

Program Evaluation: Determining the worth of a program, making your case to stakeholders

Methods and Applications Seminar

Cari Levy, MD

VA HSR&D

University of Colorado Denver

What is program evaluation?

- Any of >35 different types of evaluation
 - needs assessment
 - accreditation
 - cost/benefit analysis
 - effectiveness
 - efficiency
 - formative
 - goal-based
 - process
 - outcomes

When is program evaluation helpful?

- Understand, verify or increase the impact of patients services
- Improve delivery mechanisms to be more efficient and less costly
 - identify program strengths and weaknesses to improve the program
- Verify if the program is really running as originally planned

When is program evaluation helpful?

- Convince funding agency the program meets its goals
- Produce data or verify results that can be used for public relations and promoting services in the community
- Produce valid comparisons between programs to decide which should be retained, e.g., in the face of pending budget cuts
- Describe effective programs for duplication elsewhere

Our MAPP Program Objectives

- To evaluate a program in nursing homes designed to:
 - identify those at highest risk of mortality
 - increase advance care planning
 - increase palliative care referrals
 - increase hospice referrals
 - decrease terminal hospitalizations

Describing the Program

- Characterize the program inputs, process, outputs and outcomes
 - Input: money, facilities, patients, providers, program staff
 - Process: patients are diagnosed, counseled, cared for, supported
 - Output: units of service = number of patients diagnosed, counseled, cared for, supported
 - Outcome: impact on the patients = increased rate of diagnosis , more enrolled in mental health clinic, fewer hospitalizations

Describing the MAPP Program

- Input: training of research staff, nursing home employees and providers
- Process: patients are identified at high risk of mortality, end-of-life counseling, documentation of advance directives
- Output: number of patients identified, counseled
- Outcome: impact on the patients = decreased number of terminal hospitalizations, increased rate of hospice and palliative care referrals, advance directives congruent with care provided

Planning Your Evaluation

- What decisions need to be made?
- What data points are needed to make this decision?
- More breadth generally = less depth
- Who is your audience?
- What are your sources of data?
- What is your timeframe?

Planning the MAPP Evaluation

- What decisions need to be made?
 - feasibility
 - effectiveness
- Who is your audience?
 - Kaiser
- What are your sources of data?
 - Medical records, employees, providers
- What is your timeframe?
 - 1 year

Major Types of Evaluation

- Goal-based
- Process-based
- Outcome-based

Goal-based Program Evaluation

- Evaluating the extent to which programs are meeting predetermined goals or objectives.
- Questions to ask:
 1. How were the program goals established? Was the process effective?
 2. What is the status of the program's progress toward achieving the goals?
 3. Will the goals be achieved according to the timelines specified in the program implementation or operations plan? If not, then why?
 4. Do personnel have adequate resources (money, equipment, facilities, training, etc.) to achieve the goals?

Goal-based Program Evaluation

5. How should priorities be changed to put more focus on achieving the goals?
6. How should timelines be changed (be careful about making these changes - know why efforts are behind schedule before timelines are changed)?
7. How should goals be changed (be careful about making these changes - know why efforts are not achieving the goals before changing the goals)? Should any goals be added or removed? Why?
8. How should goals be established in the future?

Goal-based MAPP Program Evaluation

4. Do personnel have adequate resources (money, equipment, facilities, training, etc.) to achieve the goals?

No....

- calculation of mortality risk too time consuming for staff
- physicians ignoring faxes
- certain physicians “anti-hospice”

Goal-based MAPP Program Evaluation

How should priorities be changed to put more focus on achieving the goals?

- Automate mortality risk calculation

How should goals be changed?

- Greater emphasis on documentation of care goals and reductions in terminal hospitalizations

Process-based Evaluation

- Aim of understanding how a program works
- How does the program produce the results that it does?
- Useful for:
 - Long-standing programs that have changed over the years
 - Employees or patients report a large number of complaints about the program
 - Programs with large inefficiencies in delivering program services
 - Accurate portrayal to outside parties how a program truly operates (e.g., for replication elsewhere)

Process-based Evaluation

- On what basis do employees and/or the patients decide that products or services are needed?
- What is required of employees in order to deliver the product or services?
- How are employees trained about how to deliver the product or services?
- How do patients come into the program?
- What is required of patients?
- How do employees select which products or services will be provided to the patient?

Process-based MAPP Evaluation

- On what basis do employees and/or the patients decide that services are needed?
 - When patient experiences clinical decline
- What is required of employees in order to deliver the product or services?
 - Order from physician
- How are employees trained about how to deliver the product or services?
 - Inservice training
 - Turnover a MAJOR problem
- How do patients come into the program?
 - Identified at high risk
- What is required of patients and families?
 - Request for palliative care/hospice referral

Process-based Evaluation

- What is the general process that patients or employees go through when participating in the program?
- What do patients or employees consider to be strengths of the program?
- What typical complaints are heard from patients and/or employees?
- What do patients and/or employees recommend to improve the product or program?
- On what basis do patients and/or employees decide that the program services are no longer needed?

Process-based MAPP Evaluation

- What is the general process that patients or employees go through when participating in the program?
 - Identify at risk, notify physician, contact hospice/palliative care program
- What do patients or employees consider to be strengths of the program?
 - Skill building courtesy of hospice nurses
- What typical complaints are heard from patients and/or employees?
 - “The nursing home, not hospice, should be providing end-of-life care.”
 - Calculation of mortality risk too time consuming
 - How do we explain palliative care to patients and families?

Outcome-based Evaluation

- Outcomes are often confused with program outputs or units of services, e.g., the number of patients who participated in a program
- Are you doing the right program activities to bring about the outcomes needed by patients and/or employees?

Outcome-based Evaluation

- Outcomes are benefits to patients or employees from participation in the program.
 - Enhanced knowledge, perceptions/attitudes
 - Improved skills
 - Improved health
 - Often confused with program outputs or units of services, e.g., the number of patients who went through a program

Outcome-based MAPP Evaluation

- Identify the major outcomes that you want to examine or verify for the program under evaluation.
 - Your overall mission is to improve end-of-life care for nursing home residents
 - Ask what benefits this will have on those patients if you effectively provide them end-of-life care
 - Fewer terminal hospitalizations
 - Less family conflict
 - Documentation of advance directives
 - Congruence of preferences stated in advance directive with actual care

Outcome-based Evaluation

- Choose the outcomes you want to examine
- Prioritize the outcomes
- Pick the top two to four most important outcomes to examine initially

Outcome-based MAPP Evaluation

- For each outcome, specify what observable measures will suggest that you're achieving that key outcome
 - Improved nurse EOL competencies = fewer hospitalizations
 - Establishing goals of care = documentation of advance directives

Outcome-based Evaluation

- Specify a "target" goal of patients and/or employees
 - All patients
 - High risk patients
 - All full-time nurses
 - All physician

Outcome-based Evaluation

- Identify what information is needed to show these indicators
- How many patients/employees in the target group were in the program?
- Example:
 - Improved nurse EOL competencies = fewer hospitalizations = 60% completed training
 - Establishing goals of care = documentation of advance directives = 100% of targeted patients had advance directives

Outcome-based Evaluation

- Decide how can that information be efficiently and realistically gathered
 - Program documentation
 - Observation of program personnel
 - Observation of patients in the program
 - Questionnaires and interviews about perceived benefits of the program
 - Case studies of program failures and successes

Outcome-based MAPP Evaluation

- Observation of patients in the program
 - Did not originally follow those who lived
- Questionnaires and interviews about perceived benefits of the program
 - Employee interviews were key in identifying the root cause of problems
- Case studies of program failures and successes
 - Charts of “anti-hospice” physician showed increased frequency of advance care planning
 - The discussions were happening, just not with hospice staff

Four Levels of Evaluating Patients

- Reactions and feelings
- Learning (enhanced attitudes, perceptions or knowledge)
- Changes in skills (applied the learning to enhance behaviors)
- Effectiveness (improved health because of enhanced behaviors)

Interpretation of Results and Making Your Case to Stakeholders

- Put the information in perspective, e.g., compare results to what you expected, promised results; original program goals; indications of accomplishing outcomes; description of the program's experiences, strengths, weaknesses
- Consider recommendations to help program staff improve the program, conclusions about program operations or meeting goals
- Record conclusions and recommendations in a report document, and associate interpretations to justify your conclusions or recommendations

Pitfalls to Avoid

- There is no "perfect" evaluation design. Don't worry about the plan being perfect. It's far more important to do something, than to wait until every last detail has been tested.
- Work hard to include some interviews in your evaluation methods. Questionnaires don't capture "the story," and the story is usually the most powerful depiction of the benefits of your services.
- Don't interview just the successes. You'll learn a great deal about the program by understanding its failures, dropouts, etc.
- Don't throw away evaluation results once a report has been generated. Results don't take up much room, and they can provide precious information later when trying to understand changes in the program.

Lessons from MAPP Program Evaluation

- Automate tool
- Outcomes should account for increased physician involvement as a result of program
- Place physician notification in the progress notes section of the chart
- Make the signed notification equivalent to an order
- Value of education hospice nurses provided to nursing home nurses

Making the Case to Kaiser

- Hospitalizations
 - 48% pre- vs. 9% post-program, $p < 0.0001$
- Palliative care referrals
 - 7% pre- vs. 31% post-program, $p = 0.02$
- Lacking an advance directive
 - 12% pre- vs. 0% post-program
- DNR Order
 - 63% pre- vs. 85% post-program

QUESTIONS???

