



JobNut

Public Health Nutrition Intervention Management



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<http://www.medicine.tcd.ie/nutrition-dietetics/jobnut/>

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Evaluation

Unit 13 - Process Evaluation

Learning Objectives



On completion of this unit, students should be able to:

1. Demonstrate an awareness of the importance of process evaluation in public health nutrition intervention management
2. Identify the intervention players and participants involved in process evaluation of public health nutrition interventions
3. Apply a process evaluation framework to public health nutrition interventions to measure and improve intervention delivery.

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Unit Readings

- Nutbeam, D. and Bauman, A. Key Stages, methods and types of evaluation. In *Evaluation in a nutshell: A practical guide to the evaluation of health promotion programs*. 2006. McGraw-Hill: Sydney. p. 14-33.
- Harvard School of Public Health, Health Literacy Studies. *How to test for readability*. Accessed 27 October at http://www.hsph.harvard.edu/healthliteracy/how_to/smog_2.pdf
- Steckler, A., Ethelbah, B., Martin, C., Stewart, D., Pardilla, M., Gittlesohn, J., Stone, E., Fenn, D., Smyth, M. and Vu, M. Pathways process evaluation results: a school-based prevention trial to promote healthful diet and physical activity in American Indian third, fourth and fifth grade students. *Preventive Medicine*. 2003. 37: S80-S90.

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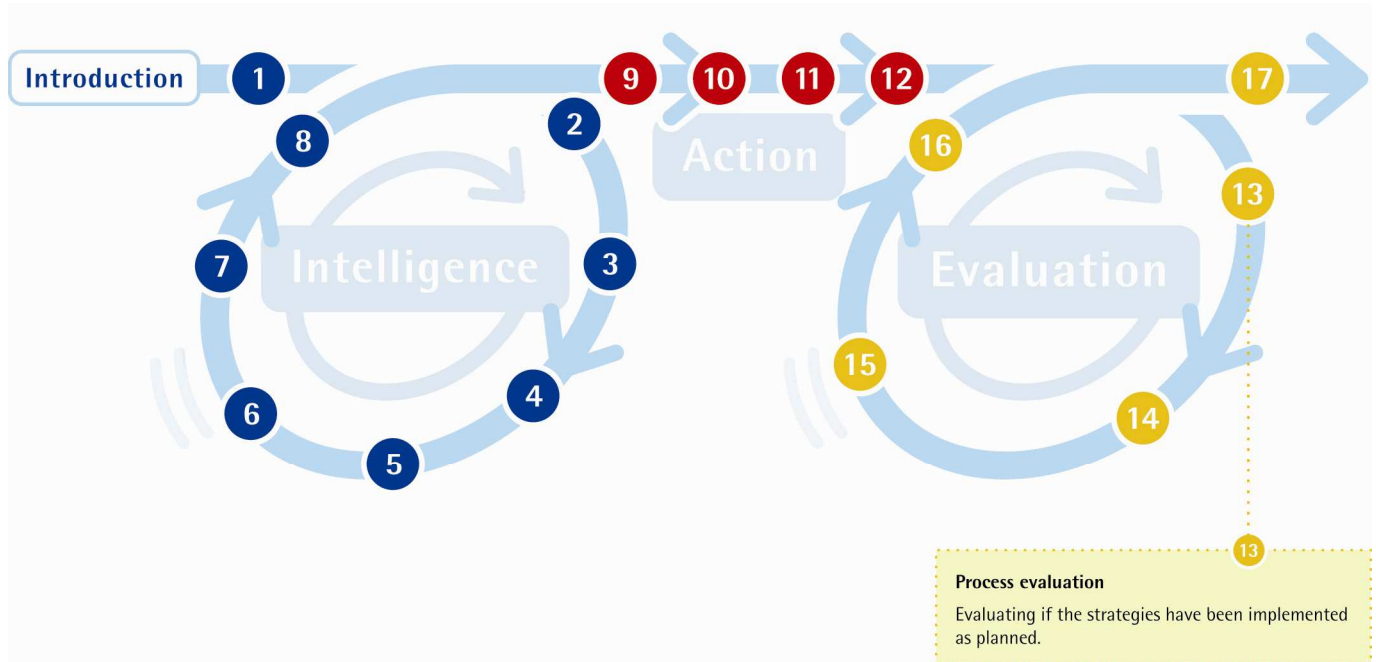
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From: Hughes R, Margetts B. *Public Health Nutrition: A Practitioners Handbook*. Blackwell Publishing, 2009.





Process Evaluation

Preamble

Poorly planned and executed evaluation of public health nutrition (PHN) practice is a major weakness and is a priority for workforce development. In practice, there are many pragmatic reasons for justifying limited evaluation effort (limited time is most commonly cited by practitioners). Unfortunately, a failure to evaluate and disseminate evaluation results contributes to a limited sharing of intelligence and learning from intervention efforts. Evaluation is a professional and ethical responsibility, and we need to ensure it is a core part of our professional practice.

Evaluation forces as practice as public health professionals on developing evidence to support judgements about an interventions success or failure. These judgements are often contextual and measured against levels and type of change defined in the intervention planning process. Central to the logic of evaluation is accountability and quality assurance. Most interventions require access to societal resources (often taxpayer funds) so an account of intervention achievements relative to costs is a reasonable and often compulsory expectation in practice. Commitment to evaluation is a critical attribute of professional practice. It helps us build the intelligence about *what* interventions work, *in what context*, *why* and *how*, so that practice is improved and made more effective and efficient. Reflecting on professional practice and why interventions fail to achieve the expected changes required for health improvement is another important component of intervention evaluation.

There are a number of levels of evaluation and multiple methods of collecting and interpreting evaluation data central to competent evaluation in PHN practice.

In this unit the methodology and purpose of process evaluation in PHN intervention management is explored. Various tools that can be used to undertake process evaluation in practice and examples of published PHN intervention where process evaluation has been identified are outlined.

Evaluation - A Brief Overview

In public health nutrition (PHN) and health promotion practice, evaluation determines the extent to which a program has achieved its desired health outcomes and assesses the contribution of the different processes or strategies that were used to achieve these outcomes (1). Evaluation of PHN interventions involves the observation and collection of information about how an intervention operates and the effects it appears to be having and comparing these to a pre-set standard, an evaluation indicator (2).

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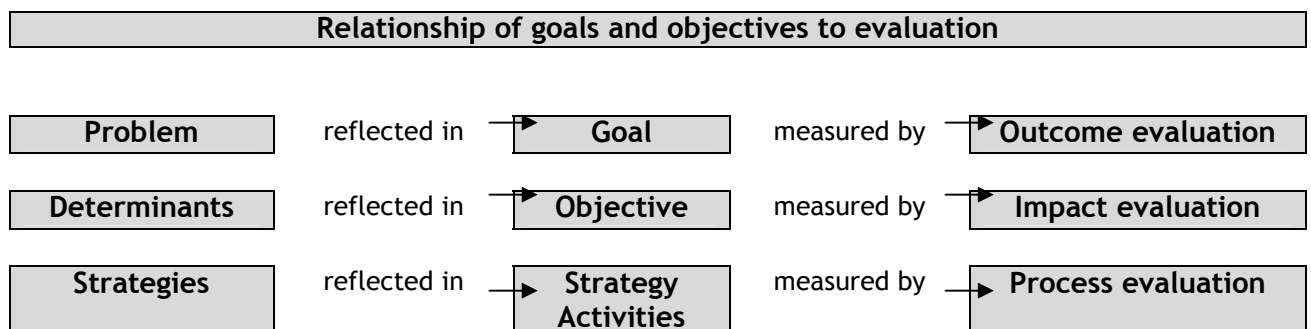
As outlined in Unit 12 the key reasons for evaluating PHN interventions is to assess and improve intervention:

- **Effectiveness** - has the intervention worked - achieved the desired effect
- **Efficacy** - relative effectiveness - how well the intervention has done compared to other intervention options
- **Efficiency** - the effectiveness of an intervention under ideal circumstances
- **economic impact** - assess cost-effectiveness and whether the time, money and resources were well-spent and justified
- **intelligence** - contribute to the body of intelligence to inform future planning and theory building
- **accountability** - justify intervention resource use and allocation to others

Linking Evaluation to Planning

Intervention planning should be directly relevant to intervention evaluation (and vice versa) because evaluation needs to measure change in the problem and its determinants. The relationship between planning and evaluation in the PHN intervention management bi-cycle is represented in Figure 1 below.

Figure 1. Relationship between Action Statements and Evaluation



Qualitative or Quantitative Approaches to Evaluation

Both quantitative and qualitative methods are used to evaluate PHN interventions. **Quantitative** methods are derived from approaches developed in epidemiology, quantitative behavioural and social sciences, statistics and demography. Quantitative methods focus on numeric data that can be statistically analysed and can test the extent to which an intervention causes change in health status, health behaviour, knowledge, attitude etc.

Qualitative methods have developed from social sciences such as anthropology and political science and attempt to determine the meaning and experience of the intervention for the target group and other participants. Qualitative approaches include focus groups, structured interviews, participating with or observing target group members (1, 2).





No single approach is ‘correct’ as the approach taken for evaluation is dependent upon what sort of information about the intervention is considered important and useful. Good quality evaluation usually has components of both qualitative and quantitative methods.

Practice Note



Qualitative methods are most often used in planning an intervention and defining the target group needs, as well as identifying the barrier to participation and the strengths/weaknesses of the intervention strategies.

Qualitative methods are used to assess program effects and test the extent to which the intervention caused the changes in health status, health behaviour, skills, knowledge or attitudes.

Levels of Evaluation

There are several different levels of evaluation in health promotion and PHN interventions:

1. **Formative evaluation** - data collected prior to implementation of the intervention that is used to inform the intervention design.

Formative evaluation is the systematic incorporation of feedback about the planned intervention activities. This type of evaluation helps to identify and rectify potential inadequacies of the intervention design and can be used to validate the problem, determinant and capacity analyses. Feedback about the intervention design may be obtained by conducting a pilot study or inviting critique from colleagues or experts in the field (4).

2. **Process** - assesses the intervention strategies and capacity building strategies.

Process evaluation takes place during intervention implementation, considers participants perceptions and reaction to intervention strategies and is commonly employed to assess the appropriateness and equity of a health promotion intervention. Process evaluation involves consideration of coverage and process such as participation rates and participant demographics. Data is commonly gathered from participants, trusted colleagues or self-assessment through qualitative methods - interviews, diaries, observations, reflections - and the findings can be dismissed as unrepresentative. Process evaluation however provides insight into how interventions are interpreted and responded to by different groups of people and whether the strategies are reaching the intended target group (3).

3. **Impact (summative short-term)** - measures whether the intervention objectives have been met.
Impact evaluation

Impact evaluation considers the changes that have occurred since the intervention began and how participants or target group think the intervention will affect their future behaviour. Impact evaluation commonly involves one of three methods: post-test only, pre-test/ post-test or pre-test/ post-test with control group.

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Pre-test/ post-test design is useful to determine if a change in knowledge, attitude or behaviour has occurred, while the use of a control group helps to avoid the danger of over estimating the intervention affect by attributing all knowledge/ attitude/ behaviour change to the intervention. Results for impact evaluation are often expressed numerically from quantitative methods that increase credibility of the findings (4).

4. Outcome (summative long-term) - measures whether the program goal has been achieved

Outcome evaluation involves assessment of the longer-term effects of the intervention which is usually more complex, more difficult and more costly than the other forms of evaluation. Outcome evaluation is important because it measures sustainment of changes overtime and is commonly conducted sometime (several years) after the intervention has officially finished. Similar to impact evaluation, outcome evaluation usually involves one of the three quantitative measurement methods to produce numerical, more credible results (3).

5. Economic - measures cost-effectiveness of the intervention or intervention strategies

Economic evaluation involves identifying, measuring and valuing both the inputs (costs) and outcomes (benefits) of the intervention. There are four distinct types of economic-evaluation: cost-minimisation, cost-effectiveness, cost-utility and cost-benefit.

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Reading

Nutbeam, D. and Bauman, A. Key Stages, methods and types of evaluation. In *Evaluation in a nutshell: A practical guide to the evaluation of health promotion programs*. 2006. McGraw-Hill: Sydney. p. 14-33.



Process evaluation

Process evaluation answers the question '*was the intervention implemented as planned?*'

Process evaluation is completed before impact and outcome evaluation which assess the intervention effects because it is pointless to expect successful intervention outcomes if the intervention has not reached the target group, involved the appropriate stakeholders or engaged with the community as intended. It is an integral part of evaluation to assess whether the different program elements were delivered as intended (2).

Process evaluation assesses intervention implementation and is concerned with questions relating to intervention exposure, reach, participant satisfaction, delivery, fidelity, and contextual aspects of the intervention. Process evaluation results provide specific information to help improve the implementation of interventions.





Both qualitative and quantitative methods are used in process evaluation. Quantitative methods measure reach, delivery and exposure aspects of the intervention. While qualitative methods assess participant satisfaction, fidelity and context elements of intervention delivery.

Process evaluation is also of managerial importance by providing rapid feedback on the quality and integrity of the implementation, identifying ways to improve delivery, resource adequateness and an understanding of the factors associated with success or failure (1).

Process evaluation techniques are also useful to monitor intervention delivery, even when there is confidence that the intervention is being delivered in its best form and running as intended. Continued monitoring is a form of quality assurance by ensuring the quality of the intervention meets standards of good practice and can also be used to ensure effectiveness of intervention strategies is maintained when diffused into multiple environments. An evidence-based PHN intervention for example, may be trialled in one childcare facility and then implemented across a region to many childcare centres (1).

Key purposes of process evaluation:

- **Understanding and improving implementation of a PHN intervention**
Assessment of the quality and quantity of implementation activities such as reach, fit with the target group and fidelity (intervention implemented as intended), can help to improve implementation of intervention strategies working to a loose plan and evolving in accordance with the context (particularly capacity building strategies).
- **Accounting for success (or failure)**
Identification of components of the intervention which have contributed significantly to the overall effects (distinct from the activities which were neutral or negative), and explain why (if effectiveness is confined to subgroups of the target population).
- **Enhancing best practice in PHN intervention management**
Findings contribute to improving professional practice by (i) supporting learning and improved performance within a population, (ii) creating mutual understanding of barriers and facilitators between key stakeholders, and (iii) building the PHN knowledge base.

Source: (5)

Elements of process evaluation

Process evaluation can include a broad range of methods and measures however the most common elements are:

Exposure

Exposure examines the extent that the target group are engaged, aware of the health problem or receptive to and/or use the strategy, resource or message being implemented. Exposure includes both initial awareness or use and continued awareness or use (6).





Recall surveys are commonly used to assess the awareness of education or social marketing campaigns and materials. Members of the target population are commonly asked to recall the campaign without recall and also then asked to identify a specific advertisement after a range of different campaigns are read out. Monitoring exposure can enable intervention planners to take corrective action to ensure the target population and participants are receiving and/or using resources or messages (6).

Describing or quantifying the awareness or the extent the intervention was received is crucial, as failure to achieve recognition and awareness of an intervention can have a fundamental impact on subsequent participants and intervention reach (1).

Reach

Reach considers the proportion of the target group who participate in the intervention. Reach is often measured by attendance figures. To make sense of attendance figures the total number of the target group in the community, region or nation must be known to enable the percentage of the total target group reached to be calculated. Reach data can be reported as a percentage or ratio. Percentages are useful for graphical representation however ratios such as 1 in 25 are commonly used when describing an intervention (2). Reach data can also involve assessment of recruitment procedures used to approach and attract participants at individual or organisational levels and understanding the barriers to participation or reasons for dropping-out. Undertaking semi-structured interviews or focus groups with participants and non-participants can help identify problems with access or attendance that may be addressed (1).

Monitoring the numbers and characteristics of participants of participants ensures sufficient numbers of the target group are being reached. While monitoring and documenting recruitment procedures can help ensure a protocol is followed or altered as required (6). Knowing the reach of the program is important for understanding generalisability and explaining the subsequent effects. Identifying and quantifying any sub groups that were less likely to attend shows low participation that will predictably lead to poorer results and indicates that additional services, different programs or recruitment strategies may be needed (1).

Satisfaction

Satisfaction examines whether participants (both primary and secondary target audiences) were happy with and liked the intervention. It is important to ensure that intervention participants enjoy and value the intervention before the desired effects of the intervention can occur (2).

There are three main areas of participant satisfaction that can be examined:

- Interpersonal issues - do the participants feel comfortable in the intervention? Do they feel listened to and understood? Is it easy to interact with other participants? Are the facilitators interested, approachable and sincere?
- Service issues - Is the intervention venue convenient and comfortable? Is it easy to get to? Is the intervention strategy run at a convenient time? Are the facilities adequate? Is the intervention too expensive to attend?
- Content issues - Are the topics covered relevant and interesting? Is the information presented in the best way? Is the pace too slow or too fast? Is it too complex/ easy? Are some things being left out or not covered in sufficient depth? *The important at this stage is to ensure the right topics are being covered at the correct level, not whether learning has taken place (i.e. impact evaluation) (2).*

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Measuring interpersonal, service and content issues can be achieved in a variety of ways including individual questionnaires for participants to complete, individual or group interviews, and focus groups or group discussion. Individual questionnaires are common however caution should be taken to ensure the group are literate and take well to paper and pen, adequate time is allocated and all the questionnaires are returned (2). It has been noted that positive response bias is strong in this form of data collection, with participants giving overly positive rather than true constructive feedback about the intervention and facilitator/s (1). Post intervention questionnaires however are often most appealing due to resource and time constraints and are a better alternative than conducting no process evaluation at all.

Group discussions can illicit good process feedback, particularly with a less literate participant group. One such strategy involves the facilitator dividing a whiteboard or large sheet of paper into 4 columns (see example in Table 1). The left hand column includes 5 or 6 aspects about the intervention such as the venue and facilities, intervention content, facilitators' skills, group activities and other. The three remaining columns are for 'positive comments', 'negative comments' and 'recommendations'. Having the recommendation common is important because people are more likely to give negative feedback if they can turn criticism into something constructive like a recommendation. The discussion can be facilitated as a whole group - with the facilitator also making positive and negative comments, or breaking into smaller groups. Breaking into smaller groups maintains anonymity however it is important that the groups do not try to reach consensus - each participant will have their own thoughts about the strengths and weaknesses of the intervention (2).

Table 1. Group discussion - example community kitchens education session

Component of session	Positive comments	Negative comments	Recommendations
Session content	Interesting Practical to daily life Good level of information	Didn't talk about reading food labels	Tell us where to buy cheap fruit and veg Include label reading
Facilitating style	Friendly Not like a school teacher	Spoke too softly in the noisy kitchen	Speak up
Handouts/ recipes	Not too complicated Good recipe ideas - the kids will like them	A lot of information for kids not older people	A bigger range of recipe ideas
Group work	Good to cook and eat together Lots of time to ask questions	Group too large to all be involved	Need to limit group size to 10
Venue and facilities	Good central location Close to public transport Good sized kitchen Same equipment as home	Not enough chairs Too cold	Speak with management about heating
Other		Personal childcare arrangements difficult	Need childcare available

Adapted from: (2)

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Obtaining regular feedback from the primary and secondary target group is important to enable corrective action to be applied and the intervention strategies improved. Describing and/or rating participant satisfaction and outlining how the feedback was used to alter the strategies is also important to include in progress and final reports to explain to decision makers and stakeholders why intervention strategies may have changed or progressed.

Delivery

Delivery involves assessing whether all the activities are being implemented as intended. Delivery usually involves writing down all the components of an intervention or intervention strategy then recording and tallying the components delivered and comparing to ensure all activities were delivered as intended.

Assessing intervention delivery may involve recording and monitoring the number of sessions delivered, the location and completeness of intervention delivery at different sites, or recording ways that intervention delivery differed at different sites. Delivery could also include assessing the running of an activity or event against a run sheet developed for planning and implementation (1).

The delivery of content of an education session should also be monitored for quality assurance and consistency. One method for monitoring content delivery is to have an observer attend each session and record the amount of time spent on each topic area. After several sessions it is possible to see a picture of relative stability or instability and assess the emphasis given to each topic relative to the overall objective of the intervention strategy. Such monitoring can enable time adjustments and can lead to improvements in intervention design and enable the dose of the intervention to be quantified (6).

Context

Context considers aspects of the environment that may influence intervention implementation or outcomes. Context also includes describing the different settings and contexts in which interventions are delivered, and any contamination or exposure the control group had to the intervention.

Context can be monitored by keeping a log of problems in the delivery of the intervention (including differences in different settings), difficulties experienced or barriers to implementation. A sample of staff, stakeholders and participants could be interviewed about the environmental, social or financial factors that may have influenced the implementation of the intervention. For example, what happened when the resources were not available as required or the intervention was delivered to the target population in a way that was different from what was planned? (1)

Monitoring aspects of the physical, social and political environment and how they impact on intervention implementation enables corrective action to be taken as necessary and ensures the environmental aspects that affected the intervention are described or quantified against the intervention impacts or outcomes (6).

Fidelity

Fidelity involves monitoring and adjusting intervention implementation as required to ensure theoretical integrity and quality of the intervention strategies and activities (6). Monitoring fidelity commonly involves assessing the performance of intervention materials and components.

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Process Evaluation of Educational Materials

A standard protocol has been developed for assessing the presentation style of leaflets and audiovisual materials before they are printed for distribution in final form. The key elements of a questionnaire developed by the US National Cancer Institute can be used to develop a questionnaire or guide a focus group discussion with target groups to assess the quality and suitability of the intervention materials or messages (handouts, websites, posters, messages, advertisements).

- **Attraction:** – does the handout create interest? Catch participant’s attention? What do people like most and least about it?
- **Comprehension** – is the website easy to understand? Does it convey the intended message?
- **Acceptability** – is there anything offensive or irritating about the poster? Does it conflict with cultural norms (especially if translated into different languages?)
- **Personal involvement** – is the message directed at the reader personally?
- **Persuasion** – is the advertisement convincing? Does it seem to persuade the reader to do something?

Source: (2)

SMOG

There are several tools available to assess the readability of materials and evaluate how easily it will be comprehended. A health message that is hard to read may prevent the target group from understanding the message intended for them. The SMOG (Simple Measure of Gobbledygook) Formula is one tool that is useful for estimating the difficulty of print material. The SMOG formula is simple and quick to apply and yields an approximate reading grade required to read and understand the text. The tool assesses the number of polysyllabic words because texts with a lot of polysyllabic words require a higher reading comprehension than texts where the vast majority of words have one or two syllables. To ensure a wide audience is able to read your material a SMOG score of 12 or lower is recommended (2). The reading by Harvard School of Public Health outlines how to conduct a SMOG test.

Group Leader Evaluation

The quality of an intervention can also be measured by examining the group leader and the group process. A group leader can play various roles in a PHN intervention, sometimes acting as an instructor or demonstrator such as a cooking demonstration, while at other times the leader may play more of a facilitator role, facilitating the process of talk, thought and interpersonal support that is common in capacity building strategies. When a group leader is functioning more directly questions such as those developed by Miller and Lewis (Table 2) can be used to assess for example the leader’s friendliness, interest and ability to communicate, and level of organisation (2). These questions are usually answered by group participants or an observer or members of staff, to rate the group leader’s performance. When a group leader plays a facilitator role it is more appropriate to monitor the group environment, the feeling created in a group. Validated tools are available to assess the group environment, however these are psychological measures and it is important to work with a psychologist or the psychology department in a tertiary institution to properly implement these tools.



Describing or quantifying the performance of intervention materials, group leaders and the group environment provides a detailed account of the fidelity of intervention implementation that can be used to demonstrate the quality of the intervention components in intervention reporting.

Table 2. Questionnaire for assessing group leader performance

Item	True	False
1. The instructor puts high priority on the needs of the class participants		
2. The instructor makes a lot of mistakes in class		
3. The instructor gives directions too quickly		
4. The instructor helps me feel that I am an important contributor to the group		
5. A person feels free to ask the instructor questions		
6. The instructor should be more friendly than he/she is		
7. I could hear what the instructor was saying		
8. The instructor is a person who can understand how I feel		
9. The instructor focuses on my physical condition but has not feeling for me as a person		
10. Everyone who wanted to contribute had an opportunity to do so		
11. There was too much information in some sessions and too little in others		
12. Just talking to the instructor makes me feel better		
13. The purposes for each session were made clear before, during and after the session		
14. Covering the content is more important to the instructor than the needs of the group		
15. The instructor asks a lot of questions, but once he/she gets the answers she/he doesn't seem to do anything about them		
16. The instructor held my interest		
17. The instructor should pay more attention to the participants		
18. The instructor is often too disorganised		
19. It is always easy to understand what the instructor is talking about		
20. The instructor is able to help me work through my problems or questions		
21. The instructor is not precise in doing his/her work		
22. The instructor understands the content he/she presents		
23. I'm tired of the instructor talking down to me		
24. The instructor fosters a feeling of exchange and sharing between group participants		
25. The instructor is understanding in listening to a person's problems		
26. The instructor could speak more clearly		
27. The instructor takes a real interest in me		

Source: (7)



Practice Note

The key questions to consider about your intervention during process evaluation are:



1. Is the target group aware of the intervention? (**exposure**)
2. Are all parts of the intervention reaching all parts of the target group? (**reach**)
3. Are participants satisfied with the intervention? (**satisfaction**)
4. Are all activities of the intervention being implemented? (**delivery**)
5. Are all the materials and components of the intervention of good quality? (**fidelity**)
6. What aspects of the environment are influencing intervention implementation? (**context**)

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Reading



Harvard School of Public Health, Health Literacy Studies. *How to test for readability*. Accessed 27 October 2008 at http://www.hsph.harvard.edu/healthliteracy/how_to/smog_2.pdf

Exercise 1.

Considering your selected scenario, select 2 possible pieces of educational material that could be used to support your intervention and undertake a readability assessment on both to help determine which is most suitable. Write a brief rationale for your choice and include the readability score of both items.



This exercise will require you to search for available health material from government health departments, non-government organisations and food industry.

Workshop/tutorial option:

Complete the exercise in small groups followed by a whole-class debriefing

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Methods for Conducting Process Evaluation

There are various methods to undertake process evaluation. Saunders et al (2005) outline a six step process evaluation planning methodology that is heavily integrated with intervention planning and is clearly explained in the reading for this unit.

While there are no fixed rules about which elements of an intervention should be included in process evaluation, any clearly articulated components of the intervention logic model should be monitored (1) and each of the six elements of process evaluation should be considered for each intervention. Table 3 outlines some key methodological components to consider in process-evaluation.

The initial responsibility in process evaluation, when developing an intervention is to devise systems to assess the six elements; exposure, reach, satisfaction, delivery, fidelity and context of the intervention and its key components. The information should then be used to make changes to the intervention strategies, evaluating these changes in a continuation of process evaluation until the intervention has reached an optimum and stable form. It is then an appropriate time to proceed to impact and outcome evaluation (2).

Some monitoring of the process of intervention delivery is still required to ensure the quality of the intervention does not falter. Some low-level continuous and occasional monitoring will help to keep the quality in check. It is important for example, to continue to routinely collect figures on attendance or intervention reach to track whether intervention reach has been maintained or improved. The aspects of process evaluation that are harder to collect such as monitoring session content or intervention materials and components should be monitored on a more occasional basis but not less than once a year (2).

If an imported intervention is being implemented it is important to consider the intervention as a new intervention because it is being delivered to a new group of people, by new staff. An imported intervention requires comprehensive process evaluation followed by scaled-down monitoring once the intervention is being delivered in a satisfactory manner (2).

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Table 3. Key methodological components to consider in process evaluation

Methodological component	General definition	Example - qualitative and quantitative methods
Design	Timing of data collection: when and how often data will be collected	Observe classroom activities at least twice per semester with at least 2 weeks of observation Conduct focus groups with participants in the last month of the intervention
Data sources	Source of information (for example, who will be surveyed, observed, interviewed)	Both qualitative and quantitative - data sources include participants, teachers/staff delivering sessions records, the environment etc
Data collection tools/ measures	Instruments, tools and guides used for gathering process-evaluation data	Both qualitative and quantitative - tools include surveys, checklists, observations forms, interview guides etc
Data collection procedures	Protocols for how the data collection tool will be administered	Detailed description of how to do quantitative/ qualitative classroom observation, face-to-face or phone interview, mailed survey, focus group etc
Data management	Procedures for getting data from field and entered - plus quality checks	Staff turn in participant sheets weekly, evaluation coordinator collects and checks surveys and gives them to data entry staff Interviews transcribed and tapes submitted at the end of the month
Data analysis	Statistical and/or qualitative methods used to analyse or summarise data	Statistical analysis and software that will be used to analyse the quantitative data Types of qualitative analysis used

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Reading

Saunders, R., Evans, M. and Joshi, P. Developing a process-evaluation plan for assessing health promotion program implementation: A how-to guide. *Health Promotion Practice*. 2005. 6: 134-147.



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Exercise 2.



After reading the article by Saunders et al (2005), consider your selected scenario develop a detailed process evaluation methodology for your intervention. Include what strategies and activities you will evaluate, what tools you will use each time, who will undertake each process evaluation and what resources or pre-conditions are required.

Workshop/tutorial option:

Complete the exercise in small groups followed by a whole-class debriefing

CPD option:

Conduct the above exercise in the context of your current work role and an identified nutrition problem in the community or population you are working with.

Process Evaluation Indicators

If you recall from Unit 11, evaluation must involve both measurement and comparison of the observations or data against a criterion or standard. In PHN it can be difficult to be prescriptive because experience is limited and emerging, and because commonly decision makers are reluctant to have black and white performance indicators for which they are accountable when evidence of intervention effectiveness is weak.

It has been suggested that it is appropriate for evaluation indicators come from the following sources:

- Historical comparisons with similar efforts in the past
- Comparisons with contemporary activities elsewhere
- Consensus among professionals which apply a combination of the first two and professional judgement (2).

Data from process evaluations are often not published hence it may be hard to find comparative data. When comparative data is lacking professional judgement and opinions of experts in the field should be applied.

Practice Note



It is vital to obtain informed consent from all participants. On some occasions such as during observations at public events obtaining direct consent may not be possible however, it is important to ensure all participants are aware data will be gathered from both formal and informal methods not only surveys and taped interviews. It is also critical to ensure anonymity of respondents and confidentiality of the data obtained and ensure that any reporting of contentious issues of a personal nature are handled with extreme sensitivity.

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Process Evaluation in Practice - Published Examples

Table 4 outlines three published PHN interventions where process evaluation has been an important and identified feature. The diversity of styles and purposes of process evaluation are well illustrated here and in the reading by Steckler et al 2003.

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Reading



Steckler, A., Ethelbah, B., Martin, C., Stewart, D., Pardilla, M., Gittlesohn, J., Stone, E., Fenn, D., Smyth, M. and Vu, M. Pathways process evaluation results: a school-based prevention trial to promote healthful diet and physical activity in American Indian third, fourth and fifth grade students. *Preventive Medicine*. 2003. 37: S80-S90.

Exercise 3.



After reading the article by Steckler et al (2003) reconsider your methodology from Exercise 2 and whether there are any adjustments or additions you feel you should make.

Outline why you think the process evaluation was unable to explain why the objective changes in obesity were not seen in the impact/outcome evaluation.

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Table 4. Examples of process evaluation used in published health promotion papers

Author (year)	Program description	Types of process evaluation used	Main findings and usefulness of process evaluation to this health promotion intervention
Ronda et al (2004)	Dutch regional heart disease prevention project in Maastricht region	Steering committee interviewed: number of planning meetings held, count number of project activities held	Defined limitations to functioning of neighbourhood committees (understaffed); stakeholders rated community participation as 'not very good' and environmental strategies as 'not implemented'; these interviews helped understand the lack of outcome effects of the program; may take longer (years) to engage with communities.
Steenhuis et al (2004)	Evaluation of environmental change nutrition strategies at worksites and marketing healthy food choices at supermarkets	Interviews with managers at supermarkets about the healthy nutrition marketing and labelling program	Most managers had a 'positive opinion', but indicated that health choice posters were the wrong size, labelling was not compatible with supermarket systems, program materials were not always displayed, there was a lack of time by staff and a lack of space in supermarkets, and the program did not attract customers' attention enough - these factors explained program ineffectiveness.
Baranowski and Stables (2000)	Process evaluation of five-a-day fruit and vegetable project in nine sites in USA	Monitored each project with respect to recruiting participants, keeping participants, context of interventions, resources used, degree of program implementation, program reach and barriers	Settings identified - schools, worksites; participation rates often lower than expected; in-school curricula were well implemented; worksite programs reached blue-collar workers less well; programs using social support, social networks or church-based networks showed good population reach; more research needed to define the quality of the implementation.

Source: (1)





Assessment

Considering your selected scenario and using your responses to Exercises 2 and 3 complete the process evaluation section of the intervention management template.



CPD option:

Conduct the above exercise in the context of your current work role and the community or population you are working with.

Key Points

- Both quantitative and qualitative methods are used to evaluate PHN interventions. Quantitative methods test the extent to which an intervention causes change in health status, health behaviour, knowledge, attitude etc. While qualitative methods attempt to determine the meaning and experience of the intervention for the target group and other participants.
- Process evaluation assesses intervention implementation including exposure, reach, participation satisfaction, delivery, fidelity and context aspects of the intervention. Process evaluation results provide specific information to help improve the intervention into a more effective form.
- Process evaluation is a continual process with intensive process evaluation to make changes to the intervention strategies, then evaluating these changes until the intervention has reached an optimum and stable form before proceeding to impact and outcome evaluation. Some low-level continuous monitoring of the process of intervention delivery is still required for quality assurance.
- Process evaluation occurs before impact and outcome evaluation (which assesses intervention effects) because is essential to identify, if an intervention has been successful or unsuccessful, *how* it worked, provide explanatory information and understand the mechanisms of operation.



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Additional Resources and Readings

Process evaluation

- Hawe, P., Degeling, D. and Hall, J. *Evaluating health promotion: a health worker's guide*. 1990. MacLennan and Petty: Sydney.
- Thorogood, M. and Coombes, Y. *Evaluating health promotion: practice and methods*. 2004. Oxford University Press: New York.

Testing quality of messages and materials

- National Cancer Institute <http://www.cancer.gov/pinkbook/page6#3>
- Harvard School of Public Health, Health Literacy Studies
<http://www.hsph.harvard.edu/healthliteracy/materials.html#three>

Evaluating health promotion programs

- The Health Communication Unit. *Evaluating health promotion programs*. 2007. The Health Communication Unit, University of Toronto: Toronto.

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References

1. Nutbeam, D. and Bauman, A. *Evaluation in a nutshell: a practical guide to the evaluation of health promotion programs*. 2006. McGraw-Hill: Sydney.
2. Hawe, P., Degeling, D. and Hall, J. *Evaluating health promotion: a health worker's guide*. 1990. MacLennan and Petty: Sydney.
3. Naidoo, J. and Willis, J. *Health Promotion - Foundations for Practice*. 2nd Ed. 2000, Harcourt Publishers Limited, London.
4. Ryan, D., Mannix McNamara, P. and Deasy, C. *Health Promotion in Ireland: principles, practice and research*. 2006. Gill and Macmillan: Dublin.
5. Platt, S., Gnich, W., Rankin, D., Ritchie, D., Truman, J. and Backett-Milburn, K. Applying process evaluation. In Thorogood, M. and Coombes, Y. *Evaluating health promotion: practice and methods*. (2nd Ed). 2004. Oxford University Press: New York.
6. Saunders, R., Evans, M. and Joshi, P. Developing a process-evaluation plan for assessing health promotion program implementation: A how-to guide. *Health Promotion Practice*. 2005. 6: 134-147.
7. Miller and Lewis, 1982, cited in Hawe, P., Degeling, D. and Hall, J. *Evaluating health promotion: a health worker's guide*. 1990. MacLennan and Petty: Sydney.

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