



JobNut

Public Health Nutrition Intervention Management



Funded by



Education and Culture

Leonardo da Vinci



PERMISSION FOR USE AND COPYING

Intellectual property rights for this material rests with the Authors.

Permission to use and copy this resource is freely granted for educational purposes. These Units are designed to be delivered intact as complete Units, however there may be situations where use of part of the Unit is warranted in educational contexts. If you are reproducing in part only, please credit:

Hughes R, Black C, Kennedy NP. *Public Health Nutrition Intervention Management: Evaluating Capacity Gains*. JobNut Project, Trinity College Dublin. 2008.

ADDITIONAL COPIES

The complete suite of 18 Public Health Nutrition Workforce Development units developed by the JobNut Project and the related Educator's Guide are available for downloading at the following website:

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

DISCLAIMER

This workforce development unit has been produced as part of the JobNut Project, supported by the Leonardo Da Vinci Program, Education & Culture, European Commission. The opinions and conclusions expressed in this paper are those of the author(s) and no official endorsement by the funder is intended or should be inferred.

ACKNOWLEDGEMENTS

Funding to support the JobNut Project was provided by the Leonardo Da Vinci Program, Education & Culture, European Commission.

This Unit has been developed by Professor Roger Hughes, Christina Black and Dr Nick Kennedy of the Unit of Nutrition and Dietetic Studies, School of Medicine, Trinity College Dublin.



TRINITY COLLEGE DUBLIN
COLÁISTE NA TRIONÓIDE, BAILE ÁTHA CLIATH

Intelligence

Action

Evaluation >

Evaluating Capacity
Gains



Evaluation

Unit 15 -Evaluating Capacity Gains

Learning Objectives

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

1. Evaluate capacity gains, using a multi-modular framework for capacity evaluation
2. Descriptively summarise and justify assessments of capacity gain using examples and evidence
3. Use visual representations of capacity evaluation data to illustrate effectiveness of capacity building strategies



Intelligence

Unit Readings

- To be completed



Intelligence

Action

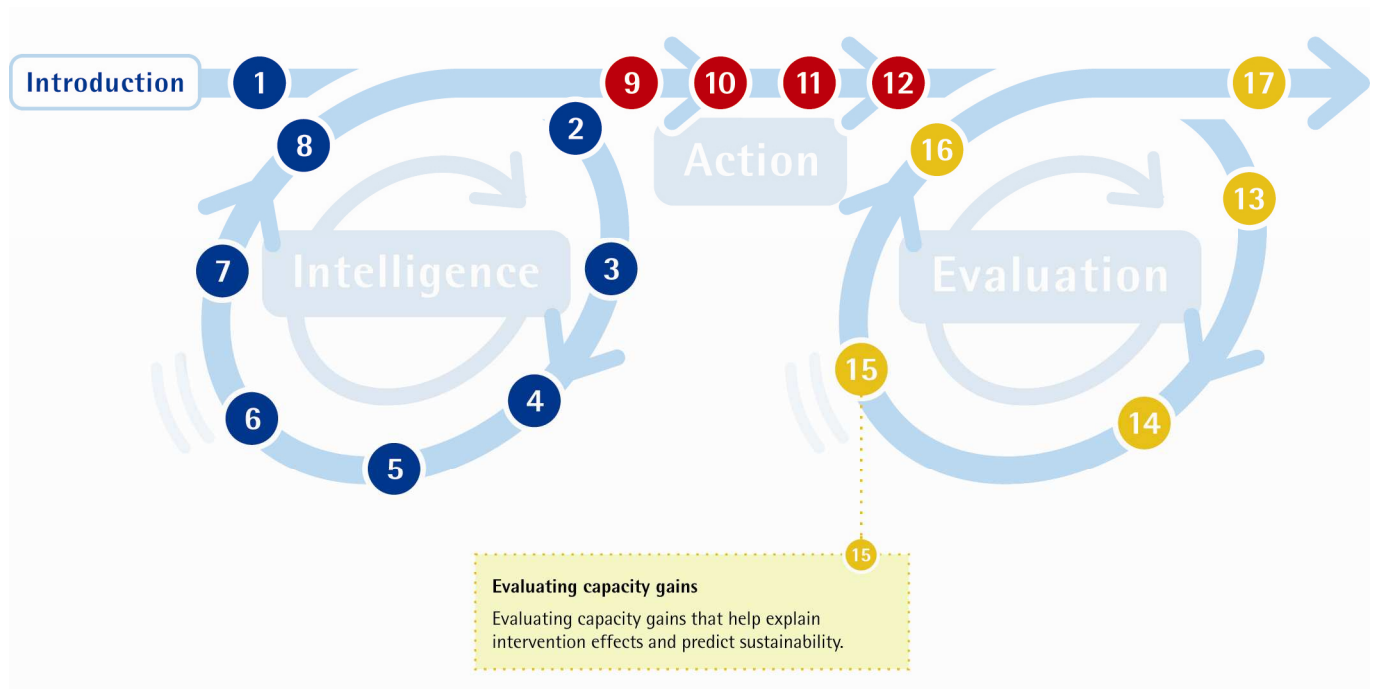
Evaluation >

Evaluating Capacity
Gains



Contents:

| | Page No. |
|--|----------|
| Challenges in Measuring Capacity | 5 |
| Strategies to address key capacity measurement issues | 7 |
| Pre and post intervention comparisons | 8 |
| Strategies to Enhance the Trustworthiness of Capacity Evaluation | 11 |
| Summary of Key Points | 13 |
| Additional Resources and Readings | 14 |
| References | 14 |



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





Evaluating Capacity Gains

Preamble

Earlier units on capacity building (Units 1, 3 and 5) have emphasised the critical importance of a capacity building approach to public health nutrition practice. Capacity building is a strategy and capacity gain is an outcome. Capacity building as a strategy needs to be evaluated, so that judgements can be made about the effectiveness of capacity building strategies. Given the critical importance of capacity (the ability to achieve stated goals and objectives) in effective strategy implementation, evaluation of capacity gain is too important to ignore. Surprisingly, it has been a much neglected aspect of PHN practice (in fact most health promotion practice). This module revisits capacity assessment (covered in Unit 5) and details how to assess capacity gains, justify and describe the intelligence used to make assessments and visually represent this data.

Challenges in Measuring Capacity

Building capacity to effectively implement community-based interventions is an integral part of the “doing” of public health nutrition. The “doing” focus on capacity building in public health interventions is integrally linked to and is dependent upon measuring capacity.

Capacity assessment serves to:

- Identify readiness for action in a community
- Engage the community
- Focus strategies for capacity building and
- Provide baseline data for evaluation of capacity building

Assessment of capacity is required at various stages of capacity development and different measures may be necessary at each stage. Initial assessment of capacity provides the context for capacity building and identifies capacity building possibilities and gaps. Progressive assessments monitor change in capacity at individual, organisational and systematic levels. Impact measurement assesses the amount of capacity gain at the various levels, as well as the successful elements of the capacity building strategy and their contribution to the intervention outcomes.

The method of measuring baseline capacity, changes in capacity and the benefits of capacity building on health can be challenging and a number of issues influencing measurement of capacity have been identified from Canadian health promotion capacity building experience (1). These identified issues are not mutually exclusive, with many of them interacting with each other. These are not that different from measurement issues in other areas of research and evaluation. The key issues and challenges in measuring capacity are outlined in Table 1.

Intelligence

Action

Evaluation >

Evaluating Capacity Gains



Table 1. Issues in measuring capacity

| Issues | Description |
|------------------------------------|---|
| Multiple understandings of terms | Lack of consistent understanding of health promotion terminology across settings, organisations and individuals present a measurement challenge as a shared terminology cannot be assumed when exploring health promotion capacity with key informants at multiple levels of an organisation or across sectors. This issue has implications in the design and format of measurement tools, and for data analysis. |
| Evolving understanding of capacity | The definition and nature of capacity is evolving, thus measurement tools - particularly quantitative tools - can be lengthy and complex in order to tap into actual or potential dimensions. Respondent burden becomes an issue. |
| Invisibility of capacity building | Community empowerment is explicit in health promotion, which often creates a culture of invisibility around capacity building (<i>i.e. Because capacity building practitioners want the community to take ownership and credit for capacity gains and the associated outcomes, they may not overtly communicate or promote capacity building strategies</i>) Invisibility causes difficulty in recognising, describing and measuring capacity building. |
| Dynamic contexts | The health system is one that is dynamic, and always seems to be threatening dramatic restructuring. Prominent contextual aspects that have influenced the measurement of capacity include: staff turnover, health system renewal, conflicting perspectives across informants within organizations, conflicting personalities within organisations and between informants and practitioners, “turf” protection” by health workers in different departments, and organisational staff understanding and valuing the capacity building process. |
| Time course for change | The long-term outcome is that enhanced capacity will ultimately contribute to improved health in the population. Organisational and/or individual capacity serves as an intermediate outcome, as do enhanced health promotion and prevention skills, services and programs. The time course for such individual or system changes to occur is a challenge for projects with set timeframes. |



Table 1. *Continued*

| | |
|---|--|
| <p>Building trust and dealing with sensitive issues</p> | <p>It is important to develop a trusting relationship between practitioners and organizational or community representatives to ensure high quality data collection. Equally important is the longitudinal nature of the research which required multiple connections over time. The relationships underlying these multiple connections depend on trust and are a mediating factor that cannot be underestimated. The development of appropriate questions, the documenting and sharing of such sensitive information without breaching confidentiality or trust poses a measurement challenge.</p> |
| <p>‘Snap-shot’ measurements</p> | <p>Quantitative instruments provide a ‘snap-shop’ in time. Qualitative interviews allow the exploration of critical events, milestones or snapshots, however they count on accurate and comprehensive recall of informants, sometimes months after a particular occurrence. This can be a limitation because of “recall bias”.</p> |
| <p>Validity and reliability of quantitative measures</p> | <p>There is no “gold standard” tool to measure health promotion capacity. Establishing criterion validity is therefore compromised. External validity, the generalisability of findings to and across populations of subjects and settings, is difficult to reach because each project is context-specific.</p> |
| <p>Attribution for change in capacity</p> | <p>The process for building health promotion capacity is participatory, in that organisations and individuals who are ‘recipients’ of the capacity-building interventions are integrally involved in developing, planning and evaluating the process. If the principles of participatory action and health promotion are adhered to, then ‘others’ take ownership and embrace the work as their own. This ownership is both a positive aspect of the process and an outcome however, identifying both the successful elements of the capacity-building strategy and the independent contributions of the intervention becomes complex.</p> |

Source: (1)

A number of strategies to address the identified issues in measuring capacity have been suggested based on the health promotion capacity research in Canada (1). The practice of implementing these strategies showed that a single strategy could address more than one of the measurement issues, and that a single measurement issue could be addressed by several strategies. The strategies to address issues in measuring capacity, and the measurement issues that strategy can address are presented in Table 2.





Table 2. Strategies to address key capacity measurement issues

| Strategy | Measurement issue addressed |
|---|---|
| Utilise participatory processes as intervention | Multiple understandings of terms Evolving understanding of capacity Building trust and dealing with sensitive issues |
| Acknowledge the context | Invisibility of capacity building Dynamic context |
| Incorporate mixed methods (qualitative and quantitative) | Invisibility of capacity building Dynamic contexts Time course for change Building trust and dealing with sensitive issues 'Snap-shot' measures Validity and reliability of quantitative methods Attribution for change in capacity |
| Build on previous phases of community and stakeholder engagement | Multiple understandings of terms Building trust and dealing with sensitive issues |
| Establish validity of quantitative measures | Validity and reliability of quantitative methods |
| Establish trustworthiness of qualitative intelligence | Multiple understanding of terms Evolving understanding of capacity Time course for change Building trust and dealing with sensitive issues 'Snap-shot' measures |
| Be flexible and adaptable | Dynamic contexts Multiple understanding of terms Building trust and dealing with sensitive issues |
| Identify intervention contributions i.e. intervention specific evaluations | Attribution for change in capacity |

Source: (1)

Practice Note

In response to and guided by these challenges, a checklist for capacity assessment and evaluation has been developed based on a framework for capacity building developed by Baillie et al[1]



This can be used as a basis for developing a process for assessing and evaluating capacity gains relative to individual interventions in different contexts. (see attached checklist)

Intelligence

Action

Evaluation >

Evaluating Capacity Gains

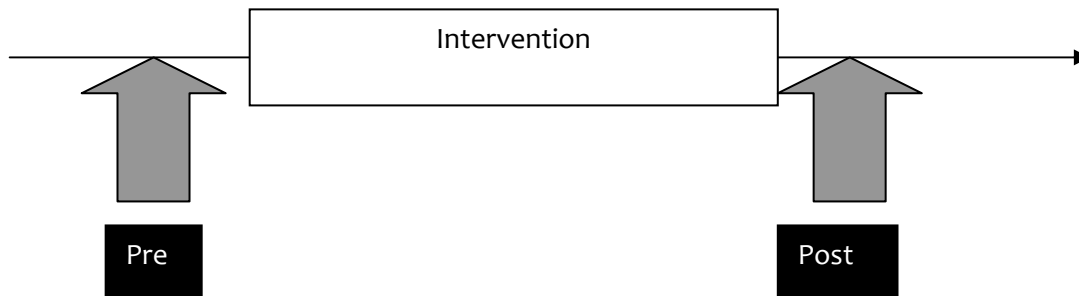


Pre and Post Intervention Comparisons

Capacity assessment before capacity building strategies and activities are implemented, provides baselines for capacity gain evaluation.

Pre and post intervention evaluation designs (time series designs) are most commonly used in evaluation because they are simple and logical. The weakness in this approach relates to attribution of causation (i.e. the strategies caused capacity gains rather than some other “confounding” factor (that provides an alternative explanation of why change has been observed). It may be possible to consider evaluating capacity gains in a sub-population or setting that receives the capacity building strategies and comparing capacity with a similar (control population) that gets usual or no strategy implementation. Comparing the capacity assessment scores between each population or setting may provide stronger evidence that the interventions are the explanation for gains in capacity as assessed after the intervention period.

Figure 1. Uncontrolled pre-post comparisons

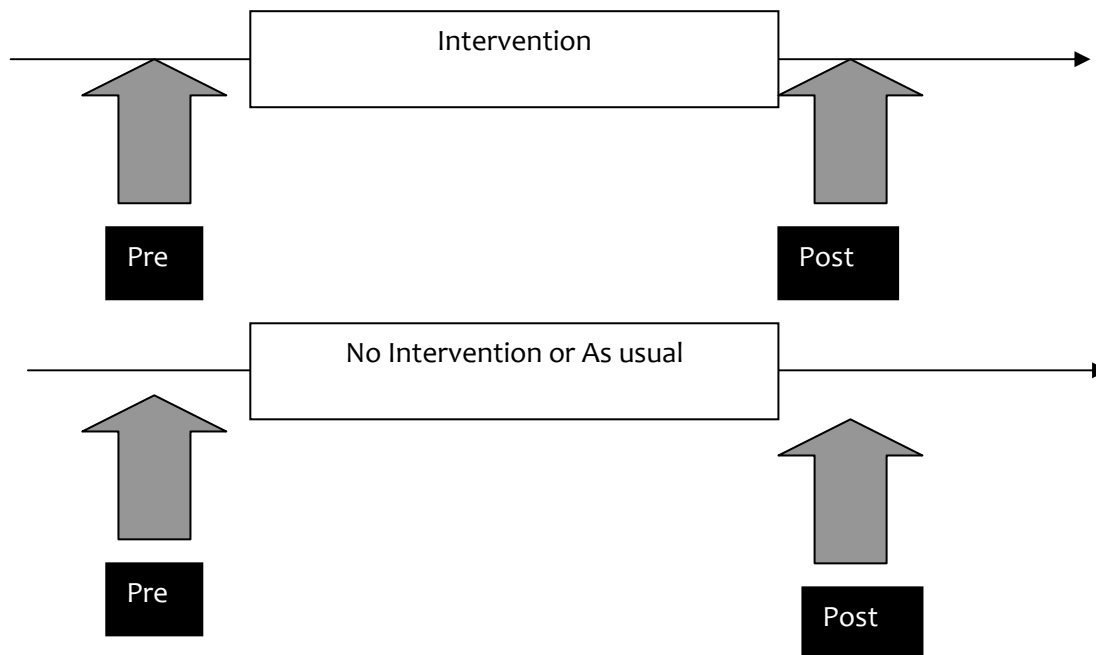


$$\text{Capacity Gain} = \text{Post CBA scores} - \text{Pre CBA scores}$$

Cannot differentiate real gains from “confounding” (alternate causes)



Figure 2. Comparison with a control



Capacity Gain = Intervention (Post CBA scores - Pre CBA scores) compared to Control (Post CBA scores - Pre CBA scores)

Practice Note

Given the current state of subjectivity associated with capacity assessment and evaluation methods, it may seem pedantic to be concerned with confounding, when more relevant questions remain such as measurement validity and bias. In this case, transparency is the key- making explicit ratings and discussing observable changes that reflect capacity gains.





Strategies to Enhance the Trustworthiness of Capacity Evaluation

Transparency

The capacity assessment tool developed by Baillie et al [1] provides a space for the evaluator to describe changes in capacity by each capacity element/question. This enables evaluators to make explicit and transparent the changes that have occurred that justify the changes in ratings noted.

Mixed-method evaluation and data triangulation

If we recall the material covered in module 5 on assessing capacity, it was stated regularly that measurement of capacity and the effects of capacity building efforts can be difficult to quantify and that mixed-method approaches are required. Mixed-method approaches (such as use of focus groups, interviews, questionnaires and objective measures of behaviour that explore similar evaluation questions) can provide evidence of change via data triangulation. Triangulation is an analytical strategy for identifying consistencies in data from different methods, used commonly in qualitative research and evaluation.

Visual Presentations of Capacity Evaluations

The “spider web” developed by Bjaras et al (2) (Figure 3) and used by others since, has been used to measure community participation in Sweden. The principal can be applied to demonstrate change in capacity as a response to capacity building strategies in a time-series design.

The spiders web visual enables evaluators (and the communities they are working with) to decided what number of domains they will rate or score against and to define a system for scoring. Time delineated points of assessment are used (e.g. before verses after) to map out change in scores in each domain.

Assessment can be either:

- **Internally**: self-assessed by communities or partners
- **Externally** : by evaluators using available evidence (which may include data from interviews with community members etc).

Intelligence

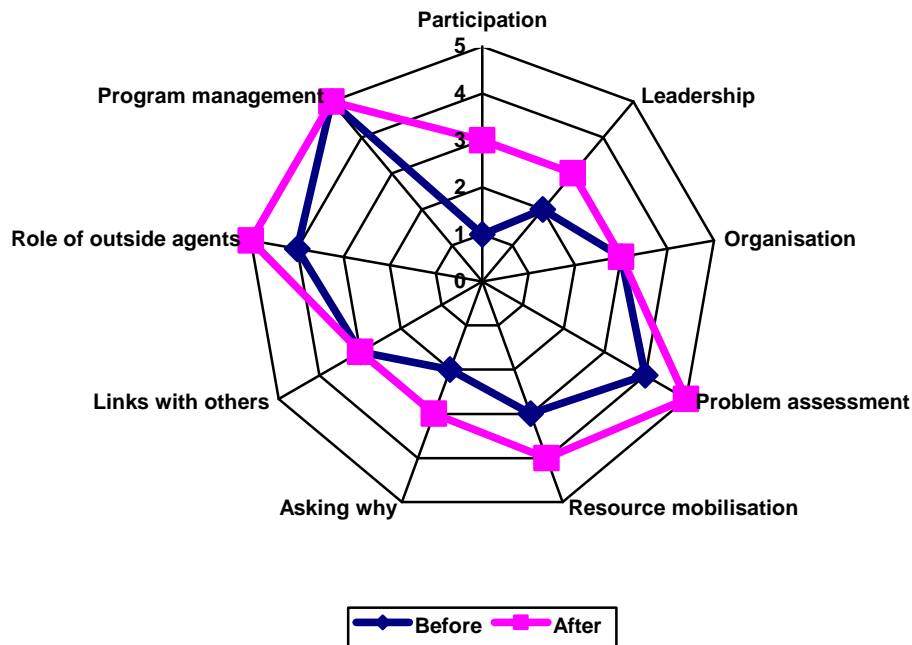
Action

Evaluation >

Evaluating Capacity Gains



Figure 3. Example visual “spiders web” representation to assist evaluation of community building



Adapted from (3)

Gibbon et al[3] provides an example of a self-assessment of two women’s groups in Nepal also using the “spider web” approach to provide a visual representation of community capacity. The assessment includes Gibbon’s eight community capacity domains and uses a 10-point rating scale. The numbers used for rating each domain are not comparable across domains. The function being to compare ratings over time points to monitor change. See reading[3]



Table X: Capacity Building Domains

| Domain | Description |
|----------------------------|---|
| Participation | Participation is basic to community empowerment. Only by participating in small groups or larger organisations can individual community members better define, analyse and act on issues of general concern to the broader community. |
| Leadership | Participation and leadership are closely connected. Leadership requires a strong participant base just as participation requires the direction and structure of strong leadership. Both play an important role in the development of small groups and community organisations. |
| Organisational structures | Organisational structures in a community include small groups such as committees, and church and youth groups. These are the organisational elements which represent the ways in which people come together in order to socialise, and to address their concerns and problems. The existence of and the level at which these organisations function is crucial to community empowerment. |
| Problem assessment | Empowerment presumes that the identification of problems, solutions to the problems and actions to resolve the problems are carried out by the community. This process assists communities to develop a sense of self-determination and capacity. |
| Resource mobilisation | The ability of the community both to mobilise resources from within and to negotiate resources from beyond itself is an important factor in its ability so achieve successes in its efforts. |
| 'Asking why' | The ability of the community to critically assess the social, political, economic and other causes of inequalities is a crucial stage towards developing appropriate personal and social change strategies. |
| Links with others | Links with people and organisations, including partnerships, coalitions and voluntary alliances between the community and others, can assist the community in addressing its issues. |
| Role of the outside agents | In a programme context, outside agents are often an important link between communities and external resources. Their role is especially important near the beginning of a new programme, when the process of building new community momentum may be triggered and nurtured. The outside agent increasingly transforms power relationships between her/himself, outside agencies, and the community, such that the community assumes increasing programme authority. |
| Programme management | Programme management that empowers the community includes the control by the primary stakeholders over decisions on planning, implementation, evaluation, finances, administration, reporting, and conflict resolution. The first step toward programme management by the community is to clearly define the roles, responsibilities and line management of all the stakeholders. |

Source: (3)

Intelligence

Action

Evaluation >

Evaluating Capacity Gains



Exercise 1.

Consider Baillie et al's Capacity Assessment Tool in the context of pre and post intervention evaluation. Consider and discuss how it might be used and what modifications might be necessary to help evaluate capacity gains in the context of your scenario.



Intelligence

Reading

- Baillie, E., Bjarnholt, C., Gruber, M. and Hughes, R. A capacity building conceptual framework for public health nutrition practice. *Public Health Nutrition*. 2008. Cambridge Journals online.



Key Points

- Evaluating capacity gain is an important step in public health nutrition intervention practice, however there are currently limited tools to support quantitative evaluation.
- Practitioners need to apply mixed-method approaches to collect intelligence about capacity gains, and be flexible and context specific in these assessments.



Intelligence

Action

Evaluation >

Evaluating Capacity
Gains



References

1. Baillie, E., et al., *A capacity-building conceptual framework for public health nutrition practice*, Cambridge Journals Online. p. 1-8.
2. Bjaras, G., J. Haglund, and S. Rifkin, *A new approach to community participation assessment*. Health Promotion International, 1991. 6: p. 199-206.
3. Gibbon, M., R. Labonte, and G. Laverack, *Evaluating community capacity*. Health Soc Care Community, 2002. 10(6): p. 485-91.

Intelligence

Action

Evaluation >

Evaluating Capacity
Gains