

Health program evaluation – What, Why, When and How?

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This is the first of a series on evaluation of health programs - the **what, why and when**. Subsequent series will cover the 'how' of program evaluation:

- Specifying a program theory and development of a logic model
- Study designs for determining effectiveness
- Measurement of patient reported outcomes
- Measurement of healthcare costs using a trial-based economic evaluation
- Measurement of healthcare costs using a model-based economic evaluation

1. What is Program Evaluation?

SYSTEMATIC: Evaluation methods are systematic using rigorous quantitative and qualitative research methods.

JUDGEMENT: We compare program performance either with its goals or with patients who were not in the program.

Program Evaluation is "the **systematic collection** of information about the **activities, characteristics, and results** of programs to make **judgments** about the program, **improve** or further develop **program effectiveness**, **inform** decisions about **future program development**, and/or **increase understanding**." – Patton, 2008

FOCUS: Evaluations focuses on studying processes, how it is implemented and on outcomes.

PURPOSE: Is it working as intended? Can it work better? Should we reallocate resources?

2. Why should I evaluate the program?

My programme is NEW. Does evaluation play a role?
In the DEVELOPING phase, how will evaluation help?
Once my programme is STABLE, what will evaluation tell me?

3. When should I plan for an evaluation?

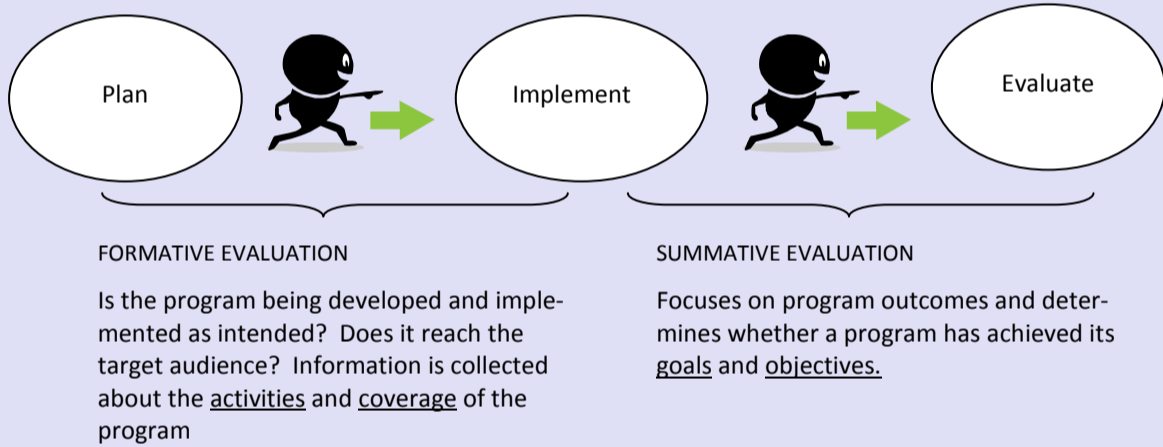
Right from the beginning of the program planning.
Leaving it to the end -

- Will delay identifying gaps in the program design and implementation
- Data required for determining effectiveness of the program may be limited or unavailable.



New program
Defines the need for a program
Plans the objectives, activities and expectations
Identify critical success factors
Developing program
Monitors program progress
Potential gaps and problems can be identified early leading to redesigning the program or adjusting expectations
Stable program
Highlight program successes and improvement areas
To demonstrate the worth of the program and support further funding

4. Types of evaluation



Case Study

Interventions and Services in Stroke (ISIS) - a case management program - was introduced in TTSH, NUH, AH and NHGP to coordinate post-discharge care for stroke patients.

Goal of ISIS

To ensure continuity of care for stroke patients through smooth and seamless coordination of care and services required at primary and tertiary settings.

Objectives of ISIS:

1. Ensure optimal control of risk factors: hypertension, hyperlipidemia and diabetes
2. Among patients screened with poor function, cognitive impairment and falls risk ensure referral to rehab, memory clinic and falls prevention counseling, respectively
3. Ensure continuity of care by reducing outpatient defaulter rate
4. Reduce stroke recurrence

Formative Evaluation

ISIS activities included:

- **Education:** on stroke management including advising on control of risk factors
- **Screening:** for depression, functional status, cognitive impairment and falls risk
- **Referral:** to appropriate community services such as rehabilitation, dementia clinic
- **Tracking:** patients' attendance for outpatient appointment and management

Indicators for coverage:

- Proportion of stroke patients recruited into the program

Indicators for monitoring program implementation

1. Proportion of ISIS patients screened for depression, functional status, cognitive impairment and complications
2. Proportion of patients who required and received referral to community services
3. Proportion of defaulters who were successfully contacted by case managers for rescheduling

Summative Evaluation

The outcomes of stroke patients in ISIS were compared to those who did not participate in ISIS. The comparison is essential in determining whether or not the outcomes were due to the program.

Outcomes assessed:

1. Functional status using the modified Barthel Index
2. Control of risk factors (Blood pressure, LDLc, HbA1c readings)
3. Stroke recurrence at 1 year

How has the evaluation results helped to improve the program?

1. When comparing outcomes on control of risk factors, a large proportion of data from the patients in the specialist clinics was missing. This reflected clinical practice in which readings were not taken unless required by the physician. Without the data, case managers were unable to monitor patient's control of risk factors.
2. Barriers were identified that reduced uptake of referrals for rehabilitation services. Reasons include financial constraints, lack of an accompanying person and not seeing the need for rehabilitation.

References

1. Michael Quinn Patton. (2008) *Utilization-Focused Evaluation*. 4th ed. Sage Publications
2. Carol H. Weiss. (1997) *Evaluation*. 2nd ed. New Jersey: Pearson Prentice Hall

Anusha Govinda Raj, BSc (Psychology), MSc (Epidemiology)

is a research analyst focusing on health programme evaluation. She has evaluated the stroke integrated care programme and the care management framework used in NHG polyclinics. Currently she is involved in the evaluation of home hospice care and various care coordination projects for stroke, dementia and asthma patients. Her most recent work was an evaluation of palliative care provision for nursing home residents.

