.
- Immediately write-off questions that seem unanswerable
- Monopolize the evaluation
- Decide on the evaluation questions without stakeholder input
- Teat this program like all other programs

TYPES OF DESIGNS

- Monitor progress
- Pre/Post tests
- Experimental (randomly assignment to compare outcomes of an intervention)—Evidence-Based!
- Quasi-Experimental (comparing outcomes/outcome data among groups to establish benchmarks for progress)
- Observational (time series, cross sectional surveys, case studies)

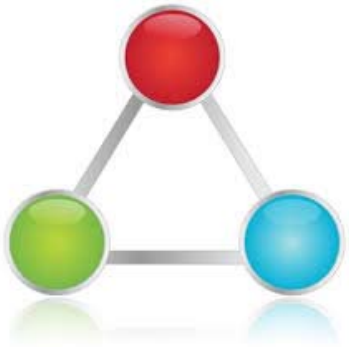
STEP 4: GATHER CREDIBLE EVIDENCE

What is this?

- Collect information (dates, evidence) that is relevant, credible and meaningful
- Follow your evaluation design!
  - Are indicators valid and reliable?
  - Are you collecting evidence from multiple sources? (Triangulation!)
  - Quantity does NOT equal quality.
  - Consider logistics, timing, human subject considerations.

Why do we need it?

- Quality in = quality out.
- Enhances utility, accuracy, validity.
- Ensure data integrity, confidentiality.



CONSIDER

- How often is the information required?
- At what level of detail?
- How much does it cost?
- Is there another source to compare it to across locations and time?

TYPES OF DATA

- Existing Data Sources
- Primary Data Sources (surveys, focus groups, interviews, observations, document review)

QUALITY OF DATA IS INFLUENCED BY…

- Design of data collection instruments
- Data collection procedures
- Training of data collectors
- Selection of data sources
- How the data are coded
- Data management

STEP 5: JUSTIFY CONCLUSIONS

What is this?

- Make claims (judgements) based on data that is of merit, value, and significance.
  - Evidence needs to be aligned with agreed upon values and standards per stakeholder input.

What do we need it?

- Ensure systematic interpretations, appropriate comparisons.
- Recommend actions.

TIPS

- ✓ Use appropriate methods (design, sampling, data collection/analysis)
- ✓ Interpret cautiously!
- ✓ Consider alternate ways to compare your findings. (Pre/post tests, comparison groups, national targets)
- ✓ Explain why alternative explanations should be discounted.
- ✓ Make recommendations based on data and conclusions.
- ✓ Be cautions of conclusions given evaluation context (environment, setting, population, time).

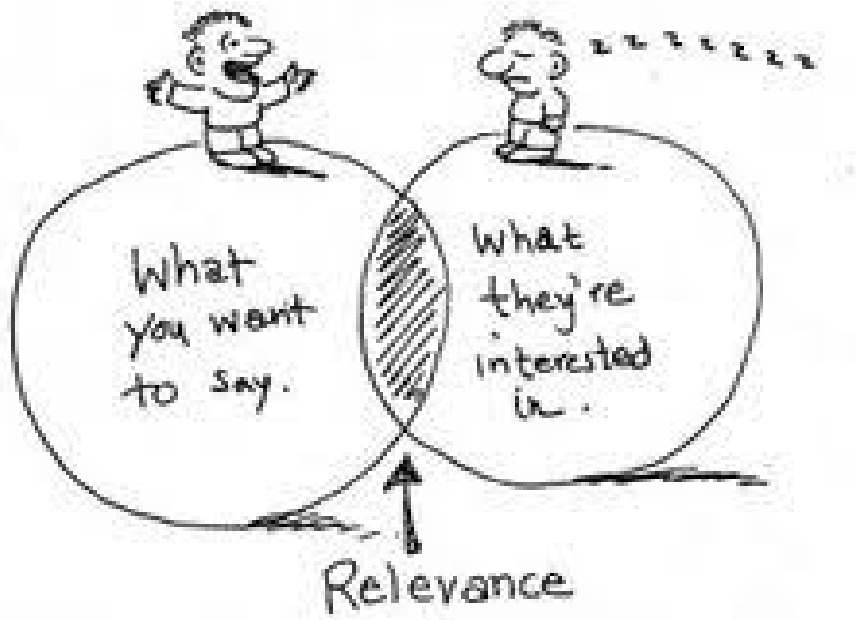
STEP 6: ENSURE USE AND SHARE LESSONS

What is this?

- Design, preparation, feedback and follow-up.
  - Remember relevance, credibility, utility.
  - Plan for all potential findings—the good and the bad!
  - Remind of purpose/use, ensure findings are not ignored!
- Disseminate.
  - Consider format, timing, style, tone, message source.

Why do we need this?

- Full disclosure, impartial reporting.
- "Recommend" sections.
- Ride the wave of other benefits—clarify values, foster teamwork.


What you want to say.
What they're interested in.
Relevance

EVALUATING RETURN ON INVESTMENT (ROI)

Fortunately, as public health practitioners, you are probably already collecting much of the lower levels of data upon which ROI is built. For instance, public health programs routinely collect data on satisfaction (i.e., questionnaires, surveys); learning (i.e., pre/post tests); and behavior change (i.e., action plans). ROI adds one more critical step—placing an actual *value* on these outcomes.

FIVE LEVELS OF DATA

- Level 1: Participant satisfaction with the program
- Level 2: Actual learning acquired from the program
- Level 3: Changes in behavior as a result of the program
- Level 4: Business impact of the program
- Level 5: ROI

MAKE EVALUATION ROUTINE!

MORE RESOURCES FOR EVALUATION

- CDC -- https://www.cdc.gov/mmwr/PDF/rr/rr4811.pdf
- Kellogg Foundation -- https://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide
- United Way -- http://www.yourunitedway.org/wp-content/uploads/2015/12/UWGRP-Guide-to-Outcomes-and-Logic-Models-6-8-15.pdf

QUESTIONS?

THANK YOU!

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