

Study Guide

Evaluation Master Class

Version History

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Contents

Introduction.....	5
1. Chapter One – Understanding evaluation.....	6
1.1. Introduction.....	6
1.2. What is evaluation?.....	6
1.3. What can be evaluated?	6
1.4. Why conduct an evaluation?	7
1.5. How can I avoid the common evaluation pitfalls?.....	8
1.6. Who should I involve?.....	9
1.7. What steps should we now take together?	11
2. Chapter Two – Designing the evaluation	14
2.1. Introduction.....	14
2.2. Defining the service or program to be evaluated	14
2.3. Identifying the type of evaluation to conduct	17
2.4. Deciding on the evaluation questions	20
2.4.1 Refining your question/s.....	21
2.4.2 Establishing indicators of success	21
2.5. Determining what information to collect	22
2.6. Identifying the best methods for collecting and analysing data.....	24
2.6.1 Using routine data	26
2.6.2 When data to measure the indicator is not available.....	26
2.6.3 Quantitative data collection	26
2.6.4 Quantitative data analysis	27
2.6.5 Comparing quantitative data	29
2.6.6 Qualitative data collection.....	29
2.6.7 Qualitative data analysis.....	32
2.6.8 Using both quantitative and qualitative methods	32
2.7. Towards the development of your Evaluation Plan	34
3. Chapter Three – Planning the evaluation.....	36
3.1 Introduction.....	36
3.2 Seeking ethical approval	36
3.3 Forming an evaluation team.....	36

3.4 Identifying timelines	37
3.5 Determining resources	40
3.5.1 Developing a budget	42
3.6 Towards the development of an Evaluation Plan	42
4. Chapter Four – Preparing to make use of the results	43
4.1 Introduction	43
4.2 Interpreting the results	43
4.3 Producing an evaluation report	44
4.4 Making use of the findings	46
4.4.1 Ensuring external stakeholders make use of the findings	46
4.4.2 Ensuring internal stakeholders make use of the findings	46
4.5 Completing your evaluation plan	47
4.6 Are you ready to begin?	47
Resources	49
Glossary	51
References	53
Acknowledgements	54

Introduction

One of the primary aims of the Centre of Research Excellence in Aboriginal Chronic Disease Knowledge Translation and Exchange (CREATE) is to strengthen the capacity of healthcare providers and administrators working within the Aboriginal health sector in order to improve healthcare for Aboriginal and Torres Strait Islander peoples.

This Master Class focuses strengthening the evaluation capacity of Aboriginal health sector staff. Participants in this Evaluation Master Class will gain a basic understanding of:

- evaluation concepts and terminology;
- benefits that arise from evaluating healthcare services and programs;
- some of the evaluation pitfalls and how to overcome them;
- how to choose between the different types of evaluation designs;
- what should be considered when developing an evaluation plan, and
- how to undertake an evaluation.

This study guide is designed to provide an easy reference to the information presented and discussed within the Evaluation Master Class. In addition, this study guide provides a number of examples of evaluations which have been conducted, as well as easily accessible tools and resources that are available free of charge.

1. Chapter One – Understanding evaluation

1.1. Introduction

This first chapter will provide a broad overview of what evaluation is and how you can use evaluations to improve primary healthcare services. In addition, the chapter will also discuss some of the more common, yet often confusing, evaluation concepts. Definitions of commonly used evaluation terms can also be found in the glossary at the end of this study guide

1.2. What is evaluation?

[Evaluation] means asking good, critical questions about programs to improve programs and help them be accountable for the wise use of resources. (2, p. 27)

We all spend time evaluating every day by comparing one product against another or when we think about what we hope to achieve in comparison to what has actually happened. The main difference is that the types of evaluations discussed in this study guide are systematic and planned in advance.

While there are a number of different definitions for these more formal evaluations, most define evaluation as a **systematic process** for establishing merit and worth. **Merit** in this case refers to “quality” – does it do what it claims to do? **Worth**, on the other hand, refers to the idea of filling a gap or need and refers more to usefulness. Evaluations can also encompass reliability, effectiveness, cost-effectiveness, efficiency, safety and ease of use. (2)

People often use the terms evaluation, research and monitoring interchangeably. However, while there are some overlaps (e.g. evaluation can inform research and research can inform evaluation), there are differences:

- **Evaluation** attempts to consider, either retrospectively or prospectively, all criteria that could apply to determining the merit and worth of something.
- **Research** is more limited to the study of pre-selected variables.
- **Monitoring** is a continuous process that focuses on identifying progress (or lack of progress) towards particular goals. (3)

1.3. What can be evaluated?

Just about anything can be evaluated. (4) In a health service, evaluations can be conducted on, for example, the effectiveness, efficiency or cost effectiveness of a service or program. In addition to particular healthcare services and programs, evaluations can also be conducted to assess the merit and worth of:

- Health promotion campaigns
- Service delivery models
- Staff training programs
- Social programs
- Advocacy work.

Evaluations can be designed to answer questions relating to the:

- **changes** that have resulted from the service or program;
- **relevance** of the service or program to a particular context;
- **sustainability** of the service or program over time;
- **reach** or degree of engagement with a target population;
- **beneficiaries, that is**, who is benefitting, to what extent and under what circumstances;
- **effectiveness** or the achievement of planned activities, outcomes and impacts, and
- **efficiency** of the service or program given the other ways in which the resources could be used.

1.4. Why conduct an evaluation?

One of the main reasons for conducting an evaluation is to help identify ways in which a service or program can be improved. (2) In addition, evaluations can provide valuable insight into the goals, activities, strengths and target population of services and programs. An evaluation can also help with (4-8):

Accountability:

- Justifying continuation (Justifying funding)
- Determining effectiveness
- Documenting the level of success
- Ascertaining if things went as expected
- Identifying what did not work and why.

Learning:

- Thinking about what is valued and why
- Examining what was done
- Reflecting on current practices
- Gaining new knowledge about existing activities
- Informing policy and practice
- Encouraging teamwork among staff.

Planning for the future:

- Deciding how to allocate resources
- Identifying what is needed in order to make improvements
- Soliciting more funding
- Mobilising community support.

In addition, undertaking an evaluation may be useful for helping to (9):

- develop learning organisations;
- create forums for deliberation;
- advance social justice issues;
- enhance practical wisdom;

- promote change based on good judgements, and
- empower stakeholders.

1.5. How can I avoid the common evaluation pitfalls?

There are a number of pitfalls that can affect your ability to undertake and utilise findings from your evaluation. (2, 10-14)

- **Evaluation is seen as a threat.** Staff may be wary because their work could be criticised. Therefore it is important to consult with staff during planning and while undertaking evaluation to ensure that they understand the purpose of and outcomes from the evaluation.
- **Evaluation is an afterthought.** This may mean that key information is either not collected or not available. Ideally, evaluations should be considered and planned as you develop a new service or program.
- **Evaluation results do not address the key questions.** End users of the evaluation and their specific needs must be identified before you start the design phase of, and remain the focus throughout, your evaluation.
- **Evaluation has unintended adverse consequences.** Potentially unintended consequences of your service, the community you serve and other key stakeholders should be identified during the evaluation design, and strategies developed to minimise or mitigate them.
- **Evaluation utilises scarce resources.** Careful consideration must be given to what resources are available, including staff time and funds, to ensure that the evaluation does not affect essential service delivery.
- **Evaluation does not take account of the social and political context.** Evaluation designs must consider the many different types of competing interests that exist within the social and political context within which the service or program operates. In some cases, the evaluation team may need to carefully navigate conflicts between families and other community groups.
- **Evaluation reports are left on the shelf.** The culture of the workplace often plays a large part in whether staff are open to change. Ensuring key decision makers and champions are engaged in the evaluation design will increase support for the implementation of recommendations.
- **Evaluation recommendations cannot be implemented.** Evaluations do not guarantee that improvements to services and programs will occur. Recommendations should be carefully drafted to ensure they consider the availability of resources needed for implementation to occur.
- **Evaluation does not engage Aboriginal and Torres Strait Islander stakeholders.** It is crucial that evaluations identify and engage Aboriginal and Torres Strait Islander stakeholders at the very beginning to ensure that the evaluation is designed to be culturally safe and grounded in local understandings of how the service or program works.

Quality standards will help to ensure the utility, feasibility, propriety and accuracy of your evaluation. (3, 15)

1. **Utility** can be achieved by ensuring that:
 - The evaluators have the skills and knowledge to undertake the evaluation.
 - All key stakeholders are identified, and the evaluation is designed to meet their needs.
 - The purpose of the evaluation is negotiated with key stakeholders.

- The findings from the evaluation are communicated in a timely and appropriate manner.
2. **Feasibility** can be achieved by ensuring that:
 - The planned evaluation activities are realistic.
 - The resources needed to carry out these activities are available.
 - Practical procedures are in place to ensure that the evaluation can be conducted efficiently and effectively.
 3. **Propriety** can be achieved by ensuring that:
 - The evaluation protects the rights and welfare of the people involved.
 - Those people who are most directly affected by the program are engaged in the evaluation process.
 - All conflicts of interest are disclosed.
 - The findings are clear and balanced in relation to the social and political context.
 4. **Accuracy** can be achieved by ensuring that:
 - The reason and rationale for undertaking the evaluation are made explicit.
 - The service or program is accurately described.
 - The methods to collect and analyse the data are reliable.
 - The findings from the evaluation are valid and reliable.
 - The findings are communicated accurately.

1.6. Who should I involve?

Fundamental to any evaluation within an Aboriginal and Torres Strait Islander context is the involvement of Aboriginal and Torres Strait Islander peoples who use the service or program being evaluated. This ensures that the evaluation is culturally appropriate (11) and sensitive to the social and cultural needs and differences that exist within and between communities. (13) Utilising an Aboriginal and Torres Strait Islander cultural lens throughout the evaluation also helps to ensure that (16):

- cultural protocols are understood and adhered to;
- relationships with participants are built on trust and respect; and
- cultural values are incorporated into the evaluation questions and methods.

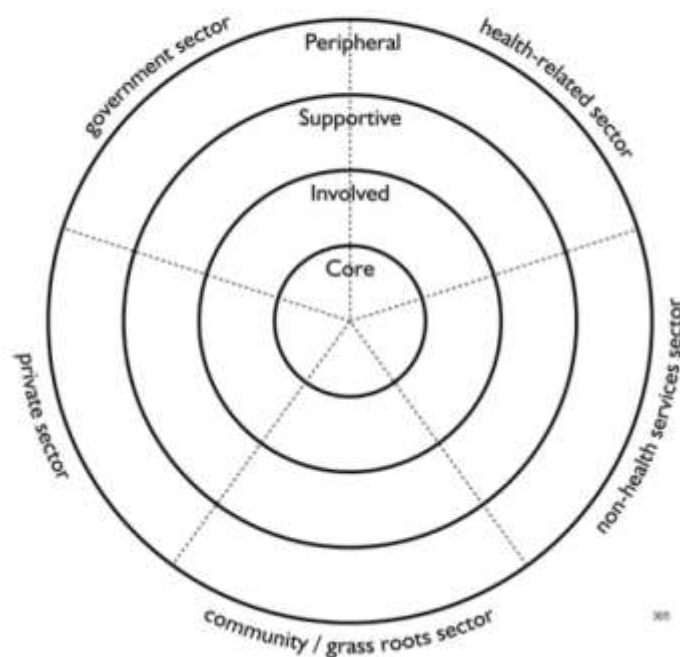
In response to a call from Aboriginal communities and researchers within South Australia, the Wardliparingga Aboriginal Research Unit has developed a set of the following nine principles based on national and international best practice frameworks and guidelines. While these principles were originally developed for research, they could also be applied when conducting evaluations on services and programs provided for Aboriginal and Torres Strait Islander peoples.

1. **PRIORITIES:** Research should be conducted on priorities arising from and endorsed by the Aboriginal and Torres Strait Islander communities to enhance acceptability, relevance and accountability.
2. **INVOLVEMENT:** The involvement of Aboriginal people and organisations is essential in developing, implementing and translating research.
3. **PARTNERSHIP:** Research should be based on the establishment of mutual trust, equivalent partnerships, and the ability to work competently across cultures.

4. **RESPECT:** Researchers must demonstrate respect for Aboriginal knowledge, Aboriginal knowledge systems and custodianship of that knowledge.
5. **COMMUNICATION:** Communication must be culturally and community relevant and involve a willingness to listen and learn.
6. **RECIPROCITY:** Research should deliver tangible benefits to Aboriginal communities. These benefits should be determined by Aboriginal people themselves and consider outcomes and processes during, and as a result of, the research.
7. **OWNERSHIP:** Researchers should acknowledge, respect, and protect Aboriginal intellectual property rights and the transparent negotiation of intellectual property use, and benefit sharing should be ensured.
8. **CONTROL:** Researchers must ensure the respectful and culturally appropriate management of all biological and non-biological research materials.
9. **KNOWLEDGE TRANSLATION:** Sharing and translation of knowledge generated through research must be integrated into all elements of the research process to maximise its impact on policy and practice.

Establishing support for and obtaining input from other stakeholders who are or could be affected by the evaluation may also be important. (2, 8) Other stakeholders could include funders, staff and administrators within your service, collaborating agencies, and others with a direct, or even indirect, interest in the service or program you are evaluating. You will need to assess how open these stakeholders are to the evaluation and to making use of the findings and recommendations when complete. (17)

Who are our stakeholders?

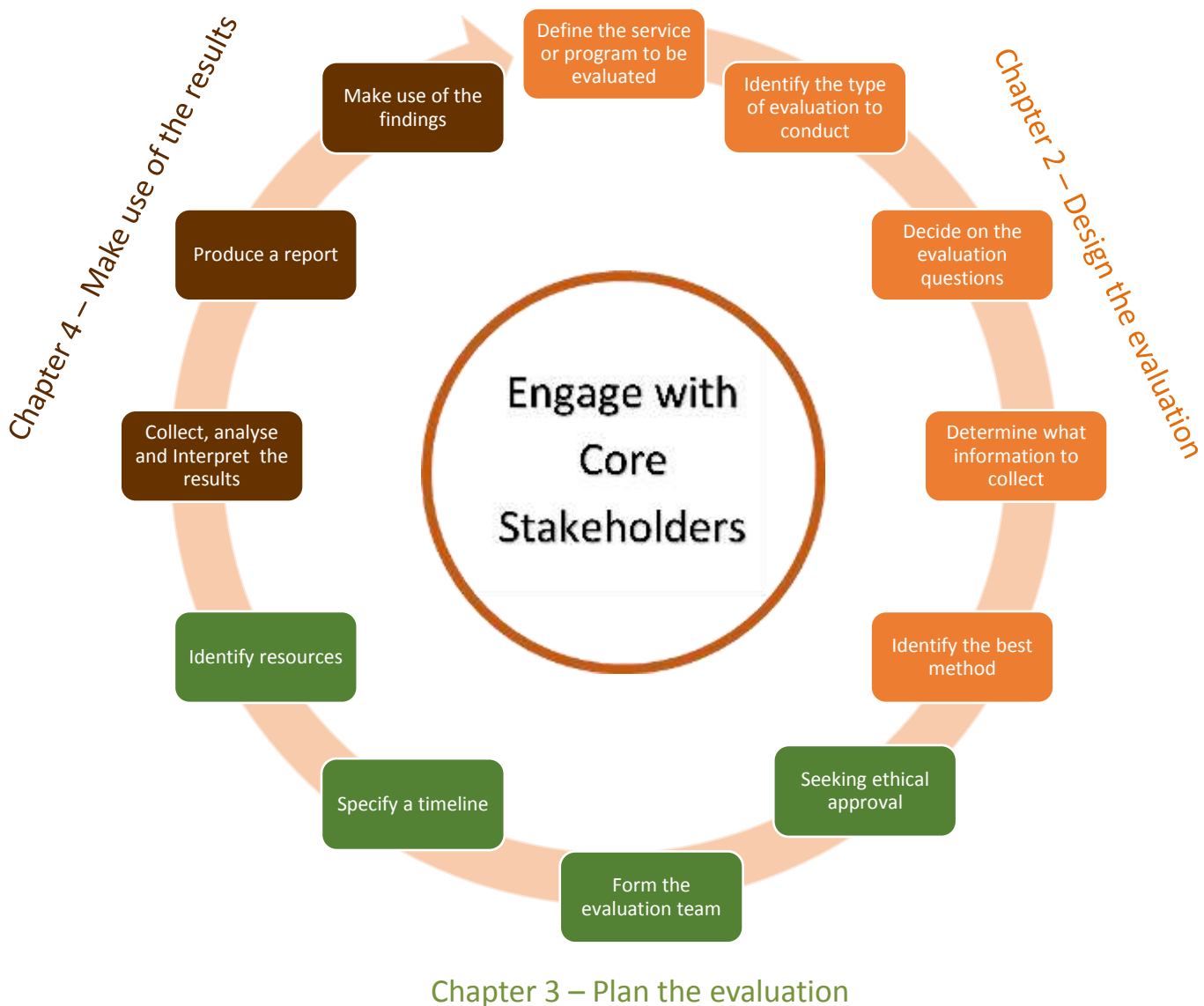


Not all stakeholders will need to be directly involved in every stage of your evaluation. However, developing a **Core Stakeholder Group** including members of the Aboriginal and Torres Strait Islander community who receive the service or program as well as other stake holders is essential for ensuring that all important evaluation issues and concerns are considered (18). Involving a **Core Stakeholder Group** in program evaluation can also (8):

- increase the usefulness and credibility of the evaluation;
- strengthen the evaluation design;
- lead to a more accurate understandings of the program or service, and
- assist with dissemination of the findings and recommendations.

1.7. What steps should we now take together?

Over the next three chapters we will address the steps that you and your **Cores Stakeholder Group** can take to effectively design, plan, undertake and use your evaluation.



Chapter Two covers:

- Defining the service or program to be evaluated
- Identifying the type of evaluation to conduct
- Deciding on the evaluation questions
- Determining what information to collect
- Identifying the best methods for data collection.

Chapter Three covers:

- Seeking ethical approval
- Forming the evaluation team
- Specifying timelines
- Identifying resources.

Chapter Four covers:

- Collecting, analysing and interpreting the results/data
- Writing the evaluation report (Produce a report)
- Making use of the findings.

As you work through these chapters there is an opportunity to start to develop your Evaluation Plan. Your Evaluation Plan should contain information on how you will conduct the entire evaluation. This of course may and, with agreement from your **Core Stakeholder Group**, should change as you proceed. (17) Documenting the decisions you have made as you work through this Study Guide will help you keep track of what you intend to do. As a reminder, at the end of chapters two and three is a section entitled **“Towards the development of an evaluation plan”**. These sections will remind you about the types of information you have worked through and the decision you and your **Core Stakeholder Group** may have made that could go into your Evaluation Plan.

Key messages from Chapter One

- Evaluation is the systematic process designed to establish merit or worth.
- Just about any part of your health service can be evaluated.
- Evaluations can assist with improving accountability, strengthening the knowledge of a program or service and planning for the future.
- The pitfalls to look out for include:
 - Evaluation is seen as a threat.
 - Evaluations are an afterthought.
 - Evaluations utilise scarce resources.
 - Evaluations do not engage key Aboriginal and Torres Strait Islander stakeholders.
 - A set of quality standards have already been developed for mainstream evaluations.
- We suggest adding a number of other standards based on the South Australian Aboriginal ACCORD including:
 - Ensuring that the evaluation addresses priorities set by Aboriginal and Torres Strait Islander communities.
 - Involving Aboriginal and Torres Strait Islander peoples at every stage.
 - Establishing methods for translating the findings before you start.
- Establishing the support of all key stakeholders is essential before you begin to design your evaluation.

2. Chapter Two – Designing the evaluation

2.1. Introduction

In this chapter we will review each of the first five steps which focus on designing the evaluation.

Step One: Define the service or program to be evaluated.

Step Two: Identify the type of evaluation to conduct.

Step Three: Decide on the evaluation questions.

Step Four: Determine what information to collect.

Step Five: Identify the best methods for data collection.

This designing stage is probably the most vital part of the evaluation. It is where you decide what you are evaluating and why. It is also where you start to think about what you will use to assess or make judgements about the service or program you are evaluating.

2.2. Defining the service or program to be evaluated

One of the most common evaluation problems is that no one has ever explicitly described the service or program in any detail. Therefore you may need to begin by writing down the assumptions that underpin your service or program. Together with your **Core Stakeholder Group** and other key staff from within your service, you could start by answering the following questions:

- What does or did the service or program hope to achieve?
- What strategies and activities are employed to meet these achievements? (*What did you do to achieve the goals of the program?*)
- Who is expected to benefit from these achievements?
- What short-term outcomes are expected to be achieved?
- What longer-term outcomes (*impacts*) are expected to be achieved?

Once you have this basic information, creating a **Logic Model** may help to more fully describe the service or program. Typically, Logic Models are visual representations that show the relationships between the program activities and the intended or expected outcomes and impacts. (4) A Logic Model is based on the following premise (Figure 1).

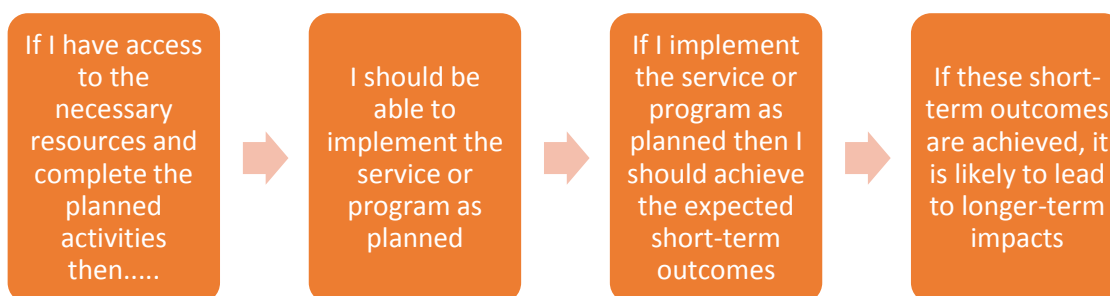


Figure 1: Logic Model premise

Logic models can range from being quite detailed and complex (Figures 2 and 3) to slightly less complex (Figure 4).

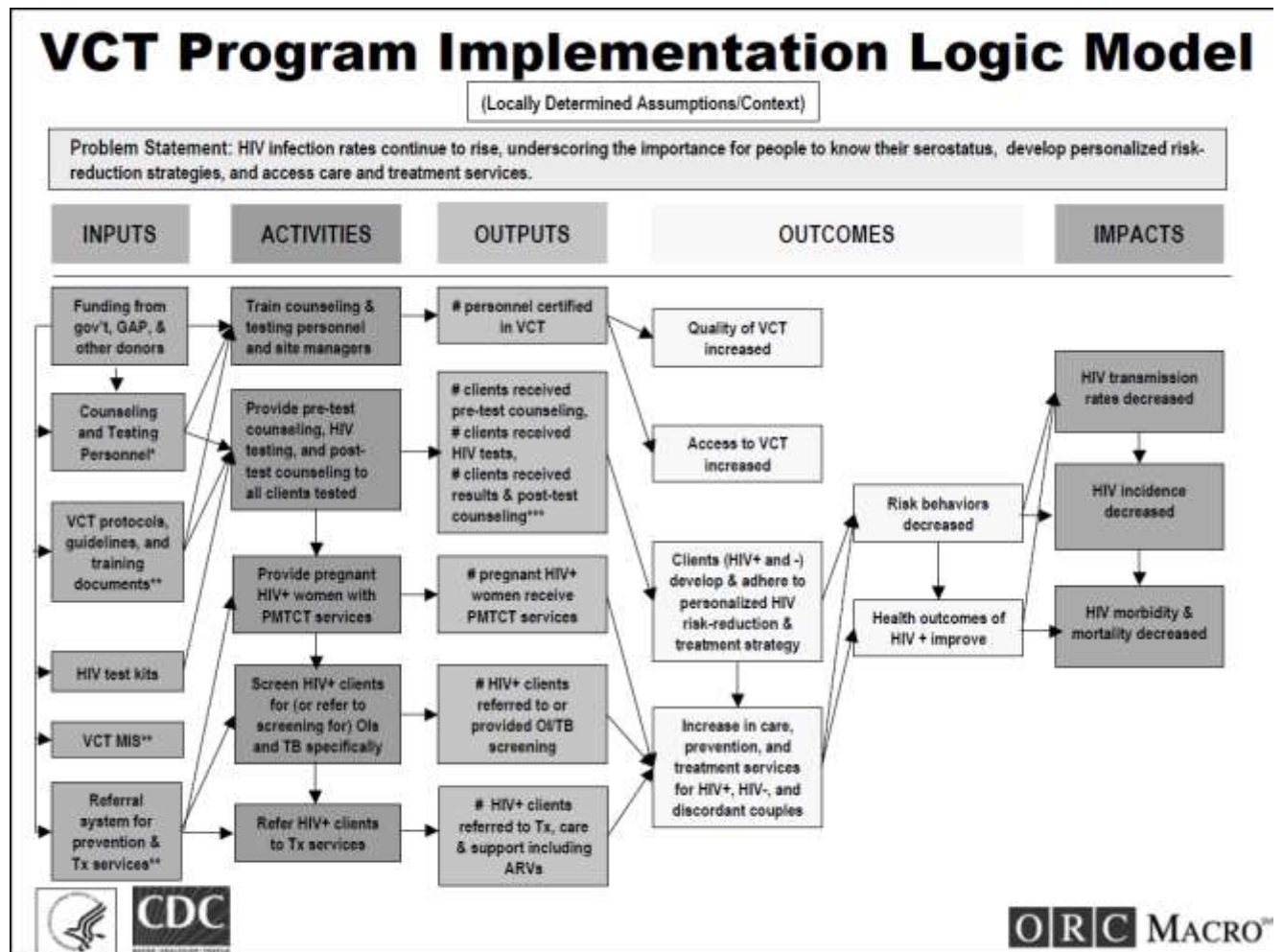


Figure 2: An example of a complex Logic Model for a HIV prevention program

Logic Model: Active Play Project

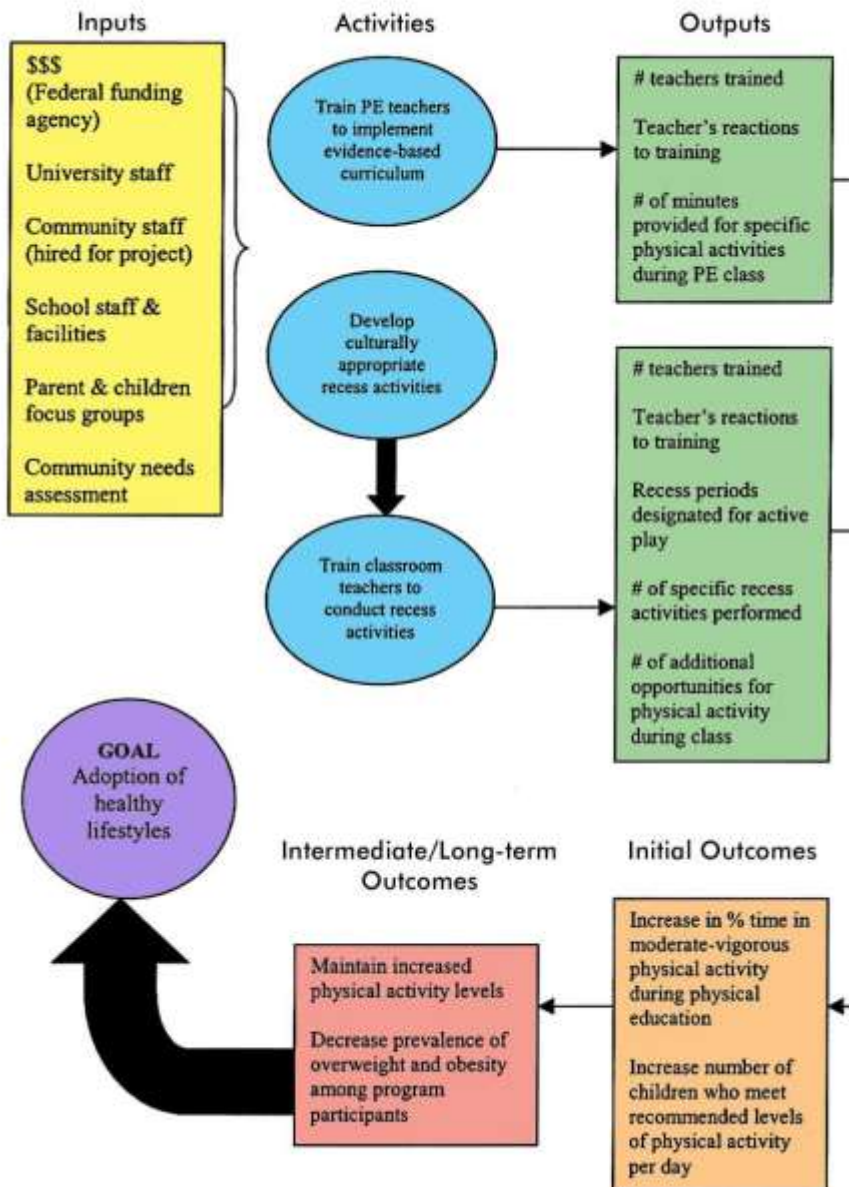


Figure 3: Another example of complex Logic Model for an active play project

A less complex Logic Model for a “Stop Smoking Program” in your health service may start out looking similar to Figure 4. Of course it would be good to fill in the details including who are the staff and what specific training packages are needed.

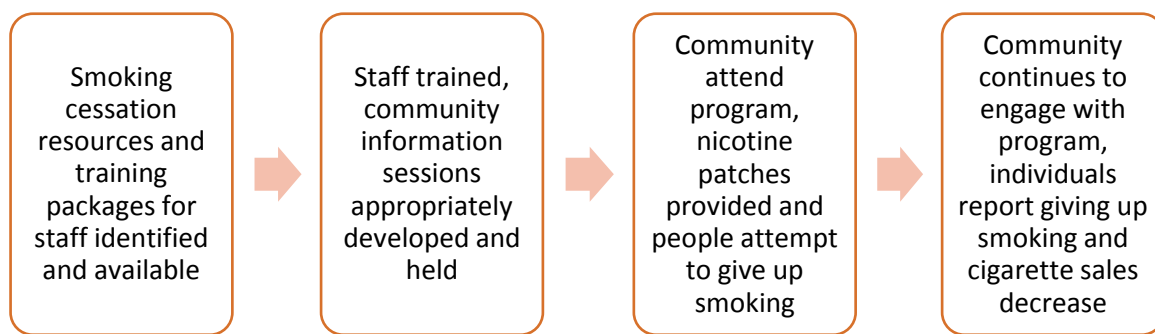


Figure 4: A potential logic model for a “Stop Smoking Program”

This can be aligned to the suggested headings identified in the complex logic models.



In consultation with your **Core Stakeholder Group**, start to develop a logic model by making a list of all resources needed and activities undertaken that make up the service or program. Then divide the expected achievements into either (18):

- short-term outcomes such as increased knowledge or changes to behaviour, and
- longer term impacts including improvements to health outcomes, systems or policies.

Then consider the assumptions which underpin how particular processes lead to short-term outcomes and longer-term impacts. Be careful not to just accept one description of how the processes are assumed to work. Instead, question the reliability of these assumptions and beliefs. (19):

- Are they valid and do they make sense?
- Is there evidence from other services or programs to back up these assumptions?

In addition to providing a visual representation of your service or program, **Logic Models** are particularly helpful when your service or program is newly implemented, and you may not be in a position to measure longer term impacts or even short-term outcomes. You can use the Logic Models to argue that if the service or program has been effectively implemented it is likely that short-term outcomes and longer term impacts will be achieved.

2.3. Identifying the type of evaluation to conduct

There are two broad types of evaluation. (2) First, **Formative Evaluations** provide information for developing or improving a service. Formative Evaluations generally occur during the development or implementation of a service or program and assist with ensuring that any goals set at the beginning are achieved. **Summative Evaluations**, on the other hand, generally consider programs and services that have just been developed or are already in place (Figure 5).

Program Stage	Before Service or Program Begins	Development of new or changed Service or Program	New Service or Program	Established Service or Program	Mature Service or Program
	<div style="text-align: center;"> </div>				
Questions Asked	To what extent is the need being met? What can be done to address this need?	What is being developed and what are the aims/goals? How can we best adapt to changing environments?	Has the service or program been implemented and operating as planned? How can the training programs and resources be improved?	Is the service or program achieving its short term objectives?	What predicted and unpredicted longer term outcomes (<i>impacts</i>) has the service or program had?

Please note: this Study Guide and associated Master Class focuses on Summative Evaluations

Figure 5: Formative and Summative Evaluations (adapted from (2))

Summative Evaluations can be categorised by which part of the service or program lifecycle you are up to or alternatively most interested in assessing (Figure 6).

Process Evaluations seek to evaluate activities undertaken to implement the service or program. (20) Process evaluations generally involve identifying whether a service or program has been implemented as planned.

Outcome Evaluations, on the other hand, are used to measure the immediate effect of the service or program in order to see if the shorter term program objectives are being met. (20) Outcome evaluations are generally focused on measuring the more immediate changes that have occurred as a result of implementing the program.

Impact Evaluations measure the longer term effects. (20) Impact evaluations consider the deeper changes that effect people more broadly over a longer time period.

Program stage	New service or Program	Established service or program	Mature service or program
Evaluation type	Process Evaluation	Outcome Evaluation	Impact Evaluation
Questions asked	Has the service or program been implemented and operating as planned?	Is the service or program achieving its short-term objectives?	What predicted and unpredicted longer-term impact/outcomes has the service or program had?




Figure 6: The relationship between Process, Outcome and Impact Evaluations

Process, Outcome and Impact Evaluations correspond with the different stages of the previously discussed Logic Model (section 2.2). Figure 7 demonstrates this in relation to the “Stop Smoking” program example.

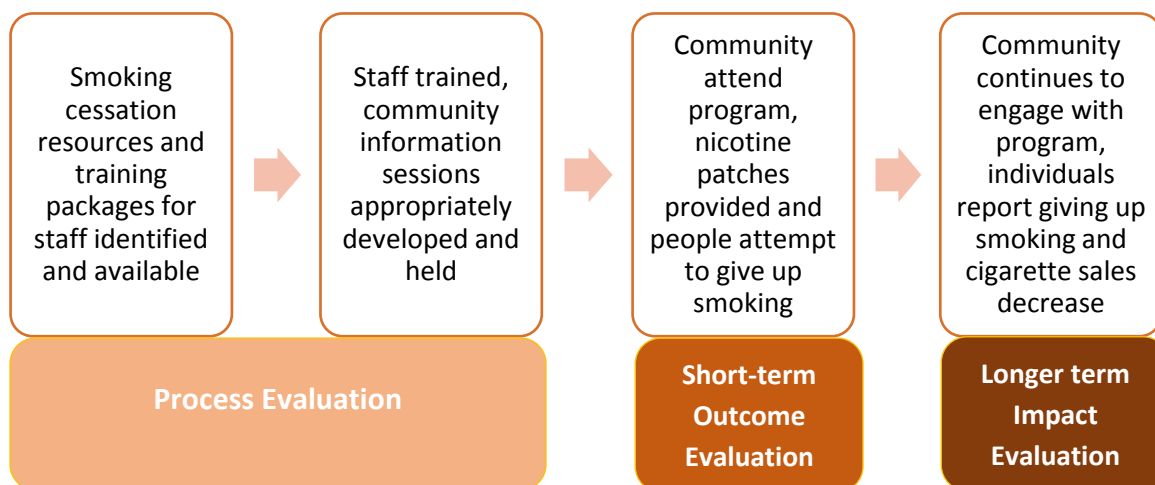


Figure 7: Example of Logic Model and evaluation stages of a “Stop Smoking Program”

2.4. Deciding on the evaluation questions

The specific questions that you and your **Core Stakeholder Group** choose to include in the evaluation may depend on who gets to ask the questions. If the aim of the evaluation is to meet the obligations in a funding agreement or alternatively to seek additional resources, the questions you need to address may already have been identified (externally driven). You can of course add to these by including other questions that may be of interest to you or your **Core Stakeholder Group**. However, if the evaluation is internally driven by the need, for example, to improve practice then you may have more freedom to decide what type of questions you and your **Core Stakeholder Group** want to explore.

The types of questions that can be answered also depend on how long your service or program has been implemented. If it has only just been implemented, you will probably only be able to look at a process evaluation. However, if the service or program has been operating for a while, you may be able to undertake a Process, Outcome or Impact Evaluation. Following are examples of the type of questions that could be included:(17)

Questions that could be posed in a Process Evaluation include:

- To what extent has the service or program been implemented as planned?
- How acceptable is the new service or program to the identified recipient community?
- Who is the service or program engaging?
- To what extent is the program culturally safe?
- To what extent have staff accepted the new service or program?
- What are the unanticipated positive or negative consequences of implementing the service or program?

Questions that could be posed in a short-term Outcome Evaluation include:

- To what extent have the short-term outcomes been achieved?
- Who has benefited from the short-term outcomes and under what circumstances?
- What other changes (expected or unexpected) have resulted from the implementation of this service or program?
- Were resources used in the best possible way to achieve short-term outcomes? Why or why not?

Questions that could be posed in a longer term Impact Evaluation include:

- To what extent have the service or program met longer term aims (impacts)?
- Who has benefited from the longer term impacts and under what circumstances?
- To what extent have the short-term outcomes been sustained?
- What is the likelihood that the service or program can be sustained in the future?
- To what extent are resources used in the best possible way to achieve longer term impacts? Why or why not?
- Should the service or program be continued, expanded or terminated?

2.4.1 Refining your question/s

How broad or narrow the evaluation is going to be will depend on the boundaries you set within your evaluation questions. You may find it useful to limit your evaluation to particular geographic areas (e.g. the southern suburbs only), a particular period of time (e.g. 2014 to 2015) and/or demographic characteristics (e.g. a particular age group or gender). (21) Describe what is in and what is out of the scope.

It may be impossible to answer all of the questions that are identified. If there are too many, you and your **Core Stakeholder Group** should prioritise the questions to be included based on the needs of the intended users and how they will make use of the evaluation findings.

2.4.2 Establishing indicators of success

Once you have described the service or program and developed the evaluation question the next step is to identify the indicators of success. (18) Indicators of success are the measures that you will use to answer the questions you have identified. For example:

Indicators for process evaluations could include:

- Numbers of community members attending information sessions
- Opinions of community members about the new service or program
- Clinical data pertaining to health outcomes
- Numbers of staff successfully completing training
- Experiences of staff implementing the new service or program
- Progress of implementation in accordance with the implementation plan
- Costs associated with implementing the service or program

- Costs associated with running the service or program

Indicators for short-term outcome evaluations could include:

- Extent to which each of the short-term outcomes have been achieved
- Opinions of patients in regards to the acceptability of the new service or program
- Experiences of staff who run the new service or program
- Costs associated with running the service or program

Indicators for longer term impact evaluations could include:

- Extent to which each of the longer term impacts have been achieved
- Opinions of patients in regards to the acceptability of the service or program
- Experiences of staff who run the service or program
- Costs associated with running the service or program

Whichever indicators of success you utilise they need to be **SMART** (22, p.1):

- **Specific** (the indicator is specific to the evaluation question/s)
- **Measurable** (the indicator can be measured with data that either exists or can be collected)
- **Accurate** (the indicator answers or contributes to answering the identified question/s)
- **Realistic** (measuring the indicator is achievable)
- **Time-bound** (the indicator is relevant to the period of interest).

For example, one SMART indicator for measuring whether the new “Stop Smoking Program” is a decrease in smoking rates.

“The percentage of clients who reported smoking as at 1st June 2015, in comparison to the percentage of clients who reported smoking as at 1st June 2014 when the “Stop Smoking Program” had not been implemented”.

2.5. Determining what information to collect

Once you have identified the indicators of success the next step is to consider where you will obtain the information or data needed to measure that indicator. It is important to note that there may be more than one data source that could be used for each indicator. Using more than one indicator will strengthen the evidence. You may like to utilise a table similar to the examples below when documenting your decisions.

An example of Process Evaluation for the “Stop Smoking Program”

Evaluation question	Indicators of success	Data source
Was the “Stop Smoking Program” implemented as planned?	Number of staff successfully completing training since implementation began	Record of attendance Certificates of achievement or competency
	Opinions of staff with regard to the feasibility of implementing the program as planned	Interviews with staff
	Number of information sessions held and content covered	Information from the event coordinator
	Number of community members attending information sessions since implementation began.	Information from event coordinator

An example of a short-term Outcome Evaluation for the “Stop Smoking Program”

Evaluation question	Indicators of success	Data source
Has the “Stop Smoking Program led to an increase in the number of patients who are attempting to stop smoking?	Change in numbers of patients who report attempting to stop smoking since the program began	Medical records
		Patient survey or interviews
	Change in number of patients who have obtained nicotine patches from the healthcare service since the program began	Record kept by Aboriginal Healthcare Worker
	Number of patients who enrolled and continue to be involved in the program	Attendance records

An example of a longer term Impact Evaluation for the “Stop Smoking” program

Outcome of interest	Indicators of success	Data source
Has the “Stop Smoking Program” led to a decrease in smoking rates across the community?	Changes in number of community members who report giving up smoking since the program began	Medical records
		Community survey or interviews
	Number of patients who enrolled and continue to be involved in the program	Attendance records
	Comparison of cigarette sales before and after the program was implemented	Sales records from local shop or supermarket

If you are not sure what you could use as an indicator of success or what information or data could help you measure that indicator, it may be useful to review the published literature or talk to other evaluators to see what types of indicators they have used to answer similar questions. This could also help to:

- select data collection and analysis methods,
- think about how to interpret the findings from the analysis,
- consider ways in which the recommendations could be useful; and
- avoid any pitfalls that could be detrimental to the evaluation.

2.6. Identifying the best methods for collecting and analysing data

While there is a great deal of debate about what methods should be used under what circumstances, ultimately your data source will determine your collection method. Nevertheless, attention should also be given to:

- the **acceptability** of any method to the particular group of people who may be involved;
- the **appropriateness** of the method given the indicator of success: and
- the **feasibility** of the method given the context.

You may also like to review the literature or talk to someone else who has undertaken a similar type of evaluation to identify the methods that they have used to collect data.

Broadly speaking, there are two types of methods - **quantitative and qualitative** (Table 1). Each has its own specific purpose, assumptions and processes.

Table 1: Differences between quantitative and qualitative methods

	Quantitative methods	Qualitative methods
Purpose	Quantifies or measures a phenomenon of interest or identifies a cause and effect relationship (i.e. have rates of obesity declined since coming to the exercise program?).	Describes and/or deepens the understanding of a phenomenon (i.e. how acceptable is the new service to community members?).
Ways in which participants are chosen	A sample of participants is chosen to represent a larger population (i.e. a sample of medical records from five different health centres).	Individuals and/or groups chosen may shed light on other groups but findings are not necessarily generalizable (i.e. people may be chosen from one or two communities but evaluators will be careful not to suggest that every community member will have the same experience).
Types of data collected	Objective measures which are quantifiable (i.e. the number of percentage of people who have completed an adult health check).	Subjective assessments (i.e. people's opinions, understanding and experiences of the new service).
Examples of ways data is collected	Collecting biological samples, undertaking surveys and reviewing medical records.	Facilitating interviews or focus groups and observing people's behaviour.
Assessments of quality	Statistical tests for reliability and validity. 'Reliability' refers to the ability to replicate the results, whereas 'validity' refers to whether the results are correct and can be generalised to other contexts.	Quality is established by using multiple sources of evidence, referred to as 'triangulation'. May be particularly interested in whether the findings represent a true picture.

2.6.1 Using routine data

Wherever possible, try to use data that has already been collected as part of routine activities. For example, routinely collected demographic information could be used to measure some of the indicators of success. There are a number of other advantages in using routinely collected data in an evaluation, including reduction in time and money needed for additional data collection. However, care should be taken to ensure it is complete and accurate. (23) Also because this data has not been specifically designed to answer the particular evaluation questions you have identified, you will need to ensure that it does actually apply to the indicator of success that you are attempting to measure. (21)

2.6.2 When data to measure the indicator is not available

It **may not be possible** to collect data you need for your particular indicators of success. Sometimes, the indicators are simply not measurable. For example, it may be impossible to collect data that identifies whether smokers provided with nicotine patches will actually use them. In these instances you may need to rely on self-report data.

Sometimes data is too sensitive to collect and you may need to think of other ways of measuring success. For example, asking drug users about the barriers and facilitators to accessing a clean needle program may be particularly uncomfortable. Instead you may need to think of other ways of collecting that data, including perhaps counting the number of clean needles that have been dispensed.

2.6.3 Quantitative data collection

Quantitative evaluations are based on collecting and analysing numbers and things that can be measured, including the costs of running a program or the numbers of people attending an Aboriginal Community Controlled Health service. It is a more structured and objective way to evaluate and aims to find a true and factual account of what the service or program has or is achieving or costing.

Quantitative data collection methods rely on structured data collection instruments. Results are summarised, compared and generalised. Typical quantitative data gathering strategies include:

- Observing and recording well-defined events (e.g. counting the number of people who attend a particular clinic on any one day).
- Obtaining data from existing information systems (e.g. medical records, financial reports, etc.).
- Administering surveys (e.g. questionnaires where people have specific choices to make).

The following provides an example of how quantitative data has been used to evaluate a health program:

Evaluation of an ear health pathway in remote communities: improvements in ear health access.

Authors: Reeve C1, Thomas A, Mossenson A, Reeve D, Davis S.

OBJECTIVE: Reduce long waiting lists for ear, nose and throat (ENT) specialist review and improve primary ear health care.

DESIGN: A retrospective evaluation of ear health care after the implementation of an ear health program (EHP).

SETTING AND PARTICIPANTS: School children in Aboriginal communities in the Fitzroy Valley of Western Australia.

KEY MEASURES FOR IMPROVEMENT: Access number of children screened for ear disease, effectiveness-referral letter completeness (history, otoscopy, tympanometry, audiometry), patient management and waiting time until first ENT contact.

INTERVENTIONS: EHP--an electronic referral template, ear health nurse, ear health educator and telehealth ENT specialist review.

MAIN OUTCOME MEASURES: Screening rates, timely ENT review and improved primary care management.

RESULTS: Number of children screened increased from 148 per 18 months to 710. Nearly twofold increase in numbers of patients referred to ENT (32, 66). A reduction in median waiting time from 141 days to 22 days for ENT review using telehealth. Content of referral letters showed an increase in essential information – otoscopy, audiometry and tympanometry. Primary care management in accordance with guidelines improved.

CONCLUSIONS: The addition of an ear health team increased access to appropriate primary care management and the time to contact with ENT was reduced by using an electronic template and telehealth sessions.

2.6.4 Quantitative data analysis

With quantitative data, analysis generally begins as soon as data collection has been completed. It must be done in a careful and considered way. The first step is to ensure you have a clean data set by using a checklist (Table 2).

Table 2: Checklist for managing data adapted from Mellis et al. (2001) (24)

Checklist for managing data
<input type="checkbox"/> Enter data into a database – this can be an excel spreadsheet
<input type="checkbox"/> Conduct a visual checks – to see if anything looks out of place or there blank cells
<input type="checkbox"/> Check for duplicate records – including whether people entered things twice by mistake
<input type="checkbox"/> Make all corrections that are needed – to ensure that you have a clean database

The type of analysis undertaken depends on your evaluation and the data that will be included in the analysis. While specific analysis techniques are beyond the scope of this study manual, simple commonly conducted quantitative data analysis techniques include (25):

Frequencies – refers to the number of times something has occurred within a given time period. For example, the number of staff members successfully completing a training program or the number of community members who reported giving up smoking.

Percentages – refers to the number of identified units divided by the total number of possible units. For example, 40 out of 100 possible community participants who smoked agreed that they would consider giving up could be expressed as “40% of the possible population”.

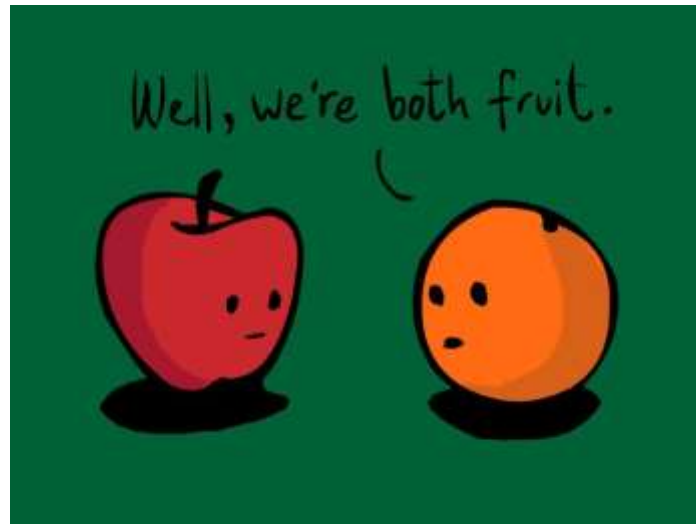
Mean – refers to the average of something. Simply add up all of the counts or values and then divide this by the number of counts of values in your set to get the mean. For example, if a list of the age of people attending a chronic disease program was 25, 25, 82, 30, 41, 79, 29, 42, then the mean would be $25 + 25 + 82 + 30 + 19 + 41 + 79 + 29 + 42 = 353$ divided by 9 = mean age of approximately 41.

Median – refers to the value half way along a set of counts or values. For example, if you reordered the above list from youngest to oldest (19, 25, 25, 29, 30, 41, 42, 82), the median age would be 30 years.

These simple quantitative analysis methods may not be sufficient to meet your needs, the needs of the **Core Stakeholder Group** or the end user. Additional information about other types of statistical analysis methods is available under the resource section at the end of this study guide. However, if you are unsure about how to analyse your quantitative data, it may be worth consulting a statistician or evaluator experienced in collecting and analysing quantitative data.

2.6.5 Comparing quantitative data

In some instances you may want or need to analyse not only data that measures a particular indicator of success but also other data which allows you to make a comparison. Data can be compared over time. Similar to the above “Stop Smoking Program” example, you could compare levels of obesity prior to and then again after six months of running a dietary program. You could also conduct a between-group comparison. For example, blood pressure of patients enrolled in an exercise program compared to blood pressure of other patients. Some caution is required when comparing between groups – ensure that other factors such as age or gender are not influencing your comparison results.



2.6.6 Qualitative data collection

“Not everything that can be counted counts, and not everything that counts can be counted” – Albert Einstein

Qualitative evaluations, on the other hand, lend themselves to identifying or describing people’s perceptions, beliefs, experiences and understandings. It can be used to determine how well an activity has been delivered and received. It relies more on people expressing their thoughts and opinion, how they felt about doing the activity, and what they think could have been done better.

There are a number of different qualitative approaches to data collection. Which you choose will again depend on your evaluation question and context. The primary qualitative data collection techniques include the following (26):

- **Interviews** are useful for exploring the individual beliefs, perspectives and views of each participant. Structured interviews follow a strict pre-specified format. Semi-structured interviews follow a framework which allows for the evaluator to explore particular areas of interest.
- **Focus groups** are designed to focus on an item or experience about which all participants have similar knowledge. The emphasis is on the interaction within the group as a means of drawing out information. Evaluators facilitate rather than lead the discussion.
- **Observations** involve evaluators recording observations in writing. These written observations are the data.
- **Field notes** are a record of your data collection experiences including your thoughts about how you felt about the interview, what surprised you about what was said as well as those non-verbal cues which would not otherwise have been recorded. Rather than being used as a separate qualitative data collection technique, field notes strengthen the quality of other data collection techniques.

The following provides an example of how qualitative data has been used to evaluate a health program:

Implementing Kanyini GAP, a pragmatic randomised controlled trial in Australia: findings from a qualitative study.

Authors: Liu H, Massi L, Eades AM, Howard K, Peiris D, Redfern J, Usherwood T, Cass A, Patel A, Jan S, Laba TL.

BACKGROUND: Pragmatic randomised controlled trials (PRCTs) aim to assess intervention effectiveness by accounting for 'real life' implementation challenges in routine practice. The methodological challenges of PRCT implementation, particularly in primary care, are not well understood. The Kanyini Guidelines Adherence to Polypill study (Kanyini GAP) was a recent primary care PRCT involving multiple private general practices, Indigenous community controlled health services and private community pharmacies. Through the experiences of Kanyini GAP participants, and using data from study materials, this paper identifies the critical enablers and barriers to implementing a PRCT across diverse practice settings and makes recommendations for future PRCT implementation.

METHODS: Qualitative data from 94 semi-structured interviews (47 healthcare providers (pharmacists, general practitioners, Aboriginal health workers; 47 patients) conducted for the process evaluation of Kanyini GAP was used. Data coded to 'trial impact', 'research motivation' and 'real world' were explored and triangulated with data extracted from study materials (e.g. Emails, memoranda of understanding and financial statements).

RESULTS: PRCT implementation was facilitated by an extensive process of relationship building at the trial outset including building on existing relationships between core investigators and service providers. Health providers' and participants' altruism, increased professional satisfaction, collaboration, research capacity and opportunities for improved patient care enabled implementation. Inadequate research infrastructure, excessive administrative demands, insufficient numbers of adequately trained staff and the potential financial impact on private practice were considered implementation barriers. These were largely related to this being the first experience of trial involvement for many sites. The significant costs of addressing these barriers drew study resources from the task of achieving recruitment targets.

CONCLUSIONS: Conducting PRCTs is crucial to generating credible evidence of intervention effectiveness in routine practice. PRCT implementation needs to account for the particular challenges of implementing collaborative research across diverse stakeholder organisations. Reliance on goodwill to participate is crucial at the outset. However, participation costs, particularly for organisations with little or no research experience, can be substantial and should be factored into PRCT funding models. Investment in a pool to fund infrastructure in the form of primary health research networks will offset some of these costs, enabling future studies to be implemented more cost-effectively.

Available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4581084/>

2.6.7 Qualitative data analysis

As opposed to quantitative methods, qualitative analysis usually begins as soon as you have data to analyse. There are three distinct steps to qualitative analysis. One of the most important considerations when analysing and interpreting qualitative data is the impact that evaluators have on the outcome. Not only does “who you are” influence the way in which participants respond to, for example, the interview questions, but it is through your eyes that the analysis and interpretation of the data take place. One way of lessening your influence over the outcomes is to have another person also undertake the analysis and interpretation process. You can then compare and discuss the results. Another way of checking the results is to have the participants read and comment on the findings. (26, 27)

Triangulation in qualitative evaluations focuses on viewing things from more than one perspective by collecting different types of data (26). For example, you may wish to interview individual community members on whether a particular service or program has improved their access to care, while at the same time facilitate a focus group of key Aboriginal elders to discuss this issue from their perspective.

Qualitative analysis is comprised of three distinct steps:

Step one involves preparing the data. If you have recorded interviews or focus group discussions you will need to transcribe the data into written format and organise any field notes you have collected along the way. (27)

Step two involves analysing these data. One of the more common frameworks for analysing data involves reading the transcript/s in full and then breaking them down into smaller units of meaning. Each unit should contain all of the words, sentences and even paragraphs that speak to that meaning. You may notice that some units end up speaking to the same or similar concept. These units can be grouped together into a single theme. (28)

Step three involves looking for patterns and relationships between themes in order to identify higher level concepts or meanings which together answer your question. This third step involves a process of reflection and may involve going back to the units you developed and even the original transcripts. (27, 28)

2.6.8 Using both quantitative and qualitative methods

It is also possible to combine quantitative and qualitative data in the one evaluation. Combining quantitative and qualitative data may enable you to better document and explain the complexities and richness of the service or program.

The following provides an example of an evaluation using both quantitative and qualitative methods:

Teleophthalmology for First Nations clients at risk of diabetic retinopathy: a mixed methods evaluation. Authors: Kim J¹, Driver DD.

BACKGROUND: Access to health services is a particular challenge for First Nations (aboriginal Canadians) communities living in remote or underserved areas. Teleophthalmology can provide them with the same level of retinal screening services provided to those in urban centers. This screening can lead to the identification of high-risk individuals who can then be monitored and receive treatment related to their diabetes or other health issues.

OBJECTIVE: The intent was to develop, implement, and evaluate a service delivery model for teleophthalmology screening and follow-up for at-risk and diabetic First Nations clients on Vancouver Island, British Columbia, Canada.

METHODS: A highly consultative, culturally appropriate, and collaborative approach was used to develop and deploy a teleophthalmology service delivery model to First Nations communities. This project was evaluated with regard to utilization and operational costs. Also, clinicians and team members involved in the teleophthalmology project provided assessments of the teleophthalmology quality, productivity, and access. Health providers in First Nations communities provided their perceptions of areas of improvement for the remote retinal screening services, areas where expansion of services could be offered, and opportunities to increase client education and health promotion.

RESULTS: All 51 First Nations communities on Vancouver Island expressed interest in receiving teleophthalmology services. During the 1-year project, teleophthalmology clinics were held in 43 of 51 communities on Vancouver Island. During these clinics, 524 clients were screened and 140 of those clients were referred to a general ophthalmologist, family doctor, retinal specialist, optometrist, or other provider. Ratings of teleophthalmology system quality, information quality, service quality, and system usage were positive. Satisfaction with the teleophthalmology project was high among clinicians involved with the project. Satisfaction was also high among health providers in First Nations communities, with clinic scheduling identified as a potential area of improvement moving forward. The average cost savings per client, taking project costs into consideration, was calculated to be CAN \$28.16, which was largely due to the elimination of client travel costs.

CONCLUSIONS: Teleophthalmology was a welcome addition to health services by the First Nations communities on Vancouver Island, as evidenced by the 100% rate of interest from those communities. There was no evidence of dissatisfaction by clinicians involved in the teleophthalmology project or by First Nations community health providers. The now-operational teleophthalmology program is a testament to the early success of the project.

Available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376131/>

In the above evaluation, a range of data was collected to assess the teleophthalmology systems utilization and operational costs, quality, productivity, and access.

System utilization measurement included:

- Number of clients screened.
- Number of clients referred.
- Results of diagnoses by the grading physicians.

Operational cost measurement included:

- Operational costs to support the delivery of the retinal screening clinics were examined and compared to what could be identified as pre-teleophthalmology costs for retinal screening.
- Travel costs for each of the First Nations communities were tabulated based on then-current Non-Insured Health Benefits (NIHB) Health Canada reimbursement schedules.
- Medical Services Plan (MSP) base costs for Optical Coherence Tomography (OCT) scans, general practitioners and specialist referrals were applied to the relevant points in the service delivery model.

Quality productivity and access included:

- Clinicians were surveyed to determine their initial reaction to the screening solution in relation to quality, productivity and access.
- Community members were surveyed to identify areas where the retinal screening service could be improved, areas where expansion of services could be offered, and opportunities to increase client education and health promotion.

2.7. Towards the development of your Evaluation Plan

The types of information discussed in this chapter which could go into your Evaluation Plan include:

- A description of the service or program you are evaluating and a Logic Model, if you have decided to create one
- Intended users of the evaluation and their particular needs
- Evaluation questions
- Indicators of success that will help to answer each question
- Data sources that will help to measure the indicators of success
- Method or methods for collecting and analysing data.

The next two chapters will further assist you with making decisions about key aspects of the evaluation which can then inform the rest of your Evaluation Plan.

Key messages from Chapter Two

- Describing the service or program in detail before you start to design the evaluation is essential.
- Drawing a Logic Model may assist to identify not only the elements of the service or program but also how they relate to each other.
- Formative Evaluations occur during the development or implementation of a service or program, while Summative Evaluations occur once a service or program has been implemented. This Master Class focuses on Summative Evaluations.
- There are three types of Summative Evaluations:
 - Process Evaluations look at whether the service or program has been implemented as planned.
 - Outcome Evaluations look at whether the service or program is achieving its short-term objectives.
 - Impact Evaluations look at what longer term outcomes are being achieved.
- The types of evaluation questions identified will depend on the type of evaluation.
- Indicators of success are measures that help to answer the identified question.
- Indicators of success must be:
 - Specific
 - Measurable
 - Accurate
 - Realistic
 - Time-bound.
- The data collected to measure each indicator of success will depend on what is acceptable, appropriate and feasible within the health service.

3. Chapter Three – Planning the evaluation

3.1 Introduction

Once the evaluation has been designed, the focus should shift to operational issues. Good planning is vital to ensure the success of your evaluation. Thinking about the skills that are needed, the time it will take and the resources needed before you start will help to ensure the efforts you put into the evaluation process do not fail.

In this chapter we will review:

Step Six: Seeking ethical approval

Step Seven: Forming an evaluation team

Step Eight: Identifying timelines

Step Nine: Determining resources

3.2 Seeking ethical approval

Almost any activity that involves human participation (including completion of questionnaires, interviews and focus groups, as well as access to biological samples, medical records and other personal information which is not on public record) may need to be approved by the relevant ethics committees. The exceptions to this rule are (29):

- using data already in the public domain;
- collecting administrative information specifically for making improvements to processes and procedures;
- developing teaching and learning resources; or
- collecting information for quality assurance or audit purposes.

and

- the information is owned by and collected within your organisation; and
- the information or outcomes of any manipulation of this information is not presented to or published for use by any other individual or body external to your organisation.

This means that if you intend to publish or disseminate any of the findings from your evaluation in the public domain, you will need to seek ethics approval **before you start**. Even if this is not the case, it is better to err on the side of caution and seek an opinion from an ethics committee if you are in any doubt as to whether ethics approval is required.

3.3 Forming an evaluation team

Rather than thinking of conducting the entire evaluation by yourself, you may consider building an evaluation team. (14) This spreads the responsibility and provides an opportunity to ensure that a range of essential evaluation experiences, skills and/or knowledge are available.

Experience in:

- Working together with Aboriginal and Torres Strait Islander peoples
- Working with the broader community
- Working in a healthcare service.

Skills in:

- Project management
- Data collection
- Data analysis and interpretation
- Report writing
- Knowledge translation.

Knowledge about:

- The service or program being evaluated
- The health service
- The community
- The social and cultural environment
- The social and cultural values.

These and other crucial types of experience, skills and knowledge relevant to your context may be available within your **Core Stakeholder Group** or alternatively within your organisation. However, in some cases where they are not available, it may be necessary for people on the evaluation team to develop or strengthen their skills.

Alternatively, where the necessary skills are not available or your colleagues do not have the time to be part of an evaluation team, you may choose to bring in an external evaluator to assist in the evaluation. Employing an external evaluator can be costly and therefore needs to be considered in light of the available budget. There are other positive and negative arguments for including external evaluators. External evaluators are less likely to have the local knowledge important for contextualising your evaluation results. However, external evaluators will probably bring a fresh perspective and a depth of evaluation experience that may not be available inhouse. (30) Another potential positive is that experienced external evaluators could help to strengthen the evaluation capacity by working with and guiding staff or community members in the evaluation process.

Once you have identified the evaluation team it is important to develop role descriptions for each team member detailing the agreed responsibilities, and where appropriate, the expected time commitment to the evaluation.

3.4 Identifying timelines

In order to decide how long the evaluation may take, start by identifying all of the activities that need to be completed.

Prior to commencing the evaluation:

- Identify internal staff who will be involved
- Identify any additional training that staff need to ensure the skills and experiences needed for the evaluation are available
- Identify and appoint any external evaluators (where appropriate)
- Discuss the evaluation with and obtain support from all stakeholders
- Meet with **Core Stakeholder Group** as well as any other key stakeholders
- Finalise the evaluation plan.

During the evaluation:

- Gain access to any existing data that is required
- Collect new data (where appropriate)
- Analyse and interpret the data
- Identify findings and key recommendations
- Write the report.

At the end of the evaluation:

- Provide feedback to participants and stakeholder groups
- Disseminate the findings
- Use the findings to make improvements to your health service.

In order to clearly identify the timelines needed for the evaluation you could develop a gantt chart similar to the one below.

Example of a gantt chart:

Evaluation Activity	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19
Prior to commencement												
Identify internal staff	█											
Additional staff training		█										
Appointment of external evaluator		█	█									
Stakeholder information & feedback sessions		█	█									
Core Stakeholder Group meetings			█			█		█			█	
Finalisation of evaluation plan				█								
Applying for ethics approval				█	█							
Undertaking the evaluation												
Collecting data						█	█	█				
- Quantitative data (#, \$,)						█	█	█				
- Qualitative data (Stories , talking to people)						█	█	█				
Analysing and interpreting results							█	█	█			
Identifying findings & key recommendations									█	█		
Producing report									█	█		
After the evaluation												
Disseminating findings externally											█	█
Disseminating findings internally											█	█

3.5 Determining resources

You will also need to determine any resources that may be needed for each of the activities you have identified. The sorts of resources that may be identified include the number of staff and the hours that you will contribute to the evaluation. Resources could also include the number of hours and the cost of appointing an external evaluator. Other resources that you may need to consider are:

- Meeting costs, including sitting fees, catering and transport for members coming to and from meetings
- Travel associated with collecting data
- Transcription and translation costs
- Stationery, printing and postage.

It may be helpful to list the resources that you require against each of the activities on your Gantt chart as per the following example.

Example of Gantt chart identifying resources:

Evaluation Activity	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Staff time	Other resources
Prior to commencement														
Identify internal staff	■												N/A	
Additional staff training		■											4 days x 3 staff	
Appointment of external evaluator		■	■										2 days x 1 staff	Consultancy fee
Stakeholder information & feedback sessions		■	■										5 days x 2 staff	Travel costs
Core Stakeholder Group meetings			■			■		■				■	2 days x 2 staff	catering, transport, sitting f
Finalisation of evaluation plan				■	■								3 days x 1 staff	printing
Applying for ethics approval				■	■								5 days x 1 staff	printing
Undertaking the evaluation														
Collecting data						■	■	■					3 weeks x 2 staff	printing survey, travel
- Quantitative data (#, \$,)						■	■	■						
- Qaulitative data (Stories , talking to people)						■	■	■						
Analysing and interpreting results							■	■	■				2 weeks x 2 staff	
Identifying findings & key recommendations									■	■			1 week x 2 staff	
Producing report									■	■			1 week x 2 staff	printing
After the evaluation														
Disseminating findings externally											■	■	4 days x 3 staff	travel costs
Disseminating findings internally											■	■	2 days x 1 staff	

3.5.1 Developing a budget

Now is the time to develop a budget based on all of the resources, including staff time identified in your Gantt chart. Often your finance manager or accountant can help with this. You will need to make sure before you start that your budget is realistic and that you have the necessary authorisation to expend this amount. It may also be useful at this stage to identify who will be responsible for authorising and keeping track of expenditure as it occurs.

3.6 Towards the development of an Evaluation Plan

You now have further information which can be added to your Evaluation Plan including:

- Evaluation team members
- Roles and responsibilities of each person
- Timelines for undertaking the evaluation
- Resources required
- An evaluation budget.

Key messages from Chapter Three

- **While not all evaluations require ethics approval, the need for one should be considered before data collection begins.**
- **Ensuring the right mix of experience, skills and knowledge on the evaluation team will improve the likelihood of a successful outcome.**
- **Other operational considerations during the design phase include:**
 - **Identifying types of activities that need to be undertaken**
 - **Establishing a timeline for those activities**
 - **Determining resources that will be required**
 - **Developing an evaluation budget.**

4. Chapter Four – Preparing to make use of the results

4.1 Introduction

Chapter four focuses on ensuring the results of your evaluation are utilised. While it may seem a little odd to think about the last stages of the evaluation even before you begin, we believe that this is the most important phase. If the findings do not make a difference, all of the time, resources and money will have gone to waste. This final chapter therefore looks at:

Step Ten – interpreting the results of the evaluation

Step Eleven – producing a final report

Step Twelve – making use of the findings

4.2 Interpreting the results

There is a point in the evaluation when you need to start to think about bringing all of the findings together to identify and highlight what this means for the people who read the evaluation report. The risk is that, rather than having nothing to say, there will be so many important messages that readers will be overwhelmed with the information. This is the time when consulting with your **Core Stakeholder Group** will be particularly useful. (21).

You may like to plan to meet with your **Core Stakeholder Group** to review the findings to kick off the interpretation phase. A table similar to the following could make it easier for members to review and make sense of the findings in preparation for these meetings.

What we found:	Source of evidence:
Attendance at the healthcare service increased by 50% after the transport service was introduced	Attendance records
Patients identified a need to increase the healthcare service opening hours	Interviews with patients
Emergency hospital visits declined after the implementation of the transport service	Emergency department attendance register

Remember: The results of an evaluation can only be understood when the context in which the service or program operates is identified. Without this understanding, there is an increased risk of misunderstanding the findings, leading to poor conclusions and recommendations. (17)

Depending on whether you are conducting a process, impact or outcome evaluation, you and your **Core Stakeholder Group** may like to also consider the following when interpreting the findings (21):

- How has the development of the service or program been influenced by the context and setting?
- How have stakeholders been involved in the design of the service or program?
- Has the service or program been successful achieving its aims?
- What evidence is there to suggest it was successful?
- Are there any gaps in this evidence?
- To what extent have the intended recipients of the service or program engaged with and benefitted from the service or program?
- Were there any unexpected outcomes?
- What has worked well?
- Why has it worked well?
- What has not worked well?
- Why has it not worked well?
- What lessons have been learnt?
- What aspects would be transferable to other projects?
- What are examples of good practice?

To help you and your stakeholders interpret the findings from your quantitative and/or qualitative analysis, you may like to consider the following (4):

- Keep the aims of the evaluation in mind when interpreting the findings.
- Be aware of any potential bias that could influence the interpretation of findings.
- Consider alternative explanations for your results.
- Describe how your results compare with those of similar services or programs.
- Consider whether the different types of data collected tell a similar story and, if not, why not.
- Consider whether your results are similar to what you expected and, if not, why you think they may be different.

Remember, you can always search the literature or talk to other evaluators who have undertaken a similar evaluation to identify examples of how others have analysed and interpreted data.

This final stage is very important. Attention to good communication of results and clear recommendations will help people to make use of the findings.

4.3 Producing an evaluation report

Like every other phase of the evaluation, **Core Stakeholder Group** members should be involved in guiding the development of the evaluation report.

While it is essential to tailor your report to the needs of the audience that will read it, the following sections are generally included in a traditional evaluation report (4):

- Executive summary
- Background and purpose
- Program background
- Evaluation rationale
- Stakeholder identification and engagement
- Program description
- Key evaluation questions/focus
- Evaluation methods
- Design
- Sampling procedures
- Measures
- Data collection procedures
- Data analysis procedures
- Results
- Discussion
- Limitations of the evaluation
- Recommendations.

Special efforts need to be placed on ensuring your report meets the needs of your end user and contains clear recommendations or actions which they are able to use. The following are a number of rules you might consider when drafting your recommendations:

1. Nothing should come as a shock. The case for each recommendation should be clearly made in the main body and then again in the conclusion of your report.
2. Each recommendation should be directed at specific people or groups of people such as:
 - policy-makers
 - health and health-related managers
 - health and health-related staff
 - community members.
3. The course of action that needs to be taken and what particular problem this action will solve should be articulated.
4. Use clear plain language that will be understood by all parties must be used.
5. Consider the order in which the recommendations are placed. The order of recommendations may depend on how many recommendations you have, how hard they are to implement and who you want to influence.
 - You could start with the most important recommendation, or alternatively
 - You could begin with the recommendation that is easiest to apply.

The types of recommendations that you could make include:

- How a service or program can be improved
- How the risk of service or program failure can be reduced
- Whether a service or program should continue.

Involving your **Core Stakeholder Group** in developing and/or reviewing recommendations will contribute to ensuring the evaluation findings are utilised.

4.4 Making use of the findings

4.4.1 Ensuring external stakeholders make use of the findings

Dissemination of evaluation findings goes well beyond simply writing a report. In order to ensure the findings from your evaluation do not just sit on the shelf, it is important to think about who will use the evaluation report and how it will be used. (4) In particular, you may want to ensure that you:

- Seek feedback from the primary users of your evaluation. This will ensure that they engage with the evaluation findings and consider how it could assist them to move forward. Seeking feedback from the primary users of the evaluation also builds trust and may provide valuable information for you or your organisation that the evaluation has not considered.
- Present your evaluation findings at every opportunity. Dissemination of the findings and recommendations could be disseminated at staff meetings, Aboriginal Community Controlled Health Organisation sector meetings and conferences. You may also like to place the findings and recommendations on your organisational website and publish them more broadly through submissions to newsletters and journals. Take every opportunity to find ways in which the findings from your evaluation can be disseminated.

Please remember - if you plan to disseminate the findings outside of your organisation you will need to obtain ethics approval before you commence your evaluation.

4.4.2 Ensuring internal stakeholders make use of the findings

Evaluation findings are more likely to be sustained when staff see the results as useful information that can help them do their jobs better. (4) It is helpful to identify and engage the support of leaders and decision-makers who are open to change. Also, talk to your staff about using the evaluation findings to:

- Try something different when things are not working
- Keep doing something that worked well
- Improve the service or program
- Replace the service or program.

You could also use the evaluation findings to undertake a SWOT analysis of the service or program you were looking at. Start by identifying all of the:

Strengths – Internal factors you have identified already or could in the future have a positive effect on your service or program

Weaknesses – Internal factors you have identified that are having or could in the future have a negative effect on your service or program

Opportunities – External factors that are already or could in the future have a positive effect on your service or program

Threats – External factors that are already or could in the future have a negative effect on your service or program.

The aim of the SWOT analysis is to support the strengths and opportunities while at the same time minimising or mitigating the weaknesses and threats.

In order to implement the recommendations within your healthcare service, you may like to refer to **Chapter Four of the Understanding Research Study Guide** and associated resources which provide an overview of how to manage the change process within a healthcare service.

4.5 Completing your evaluation plan

This final chapter asks you to consider the last but probably most important parts of your evaluation, specifically, how you and your **Core Stakeholder Group** will:

- Interpret the results
- Produce the final report
- Make use of the recommendations

Do not forget - Even though you have your evaluation plan in place, it is important to remember that when circumstances change you are able to go back and revise what has been decided, providing of course that this is done in agreement with the others involved. (17)

4.6 Are you ready to begin?

In addition to knowing what you are going to do and how you are going to do it, before you begin it may be necessary to take one last look around and ensure that (17):

- **Now is the right time** to begin the evaluation given the political environment as well as other commitments of the community, the healthcare service and the evaluation team.
- **All of the necessary information is available** including, where needed, an understanding of how other similar evaluations have been conducted.
- **Evaluation results are likely to be used** and key stakeholders support the evaluation taking place.
- **Experience skills and knowledge** needed for the evaluation are available within the evaluation team.
- **Resources** to undertake the evaluation are available.

Key messages from Chapter Four

- How the findings will be used needs to be considered before you start the evaluation.
- Picking out the important results or recommendations from the evaluation is key to translating the findings.
- Providing some contextual background including some general information about the service or program you are evaluating will reduce the risk of misunderstandings.
- In addition to providing the positive outcomes, do not be afraid of also identifying areas that require improvement and the lessons learnt.
- The sections that are usually included within an evaluation report include:
 - Executive summary
 - Introduction
 - Reason for conducting the evaluation
 - Methods used to evaluate the service or program
 - Results
 - Discussion
 - Limitations of the evaluation
 - Conclusion
 - Recommendations.
- However, the final report or reports does need to be tailored to the audience that will read them.
- Support and encourage both internal and external stakeholders to make use of the findings.

Resources

A good start with S.M.A.R.T. indicators

<https://www.linkedin.com/pulse/20141022071803-18927814-a-good-start-with-s-m-a-r-t-indicators>

At a glance – 10 steps for conducting an evaluation

https://www.publichealthontario.ca/en/eRepository/At_A_Glance_Evaluation_2015.pdf

Australian Evaluation Society

<http://www.aes.asn.au/about-us/about-evaluation.html>

Australian Indigenous Health Infonet – Evaluation Resources and Tools

<http://www.healthinfonet.ecu.edu.au/health-infrastructure/health-workers/resources/health-planning-evaluation-tools>

Better evaluation

<http://betterevaluation.org/>

Centers for Disease Control and Prevention – Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide

<http://www.cdc.gov/eval/guide/>

Code of ethics for evaluators

http://www.aes.asn.au/images/stories/files/membership/AES_Guidelines_web_v2.pdf

Getting Started Guide including links to other resources

http://www.phcris.org.au/guides/evaluation_gettingstarted.php

Making evaluations matter – a practical guide for evaluators

<http://www.researchtoaction.org/2012/05/making-evaluations-matter-a-practical-guide-for-evaluators/>

Program development and evaluation – University of Wisconsin

<http://www.uwex.edu/ces/pdande/evaluation/>

The South Australian ACCORD

<https://www.sahmri.com/our-research/themes/aboriginal-health/research/list/south-australian-aboriginal-health-research-accord>

Using indicators for program planning and evaluation

http://www.cdc.gov/dhdsp/programs/spha/evaluation_guides/docs/Using_Indicators_Evaluation_Guide.pdf

W.K. Kellogg Foundation Evaluation Handbook

<https://www.wkkf.org/resource-directory/resource/2010/w-k-kellogg-foundation-evaluation-handbook>

What is evaluation?

http://gsociology.icaap.org/methods/Evaluationbeginnersguide_WhatIsEvaluation.pdf

Glossary

Effectiveness: A measure of the extent to which a service or program attains its objectives at the goal or purpose level, i.e. the extent to which it has attained, or is expected to attain, its relevant objectives efficiently and in a sustainable way.

Efficacy: The extent to which a service's or program's objectives were achieved or expected to be achieved, taking into account their relative importance.

Efficiency: A measure of how economically inputs (funds, expertise, time, etc.) are converted into outputs.

Empowerment-focused evaluation: Evaluations conducted to affirm participants' self-determination and agenda.

Evaluation: attempts to consider, either retrospectively or prospectively, all criteria that could apply to determining the merit and worth of something.

Evaluation question: A question that helps guide the information seeking and analysis process to help understand whether or not services or programs are performing as planned.

Evidence: Information helpful in forming a conclusion or judgement, whether a belief or proposition is true or false, valid or invalid, warranted or unsupported, to demonstrate to stakeholders that work has been conducted in compliance with agreed rules and standards or to report fairly and accurately on performance results vis-à-vis mandated roles and/or plans.

Goal: Purpose, mission.

Impact: Changes to which services or programs have contributed. Change can be positive or negative, intended or unintended.

Meaningful participation: Stakeholder engagement in an evaluation to such an extent that it is relevant to them and that they are prepared to take action, leading to change.

Monitoring: A continuous process of data collection and analysis for performance indicators in order to compare the progress of services or programs with its intended results.

Objectives: Outcomes, impacts, effects.

Outcome evaluation: Summative evaluation.

Population of interest: Target group, community, audience.

Primary intended users: People who are responsible for applying the evaluation findings and implementing the evaluation recommendations.

Purpose: The reasons for carrying out an evaluation e.g. accountability, strategic or operational management, policy-making, knowledge development.

Qualitative research: Describes and/or deepens the understanding of a phenomenon (i.e. how acceptable is the new service to community members?).

Quantitative research: Quantifies or measures a phenomenon of interest or identifies a cause and effect relationship (i.e. have rates of obesity declined since coming to the exercise program?).

Reliability: The ability to replicate the results.

Research: the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes [9, p. 7].

Self-evaluation: Evaluation aimed at promoting learning through the sharing of experiences and reflection so as to bring change within the individual or organisation.

Situational factors: Factors that are linked to the specific context and use of an evaluation.

Stakeholder: An agency, organisation, group or individual with a direct or indirect interest (stake) in the service or program, or one who affects or is affected, positively or negatively, by the implementation and outcome of the service or program.

Sustainability: The likelihood that the positive effects of services or programs (such as improved health services, health outcomes, resources, skills or facilities) will persist for an extended period.

Terms of reference (ToR): A set of terms that define the tasks and parameters that the evaluation should adhere to, indicating the objectives, planned activities, expected outputs, budget, timetable and responsibilities.

Utilization-focused evaluation: Evaluation done for and with specific intended primary users for specific, intended uses.

Validity: Refers to whether the results are correct and whether they can be generalised to other contexts.

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