Evaluating Infection Prevention Programs

EVALUATING INFECTION PREVENTION PROGRAMS
HEALTHCARE-ASSOCIATED INFECTIONS AND ANTIBIOTIC RESISTANCE PROGRAM
LOUISIANA DEPARTMENT OF HEALTH

OBJECTIVES

- Determine measureable outcomes to assess program effectiveness

WHAT IS EVALUATION?

- **Evaluation**: “to determine the significance, worth, or condition of, usually by careful appraisal and study” (Merriam-Webster dictionary definition)

- **Program evaluation**: “the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future program development.” (CDC)

WHY DON’T WE EVALUATE?

- **Common Myths**:
  - It is unnecessary and just an extra component of any initiative
  - If the results aren’t good, we may “look bad”
  - It takes too much time and we already have too many things to do
  - It’s too complicated for us to do
### BASIC PLAN OF ATTACK

1. Identify Problem
2. Take Action
3. Outcomes

### LOGIC MODELS

A tool for program planning and evaluation

A visual roadmap of a program, initiative, or intervention that you are implementing in response to a specific situation

Shows relationships among the resources that we have invested, the actions we are taking, and the outcomes of that work

### WHAT IS A LOGIC MODEL?

- Develops understanding
- Helps expose assumptions
- Helps monitor progress
- Helps restrain over-promising
- Facilitates project reporting
- Promotes communication
- Serves as an evaluation framework
STEP 1: CREATE S.M.A.R.T. GOALS/OBJECTIVES

- What specific changes do you anticipate will result from your program? What is the overarching mission of your program?
- **S** – specific, significant
- **M** – measurable, meaningful
- **A** – attainable, achievable
- **R** – relevant, reasonable
- **T** – timely, time-based, time-oriented

STEP 2: DETERMINING YOUR INPUTS

- Inputs = preparations or resources required to implement your program and accomplish your objectives
- Ex. Leadership buy-in, trained staff, funding, materials, equipment, technology, etc.

**Inputs** allow us to create **outputs**.

STEP 3: DETERMINING YOUR OUTPUTS

- Outputs = activities, services, events, and products that reach people who are targeted.
- Outputs are “what we do” or “what we offer”.

**Outputs** are intended to lead to specific **outcomes**.
STEP 4: DETERMINING YOUR OUTCOMES

- Outcomes = the changes that are likely to occur as a direct result of your output activities.
  - Short term – knowledge changes
  - Medium term – action changes
  - Long term – culture changes

ASSUMPTIONS AND EXTERNAL FACTORS

Assumptions
- The beliefs we have about the program and the people involved.
- Inaccurate or overlooked assumptions are the basis for failure or less than expected results.

External Factors
- Things that can influence the program’s success.
  - Ex. Provider attitudes
  - These factors influence your initiative, but can also be influenced by your initiative.

STEP 5: EVALUATION

Process Measures
- The aspects of your initiative that describe how it is done
  - Inputs and outputs, short-term outcomes

Outcome Measures
- Describe the results
  - Outcomes/Impact

PROCESS EVALUATION

- Determines whether program activities have been implemented as you intended
  - Methods: audits, surveys, etc.

- Monitor progress and make tweaks/corrections in the middle of the program

- Helps you improve your program
  - Reviews the program activities and short-term outcomes – did they actually happen?
  - Are there issues with your implementation strategy or with the theory behind the practice?
OUTCOME EVALUATION

- Determines whether your program worked the way you had intended
- Did you meet your S.M.A.R.T. objectives?
- Focus on the intermediate outcomes and impact – the effect of the program
- Methods: evaluate data from NHSN (run charts, TAP reports, etc.)

EVALUATION

- Keep clear records
- Audit tools
- Collect data
  - Baseline data is necessary for measuring change
- If something isn’t working, then do something else
**PROCESS EVALUATION**

- Not many staff are attending the educational sessions you are holding each week.
- Senior leaders are not equally engaged and/or holding their staff accountable.
- Flu vaccine is running out on mobile flu shot days.
- A staff survey reveals that staff rate their knowledge of influenza have increased from before program implementation.

**OUTCOME EVALUATION**

- Compared Healthcare Personnel Vaccination Rates reported to NHSN between this year and last year to determine if vaccination rates have increased.
- Declination forms are reviewed to see if reasons for declining are changing, and if less people are marking common myths as reasons for refusal.

**DID YOU MEET YOUR GOALS?**

- **Yes:**
  - From your evaluation, what strategies worked best? What didn’t work?
- **No:**
  - What did you find from your evaluation? What do you think was the biggest barrier to meeting your goal? Could it be fixed?

**OVERVIEW**

- Identify your problem.
- Develop S.M.A.R.T. objectives.
- Construct your logic model – map out your inputs, outputs, and outcomes, along with the assumptions and external factors that may affect your project.
- Evaluate both your process measures and your outcome measures.
- Make changes to your inputs and outputs when issues are identified from evaluation.
RESOURCES

- Logic Model Templates: https://fyi.uwex.edu/programdevelopment/logic-models/bibliography/

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