Introduction to program evaluation

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Plan

1. Definition and role of program evaluation
2. Evaluation approaches
3. Types of evaluation: process evaluation
4. Types of evaluation: outcome-impact evaluation
5. Major categories of program evaluation
6. Economic evaluations
7. Other evaluations activities used in Social Work
8. Research vs. program evaluation
9. Types of Evaluation Research Designs
10. ABC of program evaluation
11. Program Logic Model: overview and example
12. Evaluation plan (overview)
13. Conclusion

Role of program evaluation

- Integral and essential part of any public health program cycle:

Needs assessment ⟹ Planning ⟹ Implementation ⟹ Evaluation

- "a rigorous process [...] aiming to provide a <u>structured</u> <u>judgement</u> on a program, a policy, a process or a project <u>to assist decision-making</u>"

  Treasury Board of Canada Secretariat , 2002

- **Provides valuable information:**

  Tracking progress of a program over time

  Continuously improving performance

  Effectively managing budgets and resources

  Increasing transparency and accountability and

  Opportunity to show program success

Main evaluation approaches

- **Participatory approach***

    4Rs: Respect + Relevance + Reciprocity + Responsibility

  - Involvement of key representatives from local communities <u>in all steps</u> of program evaluation (from the beginning to the end);

- <u>Continuous learning and empowerment process</u> for all involved

- Important to assure the development of <u>culturally relevant and meaningful</u> indicators and outcomes;

  - Regular feed-back from the target population and the community;

- **Partnership approach -** collaboration – consultation

- **Direct (expert) approach -** consultation only

*Approach –relationship between evaluator and key stakeholders

Types of program evaluation -Process evaluation

Process evaluation or evaluation of program implementation*

- Focus on **PROCESS**: degree and quality of the implementation, barriers, facilitating factors

- Measures process (operational) objectives:

Inputs ➡ **Activities** ➡ **Outputs** ❌(P) **Outcomes (change in health or well being among participants)**

Question: **how well the program was implemented <u>as planned</u> (coverage of the target population, activities and their results, human and financials resources invested, etc).**

* **Process – focus on quality vs. implementation – focus on the gap between what was done vs. planned** *Ridde V , Dagenais Ch (2009)*

Types of program evaluation
Outcome evaluation

- Focus on RESULTS: looks at the program in terms of its results

  Question: Has the program Made a difference in attitudes, believes, knowledge, behaviour, skills, health status or well-being of the participants?

Outcome vs. impact evaluation

- **Outcome evaluation**

  Measures specific objectives to assess the change

  Focus on short term or intermediate results

- **Impact evaluation**

  Long term outcomes OR in a more large sense as: positive, negative, direct, indirect, expected, unexpected, social, economic, environmental etc.

Note: No consistency in the evaluation literature on definition of impact evaluation or on short, medium or long term results (sequence of results is more important than timeframe)

Major categories of program evaluation

- **Formative evaluation**

  Goal: **to improve a program**

  Conducted during the implementation of a program. Results are usually implemented immediately (process evaluation)

- **Summative evaluation - global formal judgment about the program's <u>future</u>**

  Goal: **to reach a conclusion as to whether a program should be stopped, continued as it is, or modified**

  Completed at the end of a program (ex post) after full implementation and functioning   (outcome evaluation)

Main types of economic evaluations used in public health

- **Cost-effectiveness analysis (CEA**): comparison of programs with a similar goal: which program has more effect with less cost (*relation between cost and results – how much it will cost to produce a similar effect -effectiveness criteria*); expressed in natural units: N potential school dropouts, life-yrs gained, complications reduced etc.;

- **Cost- benefit analysis(CBA**): comparison of alternatives (among different programs areas)- which program will have the greater social benefit given their cost – highest benefit-cost ratio (benefit and cost measured in $);

- Cost–all direct and indirect expenses related to the program;

- **Effectiveness** of a program - extent to which a program achieves its objectives

- **Efficiency** of a program - relation between cost and successful outcomes (assuming that effectiveness was demonstrated)

- **Productivity**- relation between services and resources e.g..: N of home visits /HCP (Health Care Personnel)

Other types of *evaluation activities* used in the public health practice

- Needs assessment*

- Strategic evaluation*

- Population monitoring*

- Performance measurement*

- Program monitoring*

- Evaluative research

*Note: No consistency in the definitions in the literature.

Other types of *evaluation activities* used in the public health practice (2)

- **Needs assessment**

  Goal: to plan or adjust public health programs; evaluate the pertinence of the objectives vs. changed needs, context

- **Strategic evaluation**

  At the organizational (macro) level: to assess how well strategic objectives were achieved by the organization or to evaluate program relevance (theory, design)

- **Population monitoring** (*monitorage populationnel*) close to surveillance

  Goal: to monitor major trends in the population health over time using health or socio-demographic indicators;

Population monitoring vs. Program evaluation

- **Population monitoring** – general health or socio-demographic indicators (e.g.: birth, maternity or child stats, quality of life, morbidity, mortality etc) at the population level – not specific to any particular program but reflects general goals in a particular area (e.g., maternity and child health)

- **Program evaluation** - based on the <u>objectives of the program being evaluated</u>. Thus, the program objectives become evaluation criteria (benchmark) in order to be able to assess the success of the program.

Note: Some health or socio-demo indicators can be used as indicators in program evaluation BUT always in relation to <u>the specific objectives </u>of the program (by when, who will achieve what and by how much - anticipated change)

Types of *evaluation activities* in the public health practice

Performance measurement

- Relatively new concept in PH; Increasing importance in current economic context ;

- Used +++ by Federal government to evaluate federal PH programs;

- Performance measurement model for the QPHP - in development;

- Various aspects of performance: quality, access, productivity, continuity, satisfaction , adaptation etc;

- Essential condition: clear operational definition of the performance using specific, evidence-based indicators;

- Allows to compare the performance of many similar programs at the national or provincial level by using a set of standardized indicators;

- Management tool – increased accountability, improved management and decision making;

- Supports quality assurance process; benchmarking tool

Note: Aboriginal programs – importance +++ of culturally meaningful indicators

Performance measurement concept applied to the health sector

- **Performance measurement** *(Gestion de la qualité, suivi de la performance)*

- *(Continuos)* **Quality improvement (Amélioration** *(continue)* **de la performance)**

- **Continuous quality assurance (Assurance continue de la qualité)**

- **Results-based management (Gestion axée sur les résultats)**

- **Management dashboard (Tableau de bord de gestion)**

Evaluation vs. ''Management '':

more punctual, **focused on objectives**, structured, **rigorous** and **analytical** process

Types of *evaluation activities* used in the public health practice (2)

Monitoring (*monitorage évaluatif*)

Goal: to follow various aspects of a program over time using key indicators

- Ongoing activity at any stage of a program that provides descriptive information on some aspects of a program (at operational level)

- Basic tool

- Program monitoring VS. Process evaluation:

  Process evaluation – conducted during implementation stage to assess how expected process objectives were met, or not and why (more analytical);

- Some data, collected during the program monitoring, can be used for evaluation purposes;

Research vs. Program evaluation

- **Research**

  Final goal: to acquire new scientific knowledge;

- **Program evaluation**

  Final goal: to obtain useful information about a specific , program, policy etc.

- **Evaluative research**

  More rigorous and analytical process vs. program evaluation (e.g.: to explore complex relationship between program components or conceptual model etc.)

Types of Evaluation Research Designs

- Evaluation research is not itself a method, but rather one application of social research methods. As such, it can involve any of several research designs. To be discussed:
  - Experimental designs
  - Quasi-experimental designs
  - Qualitative evaluations

Types of Evaluation Research Designs (Cont)

- **Experimental Designs: Key Elements of Experimental Design:**
    - **Hypothesis: A testable statement about the relationship between variables.**
    - **Independent Variable: The factor being manipulated or changed by the researcher.**
    - **Dependent Variable: The factor being measured or observed to see how it's affected by the independent variable.**
    - **Control Group: A group that doesn't receive the experimental treatment, serving as a baseline for comparison.**
    - **Random Assignment: Participants are randomly assigned to different groups to minimize bias and ensure groups are comparable at the start.**
    - **Statistical Analysis: Data is analyzed statistically to determine if the results are significant and to draw meaningful conclusions.**

Types of Evaluation Research Designs (Cont)

- **Experimental Designs:**

  - **(Exp.)   O X OOOOOOO**
  - **(Con)   O   OOOOOOO**

  Note: Random assignment

Types of Evaluation Research Designs (Cont)

- ## Quasi-Experimental Designs
  - **Quasi-Experimental Designs: distinguished from "true" experiments primarily by the lack of random assignment of subjects to an experiments primarily by the lack of random assignment of subjects to an experimental and control group. In evaluation research, it's often impossible to achieve such an assignment of subjects.**
  - **Rather than forgo evaluation all together, there are some other possibilities.**

    - **Time-Series Designs**
    - **Nonequivalent Control Groups**
    - **Multiple Time-Series Designs**

Types of Evaluation Research Designs (Cont)

- **Quasi-Experimental Design: Key characteristics of quasi-experimental designs:**
  - **No random assignment:**
  - **Participants are not randomly assigned to treatment and control groups, making it difficult to control for potential confounding variables.**
  - **Comparison groups:**
  - **Instead of random assignment, quasi-experimental designs rely on comparison groups that are as similar as possible to the experimental group in terms of baseline characteristics.**
  - **Pre- and post-tests:**
  - **Often, data is collected both before and after the intervention (pre-test and post-test) to assess changes in the outcome variable.**
  - **Internal validity:**
  - **While quasi-experimental designs offer a degree of internal validity, they are generally considered less rigorous than true experiments.**
  - **External validity:**
  - **Quasi-experiments often have strong external validity, meaning that the findings are more likely to be generalizable to real-world settings.**

Types of Evaluation Research Designs (Cont)

- **Quasi-Experimental Design:**

  - **(Exp.)   O X OOOOOOO**

Types of Evaluation Research Designs (Cont)

- **Qualitative Evaluations**
  - **Evaluations can be less structured and more qualitative.**

  - **Sometimes important, often unexpected information is yielded from in-depth interviews.**

Classification <<québécoise>> by the MSSSQ

- **Évaluation des besoins** (needs assessment)
- **Évaluation des possibilités d'action** (pertinence of objectives vs. type of intervention)
- **Évaluation de l'implantation** (implementation)
- **Évaluation des résultats et des effets** (outcomes / impact)
- **Évaluation du rendement** (relation between cost, results and benefits)

Ref.: Politique d'évaluation, MSSSQ, 2003

''ABC...'' of program evaluation (1)

- **SMART * program objectives** - *'' by when, who will achieve what, by how much and by doing what?'' – benchmark for program success*

- *Importance of **context***

- **Right evaluation questions** (what we <u>want</u> vs. what we <u>need</u> vs. what we <u>can</u> measure)

- **''Evaluability''** assessment: Is it possible to evaluate the program? - Valid conceptual framework? Identified target population? Measurable objectives? Written operational plan?

SMART*: **S**pecific + **M**easurable+ **A**chievable +**R**ealistic + **T**imely

''*ABC..*'' of program evaluation (2)

- **Feasibility assessment**: Program relevance? Organisational priority? Data available/accessible? Reasonable deadlines? Budget/ Resources available?

- **Program Logic Model (PLM)** must consider external influences*;

- **Right indicators** (evidence-based; specific, measurable, standardized, useful);
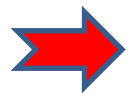
Evaluation is NOT the final step of a program -

planning- implementation cycle

* Main challenge for PH programs outcome evaluations –be able to attribute changes in program participants to the program <u>and nothing else.</u>

Program Logic Model (PLM)

Inputs ➡ **Activities** ➡ **Outputs** ➡ **Outcomes /Impact**

- PLM - logic (evidence-based) cause-effect relationships
- **Input -** everything we ''invest '' to implement the program (resources, technology, partners, time, $)
- **Activities – what we do or provide** (train, facilitate, develop, deliver)
- **Outputs** - results of the **Activities- what we produce (**not the same as outcomes) e.g.: number of training sessions given to staff, services in place , N of clientele served etc;
- **Outcomes-** result of the **Outputs** (**change** in attitudes, behaviour, health status or well being in <u>TARGET population</u>)
- **Impact** – global program effect on <u>the population </u>in a long term (sustainable-beyond the life of the program; positive, negative, direct, indirect, expected , unexpected, social, economical, environmental)
- PLM - Essential part of any evaluation plan

* PLM can be conceptual or operational

Program logic model (example)

Input	Activity (Verb)	Output	ST Outcome	MT Outcome	LT outcome	Impact
			change among the participants as a result of the program linked to the program objectives			
$ HR	Organize home visits	Home visits	↑ or ↓		Health, well- being improvement ;	
						Impact on community

Indicators measured change	No, type of services, frequency per (month) (#, %...)		
	Quality: adherence to the protocol		
	↑ Clientele satisfaction		
	↓ post partum depression	Improved maternal and child health; sustainable program;	
		+ Economic and social impact	

Evaluation plan-essential components (1)

- **Reason** of conducting an evaluation: **who is requesting and why**

- **Brief description of the program's goal, objectives and activities, context** (Important to assure culturally-sensitive programs)

- **Program logic model**

- **Type of evaluation** : Process, outcomes

- **Evaluation questions**: what do we want to know about the program (relevance, process, degree of implementation, results, efficiency?)

- **Evaluation approach:** participative vs. partnership vs. expert

Evaluation plan-essential components (2)

- **Evaluation design** (experimental, quasi exp., retro, multiple sources)
- **Variables** (operational definition)
- **Data sources**
- **Data collection** (methods and tools) **and analysis**
- **Evaluation team** (roles and responsibilities)
- **Communication plan** (how the results will be disseminated + target audience)
- **Timeframe**
- **Resources needed (budget)**

And please remember

Program Evaluation: Big Questions

- Why is the program needed?
    1. What are its core components?
    2. What population is meant to be served?
    3. What outcomes are you trying to achieve?

- When to evaluate?
    1. What information is needed to more effectively administer the program?
    2. Can the evaluation be done in time to be useful?
    3. Is the program significant enough to merit evaluation?

- What to do with results?
    1. Is program performance viewed as problematic?
    2. What will be done with the results?
    3. How receptive is the organization to an evaluation?
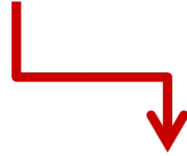
" Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted".

Albert Einstein

Questions?

Thank You!

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