



A Toolkit for developing and evaluating complex interventions based on the Programme Logic Approach (PLA). With examples from the 'Decent Food for All' (DFfA) intervention.



Ireland and Northern Ireland's Population Health Observatory (INIsPHO),
Institute of Public Health in Ireland (IPH)

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A Toolkit for developing and evaluating complex interventions based on the Programme Logic Approach (PLA). With examples from the 'Decent Food for All' (DFfA) intervention.



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We would like to thank the DFfA Local Evaluation Group, the DFfA Operational Group and the DFfA Team in Armagh and Dungannon Health Action. The DFfA intervention served as the first case study with the Institute's Research and Evaluation Group, they worked through many of the steps of the PLA.

We would also like to thank Ulrike Klein, Administrative Assistant in the Institute, who helped design and layout this publication.

Finally, we would like to acknowledge the Food Safety Promotion Board who provided the research grant to the Institute of Public Health that allowed this work to be done.

PREFACE

This Toolkit was developed by Ireland and Northern Ireland's Population Health Observatory (INIsPHO) (<http://www.inispho.org>) that is housed in the Institute of Public Health in Ireland (<http://www.publichealth.ie>). It is part of the Observatory's efforts to help address the practical issues associated with generating relevant knowledge, disseminating it and ensuring it is translated into effective policy and practice.

The Toolkit is designed to support the development, delivery, evaluation and monitoring of complex interventions on the island. It aims to promote collaboration between intervention and evaluation personnel, and promote understanding of their different backgrounds, perspectives and roles.

The central foci of the Programme Logic Approach (PLA) are complex interventions and the mechanisms by which they are expected to achieve their aims. Used in a flexible manner, the PLA aims to develop evaluations that contribute to a better understanding of complex interventions and how they work.

This is Version 1.0 of the PLA Toolkit and it focuses on community-based intervention, drawing on the "Decent Food for All" (DFfA) community-based food poverty intervention – conducted in the Armagh and Dungannon Health Action Zone in Northern Ireland - as its first case study.

It is hoped that the PLA Toolkit will be helpful to practitioners, evaluators and researchers alike. If it turns out to be helpful, it will be developed further to include applications to service delivery and policy interventions.

Feedback is welcome. If you have any comments, would like to contribute a case study to the Toolkit, or would just like to know more about this project then please email us at info@publichealth.ie.

<Strengthen the connections between intervention design and evaluation plans using the understanding of how the intervention is assumed to achieve its objectives. Simultaneously develop more effective interventions and build the knowledge base>

Signed

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DIAGRAM OF THE PLA CYCLE 106

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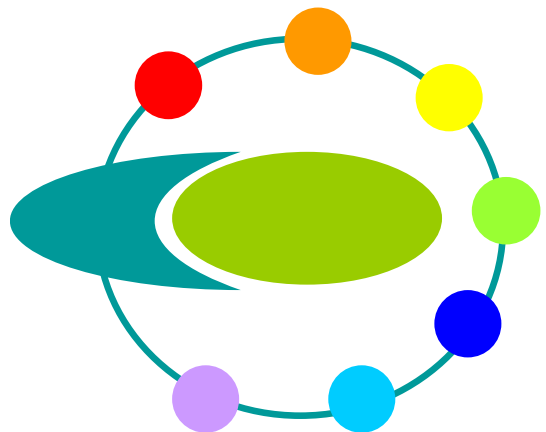
PLA TOOLKIT ON CD

PART A. INTRODUCTION

Why a toolkit?

Why the Programme Logic Approach?

Features of this PLA Toolkit





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WHY A TOOLKIT?

The need

The need to:

- Be accountable to our stakeholders and funders
- Incorporate evidence into the development and implementation of interventions
- Contribute experience to the traditional knowledge base.

There is a lack of practical tools and resources to support such tasks on the island.

Need for a systematic approach

Perhaps not surprising!

Even a cursory glance over modern policies and strategies reveals the truism that complex interventions are requiring to change complex behaviours: complex problems usually require complex solutions

A systematic evaluation framework can help guide us through these complexities. The Programme Logic Approach (PLA) provides a framework for the development of such tools and resources.

Further reading



WHY THE PROGRAMME LOGIC APPROACH?

What's needed?

To develop and implement complex interventions to effectively tackle the complex problems our society faces, we need answers to many questions.

We need to know:

- What works and what doesn't work?
- Who benefits from an intervention, who does not? And who might have been harmed by them?
- What were the conditions that support success? What acts against success?

To answer such questions a systematic approach to programme development and evaluation is required that focuses on the components of an intervention and the mechanisms by which, together, they achieve the intervention's aim.

The steps of the PLA

To understand features and benefits of the Programme Logic Approach (PLA), it is first useful to outline its main steps.

Table: The main steps of the Programme Logic Approach ([PLA](#)):

Step 1: Identifying the key expected outcomes of the intervention

Step 2: Drawing the outcome hierarchies which, if achieved, are assumed to lead to these key expected outcomes

Step 3: Formulating the key evaluation questions associated with each hierarchy

Step 4: Listing the other influences that may affect of the intervention or its evaluation

Step 5: Defining the key data items needed to answer these questions, taking into account these other influences

Step 6: Developing the data collections to gather these data items

Step 7: Planning the data analysis that uses the data gather to answer the key evaluation questions

Why the programme logic approach?



The Programme Logic Approach (PLA) is applicable to a very broad range of complex interventions including community-based interventions, health and social services planning and policy¹.

The version described above has been adopted so it can be applied to a range of community-based intervention. The steps are explained in more detail in the relevant later chapters in Part B.

Features and benefits of the PLA

The key features of the [PLA](#) offer a number of benefits.

Its focus on the intervention and its programme logic

The [PLA](#) focuses on the components of an intervention and the mechanisms by which they are assumed to achieve the intervention's aims.

- It tends to produce evaluation plans that concentrate not just on the key expected [outcomes](#) but also on the degree to which the components of the intervention were implemented and actually worked. For example, if a key expected outcome is not achieved, its outcome hierarchy may throw some light on why this happened by helping to identify what earlier outcome was not achieved and “how close intervention got to achieving the key expected outcome.
- Data items and the data collections are determined by the evaluation questions being asked rather than the other way around
- It promotes a more realistic understanding of the strengths and limitations of an evaluation

¹ [Note on the application to service delivery and policy interventions](#)

This version of the PLA Toolkit concentrates on application to community-based interventions. The PLA has far wider applications – again based on the idea of “Programme Logic” – to service delivery, policy interventions and organizational development. When dealing with such broader interventions the steps of the PLA Cycle are as presented here are usually simplified and concentrate on

- [Inputs](#) - the resources allocated to the intervention including money, staff, information, skills, physical facilities, etc.
- [Processes](#) - what is done. Here it is the components of the intervention and its activities.
- [Outputs](#) – the goods, products and services that are actually produced.
- [Outcomes](#) – the differences in people's lives or changes in society. In this case focus is on a hierarchy of outcomes that includes initial, intermediate and longer term outcomes.

Why the programme logic approach?



A very flexible approach

It is applied in a flexible iterative manner. Firstly; all steps are supposed to support later steps. For example, drawing outcome hierarchies can be useful for clarifying the logic behind the components of the intervention and identifying possible gaps. They also help in specifying the evaluation questions. But if the team does not find them helpful, then move onto the next step. Some other steps are quite close and can be done simultaneously. For example, defining the key data items required (Step 5) and designing the data collections (Step 6) are highly inter-related. Secondly; at the end of each step, earlier steps are reviewed and any issues for later steps are noted and carried forward.

- While the [PLA](#) focuses on the way in which the intervention is currently being delivered, new insights gained at any step can be incorporated into an improved intervention that is more likely to achieve its aims. For example, the hierarchy of outcomes that, if achieved, will lead to key expected outcomes can be used to identify “gaps” in the current intervention design.
- PLA does not depend on having measurable objectives stated at start of the intervention’s inception. It allows for shifting goals and objectives and is flexible enough to allow and support modification of these if needed
- it allows judgements about the appropriateness, [effectiveness](#) and efficiency of the main elements of the programme to be made through its life
- It uses a broader definition of an ‘[outcome](#)’ (any result of any of a whole range of programme activities occurring at different levels) that avoids the debate about process/impact/outcome

Brings together interventionists’ and evaluators’ perspectives

Application of the PLA is a collaborative effort involving both intervention and evaluation personnel.

- It helps promote mutual understanding of their different backgrounds, perspectives and roles.
- It attempts to capture and build the knowledge and experience of both
- It could be a major vehicle for capturing the experiential knowledge of practitioners and incorporating it into the traditional knowledge base.

Further reading



FEATURES OF THIS PLA TOOLKIT

This Toolkit was developed by Ireland and Northern Ireland's Population Health Observatory (INIsPHO) (<http://www.inispoho.org>) that is housed in the Institute of Public Health in Ireland (<http://www.publichealth.ie>). It is part of the Observatory's efforts to help address the practical issues associated with the generation of relevant knowledge, its dissemination to key decision makers, and its translation into effective policy and practice).

Its primary aim is to provide practical guidance and tools to personnel who are involved in the design, delivery and evaluation of complex interventions on the island.

Its secondary aims are to:

- Facilitate greater use of modern evaluation methodology, and the more traditional "scientific" knowledge base covering effectiveness, in the development of complex interventions on the island;
- Establish a mechanism for capturing the knowledge and experience of practitioners and communities, and incorporating it into the traditional "scientific" knowledge base;
- Promote greater understanding of the different backgrounds, perspectives and roles of intervention and evaluation personnel;
- By using the Programme Logic Approach (PLA), promote the development of evaluations that contribute to a better understanding of complex interventions and how they work.

Particular features of this Toolkit are designed to support these aims:

- It contains (predominantly) Irish case studies that reflect Irish policy and service context
- The case studies covering a range of interventions including community-based interventions, service delivery and policy interventions.
- Resources contained in the [PLA](#) Toolbox to help support the application of the [PLA](#)
- It includes practical advice about dealing with the different perspectives and roles of those who are responsible for the delivery of the intervention and those charged with its evaluation.
- Based on the belief that what went wrong is often as informative as what went right, it includes details of what didn't work as well as what didn't!

Further reading

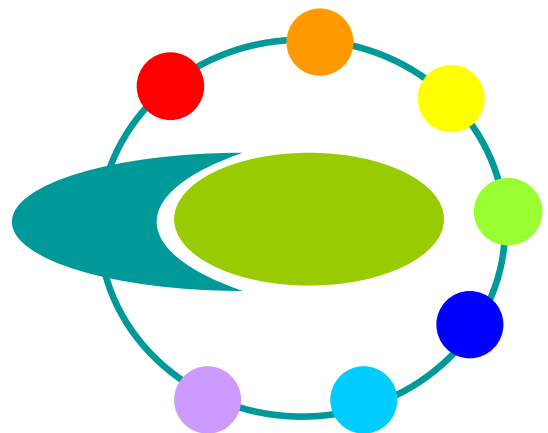


PART B. OVERVIEW OF THE PLA TOOLKIT

Overview of the PLA Toolkit

Using the PLA Cycle flexibly

Balancing Intervention and Evaluation perspectives





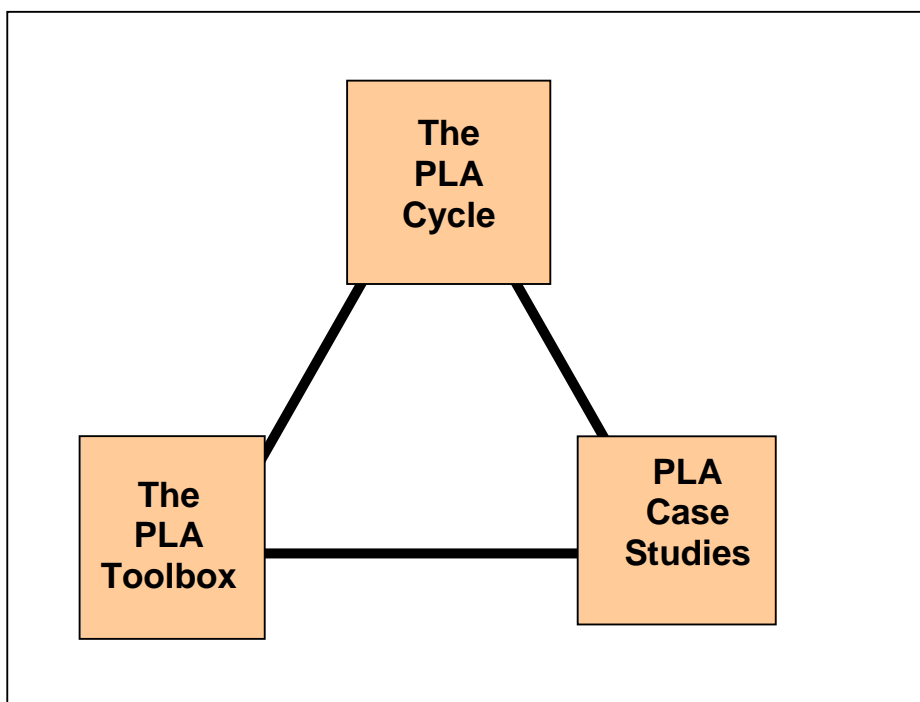


OVERVIEW OF THE PLA TOOLKIT

Introduction

The PLA Toolkit includes is built around the PLA Cycle that summarizes the steps of the PLA, the PLA Toolbox of resources to help apply the PLA, and the PLA Case Studies that are used to illustrate the steps.

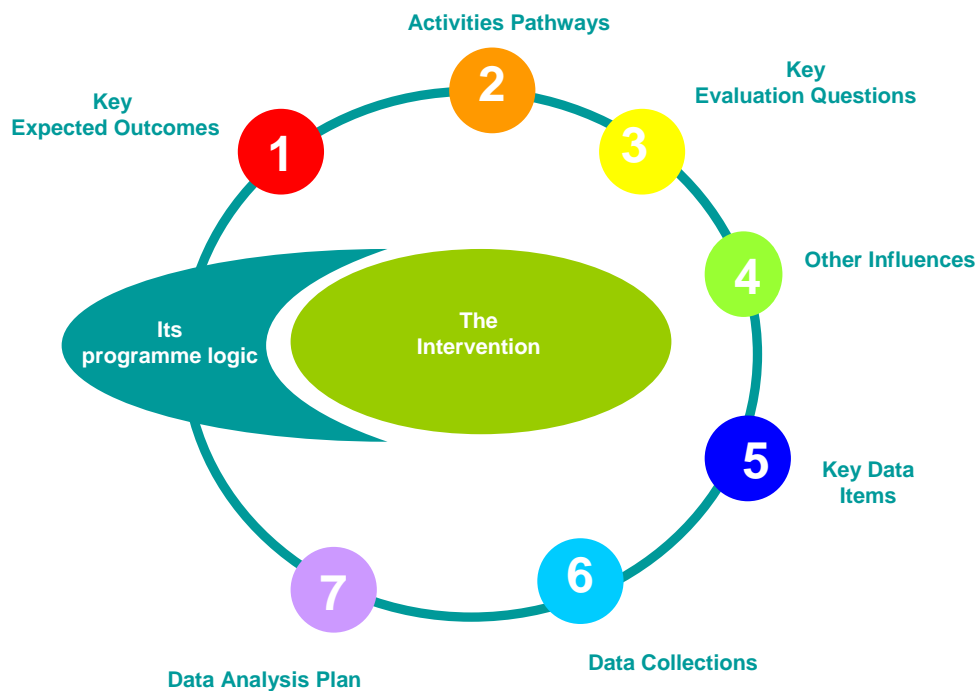
Figure: The main elements of the PLA Toolkit



In addition to this printed version of the Toolkit it is also available on CD.

The PLA Cycle

Application of the PLA involves moving around what we call the “PLA Cycle” in an iterative manner. The steps are described below.



Where to start

Step 1: Identify the key expected outcomes

Step 2: Draw the outcome hierarchies

After identifying the key expected outcomes, an outcomes hierarchy is drawn for each of these. This process involves identifying sequences of “earlier”/“pre-cursor” outcomes which, if achieved, would lead to the key outcome to be achieved. The assumption underlying this process is that each of these outcomes below a certain level needs to be achieved before (necessary but not sufficient) the outcomes at that level can be achieved.

Sometimes, people refer to the outcomes in an outcomes hierarchy below the key expected outcome as “intermediate outcomes”.

Step 3: Formulate the key evaluation questions

Once the outcomes hierarchies have been drawn, the process of formulating key evaluation questions begins. For each level of an activities hierarchy, a series of evaluation questions is formulated to assess if the activity achieved its aim and how well they were achieved.



Step 4: List the other influences

Other factors that could affect either the success of the intervention or the conduct of the evaluation. At the time of implementation of the evaluation plan, other factors may become relevant which would require this component to be enhanced.

Step 5: Define the key data items

For each key evaluation question, the necessary data items are then defined. This process involved perusing other related documents and liaising with intervention personnel. This process was affected by the fact that the standards document for the management of the intervention for delivery of services needs analysis in most areas, and [targets](#) for performance [indicators](#) had not yet been specified.

Step 6: Design the data collections

Step 7: Plan the data analysis

In this step, strategies to answer each of the key evaluation questions were developed. This involved development of an analysis plan including details about the economic evaluation. Current literature on evaluation was used to guide this process.

Summarize the intervention design and the evaluation plan

Standardizing the way in which the evaluation plan is described will make it easier to share the experiences.

Layout of the chapters in Part C

Each of chapters in Part C of this Toolkit deals with a separate step of the PLA Cycle and explains it in more detail. A standard format has been adopted in each of these chapters.

Table: Sections in the chapters dealing with the steps in the PLA Cycle



Section name	What's covered there
"Introduction"	The aim of the step and a list of the outputs.
"Working through the step"	A guide to working through the step
"Going around the PLA Cycle"	Looking back to review earlier steps and looking forward to later steps.
"Working together"	Issues that may arise from the different perspectives and roles of intervention and evaluation personnel.
"Case studies"	Examples of completed outputs from the case studies.
"Some extra notes"	Additional miscellaneous notes.
"Further reading"	Where to go for more information.

In addition there are boxes whose purposes are rather self-evident



Here you'll find a list of the resources from the PLA Toolbox that might be useful



Look here for extra tips – sometimes learnt from mistakes we hope you won't repeat!



Some pitfalls that you can avoid with a little attention

The PLA Toolbox

The PLA Toolkit contains a collection of resources to support the application of [PLA](#). The PLA Toolbox includes tools that aim to help intervention and evaluation personnel to:

Overview of the PLA toolkit



- Understand the Programme Logic Approach;
- Develop and describe an intervention and its components
- Develop and describe the programme logic of an intervention;
- Develop the evaluation framework for the intervention;
- Strengthen the outputs of the steps in the PLA Cycle; and
- Facilitate team working and decision making.

Details are contained in Part D of this Toolkit.

The PLA Case Studies

Finally, we use a series of (predominantly) Irish examples to illustrate the steps. These include things that worked as well as some that didn't!

The Decent Food for All (DFfA) community based food poverty intervention, conducted in the Armagh and Dungannon Health Action Zone (ADHAZ) in Northern, is the first Case Study of the Toolkit. Other case studies that could be included are listed below.

Table: Case Studies for the PLA Toolbox

Community-based interventions	
"Decent Food for All (DFfA)" community-based food poverty intervention (Northern Ireland)	Version 1.0
"CPR2000" a community-based CPR intervention (Australia)	
Services delivery	
A project linking service delivery targets to national health inequalities targets (Republic of Ireland)	
Policy interventions	
A framework for monitoring the impact of smoke free workplace legislation (Scotland)	

Extra notes

Is there an over-use of the word "data" and use "information" instead?

Further reading



USING THE PLA CYCLE FLEXIBLY

Introduction

Much of the power of the Programme Logic Approach arises when it is used in a flexible manner. There are two aspects to the way in which the PLA Cycle can be used:

- The PLA Cycle can be started at any step
- The steps of the PLA Cycle should be worked through in an iterative rather than a linear manner.

Starting at different PLA Cycle steps

<Insert notes about starting at different steps>

Working through the PLA Cycle steps iteratively

At the end of each step it is useful to look back to review earlier steps. Often, working through a leads to new insights into earlier step arises and it is important to ensure that these are incorporated into those steps. It is also useful to look ahead to ensure that any new issues relevant to later steps are carried forward and are considered when you get to those steps.

This has several very important advantages;

- It ensures there is coherence between the different aspects of the evaluation plan and that the steps of the PLA Cycle do in fact support one another. For example, they will ensure that no key data items are left undefined and that data collections do indeed include all the defined items.



BALANCING INTERVENTION AND EVALUATION PERSPECTIVES

Interventionists and evaluators can have different backgrounds, perspectives and roles. It will return dividends down the track if some initial effort is made to explain this and develop understanding.

<This needs to be rewritten so that it includes situations where the interventionist and the evaluator are the same!>

Interventionists and evaluators

Table: Possible differences between interventionists and evaluators

	Interventionists	Evaluators
Backgrounds		
	Tend to be more service oriented	Tend to be more academically oriented
Perspectives		
	Probably have greater knowledge of the local context Tend to place stronger emphasis on experiential knowledge of the practitioner and the community Tend to put primary focus on delivering the intervention to the local community	Probably have a stronger theoretical understanding of research issues Tend to emphasise the more traditional “scientific” knowledge base - built on either qualitative or quantitative methodology Tend to put primary importance on the evaluation and research methodology
Roles		
	Responsible for funding of the intervention Stronger focus on the local health and well-being of the local community	Responsible for funding the evaluation Probably have stronger focus on knowledge generation and contributing to the evidence base



Successful completion of the work will depend to some extent of the way we handle any tensions that may arise and how any differences are mobilised to strengthen the work.

The relationship between these two groups of personnel is vital. In particular the independence of evaluation personnel is vital if the intervention is to be assessed objectively and the evaluation findings are to be received as credible.

Explaining the Programme Logic Approach (PLA)

Also important to explain the [PLA](#) process as it may not be valued by all.

To be a joint meeting of the intervention and evaluation teams.

Ideally, this meeting should occur before the delivery of the intervention has begun. However, this is not essential. In the case of the Decent Food for All (DFfA) intervention, for example, the evaluation and the intervention teams did not formally meet begin the application of the PLA until after the sixth month of the intervention period.

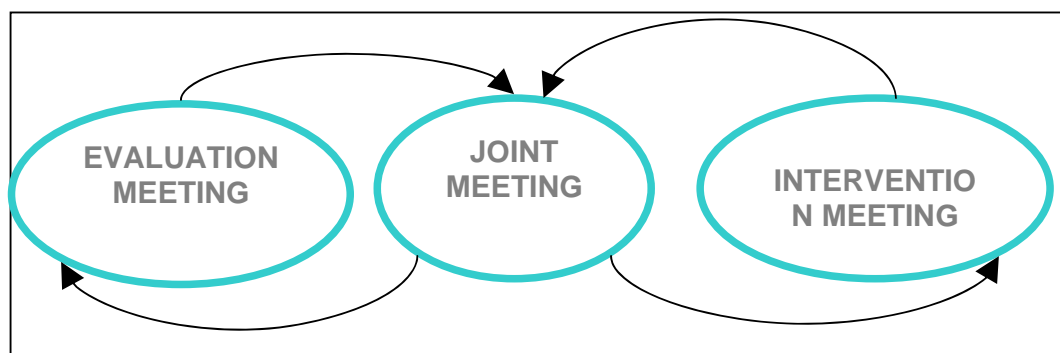
Between intervention and evaluation personnel

It is likely that intervention and evaluation personnel have different backgrounds, perspectives and different roles.

Successful completion of the work will depend to some extent of the way in which these differences are mobilised to benefit the work and the tensions that may arise as a result of them are dealt with.

The relationship between these two groups of personnel is vital. In particular the independence of evaluation personnel is vital if the intervention is to be assessed objectively and the evaluation findings are to be received as credible.

Figure: "To and fro" working





Some possible challenges

- Change of staff – in the intervention and evaluation/research team – and the subsequent “memory loss”. Write things down as you go!
- Independence of the evaluation/research team and the need for an “arms length” evaluation. This is particularly challenging when applying the PLA with its aim to encourage two-way flow of knowledge across boundaries.
- Work demands / capacity within the intervention team to undertake “local” evaluation tasks
 - Intervention resource and activities monitoring
 - Participant evaluations
 - External resource and activities monitorings
- Work demands for the evaluation/research team with meetings, engagements, etc
- Engagement with local community and project organization – role of Local Evaluation Group, etc

Further reading

INTRODUCING PROGRAM TEAMS TO LOGIC MODELS: FACILITATING THE LEARNING PROCESS. By Nancy L. Porteous et al. Canadian Journal of Program Evaluation Vol. 17 No. 3 Pages 113–141 (Research and Practice Note).

An interesting paper about introducing PLA to intervention teams. More relevant to service delivery and policy interventions, but still helpful.

BOXING OURSELVES IN: BOXING OURSELVES IN: WHEN DO PROGRAM LOGIC MODELS BECOME BECOME A HINDRANCE TO CROSSING BOUNDARIES? By Andrew Taylor & Jason Newberry.

A presentation from the Centre for Research and Education in Human Services in Canada that deals with some of the pitfalls involved in working with Programme Logic Models in multidisciplinary teams.



PART C. THE PLA CYCLE

Starting at different PLA Cycle Steps

Step 1: Key Expected Outcomes

Step 2: Outcomes Hierarchies

Step 3: Evaluation Questions

Step 4: Other Influences

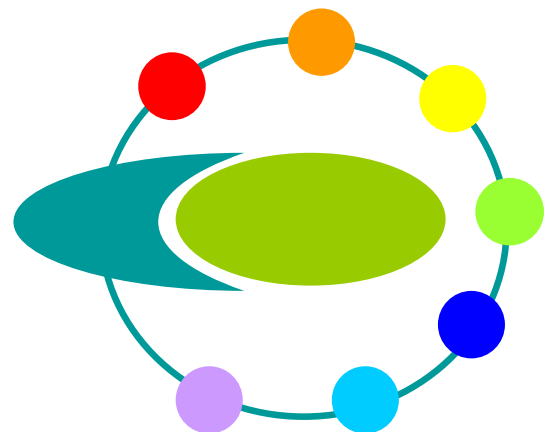
Step 5: Data Items

Step 6: Data Collections

Step 7: Data Analysis Plan

Summary of the Intervention Design

Summary of the Evaluation Plan







STARTING AT DIFFERENT PLA STEPS

Describing the intervention

Describing its programme logic

Introduction

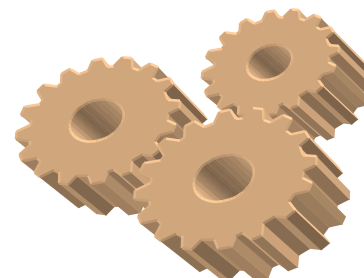
Aim / Outputs

Working through the step

Working together

Case study one: the DFfA intervention

Some extra notes



From the
PLA Toolbox

- A useful summary of some of the commonly used theories and models in health promotion can be found in "Theory in a NUTSHELL" by Don Nutbeam and Elizabeth Harris

Some tips

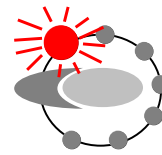


Starting at different PLA steps



Some pitfalls

Further reading



STEP 1: KEY EXPECTED OUTCOMES

Introduction

The Key Expected [Outcomes](#) (KEOs) of the intervention capture, in the most appropriate sense, what we expect the intervention to achieve. They are often specified more rigorously than those in programme documentation. They:

- form the basis for the development of the evaluation plan; and
- often make it easier to more clearly explain what the intervention is and what it hopes to achieve.

Aim / Outputs

The aim of this step is to identify the Key Expected [Outcomes](#) (KEOs) that you expect the intervention to achieve. It is expected that if these key expected [outcomes](#) occur then the intervention aims will also be achieved.

Working through the step

The initial list

Starting with the description of the components of the intervention and its programme logic, captured in the documentation and gathered during the Preparation step, an initial list of the KEOs is developed.

During this step it is essential to distinguish

- What we hope (perhaps unrealistically!) the intervention might achieve;
- What are the stated aims of the intervention; and
- What we realistically expect the intervention to achieve (within existing constraints and being aware of other influences)

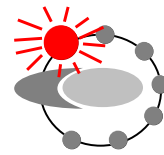
Revising the initial list

The initial list will usually need to be progressively revised, both in terms of the the content of the KEOs, and the way in which they are structured and presented.

CONTENT

- Often, the initial KEOs are very broad and very ambitious. Other factors (over which you may not have so much control) often play a role and the KEOs may need to be made more specific so they relate more directly to factors you can directly influence. Sometimes, these other factors may mean that an initial KEO has to be dropped.

STEP 1: Key expected outcomes

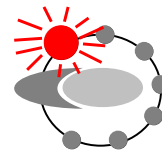


- While the second domain of DFfA KEOs is labelled “Individual, Household and Community Change”, there are separate KEOs for individuals, households and communities in this domain. It is useful to distinguish individuals, household, communities, areas, etc when identifying KEOs so that the roles of factors operating at these different levels will be properly taken into account when drawing the outcomes hierarchies.
- It is often useful to incorporate some issues into the KEOs as “overarching themes”. For example; reducing inequalities in the Armagh and Dungannon Health Action Zone (ADHAZ) was a key objective of the DFfA intervention. This was considered such a key element of the DFfA intervention that “Reduction in inequalities” was included as an “over-arching theme” in its DFfA KEOs. Similarly the settings approach adopted by DFfA was an “over-arching theme”.
- How are the “target groups” of the intervention to be incorporated into its Key Expected Outcomes. In the case of DFfA, these were subsumed into the “Reduction in inequalities” over-arching theme.

STRUCTURE:

- Sometimes KEOs represent different aspects of a broader domain and may be grouped together. These broader domains make more explicit the aim of the intervention and the issues that need to be addressed in order to achieve them. They sometimes make explicit gaps that are not being addressed in any component of the intervention. For example, for the DFfA intervention “Improved accessibility to (affordable) safe health food” and “Stronger local food production” were grouped under the domain “Local regeneration”.
- These domains often have a “natural” order that reflects:
- Some assumed causal mechanisms. For example, in the KEOs for the DFfA intervention, “Improved awareness/knowledge” is seen as a prerequisite for “Improved health behaviours”.
- The degree to which they are subject to outside influences. For example, for the DFfA intervention, there was much discussion about whether or not “Greater individual development” - including increased self-esteem” – should have been included as an KEO because many considered it was influenced by too many external factors that were not addressed by the intervention.
- Underlying priorities. For example, the priority of the DFfA intervention was to address local food poverty issues in the Armagh and Dungannon Health Action Zone. “Stronger food-related policy and strategy” (particularly at the regional and national level) was a secondary, rather than primary, objective.
- As the KEOs are progressively revised; some may be dropped, some may be made more specific. They may be regrouped together in more meaningful domains; these domains may be re-ordered.

STEP 1: Key expected outcomes



Signing off “Version 1”

Before signing off a few simple checks are useful:

- Check to see that the expression of the KEOs is clear and as simple as possible. For example, take “benefit/budget maximisation” which is included in the “Financial Accessibility” aspect of KEO 1.1 for the DFfA intervention. While this initially related to maximising the uptake of social security benefits by disadvantaged residents of the ADHAAZ, it could also be taken as a reference to some sort activity relating to “risk/benefit”.

The process of identifying the KEOs should not be allowed to drag on. It is likely that revisions may come out working through later steps of the PLA Cycle.

Label these Key Expected Outcomes as “Version 1” and date them.

Schedule the first review of Version 1

Going around the PLA Cycle

Reviewing earlier steps

It is what we realistically expect the intervention to achieve that needs to be captured in the KEOs. It is possible that the intervention may need to be modified:

- The intervention’s aims, as stated in programme documentation, may need to be revised if they were initially too ambitious.
- On the other hand, it may be possible to address some of the issues that arose while the KEOs were being identified. This may involve:
 - filling some gaps – new components of the intervention may need to be added;
 - strengthening links between the existing components of the intervention so they better support one another; or
 - simply monitoring other factors that might influence the intervention.

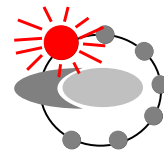
Relationships between KEOs mean outcomes hierarchies can overlap.

Looking forward to later steps

If there are new factors that we now understand will influence results of the evaluation, these need to be carried forward to later steps. For examples, the role of mass media campaigns on related issues need to be incorporated into the outcomes hierarchies and appropriate data collections established to gather the necessary data items to enable us to understand their effect.

Of course, if there are relationships between KEOs this means that the outcome hierarchies will overlap.

STEP 1: Key expected outcomes



Working together

With the DFfA intervention, the initial list of Key Expected Outcomes was drawn up at the joint meeting of the intervention and evaluation/research personnel in which the PLA was introduced. After these were written up, successive revisions were considered at separate meetings of intervention personnel and evaluation/research personnel, with feedback from the other group. Version one was signed off at a joint meeting.

This process was rewarding for both intervention and evaluation/research personnel. At one time challenged the backgrounds, perspectives and roles of both groups. Examples?

Case study one: the DFfA intervention

Version 1 of the Key Expected [Outcomes](#) for the DFfA intervention contained ten KEOs that were grouped into four domains:

- Local regeneration
- Individual, Household and Community change
- Research and knowledge
- Policy change

It included two over-arching themes: “Reduction in Inequalities” and “settings (Community / Home / School / Workplace”.

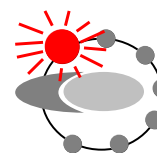
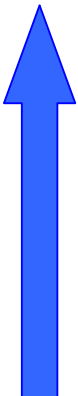
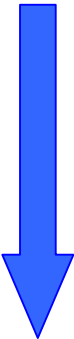
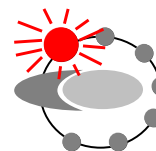


Table: Key Expected Outcomes (KEOs) of the DFfA intervention

 <p style="writing-mode: vertical-rl; transform: rotate(180deg);">REDUCTION IN INEQUALITIES</p> 	<p>1. <u>LOCAL REGENERATION</u></p> <p>Key Expected Outcome 1.1 Improved accessibility to (affordable) safe and healthy food</p> <ul style="list-style-type: none"> ○ Financial Access (benefit/budget maximisation) ○ Physical Access <p>Key Expected Outcome 1.2 Stronger local food production and supply economies with a greater emphasis on (affordable) safe and health food</p> <p>2. <u>INDIVIDUAL, HOUSEHOLD AND COMMUNITY CHANGE</u></p> <p>Key Expected Outcome 2.1 Improved awareness/knowledge of</p> <ul style="list-style-type: none"> ○ food & nutrition ○ safety & hygiene ○ food poverty <p>Key Expected Outcome 2.2 Greater demand for (affordable) safe and healthy food.</p> <p>Key Expected Outcome 2.3 Improved health behaviours</p> <ul style="list-style-type: none"> ○ Healthier eating choices ○ Improved food hygiene and safety ○ Increased healthy lifestyles <p>Key Expected Outcome 2.4 Greater social inclusion</p> <ul style="list-style-type: none"> ○ Increased community development & participation ○ Less individual and community isolation ○ Greater intergenerational working ○ Empowerment <p>Key Expected Outcome 2.5 Greater individual development</p> <ul style="list-style-type: none"> ○ Increased self-esteem ○ Greater recognition of the value of education, training & employment <p>3. <u>RESEARCH AND KNOWLEDGE</u></p> <p>Key Expected Outcome 3.1 Enhanced knowledge base including</p> <ul style="list-style-type: none"> ○ Definition and measurement of food poverty ○ Measurement of local food economies ○ Understanding of the culture of food and its consumption ○ Models of collaborative working (between programme personnel, evaluators and researchers) <p>4. <u>POLICY CHANGE</u></p>	<p>SETTINGS (Community / Home / School / Workplace)</p>
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STEP 1: Key expected outcomes



	<p>Key Expected Outcome 4.1 Stronger food-related policy and strategy with a greater emphasis on (affordable) safe and health food</p> <ul style="list-style-type: none"> ○ Locally, Regionally and Nationally <p>Key Expected Outcome 4.2 Stronger food and well-being networks for sharing, learning and support</p> <ul style="list-style-type: none"> ○ Locally, Regionally and Nationally 	
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Some extra notes

Targets or just stated outcomes?





- “Opening up, Narrowing, Closing down” Tool
- Intervention-[Outcomes](#) Matrix
- Outcomes-Influencers Matrix

From the
PLA Toolbox

- There is no single “correct” way of writing down the Key Expected Outcomes of an intervention, especially those of community-based interventions designed to address complex public health issues. It is there are as many different ways to doing this as there are people in your team.
- Be sure that the KEOs are expressed in terms of outcomes – things you expect to achieve - and not activities or outputs
- Don't be too ambitious!
- Keep it simple!

Some tips

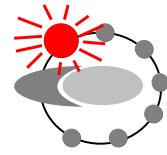




Some pitfalls

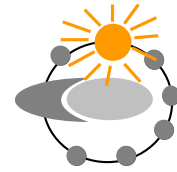
- Some things can get forgotten and just “carried along” (e.g. [DFIA](#) and “self-esteem”)
- The use of “over-arching themes” is not without its risks. There is a risk that, because they are not explicitly mentioned in any KEO, they may get lost and forgotten in later steps. Care has to be taken to ensure this doesn't happen!
- Similarly, without adequate attention to how the “target groups” of the intervention are to be incorporated into it KEOs, they too may be lost or forgotten in later steps. This is particularly the case if

STEP 1: Key expected outcomes



they include small minorities or “hard to reach” groups.

Further reading



STEP 2: OUTCOME HIERARCHIES

Introduction

Outcome hierarchies attempt to capture, in some detail, our understanding of, for example, the behaviour change processes that underpin the design of the intervention.

They will be used to formulate the Key Evaluation Questions in Step 4.

Aim / Outputs

Working through the step

What are the relationships/dependencies between KEOs?

- Some people find drawing an outcome hierarchy, especially one for each of the Key Expected Outcomes, quite tedious! However; when people do persist they are very useful.

First attempts at an outcome hierarchy often contain simple references to generic outcomes such as 'Problem identified', 'Barriers/needs/issues identified', 'Solutions developed' and 'Solutions implemented'. This is OK! The next stage is to refine these so they are relating more directly to the intervention and its components. KEO 1.1 of the DFfA intervention is a case in hand. It never progressed past this embryonic stage – the issues were picked up at later steps. There are collections of “generic” outcomes hierarchies that can sometimes be used (see the PLA Toolbox). Using them from the beginning of this step allows us to skip this problem and focus the outcomes hierarchies on the intervention at hand from the very start.

Going around the PLA Cycle

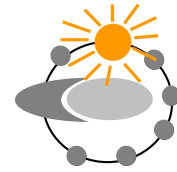
Reviewing earlier steps

Activities pathways can be used as an audit tool. They can improve the intervention by:

- identifying “gaps” in the current intervention design;
- drawing attention to possible synergies between the components of the intervention; and
-

Looking forward to later steps

STEP 2: Outcome hierarchies



FOCUS ON OTHER POSSIBLE INFLUENCES:

It is also useful to remember that they are also used to identify factors that might influence the evaluation/research. In particular these are other factors that might play a role in achieving the key expected [outcomes](#) so provide the context of these hierarchies.

Working together

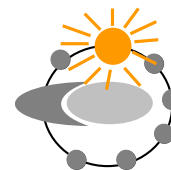
Outcomes hierarchies attempt to more capture in more detail,

- the mechanisms, outlined in programme documentation, by which it is assumed that the components of the intervention will work together to achieve the intervention aims;
- the understanding reflected in the existing knowledge base of the effectiveness of complex interventions and the factors that influence them; and
- local contextual information.

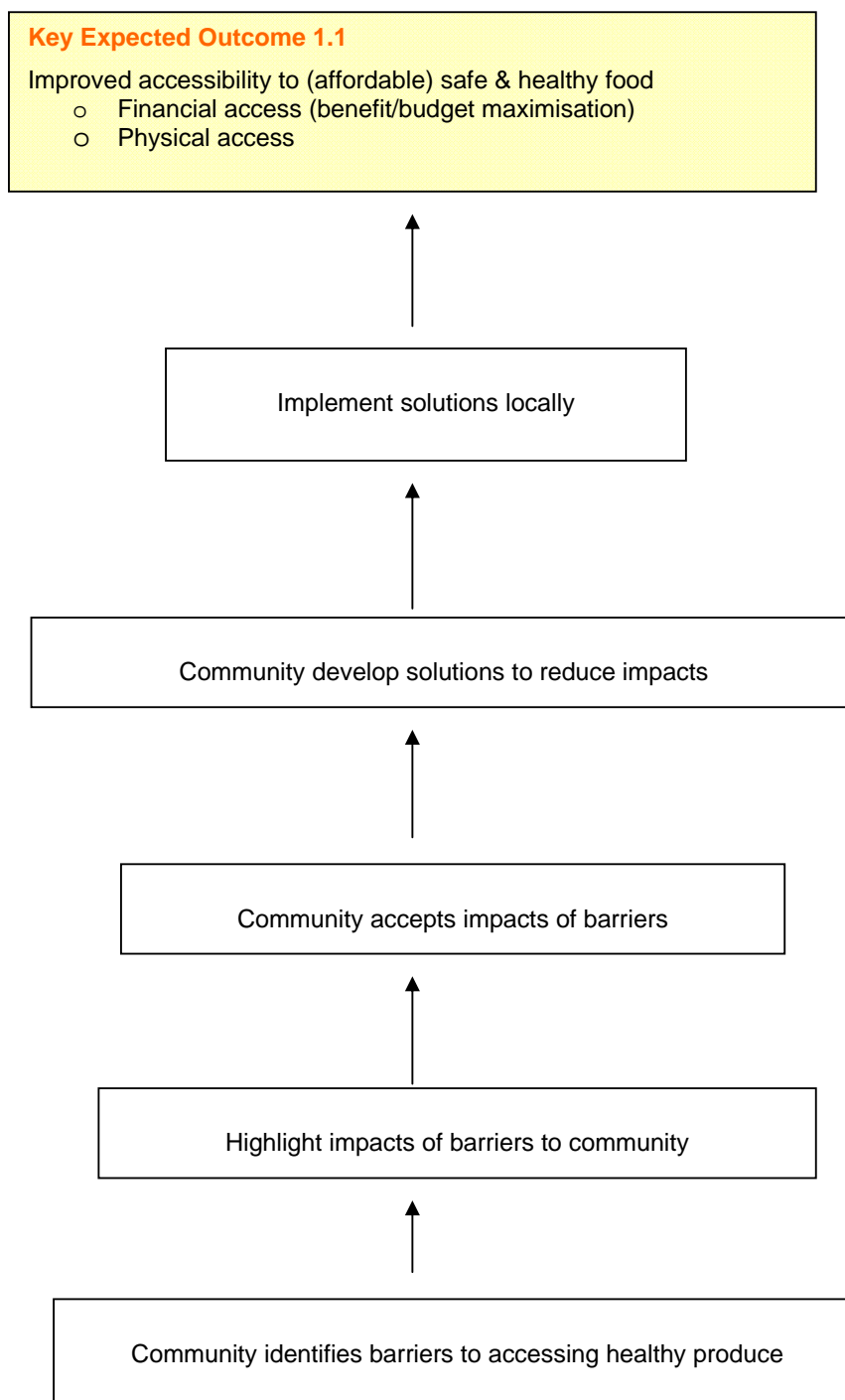
This step is particularly challenging for both intervention and evaluation personnel. Intervention personnel are challenged to explain the theoretical model that has underpinned their initial evaluation design. On the other hand evaluation/research personnel are challenged to incorporate the local context and constraints that intervention personnel must work within.

Case study one: the DFfA intervention

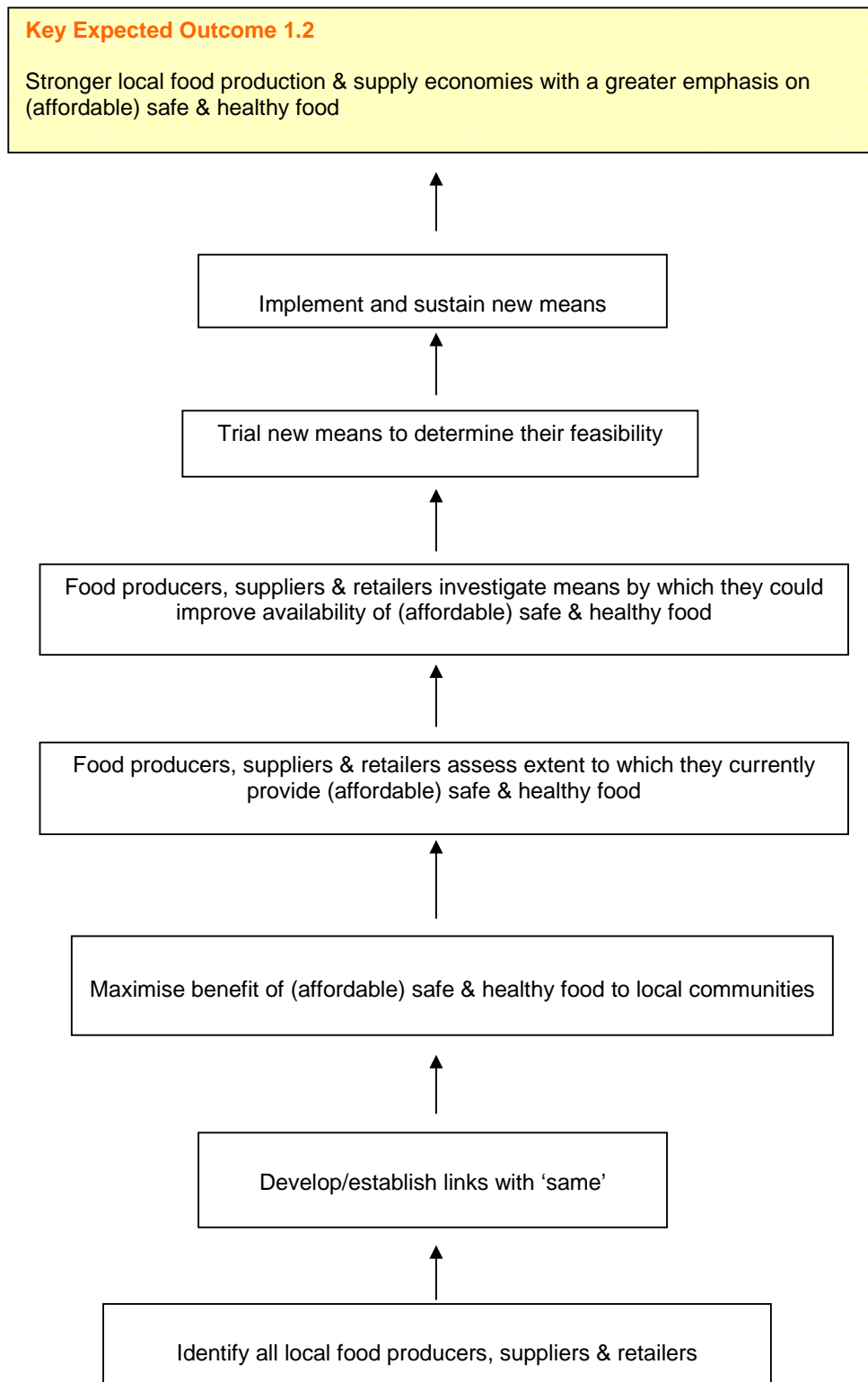
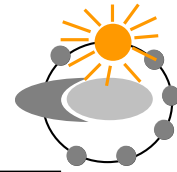
STEP 2: Outcome hierarchies



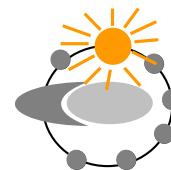
Local Regeneration



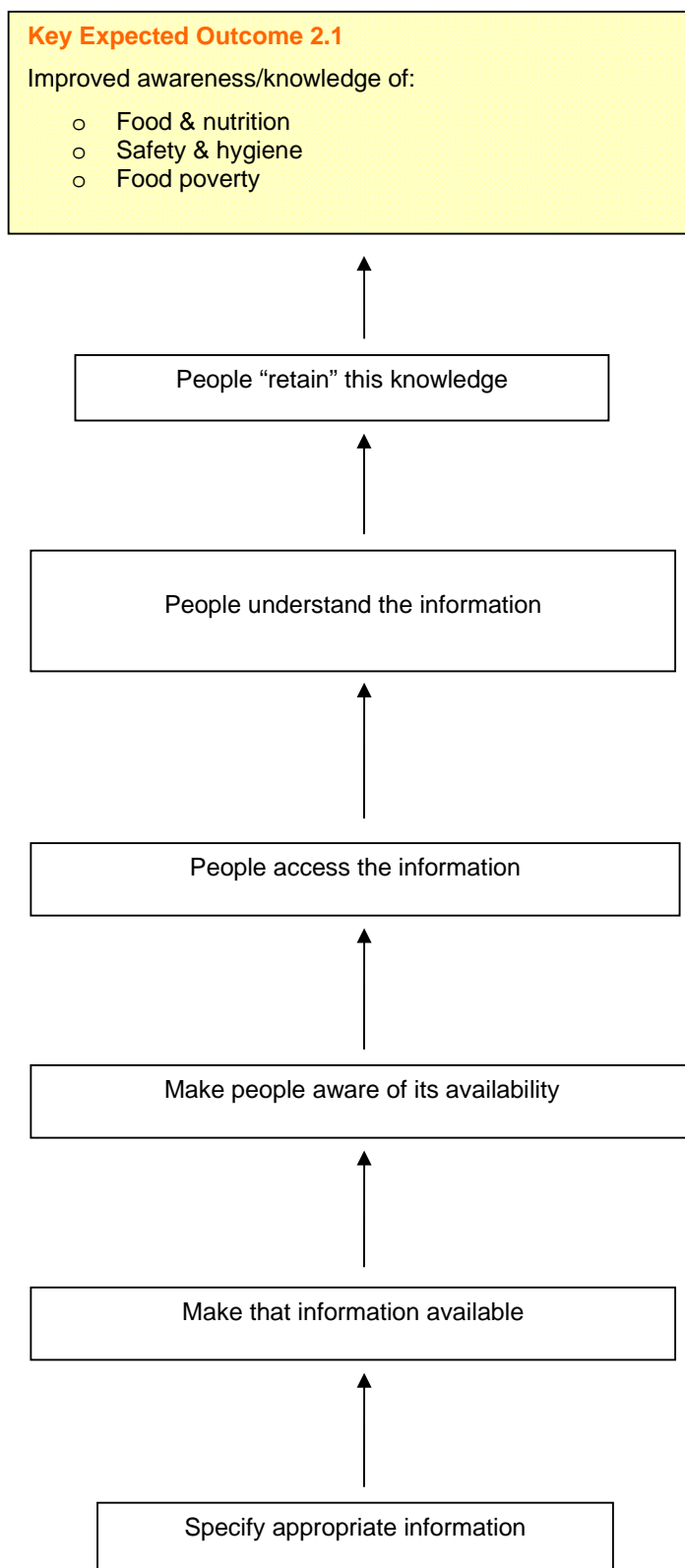
STEP 2: Outcome hierarchies



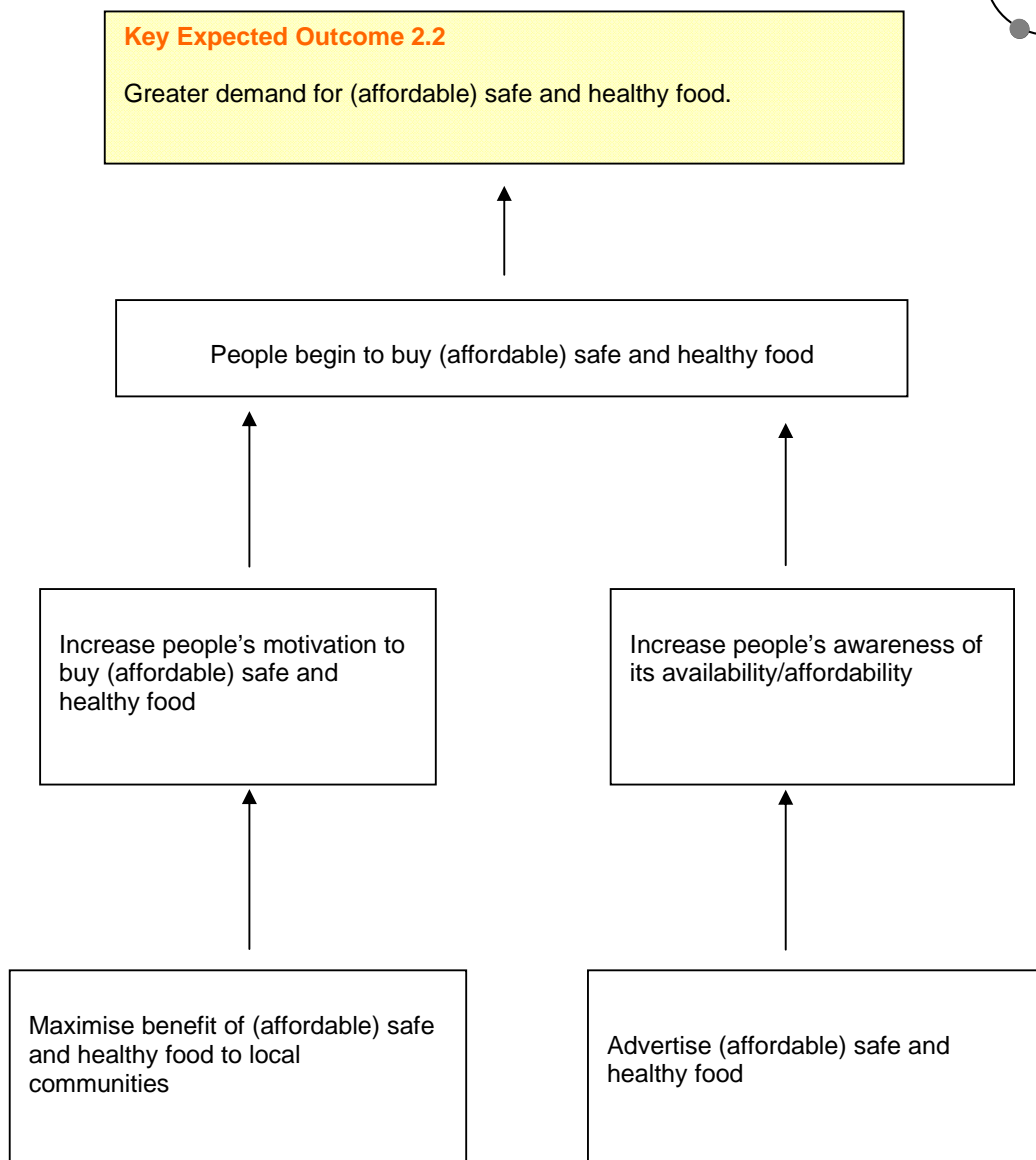
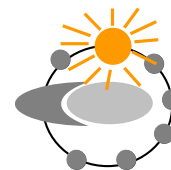
STEP 2: Outcome hierarchies



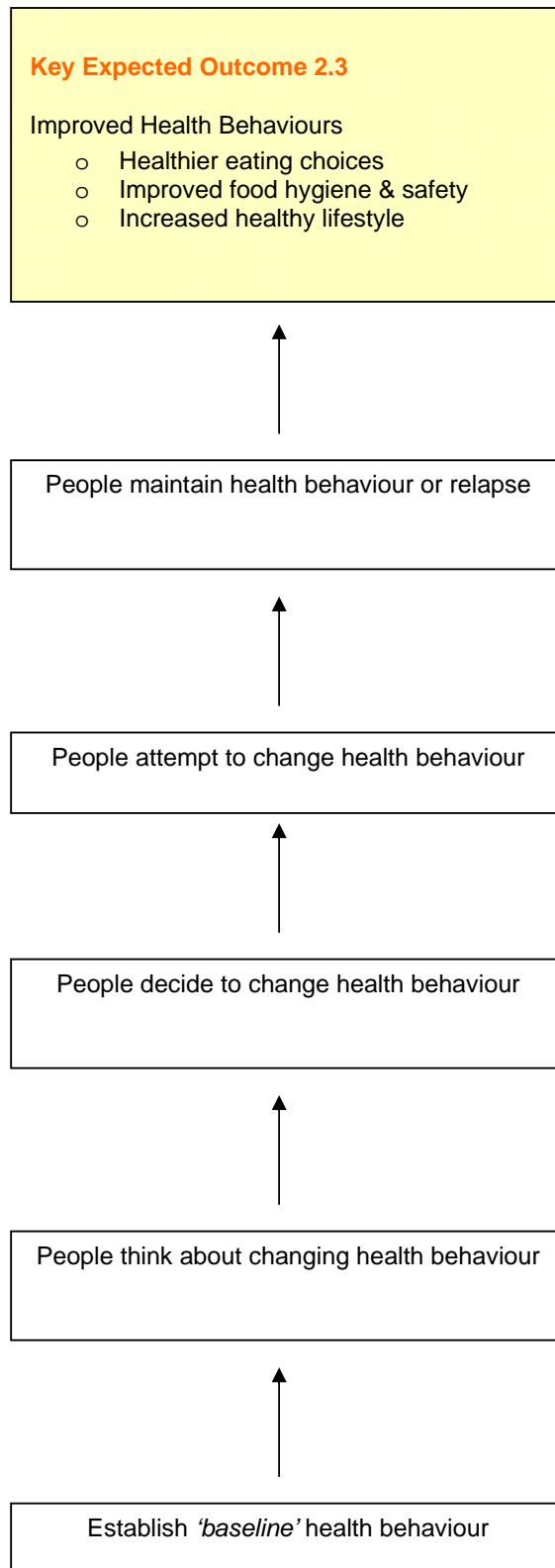
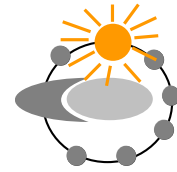
Individual, Household and Community Change



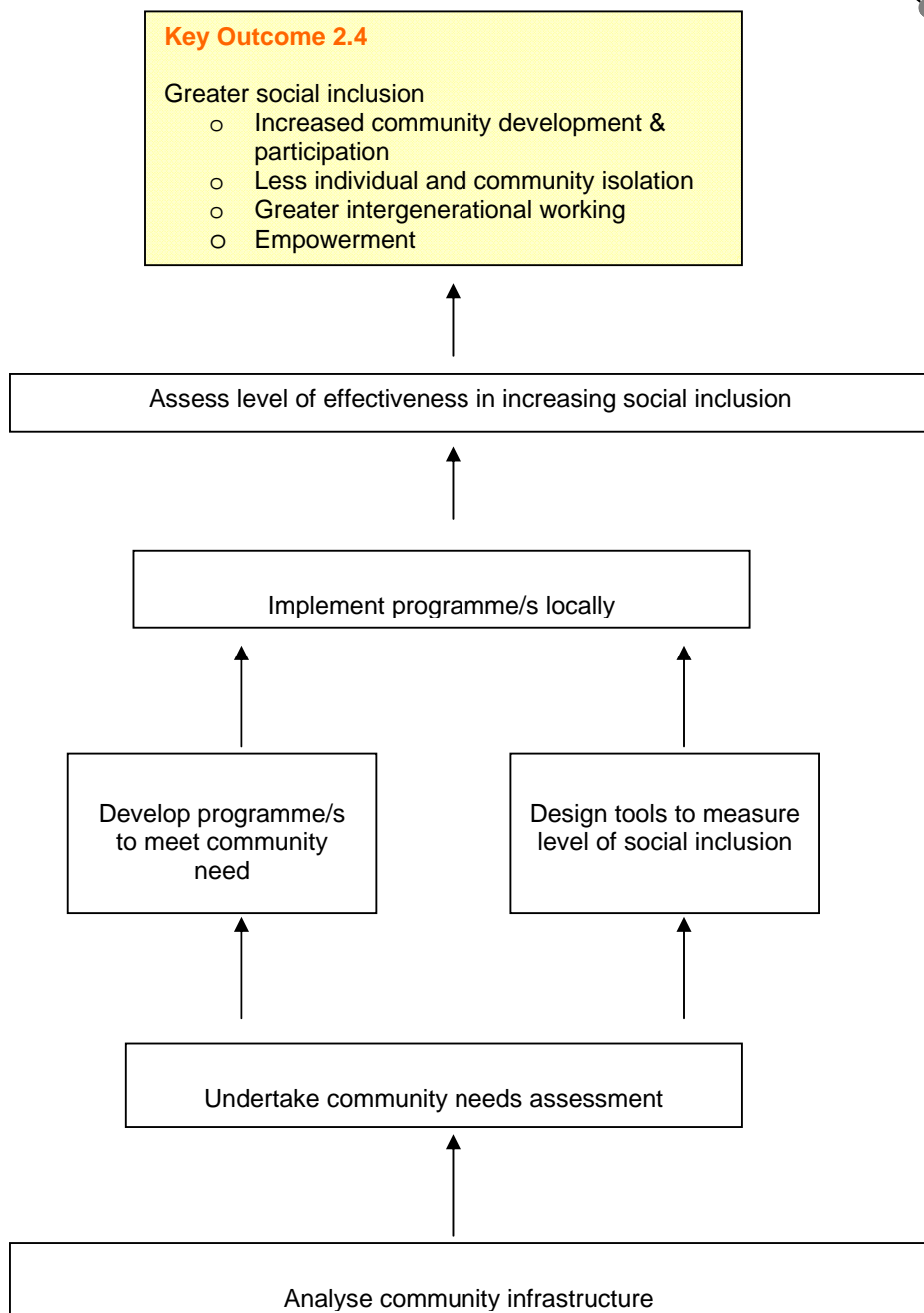
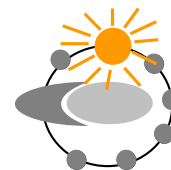
STEP 2: Outcome hierarchies



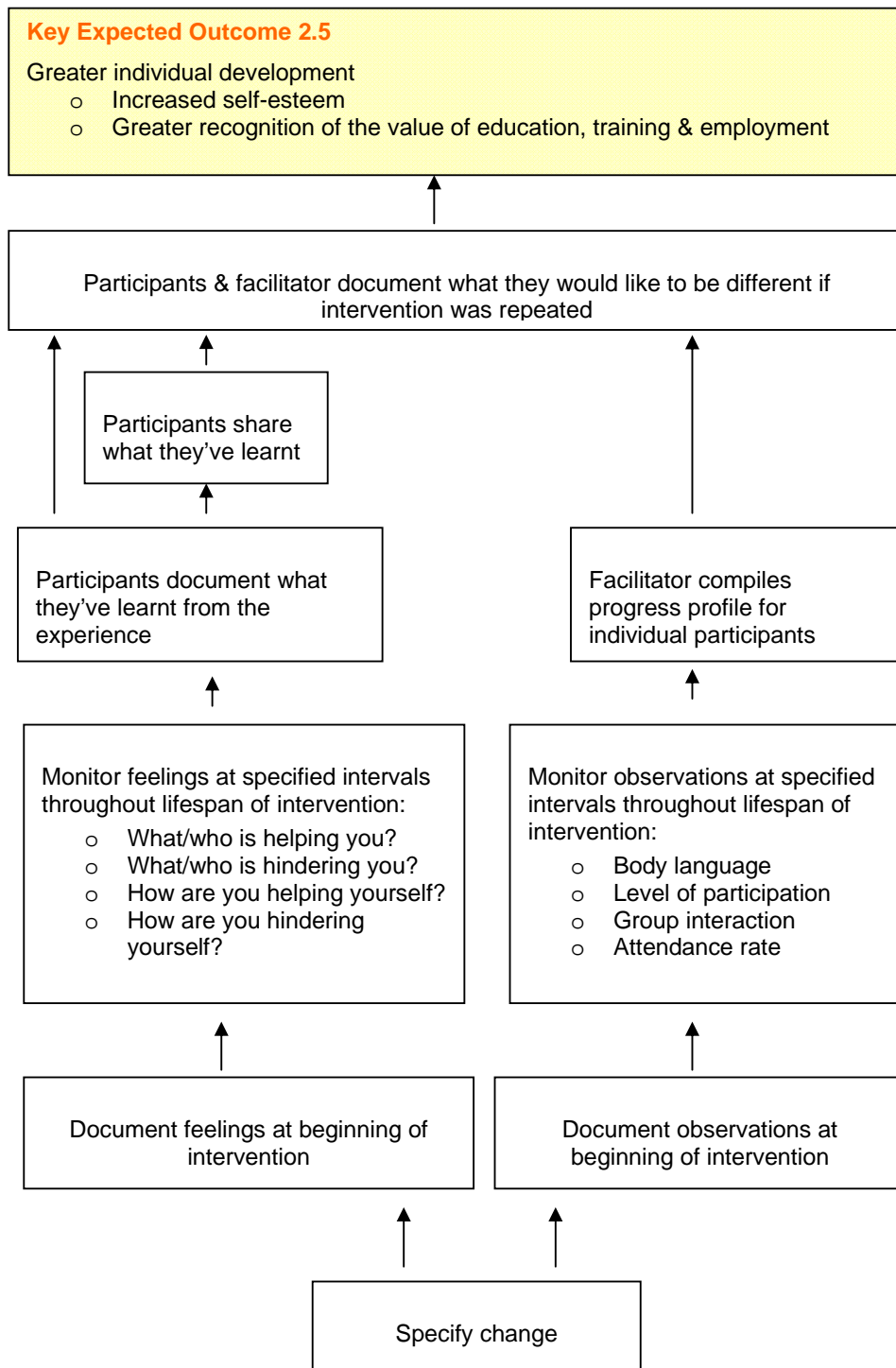
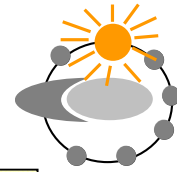
STEP 2: Outcome hierarchies

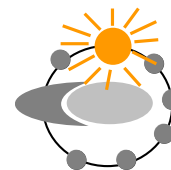


STEP 2: Outcome hierarchies

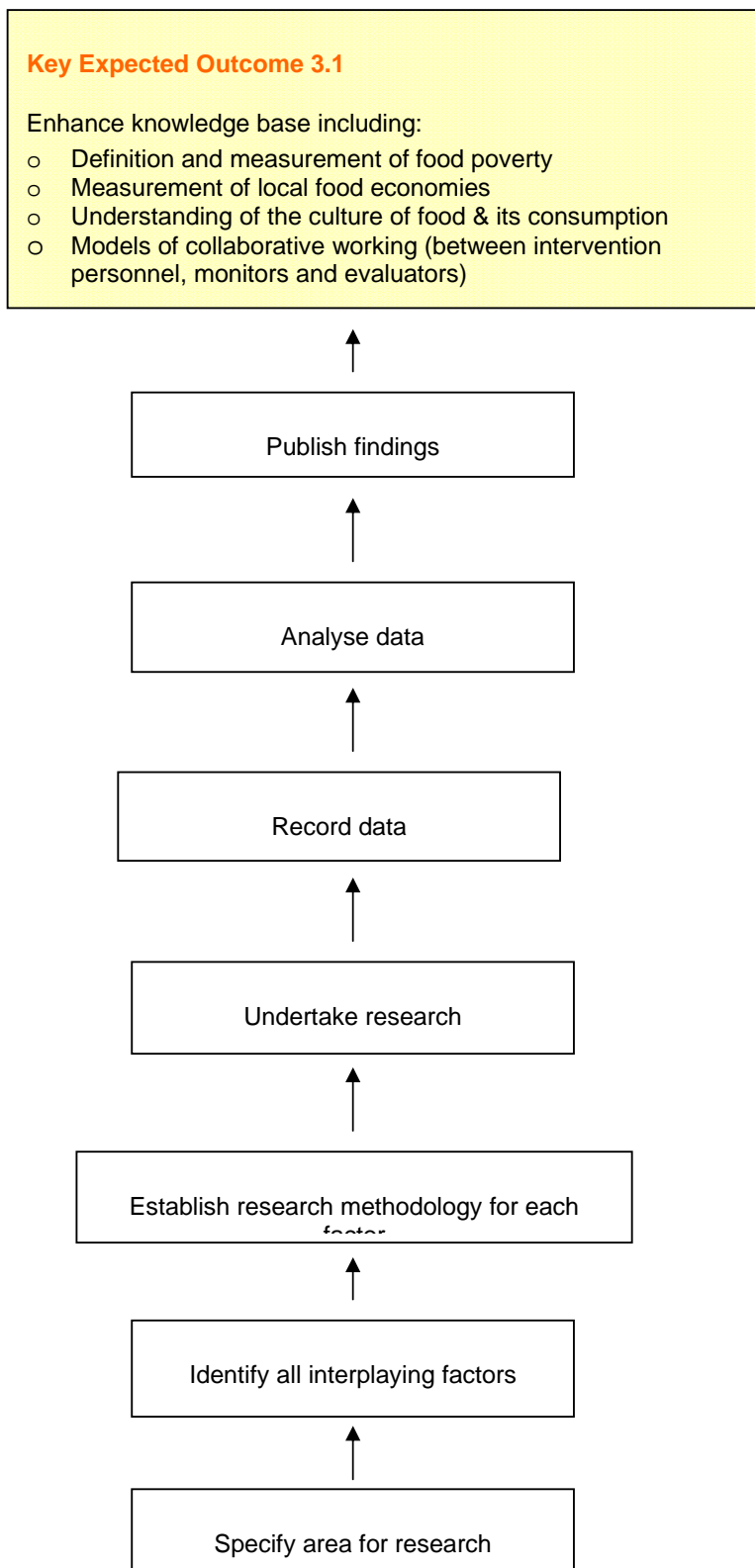


STEP 2: Outcome hierarchies

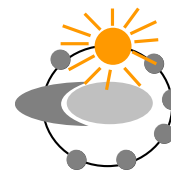




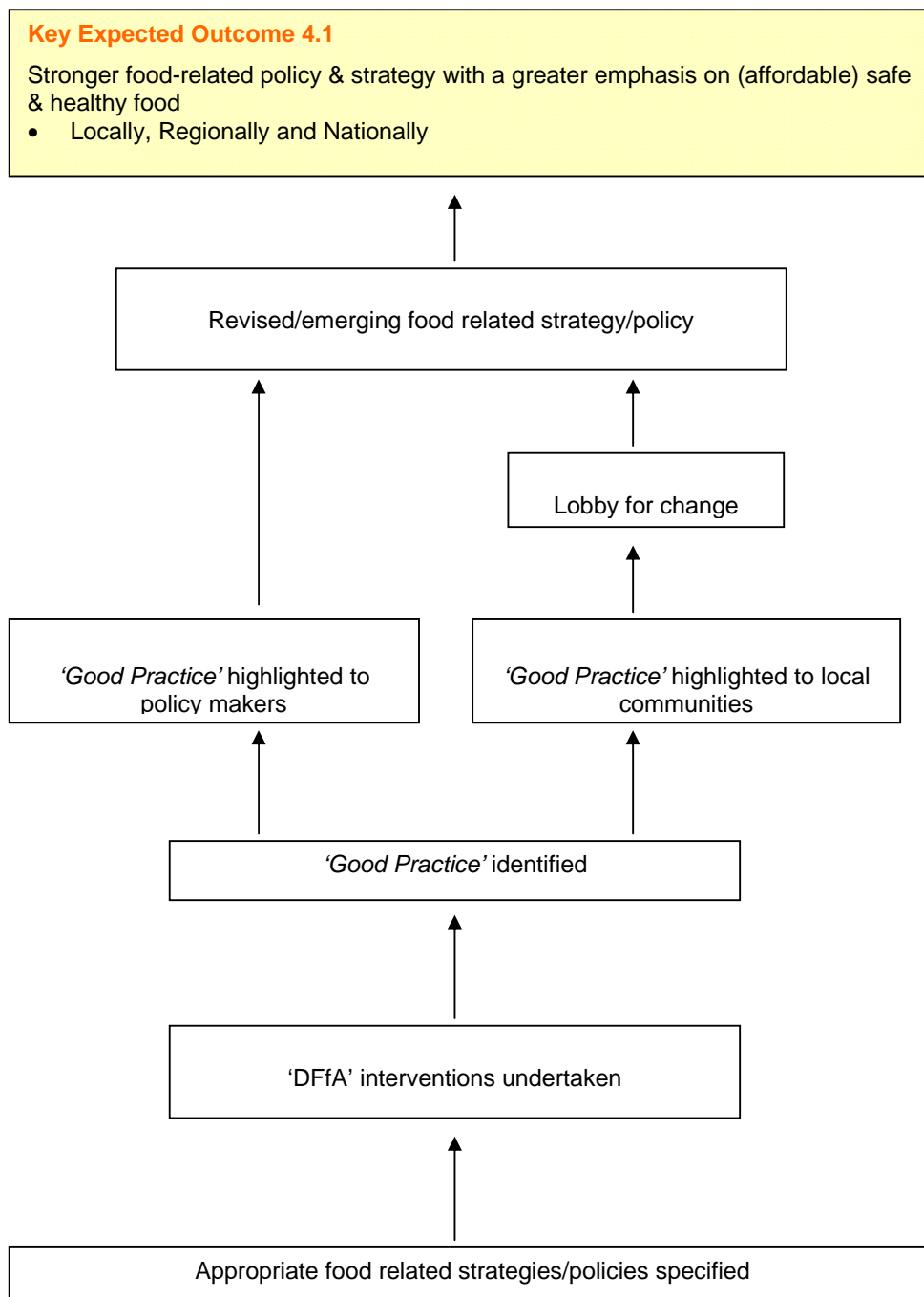
Research and Knowledge



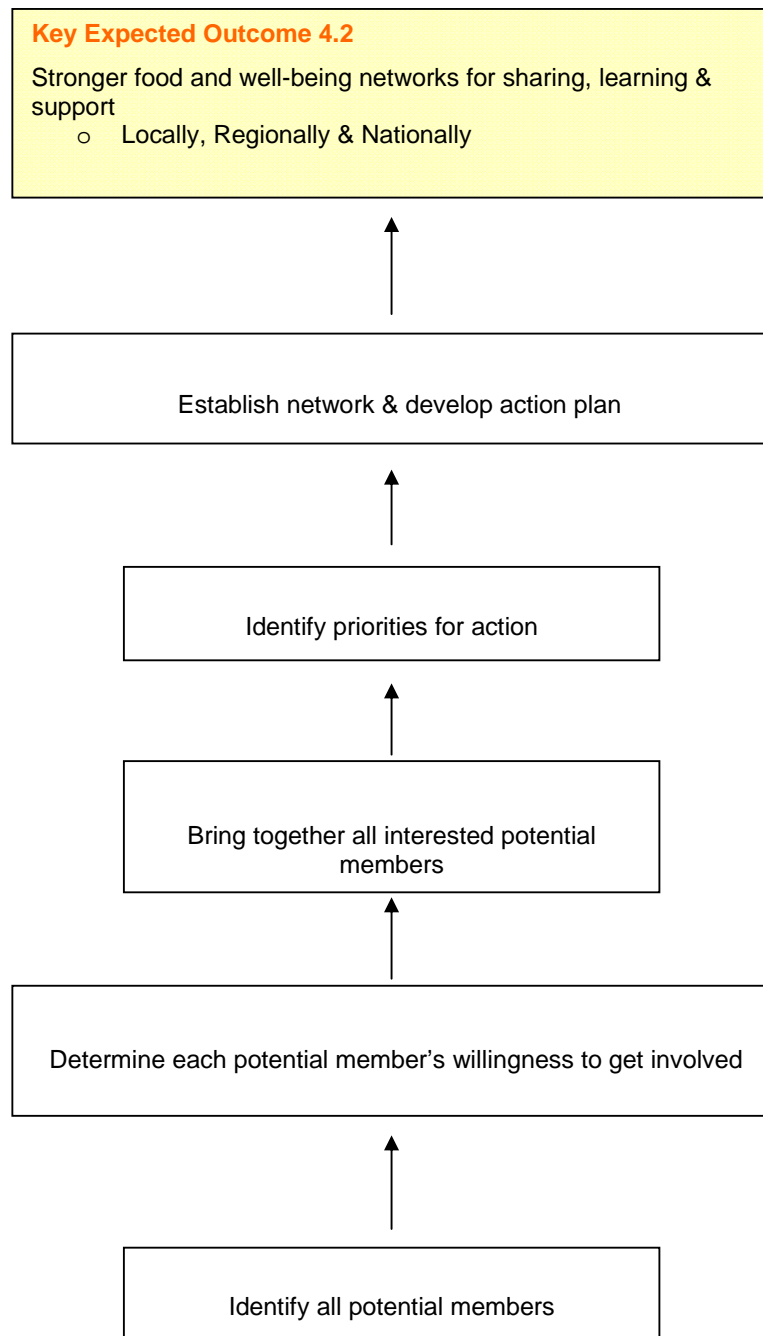
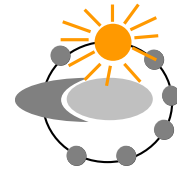
STEP 2: Outcome hierarchies



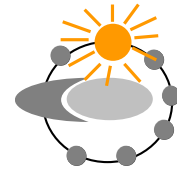
Policy change



STEP 2: Outcome hierarchies



STEP 2: Outcome hierarchies



Some extra notes

As well as establishing local & regional networks, HAZ would endeavour to maintain its position on existing national networks (e.g. Food Poverty Network, Sustain).

Re-insert the footnote about applications to policy interventions – short term, intermediate, long term outcomes.



From the
PLA Toolbox

- Generic outcome hierarchies for the application of PLA
- Intervention-Hierarchies Matrix

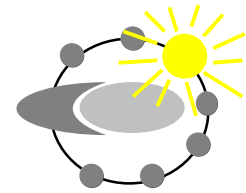
- Without careful attentions, we can fall into the habit of writing down activities as nodes of the outcomes hierarchies. These should be rephrased. For example, in the hierarchy for KEO 2.2 of the DFfA intervention one node - 'Increase motivation of people to buy ...' - had to be rephrased as "Greater motivation of people to buy ...". It helps to ask 'can this be done or does it have to be "experienced"?'
- Hierarchies do not have to be linear or single stranded (probably, they rarely are!). So don't be afraid to use several strands or feedback loops.
- At all times, however, try to be pragmatic about these; they are supposed to be tools and not end in themselves.

Some tips



Some pitfalls

Further reading



STEP 3: EVALUATION QUESTIONS

Introduction

After the outcomes hierarchies have been established, the evaluation questions can then be formulated for each of these hierarchies.

Aim / Outputs

Working through the step

Main types of evaluation questions

Figure: A framework for formulating the Evaluation Questions

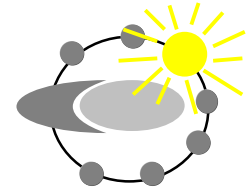
WAS THE INTERVENTION DELIVERED AS PLANNED?	Was the intervention delivered in the way it was planned?
DID EACH COMPONENT OF THE INTERVENTION ACHIEVE ITS OBJECTIVES?	
DID THE INTERVENTION REACH THE POPULATION?	
WAS ANY CHANGE OBSERVED AT THE POPULATION LEVEL?	Were the Key Expected Outcomes achieved in the intervention areas?
COULD THIS CHANGE BE ATTRIBUTED TO THE INTERVENTION?	If yes, can these be attributed to the intervention (internal validity)?
IT IS REPEATABLE IN OTHER "CIRCUMSTANCES"?	If so, is it likely that it would have the same effect elsewhere? (external validity / generalizability)

Prioritising the questions

Going around the PLA Cycle

Working together

STEP 3: Evaluation questions



Case study one: the DFfA intervention

For example, in relation to the outcome hierarchy for the KEO 2.1 (“Improved Awareness/Knowledge”) of the [DFfA](#) intervention:

- Was adequate investigation of community awareness of food and diet issue conducted?
- Were appropriate strategies developed to address any low levels of community awareness?
- Was there a widespread community education programme promoting the importance of health eating choices undertaken?
- Did this programme adequately cover the main topics and local issues?
- etc
- How to engage communities, achieve community ownership and participation
- What is the Impact on community capacity?
- How to measure impact? How to use subsidiary information to support such activity. What models/outputs could be applied island-wide for the development of evaluations?
- What are the local, regional and national issues that affect the generalisability and transferability of lessons?

Some other key issues identified in early meetings:

- Obesity
- Oral health
- Physical activity
- Processes
- Community ownership and participation
- The role of public services (working with communities)
- Food poisoning in the home
- Management of diseases (e.g. diabetes)

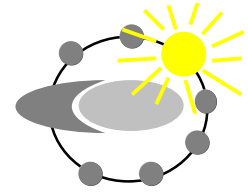
Some extra notes

Outcome hierarchies are meant to be aids. Use them only as far as they are helpful!




From the
[PLA](#) Toolbox

STEP 3: Evaluation questions

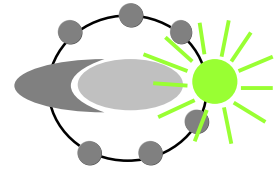


Some tips

A black and white icon of a lit lightbulb, symbolizing an idea or tip.A black and white icon of a lightning bolt, symbolizing a warning or pitfall.

Some pitfalls

Further reading



STEP 4: OTHER INFLUENCES

Introduction

Evaluations differ from research in a number of significant ways. Interventions being evaluated are delivered in the “real world” (with often limited resources and diverse target populations) rather than in a controlled experimental manner, and there is far less control over [extraneous factors](#) that are not of primary interest.

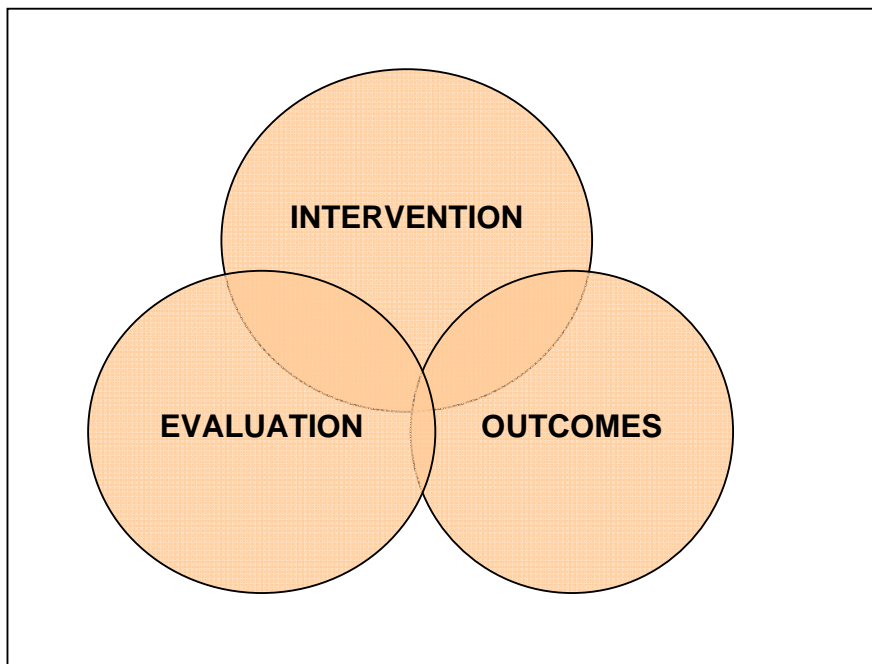
Such factors outside the control of the intervention team can threaten the [validity](#) of the conclusions of the evaluation, and the evaluation plan needs to take these factors into account if we are to have any confidence in the findings.

Aim / Outputs

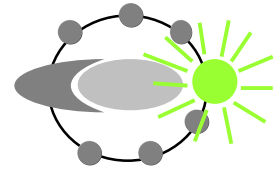
The aim of this step is to list factors that may influence the [validity](#) of the conclusions of the evaluation.

Working through the step

Figures: Factors that can threaten the validity of your conclusions



STEP 4: Other influences



When thinking about what these factors may be it is useful to think of them as either influencing the delivery of the intervention, the occurrence of the outcomes, or the scientific integrity of the evaluation (see Figure). Then, one by one work through these types of factors.

The intervention

For a variety of reasons the intervention may not have been implemented as planned:

- Components of the intervention may not be delivered in the way that was planned
- Even if the intervention was delivered as planned, other factors may change the way that the intervention affects people and situations.
- And the effects of these factors on the intervention may affect different people differently.

What is usually called the “process evaluation” addresses these factors. It includes monitoring resources and activities, and participant evaluations.

The outcomes

Changes observed may be due to other things. Even if the intervention had not been conducted in the area, background changes (both positive and negative) may occur.

The evaluation

Valid and reliable measures of the changes that have occurred over the intervention period are required to evaluate [effectiveness](#). There are various ways of measuring change and their accuracy varies. For example; people can be asked, after the intervention has been implemented, to describe any changes they think have occurred over the intervention period. A wider range of more valid estimates of change is obtained from collecting measures before and after the programme has been implemented.

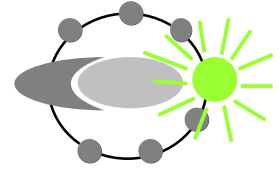
Going around the PLA Cycle

There are various ways to take into account the role of these factors. These are captured in this part.

Reviewing earlier steps

Many of these factors can be addressed by modifying earlier steps of the [PLA](#) Cycle. For example; it is often possible to address these factors by modifying the intervention by, for example,

STEP 4: Other influences



- Properly dealing with social and cultural factors amongst particular [target](#) groups.
- Being aware of other things going on that relate to your topic, and trying to take advantage of them rather than simply being aware of them and recording any effects.
- And don't ignore adverse publicity from, for example, "anti-health groups" such as the tobacco industry.

Looking forward to later steps

- Often, additional information needs to be collected that will allow the possible influence of the factors to be explored in the data analysis. For example; awareness of any additional relevant activities will help assess exposure to these
- This may involve modification in the way – when, where and sometimes how - data is collected.
- It may not be possible to address all the issues. In this case these issues need to carry forward and acknowledged as limitations of the evaluation.

Working together

In this step, collaboration is essential! We need:

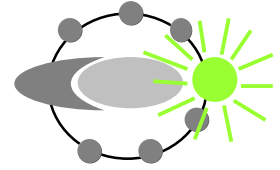
- Local knowledge about target groups, the local context and other relevant things that are going on
- An understanding of the subject matter drawing on the traditional knowledge base
- Knowledge of research methodology and statistical expertise – knowing how to account for these factors in the evaluation plan and the data analysis

Case study one: the DFfA intervention

For example, the Food Safety Promotion Board (FSPB) conducts communication campaign across Northern Ireland. Now suppose this campaign is less effective amongst socio-economically disadvantaged people than is amongst socio-economically advantaged people. If the [DFfA](#) Intervention was useful and compensated for this in a socio-economically disadvantaged programme area, then a simple comparison of that area with a socio-economically mixed [comparison area](#) might show no difference. This would lead to the erroneous conclusion that the programme was of no value in socio-economically disadvantaged areas!

Some extra notes

STEP 4: Other influences



Where to put funding, resources, priorities, emergent issues, politics, etc?



From the
[PLA](#) Toolbox

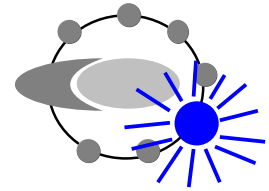
- “Common threats to the [validity](#) of evaluations”

Some tips

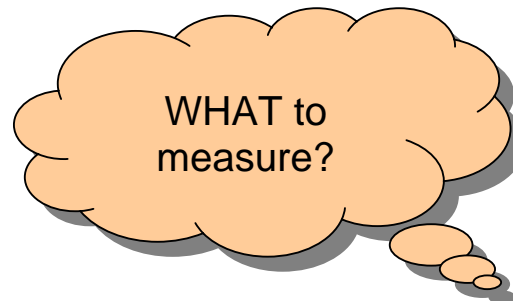


Some pitfalls

Further reading



STEP 5: DATA ITEMS



Introduction

Having identified the key evaluation questions and listed the factors that might influence the validity of our conclusions, the next step is to define WHAT data items need to be collected.

By data we mean both non-numerical (qualitative) and numerical (quantitative) pieces of information.

Aim / Outputs

The aim of this step is to define the key data items that are relevant to the key evaluation questions and the other possibly influences.

Working through the step

A checklist of the three main categories of data items

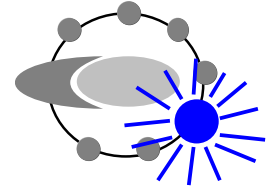
Data items can be conveniently grouped into a number of categories according to the role they play in the subsequent data analysis:

- Outcomes-related items associated with the outcome hierarchies;
- Key performance [indicators](#) associated with the key expected [outcomes](#) of the intervention;
- Socio-economic and other demographic variables that are associated with the target groups of the intervention;
- Items associated with the other factors that might influence the delivery of the intervention, the occurrence of the outcomes, or the scientific integrity of the evaluation.

Criteria for selecting data items

Criteria for [indicators](#):

STEP 5: Data items



- changes in these need to be interpretable in terms of achievement of expected [outcomes](#)
- “SMART”

Going around the PLA Cycle

[Reviewing earlier steps](#)

[Looking forward to later steps](#)

Working together

Case study one: the DFfA intervention

The FSPB’s mass media campaigns dealing with food safety and hygiene might also contribute to the key expected [outcomes](#) of the [DFfA](#) intervention. Moreover; the reach of mass media campaigns may vary across the country and affect people with different socio-economic and other demographic backgrounds in different ways. For these reason, it is desirable to be record the content, reach and impact of the FSPB’s mass media campaigns that were conducted during the intervention period and adjust for these in the data analysis.

Some extra notes

Aligning the analysis variables – dependent variables and explanatory variables – and the data items collected.

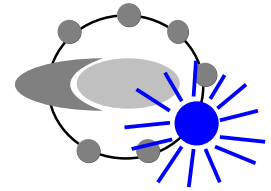


From the
[PLA](#) Toolbox

Some tips



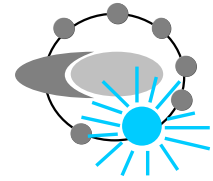
STEP 5: Data items



The difference between an [indicator](#) and a [target](#)

Some pitfalls

Further reading



STEP 6: DATA COLLECTIONS

Introduction

Having specified the data items that need to be collected (the “WHAT”), the next step is to specify:

- The geographical areas where these items are required (the “WHERE”);
- From whom in these areas they are to be collected (the “WHO”)
- WHEN they need to be collected; and
- HOW they are to be collected.

These details finalise the design of the data collections

Aim / Outputs

Working through the step

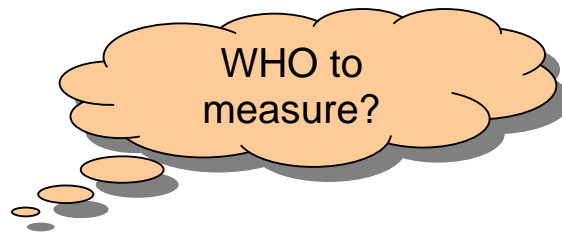
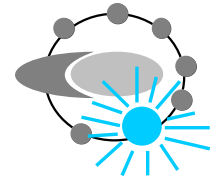
The “Where” of it



In order to assess which changes, or how much of the observed changes, can be truly attributed to the intervention, independent measures of background temporal changes are desirable. If practical, this will usually involve selecting a ‘[comparison area](#)’ where the intervention has not been implemented, measuring the changes that have occurred there, and subtracting those changes from the changes observed in the intervention area. These differences give more accurate measure of the changes that can be attributed to the intervention.

It is important that the profiles of the intervention and comparison areas are as close as possible with regard to the factors that are likely to influence the intervention.

The “Who” of it

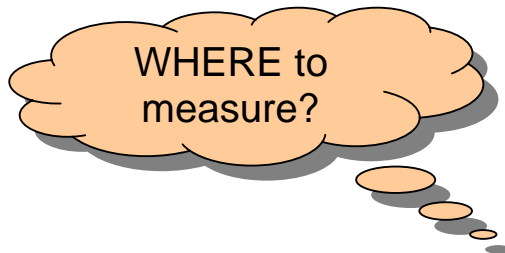


If differences between the intervention and [comparison areas](#) are observed, then adjustment (“confounding”) for these differences should be incorporated into the data analysis. Of course, little can be done about differences that are unknown to us or are not measured; these represent possible limitations of the evaluation.

<Target subgroups?>

Note that the observational unit need not be individuals. It could be a household or a general practice clinic of a shop or an area.

The “When” of it

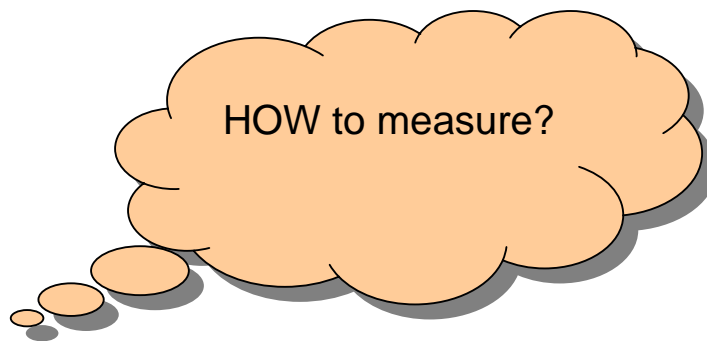
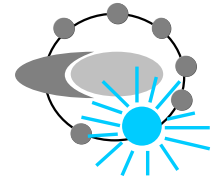


<Pre-intervention and post-intervention measures>

The “How” of it

It is likely that both non-numerical (qualitative) and numerical (quantitative) data will be needed at various levels to reflect individual, family, and local/regional and national factors.

List type of data collections



Using existing data

As much as possible use existing data.

In order to strengthen comparisons with existing data collections it is useful if then timing and nature of new collections matched those of the existing collections.

What to do about the “generalizability”

Comparisons with other geographical areas (outside the intervention and comparisons areas) allow us to comment on the “generalizability of the evaluation.

These comparisons serve a number of purposes:

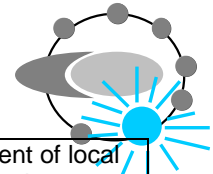
- They allow us to assess the ‘representativeness’ of the intervention area. These comparisons usually focus on socio-economic and demographic variables but should also consider any other factor which is likely to have an affect on the impact of the intervention.
- They allow us to assess whether the temporal trends observed in any [comparison area](#) are typical of the changes that have occurred in wider geographical areas. This is particularly useful when measures of key performance [indicators](#) are available in these areas.

The other geographical areas should include areas to which we would like to extrapolate the findings of the evaluation.

Comparisons of the change observed in the intervention area and the change observed in an other geographical areas reflect differences in the combined effect of all the components of the intervention and the background temporal changes.

Going around the PLA Cycle

STEP 6: Data collections



KEO 3.1: Enhanced knowledge base	Working definition of food poverty and assessment tools (area-based, family-based and individual-based indices, etc)	<ul style="list-style-type: none"> o Measurement of local food economies
<p>Key Outcome 4.1: Stronger food-related policies and strategies with greater emphasis on (affordable) safe healthy food</p> <p>KEO 4.2: Stronger food and well-being networks for health locally, regionally and nationally.</p>	<p>Policy analyses</p> <p>Network evaluation (social network analysis and qualitative studies)</p> <p>Community observational studies</p>	

Because the rest of Northern Ireland is a large aggregated area, comparisons assume that activities other than the [DFfA](#) Intervention (e.g. any food safety communication campaign) that might also contribute to the expected [outcomes](#) of the DFfA Intervention have the same effect in the intervention area as they do in the rest of Northern Ireland.

Some extra notes

What about sample sizes power calculations and sample selection?



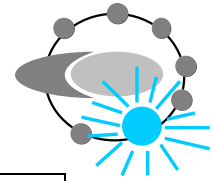
From the
PLA Toolbox

“INIsPHO All-Ireland Health Data Inventory”
The “INIsPHO (Online) Data” system
(Data item/other influences) – Data Collection Matrix

Some tips



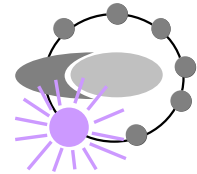
STEP 6: Data collections



Most existing data collections were developed for other (e.g. administrative) purposes and may not be “fit for (our) purposes”. Don't use them blindly. Beware of possible limitations!

Some pitfalls

Further reading



STEP 7: DATA ANALYSIS PLAN

Introduction

Individual data items need to be combined into analysis variables – dependent variables and explanatory variables - that can then be subject to data analysis.

Data Analysis Plan

Is about how we are going to use key data items to answer key evaluation questions, taking into account other influences.

Aim / Outputs

Working through the step

Understand the purpose on each analysis

Not all analyses are designed to provide valid assessment of the effect of the intervention in terms of Key Expected Outcomes. For example; a large demand and attendance at the components of the intervention (indicated in a participant evaluation) does not mean there has been an impact at the population level. Positive feedback from participants in a skills training session does not necessarily mean they have acquired the relevant skills.

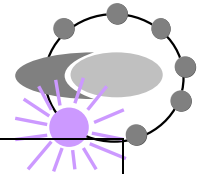
Stages of a data analysis

Data analysis plan must be based on the key evaluation questions and undertaken in stages as greater understanding is achieved. As outlined in Step 3, key evaluation questions can be grouped as follows.

Figure: Key evaluation questions

WAS THE INTERVENTION DELIVERED AS PLANNED?	Was the intervention delivered in the way it was planned?
DID EACH COMPONENT OF THE INTERVENTION ACHIEVE ITS OBJECTIVES?	
DID THE INTERVENTION REACH THE POPULATION?	Were the Key Expected Outcomes achieved in the intervention areas?

STEP 7: Data analysis plan



WAS ANY CHANGE OBSERVED AT THE POPULATION LEVEL?	If yes, can these be attributed to the intervention (internal validity)?
COULD THIS CHANGE BE ATTRIBUTED TO THE INTERVENTION?	If yes, can these be attributed to the intervention (internal validity)?
IT IS REPEATABLE IN OTHER "CIRCUMSTANCES"?	If so, is it likely that it would have the same effect elsewhere? (external validity / generalizability)

Going around the PLA Cycle

[Reviewing earlier steps](#)

[Looking forward to later steps](#)

Working together

[Managing expectations](#)

It is important that both intervention personnel and evaluation/research personnel understand the purpose of each analysis and when it is possible. This is particularly important in relation to the too easily asked question "Did it work?" Because they may have different backgrounds, different perspectives and different roles; intervention and evaluation/research personnel are likely to place different emphases on different aspects of the analysis. For example; if intervention personnel are seeking additional funds the answer to this apparently simple question can take on great significance even though the necessary data may not yet be available.

Case study one: the DFfA intervention

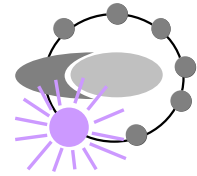
The main elements of the analysis plan for the [DFfA](#) analysis plan are listed below.

[Activities and resources monitoring](#)

We first need to know what occurred during the intervention period. This includes both the activities associated with the intervention as well as other activities.

A full [process evaluation](#) was conducted. It will be based on

STEP 7: Data analysis plan



- activities and resources delivered as part of the [DFfA](#) intervention and its related activities;
- participant evaluations of particular components of the [DFfA](#) intervention; and
- monitoring other related activities.

Intervention personnel (in this case the community food co-ordinator and the community food workers) will be heavily involved in this aspect of the evaluation.

Note the Resources and activities monitoring template and quarterly report produced by ADHAZ.

Mapping availability and price of food

Ethnographic study of the role of cultural, social and psychological factors

Even with improved food knowledge and improved financial and physical access; other social and psychological factors may mean there is no increased demand for health food or improved health behaviours. A qualitative study of these factors was conducted to help interpret quantitative analyses.

It will include some focus groups, some face to face interviews to gather more first hand 'free flow' (as opposed to structured) experiences.

Observational studies to further assess local regeneration and social inclusion

Ecological factors related to local regeneration (KEO 1.1-1.3), local networks (KEO 4.2), and social inclusion (KEO 2.3) also have a role. The effect of engagement in the process on the communities' social capital including the development of community networks, volunteering, community capacity and infrastructure etc would be included.

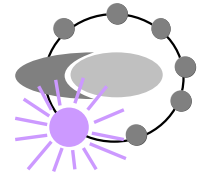
MacIntyre and Ellaway (ref) provide a framework for such ecological studies: they should consider the physical features of the environment shared by all residents, the availability of a health environment in the home, services provided (publicly or privately) to support people in their daily lives, socio-cultural features of a neighbourhood, and the reputation of the area.

Community surveys

Multi-level analysis

Supplementary measures such as individual-level and area-level accessibility scores for financial and physical access, and measures from other analyses will be attached to data files of the community surveys.

STEP 7: Data analysis plan



Multi-level models will then be used to describe variation in these measures over the intervention period in the study areas. Multi-level modelling is particularly useful here because allows us to simultaneously consider the role of individual factors and contextual influences such as family, community and other area-level factors.

Within these models, the analyses will consider

- changes across the combined intervention areas
- changes in the intervention areas reflecting the role of:
 - rurality
 - socio-economic disadvantage; and
 - cross-border locality.
- changes in the selected minority groups:

Separate analyses will be conducted for each of the KEOs looking at one factor at time, then simultaneously.

Evaluation of networks for health

This study will provide the principal assessment of for Expected Outcome 4.2 and will include interviews and focus group discussions with community members, key informants in the local community, and representatives of community organisations.

Some extra notes

What about assessing impacts of individual components of the intervention?

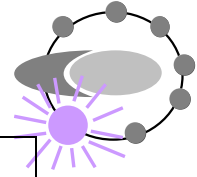
What about non-numerical analyses?

Statistical support?





From the
[PLA](#) Toolbox

STEP 7: Data analysis plan



Some tips

A black icon of a lit lightbulb, symbolizing an idea or tip.A black icon of a lightning bolt striking a square, symbolizing a warning or pitfall.

Some pitfalls

Further reading



SUMMARY OF THE INTERVENTION DESIGN

If the PLA Cycle is applied in an iterative manner as suggested, then the description of the main components of the intervention design, and the mechanisms (its [programme logic](#)) by which these components are assumed to achieve the intervention aims, will be continually refined.

If the journey around the PLA Cycle is started after the intervention has been developed or implementation of the intervention has commenced, then the initial version of the intervention design can be derived from programme documentation.

Where feasible, the intervention design should be described in a standardized manner so that:

- it can be regularly revised in a simple way;
- it will make it easier to share the experiences.



SUMMARY OF THE EVALUATION PLAN

Introduction

It is vital that the details of the evaluation plan are recorded in a succinct way in order that the work can be shared and to assist other critically assessing the outputs.

Aim / Outputs

Working through the step

Working together

Case study one: the DFfA intervention

Aims of the evaluation

The aims of the evaluation are:

1. To contribute to the development of the [DFfA](#) Intervention.
2. To assess the overall effect of the DFfA Intervention in the programme area
3. To identify aspects of the intervention which increase food knowledge and reduce food poverty in:
 - o rural and urban communities;
 - o socio-economic disadvantaged areas; and
 - o cross-border areas.
4. To identify aspects of the programme which increase food knowledge and reduce food poverty among minority groups such as Travellers and Portuguese
5. To identify aspects of the programme which can be applied across Northern Ireland and the island of Ireland.
6. To identify aspects of the programme which can be used to support all-island communication and marketing campaigns.

Components of the evaluation plan

Overall approach

- o Use of the Programme Logic Approach ([PLA](#))
- o A focus on the expected [outcomes](#) of the [DFfA](#) Intervention
- o Use of a suitable [comparison area](#) to strengthen the [validity](#) of findings

Information sources

- o Ethnographic study of food purchasing, preparation and food consumption

Summary of the evaluation plan



- Pre-intervention and post-intervention community surveys
- Linkages with FSPB and other Northern Ireland survey programmes.
- Pre-intervention and post-intervention mapping of physical and financial access to safe healthy food

Statistical analysis

- Multi-level analyses that take into account individual, family, community and other area-level factors

Qualitative studies to further assess the role of social and psychological factors

- Community observational studies to further assess local regeneration and social inclusion
- Further qualitative research

Evaluation of local networks for health

Process evaluation

Other key features

Multi-methods

A wide range of evaluation questions are raised by complex interventions. Consequently; qualitative (non-numerical) and quantitative (numerical) data must be collected and the methods of data analysis must, of course, match the nature of the underpinning [indicators](#)/information. An advantage of the [PLA](#) is that evaluative methodology is determined by the evaluation questions being asked rather than the other way around.

Integrating evaluation and practice

Some analyses will focus on comparing changes in key [indicators](#) observed in the programme communities. Other aspects of the evaluation will be undertaken on an ongoing basis. The emphasis that the [PLA](#) places on programme activities means that the evaluation can be developed so that interim results can be weaved into the implementation of the Programme.. If necessary, adjustments to the Programme can thus be made during its life

Describing the programme's mechanism

The HAZ's Programme Strategy outlines a two phase approach based on an understanding of how the Programme will achieve its aims: Phase 1 aims to improve information access while Phase 2 aims to improve physical access and financial access. Working with the key stakeholders, we will flesh out the HAZ's two phases until a more detailed description of the programme mechanisms emerge. This requires an understanding of the context in which the Programme occurs, the influence of other factors on its overall aim and how, in combination these contribute to the achievement of Programme aims.



Some extra notes

	Template for summarizing evaluation plans for complex interventions
From the PLA Toolbox	

	Some tips
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	Some pitfalls
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Further reading



PART D. THE PLA TOOLBOX

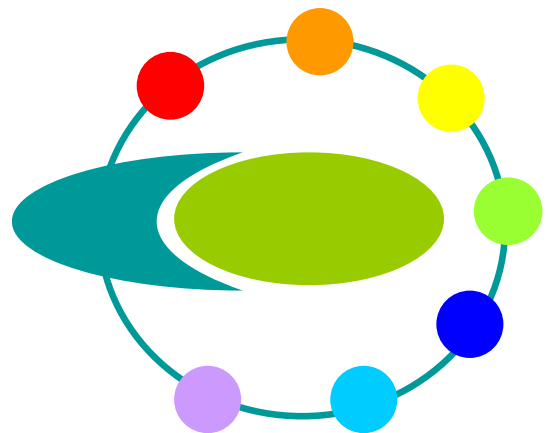
Interventions

Programme Logic

Evaluation and Monitoring

PLA Outputs

Facilitation







INTERVENTIONS

This part of the PLA Toolbox contains resources to help develop and describe complex interventions and their components.

<Link to effectiveness literature>

Table: Resources from the PLA Toolbox

Dalgren and Whitehead's 'Determinants of Health'	
PLA Template – intervention summary	

Further reading



PROGRAMME LOGIC

This part of the PLA Toolbox contains resources to help describe the programme logic of complex interventions.

<Link to causal pathways>

Table: Resources from the PLA Toolbox

Dalgren and Whitehead's 'Determinants of Health'	
"Theory in a NUTSHELL" by Don Nutbeam and Elizabeth Harris	A useful summary of some of the commonly used theories and models in health promotion

Further reading



EVALUATION AND MONITORING

This part of the [PLA](#) Toolbox contains resources to help develop the monitoring and evaluation framework for the intervention.

Table: Resources from the PLA Toolbox

Summary of evaluation designs	
Common threats to the validity of evaluations	
Activities and Resources Monitoring Template	
Checklist of other influences	
"INIsPHO All-Ireland Health Data Inventory"	
"INIsPHO (Online) Data" system	http://www.inispho.org
MacIntyre and Ellaway (ref) framework for ecological studies:	
PLA Template - evaluation plan summary	

Further reading



PLA OUTPUTS

This part of the PLA Toolbox contains resources that:

- Are useful in explaining the process of applying the PLA;
- Help capture the outputs of the steps of the PLA Cycle; and
- Strengthen the coherence between the outputs of the steps in the PLA Cycle.

Table: Resources from the PLA Toolbox

PLA and the PLA Toolkit	
Diagram of the three elements of the PLA Toolkit	
Diagram of the PLA Cycle	
Outputs from the steps in the PLA Cycle	
Generic outcomes hierarchies for the application of PLA	
Coherence between the outputs of different steps of the PLA Cycle	
Intervention- Outcomes Matrix	These tools are simple matrices that are used to ensure the necessary links between the outputs of the steps are made
Outcomes-Hierarchies Matrix	
Intervention-hierarchies Matrix	
Outcomes- Indicators Matrix	
Outcomes-Data Collection Matrix	
Indicators-Data Collections Matrix	
Outcomes-Influencers Matrix	

:

Further reading



FACILITATION

This part of the PLA Toolbox contains resources to help facilitate application of the PLA Cycle. This includes

- a. Tools to support team working
- b. Decision making

Table: Resources from the PLA Toolbox

'Opening, narrowing, closing"	
Delphi groups	

Further reading

"Rules of engagement"

Planning and running meetings



PART E. PLA CASE STUDIES

Introduction

The DFfA community-based food poverty intervention







INTRODUCTION

Table: Case Studies for the PLA Toolbox

Community-based interventions	
“Decent Food for All (DFfA)” community-based food poverty intervention (Northern Ireland)	Version 1.0
“CPR2000” a community-based CPR intervention (Australia)	
Services delivery	
A project linking service delivery targets to national health inequalities targets (Republic of Ireland)	
Policy interventions	
A framework for monitoring the impact of smoke free workplace legislation (Scotland)	

Further reading



THE “DECENT FOOD FOR ALL (DFfA)” COMMUNITY-BASED FOOD POVERTY INTERVENTION

Project title

The “Decent Food for All (DFfA)” community-based food poverty intervention.

Lead Agency

Armagh and Dungannon Health Action Zone (ADHAZ), Northern Ireland.

Funding

Core funding for the initial three year intervention, and the additional year, was provided by the Food Safety Promotion Board (FSPB).

Policy Context

Links to Local/Regional/National Policies and Strategies.

The Armagh and Dungannon Health Action Zone is committed to addressing inequalities in access to safe healthy food. It views access to decent food as part of a wider set of issues, and sees tackling food poverty as part of efforts to promote regeneration and social inclusion.

Partners in the project

The [DFfA](#) intervention was a collaborative effort involving the Armagh and Dungannon community, the DFfA Operational Group, the DFfA Local Evaluation Group, the ADHAZ’s Community nutrition team (community food co-ordinator and community food workers).

The research and evaluation was conducted under the auspices of the Research and Evaluation Group in the Institute of Public Health in Ireland (IPH), and the DFfA Local Evaluation Group.

Table: The IPH’s Research and Evaluation Group



Present members

Kevin P Balanda (chair)	Institute of Public Health in Ireland
Lorraine Fahy	Institute of Public Health in Ireland
Jennifer McBratney	Armagh and Dungannon Health Action Zone
Paula Tally	Armagh and Dungannon Health Action Zone
Jane Wilde	Institute of Public Health in Ireland

Past members

Alison Crawford	Armagh and Dungannon Health Action Zone
Michael Donaldson	Armagh and Dungannon Health Action Zone
Eleanor Gill	Armagh and Dungannon Health Action Zone
Shirley Hawkes	Armagh and Dungannon Health Action Zone
Yukiko Kobayashi	Institute of Public Health in Ireland
Lyndsey McCann	Armagh and Dungannon Health Action Zone
Aodhann O’ Donnell	Armagh and Dungannon Health Action Zone
Tracy O’ Neill	Armagh and Dungannon Health Action Zone
Tracy Powell	Armagh and Dungannon Health Action Zone
Jorun Rugkåsa	Institute of Public Health in Ireland
Niamh Shortt	Institute of Public Health in Ireland
Orla Walsh	Institute of Public Health in Ireland

Aims

The ADHAZ’s ‘Decent Food for All’ Intervention ([DFfA](#)) aims to encourage and support local communities, families and individuals to achieve a balanced safe diet by providing practical, community-based and focused help and advice on food safety and nutrition.

Target Groups

The ADHAZ was keen to better understand how the following factors influenced the effectiveness of the DFfA Intervention:

- rurality;
- Socio-economic status; and
- living along the North-South border.

In addition the DFfA intervention targeted minority groups such as the Travellers and Portuguese. In combination, the intervention area includes many members of the minority groups who spread across a number of different wards.

Components of the intervention

The [DFfA](#) intervention involves concentrated and focused work in the intervention area, and other related activities.

Concentrated and focused work

The “Decent Food for All (DFfA)” Community based food poverty intervention



The [DFfA](#) Intervention incorporates community education, healthy lifestyle choices, regeneration of local communities and markets, and sustainability.

< describe the main pieces of [DFfA](#)>

The intervention concentrated and focused work was undertaken in twelve wards in ADHAZ (the so-called ‘intervention area’).

The Carrigatuke Ward, in Darkley, is included in the ‘Home is Where the Heat is’ Project; this is not expected to compromise either evaluations.

Other related activities

In addition to the more concentrated and focussed work in the intervention area, the [DFfA](#) intervention included a number of related activities:

- Fresh Fruit in School’ Project
- Community Food Gardens; and
- Breakfast Clubs.

These activities particularly contribute to Phase 2 and Phase 3 of the [DFfA](#) Intervention (physical and financial access) and they were not underway when funding for the [DFfA](#) Intervention was first sought. They are being conducted across the A&D HAZ and more widely (e.g. The Fresh Fruit in Schools’ Project) and other agencies are involved in their evaluation (the Health Promotion Agency is evaluating the Fresh Fruit in Schools Project?).

Geographical scope

Intervention area

Table: Electoral wards in the DFfA intervention and comparison areas

ARMAGH & DUNGANNON HSS TRUST	NEWRY / MOURNE HSS TRUST
INTERVENTION WARDS (RURAL)	COMPARISON WARDS (RURAL)
Caledon (Border)	Newtownhamilton (Non-Border)
Killylea (Border)	Creggan (Border)
Derrynoose (Border)	Silverbridge (Border)
Carrigatuke (Border)	Forkhill (Border)
Washing Bay (Non-Border)	Camlough (Non-Border)
INTERVENTION WARDS (URBAN)	COMPARISON WARDS (URBAN)
Keady (Non-Border)	Ballybot (Non-Border)
Ballysaggart (Non-Border)	Drumgullion (Non-Border)



Abbey Park (Non-Border)	St. Patricks (Non-Border)
Callan Bridge (Non-Border)	
Coalisland N (Non-Border)	St Marys (Non-Border)
Coalisland S (Non-Border)	Derrymore (Non-Border, Urban)
Coalisland W and Newmills (Non-Border)	Fathom (Non-Border, Urban)

Figure: Map of the DFfA intervention area



Comparison area

Timetable

The programme’s strategy document highlights three phases

Phase 1: Tackling information access (starting Year 1)

Phase 2a: Tackling financial access (starting Year 2)

Phase 2b: Tackling physical access (starting Year 3)

With additional funding from FSPB, the intervention was extended for a further year.

Further details

PART E. PLA CASE STUDIES

The “Decent Food for All (DFfA)” Community based food poverty intervention



ADHAZ & IPH. Mid-term DFfA progress report (2005)

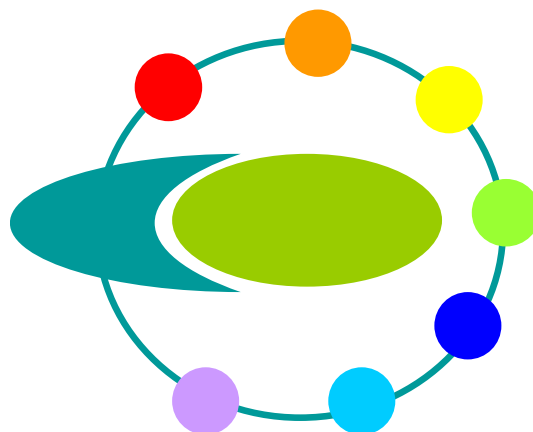
ADHAZ. Food poverty toolkit (2007)





APPENDICES

Appendix 1. Glossary of Terms and Abbreviations







APPENDIX 1. GLOSSARY OF TERMS AND ABBREVIATIONS

A

activities hierarchies

ADHAZ

B

C

comparison area

confounding (effect modification)

control area

D

DFfA

E

effectiveness

efficacy

experimental control

extraneous factors

F

FSPB

G H

I

impact evaluation

indicator

INIsPHO



inputs

interaction

IPH

JKLMN

O

outcome

outcome evaluation

outcomes hierarchy

outputs

P

pilot study

PLA

process evaluation

programme logic

Q

R

reliability

S

“SMART” criteria

T

target

U

V

APPENDIX 1. Glossary of terms and abbreviations



validity

(internal) validity

(external) validity

variables

(dependent) variable

(exploratory) variable

W X Y Z



DIAGRAM OF THE PLA CYCLE

