NSW GOVERNMENT

Developing a Program Logic

A step-by-step guide

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Department of Communities and Justice

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We want our tools and guides to be as helpful as possible. You can leave a comment to let us know what works well and what could be improved by contacting FACSIAR@dcj.nsw.gov.au

We will be regularly updating this guide. Please check the DCJ website to make sure you have the latest version.

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> **There is growing emphasis in human services on making service delivery choices that are based on the best available evidence for what works, with program development and funding streams increasingly tied to research evidence.**

Introduction

The NSW Department of Communities and Justice (DCJ) is committed to the development of evidence-informed policies and programs, and rigorous evaluation of its existing policies and programs.

This guide has been developed to support DCJ staff to use program logics to design, implement and evaluate evidence-informed programs. It summarises what a program logic is, when and how to use it, and provides templates and step-by-step instructions for developing a program logic and using it to identify the data you need to collect to measure program success.

What is a program logic?

A program logic is a simple graphic that explains what a program is and how it 'works'. It clearly articulates the program activities and rationale for change: that is, why and how the program is expected to achieve its outcomes.

Program logics are an important tool to support program design because they prompt us to think through and demonstrate the links between program activities, outputs, short- and medium-term outcomes and longer term impact using the best available evidence.[1] They can also be a powerful communication tool to convey to funders, partner organisations, staff and potential clients how a program operates, and what it is expected to achieve and when.

Program

In this guide, a program is defined as: a set of activities managed together over a sustained period of time that aim to achieve an outcome for a client or client group.

NSW Government Program Evaluation Guidelines, 2016

Program logics are an essential tool in evaluation. They can be used to guide decisions about when and what to evaluate, ensuring resources are used efficiently and effectively. A program logic also helps evaluators to identify, select and embed appropriate implementation and outcome measures to empirically test whether a program was delivered as intended and had an impact on client outcomes. Evaluation findings should be used to update and refine the program logic, as well as help to prioritise the commissioning of programs that are most likely to impact positively on client outcomes and to modify, or cease, programs that do not contribute to the intended outcomes.

When to develop a program logic?

Ideally, a program logic should be developed as part of the program design process (Steps 1 – 3 of the DCJ Commissioning Cycle). This helps to ensure that program design decisions are based on the best available evidence of what works to achieve intended outcomes, and that these outcomes are clearly linked to the needs of clients. Engaging stakeholders in the development of a program logic during the program design phase can also help to strengthen commitment to the program and foster a shared understanding of how it will operate and what it intends to achieve.

It is important to periodically review your program logic to check that it is still an accurate representation of the program. This process can also help drive continuous improvement by prompting stakeholders to assess whether the program is operating as intended and that program components and outcomes are aligned. Where differences between the program logic and delivery emerge, consider whether it is the program or the logic that needs to be adapted.

Benefits of a program logic

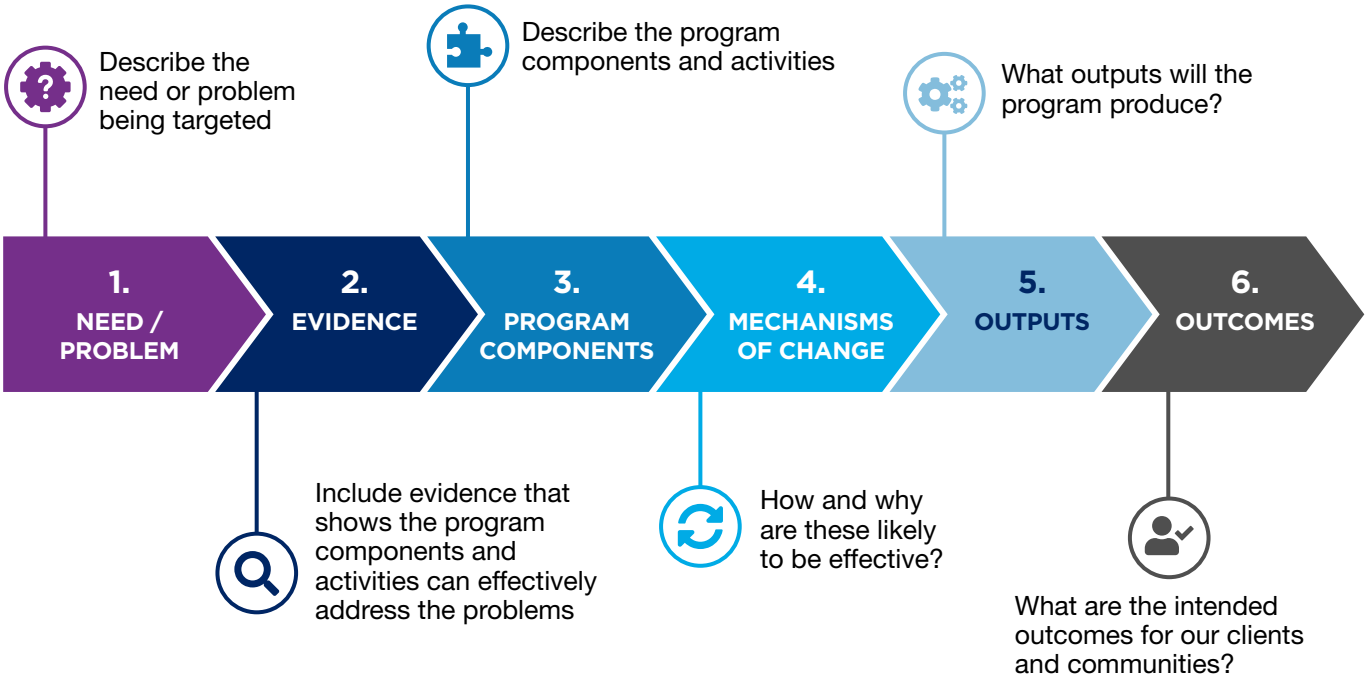
Using a program logic to support program design and evaluation has many benefits. A program logic:

- Places client needs at the centre of program design.
- Ensures program design and implementation are grounded in evidence.
- Brings together existing evidence about a program and highlights where there are gaps in the evidence that need to be addressed by research and evaluation.[2]
- Enhances engagement with stakeholders in program design and fosters a shared understanding of how a program operates and the outcomes it aims to achieve.[3]
- Helps to develop a greater understanding of how a program 'works' by clearly articulating how and why program activities are expected to lead to particular outcomes, making the process of change explicit.[4]
- Provides a framework for a systematic, integrated approach to program planning, implementation, and evaluation.[5]
- Helps to determine when and what to evaluate so that resources are used efficiently and effectively.[6]

Developing a program logic

There are many different ways to develop and present a program logic. The approach outlined in this guide is based on the pipeline model, which links the program activities to program outputs and outcomes in a linear process.[7] You can use the FACSIAR program logic template (shown at Appendix A and accompanied by a worked example) as you work through the guide to build your program logic. While it's not mandatory, using this template will help drive consistency in the approach to developing program logics in DCJ. The program logic template implies a causal direction from left to right.

Figure 1. FACSIAR Program Logic Template (abbreviated)



A distinguishing feature of this template is the inclusion of a column to articulate the research evidence for programs (or program components) that have proven to effectively address the identified problems. This prompts you to incorporate evidence in program design, wherever possible, and promotes evidence-based practice. Another innovation is the inclusion of the mechanisms of change column. This column helps you to be clear about how and why change is expected to occur to improve outcomes for clients.

The template is designed to be a working document that supports you to develop and refine your program. As the strength of evidence and mechanisms of change that underpin the program are important to consider in this process, these columns are included in the FACSIAR program logic template. However, these columns can disrupt the visual representation of the connection between the problem, activities, outputs and outcomes, and it may be useful to also create a simplified version of the program logic, designed to support communications with stakeholders, that doesn't include this content.

What is not included in the FACSIAR program logic?

Many program logics include sections for articulating program inputs, assumptions and external factors. A brief explanation of these three elements is provided in Appendix B. The FACSIAR program logic template does not include sections to record this information as incorporating too much detail can make the logic cluttered and hard to read. However, this does not imply that these elements are not important to consider. Programs are implemented within broader economic, political and cultural contexts, and the extent to which these help or hinder program success should be taken into account. The relationship between program inputs, activities and intended outcomes are often based on assumptions which, if untrue, may be the reason for disappointing results. FACSIAR suggests this information is captured in a separate table that is related to the program logic.

Who should be involved in developing a program logic?

While developing a program logic can at first seem daunting, the main expertise required is knowledge of the program. For this reason, program managers and staff involved in the delivery of the program should have considerable input into a program logic.

Developing a program logic is a participatory and iterative exercise. It is important to involve a range of program stakeholders to draw on their understanding of the program and its intended outcomes and impacts. Involving partner agencies and clients can also provide important insights into what is needed to make a program work in a specific setting. Engaging stakeholders has the added benefit of generating buy-in and ownership of the final program logic, as well as the program itself.[8]

Program logic development is often undertaken in a workshop format to allow input from multiple stakeholders. In addition, structured interviews with subject matter experts and program stakeholders can be conducted to develop a better understanding of the problem being addressed by the program, its causes and consequences, and how the program can contribute to positive change.[9]

Useful resources:

- Better Evaluation – Understand and Engage Stakeholders
- MEASURE Evaluation – Stakeholder Engagement Tool

Relevant DCJ Commissioning Toolkit resources include the Stakeholder Engagement Plan (Step 1) and Stakeholder Value Matrix (Step 2).

Suggested steps for developing a program logic using the FACSIAR template are summarised below. The steps described follow the logical progression from left to right of the FACSIAR program logic template.

> **Developing a program logic together with stakeholders helps to create a shared understanding of a program's aims and supports all stakeholders to work towards achieving a common set of client outcomes.**

Step 1: Define the need or problem and outcomes

The first step in developing a program logic is to clearly define the problem, or unmet need the program is trying to address. This column should answer questions such as:

- Why should this program exist?
- What need is it meeting?
- Who are the intended beneficiaries?

It is important to be as specific as possible, making sure to describe the population group or cohort impacted by the problem, their needs or common risk factors, and the setting in which the problem is most prevalent (e.g. community, schools, hospitals, social housing estates).

To identify the problem areas the program will seek to change, you should complete a needs assessment. Understanding what the true needs of the target population are provides a solid basis for determining what a program should aim to achieve and how well it is doing. In other words, the inverse of the needs you identify in this step become the intended outcomes of the program (e.g. if the identified need is an increase in the number of people experiencing homelessness, then the programs' intended outcome would be a reduction in the number of people who are homeless).

The needs assessment should triangulate evidence of the problem based on:

- Population and client-level data
- Client, community and staff (DCJ and NGO) perspectives
- Existing research literature
- Conversations with experts and stakeholders

A thorough needs assessment not only helps to define intended program outcomes, but the data collected during the needs assessment phase can often double as baseline data to track change in outcomes over time.

Useful resources:

- Australian Institute of Family Studies – Needs Assessment

Relevant DCJ Commissioning Toolkit resources include the Needs Assessment and Cohort Definition Tool (Step 1).

At this stage, it can be helpful to make a note of the outcomes the program will aim to achieve, based on the problem you have described. It is important to be realistic about what change the program will be able to achieve with the available resources, and within specified timeframes. Many programs fail to succeed simply because of unrealistic expectations of the change they should achieve.

Step 2: Review the evidence of "what works" to achieve desired outcomes

The next step is to review and summarise the evidence on the most effective programs, and/or program components and activities, to address the identified problems and achieve intended outcomes.

Take the time to do a systematic search and appraise the evidence you identify to make sure you end up with a comprehensive summary of relevant, high-quality research. The best research evidence is from published systematic reviews and high-quality randomised controlled trials that demonstrate effectiveness. It is also important to include evidence from relevant high-quality evaluation reports.

Useful resources:

DCJ has a suite of guides to help you find and interpret research evidence on program effectiveness and assess its quality, including:

- What is evidence?
- Finding quality research and evidence
- Assessing the quality of research evidence

These guides and others can be found in the FACSIAR evidence hub.

For assistance finding research evidence DCJ staff can request a literature search through the DCJ Library at Library@dcj.nsw.gov.au.

If you are struggling to find evidence on effective programs or interventions, it can be helpful to look for evidence of individual program components, activities or approaches that address the problem you have identified. Subject matter experts may also be able to provide important insights into the evidence base, and how it can be applied to your specific population and setting. While some interventions do not lend themselves to randomised controlled trials, generally there will be other forms of high-quality evidence that describe their impacts. It is very rare that there is absolutely no evidence on how to address a problem. The point is to use the best evidence that's available. It's also important to consider the relevance of the evidence for your population and intended setting. It may be that studies focused on a similar age group or cohort are more relevant than research on the same or very similar programs that were delivered to a very different cohort.

Step 3: Describe the program components

Based on the identified problems (step 1) and what the evidence suggests is the most effective way to intervene to address these problems (step 2), describe what your program will look like. There is no limit to how many program components and activities you can include in this section, so long as there is evidence that they will lead to a desired outcome. It is important to be specific, without going into too much detail. Ideally, someone with no prior knowledge of the program should have a good understanding of what will be delivered, to whom and when after reading this section.

Step 4: Articulate the mechanisms of change

The mechanisms of change section describes the ways in which the program components and activities bring about the program's effects, or the theory of change underpinning the program. When completing this column in the program logic, you should describe how and *why* the proposed program is expected to achieve the intended outcomes.

A good mechanism of change takes into account context, as certain combinations of factors are more likely to result in the program producing the intended effects. For example, the success of a prisoner education program might be most likely for those without drug and alcohol dependence, those with aspirations to gain skills or employment as well as the presence of supportive community factors, such as businesses willing to employ people post-release from custody[10] (pg. 8, Pawson & Tilley, 2004). This contextual information is useful to policy-makers as it informs them about the contexts under which the program will be successful, or produce its intended outcomes.

Clearly describing the programs' theory of change supports evaluators to decide what data to collect to empirically test whether, and if so which, mechanisms are important to achieving outcomes. This can strengthen conclusions about which clients the program works best for and whether impacts on client outcomes can be attributed to the program, rather than external factors. Ultimately, this enables DCJ to adapt and prioritise funding of programs that are more likely to improve client outcomes.

Breakfast Club: An example of identifying mechanisms of change

When trying to identify mechanisms of change it can be helpful to think about how the resources the program provides enable participants to change their knowledge, behaviour or skills. In other words, how the *program participants* make the program 'work'. It is important to note that program activities might trigger more than one mechanism. For example, delivering a before-school 'breakfast club' intervention may trigger the following mechanisms of change:

A breakfast club may aid classroom attentiveness by offering the kids a 'nutritious kick-start' (M1) to the day, which they might not otherwise get. And/or it may act as a 'summoning point' (M2) to prevent kids loitering or absconding or misbehaving in the chaotic period before school. And/or it may act as an 'energy diffuser' (M3) to soak up gossip and boisterousness before formalities commence.

(*Pawson & Tilley, 2004*)

Step 5: Identify the program outputs

The next step is to list the outputs of the program. Outputs are the tangible results, products or services that are generated by the program. The focus here is usually on what is delivered by the program. Outputs are things that can be counted or seen, such as the number of people who received support or participated in a program component, the number of assessments completed, or the materials created by the program. Describing outputs supports your ability to monitor and improve the implementation of the program.

Step 6: Define expected client outcomes

Client outcomes should have been identified in step 1 and refined in step 2. Remember that it is important to make sure that the intended outcomes are realistic and can be achieved with the available resources, and within the specified timeframes.

Distinguishing between outputs and outcomes

Outcomes are often confused with outputs in program logics. Outputs are what is *delivered* (e.g. number of training sessions held) whereas outcomes are the *changes* the program or intervention intends to bring about for the client (e.g. a change in wellbeing, skills or employment).

It can be useful to order outcomes from short-, to medium-, to long-term to show the cause-and-effect relationships between the outcomes. To support the ordering of outcomes you can use the evidence gathered in steps 1 and 2 (i.e. research evidence or conversations with experts).

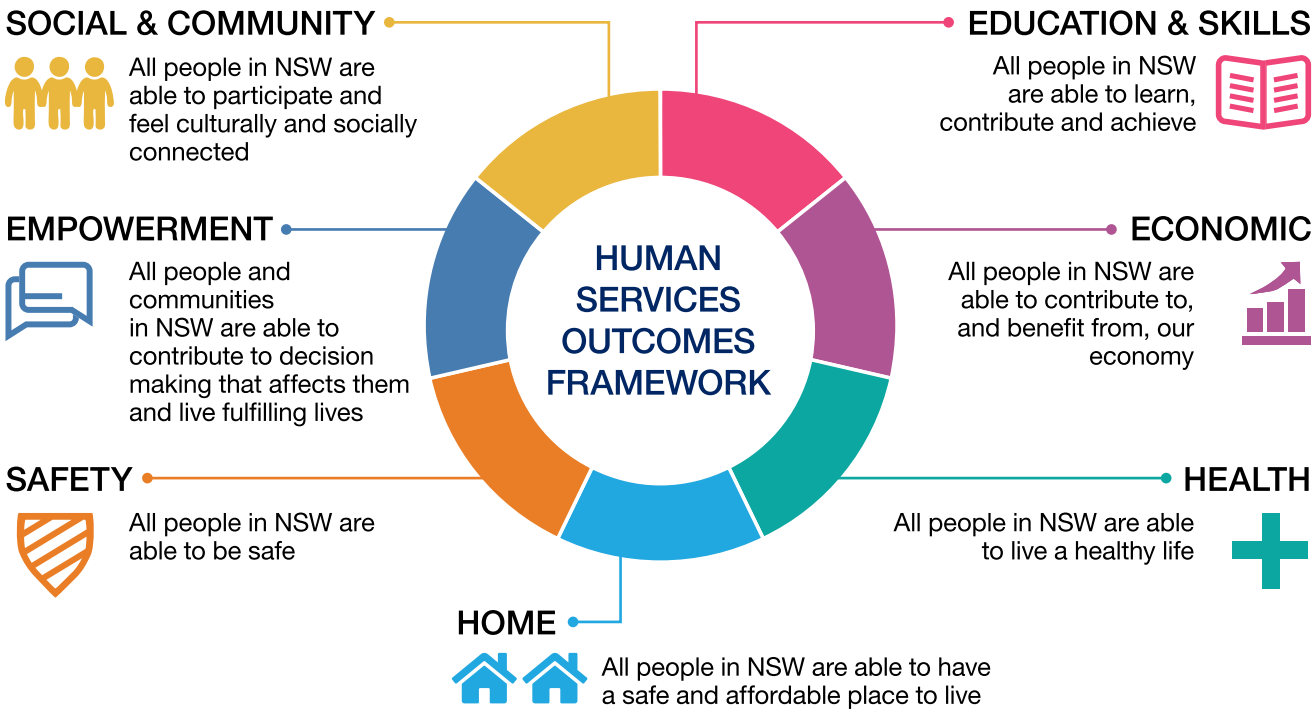
In general, program outcomes will represent medium-term (intermediate) client outcomes in the program logic because longer term impacts may not be seen for several years—sometimes decades. It is also important to consider the scale of the program in relation to the problem statement, and to identify issues that are out of scope.

- Short-term (immediate) outcomes are usually expected during, or on completion of, the program, and often include changes in knowledge, skills, awareness, attitudes or motivation.
- Medium-term (intermediate) outcomes may not occur until sometime after the program, and often include the application of knowledge and skills, and changes in behaviours, practice or systems.
- Long-term outcomes are overarching objectives and should resolve issues outlined in the problem statement. These will often take a long time to occur and be influenced by a range of factors other than the program.

Using the NSW Human Services Outcomes Framework

DCJ has been working to align outcomes across programs within the Department by applying the NSW Human Services Outcomes Framework. The Outcomes Framework is a cross-agency framework designed to support NSW Government agencies and non-government organisations (NGOs) adopt an outcomes-focused approach in human services design, delivery and evaluation.

Figure 2. NSW Human Services Outcomes Framework domains



The Outcomes Framework identifies relevant outcomes for clients across seven domains: Education and Skills, Economic, Health, Home, Social and Community, Empowerment and Safety. To assist in measuring the of impact DCJ services 37 Core Client Outcomes have been developed across these domains, supported by outcome indicators. You should consult the DCJ Core Client Outcomes to see how your program aligns with the Outcomes Framework, and incorporate relevant indicators where possible. Using valid and reliable indicators of client outcomes is essential to build evidence of what works. Keeping these outcome measures consistent also allows us to more easily compare the relative effectiveness DCJ programs.

Very few programs will have an impact on every domain in the Outcomes Framework, so it is unlikely that all the outcome domains will be represented in your program logic. The critical part of any program logic should be its ability to visually represent the links between the problem, activities and the solution (the outcome).

For more information about how you can use the Outcomes Framework, visit the DCJ website.

Step 7: Review the program logic

Once you have completed the program logic, check that it is clear, comprehensive, and that the connections between the columns are logical.

An effective program logic should:[11]

- Present a coherent causal model that explains how the program contributes to the desired outcomes (i.e. it should visually represent the links between the problem and the outcome).
- Be logical, so the expected change is clearly depicted and the links between evidence, program activities, outputs and outcomes make sense.
- Act as an effective communication tool for internal and external stakeholders.

Program Logic Checklist

- [ ] Is the model logical? Do the program components and activities, outputs, and outcomes link together and make sense?
- [ ] Have you drawn on evidence from research and experience demonstrating that clients with similar characteristics and needs have engaged with the activities described?
- [ ] Have you described the evidence that the activities/outputs will lead to the short-term outcomes, and that the short-term outcomes will lead to the medium- and long-term outcomes?
- [ ] Do the program components and outputs columns make it clear what the program will actually do?
- [ ] Is each outcome truly a client-focused outcome? It can be easy to confuse program outputs with outcomes.
- [ ] Have you consulted the DCJ Core Client Outcomes and Indicators to ensure your program aligns with the NSW Human Services Outcomes Framework?
- [ ] Are the outcomes realistic, attainable and measurable?
- [ ] Have you considered how the program context may impact outcomes?

We should strive to continually assess how effective our services are, whether they continue to achieve the best value for money and whether they remain relevant to the evolving needs of our customers.

Using Program Logic in Monitoring & Evaluation

To effectively monitor and evaluate programs we need to collect data on what is delivered, to whom, when and how, and measure progress towards achieving the intended outcomes. A program logic is a useful tool to help you develop a monitoring and evaluation framework because it identifies the program activities, outputs and outcomes that need to be measured. It also helps to ensure monitoring and evaluation resources are used efficiently and effectively. By breaking down program outcomes into the short- and medium-term, program logics can guide decisions not only about *what* should be measured but also *when*. This ensures that resources are not wasted measuring outcomes that the program is not designed to impact or by measuring appropriate outcomes at inappropriate time-points.

Ideally, the data required to monitor and evaluate a program should be mapped out as part of the program logic development process. Identifying the data that your program will need to collect during the program design phase is important to help embed data collection in program delivery where possible and establish a good foundation to monitor progress. It will also allow you to identify data that may need to be collected before the program commences so that robust evaluation is possible.

The steps to use program logic to help develop a monitoring and evaluation framework are outlined below.

Step 1: Allocate indicators to the activities and outputs

The program components and outputs columns in the program logic tell you what should be delivered. This is a useful starting point to identify the data that needs to be collected for program monitoring and evaluation. Allocate indicators to each program component and activity that capture when, how and to whom these are delivered. This will allow you to monitor implementation of the program and ensure that fidelity to the program model can be assessed.

Step 2: Allocate indicators to the intended outcomes

The outcomes columns specify what client outcomes the program intends to impact. It is these outcomes that should be measured to track progress and evaluate whether the program is effective. In this step, it is important to consider when you might expect to see change in each outcome in your program logic, and align the timing of the data collection and evaluation accordingly.

Capturing data on service delivery and outcomes: why is it important?

Collecting data on both program implementation (activities and outputs) and outcomes is essential to meaningful evaluation. Measuring outcomes is how we can tell whether our programs are making a difference. In addition to measuring outcomes, it is important to consider whether a program is being implemented as intended – that is, the fidelity of implementation.

If fidelity to the program model is high, then evaluation is a "true test" of the intended intervention. If fidelity is low however, evaluation results may have more to do with how the program was implemented than its design. It may be that an otherwise effective program does not achieve results simply because it was poorly implemented. If data on program implementation is not collected an evaluation will not be able to determine whether the program model is effective or not, making it difficult to decide whether to continue or expand a program to other locations even if it has shown promising results.

Considering implementation and outcome data together can also drive program improvement. Identifying the practices that are most strongly linked to improvements in outcomes, allows you to identify and support sites that struggle the most to implement those practices.

Step 3: Review

Finally, it is important to check that every activity, output and outcome in the program logic has at least one indicator that has been mapped to a data source. This will ensure that the monitoring and evaluation framework is supported by data and allow you to identify and address any major gaps in implementation and outcome data early on (e.g. by making adjustments to routinely collected administrative data or embedding additional data collection activities in program delivery).

Other data sources to capture insights

A comprehensive monitoring and evaluation framework will include information that may not be listed in the program logic, such as information on contract management and compliance. Moreover, to gain deeper insights into program implementation and outcomes an evaluation will need to collect a broad range of data, which may also involve interviews or focus groups with important stakeholders such as participants and staff involved in the delivery of the program. Qualitative data can capture insights into issues such as implementation quality, barriers and facilitators as well as stakeholder views on how and why outcomes were achieved (or not), and people's experiences of the program. These are all important issues to be considered even if they are not explicitly outlined in the program logic.

Useful resources

The Evaluation Toolkit by the NSW Department of Premier and Cabinet includes useful guidance on how to develop a program logic and needs assessment.

The Better Evaluation website provides guidance on developing a program theory, alongside a range of other useful evaluation resources.

The Australian Institute of Family Studies has developed a video and step-by-step program logic guide.

UTS has released a free online course on measuring social impact that includes guidance on program logic.

The University of Wisconsin-Exchange provides a range of templates, resources and a free online course on developing and using logic models.

A workshop toolkit Logic models for program design, implementation, and evaluation and a reference guide Logic models: A tool for designing and monitoring program evaluation from the US Department of Education.

Other resources that may help you to find and use evidence and data in your program logic include:

The Campbell Collaboration, a research network that produces systematic evidence reviews, plain English summaries and policy briefs. Topics include early education, crime and justice, parenting, families and communities. You can:

- search for research evidence by topic
- access the Campbell Systematic Reviews open access journal
- browse various evidence portals and databases.

Open-access libraries where you can find academic research evidence include:

- CORE
- JSTOR
- Cambridge University Press

Useful resources from other jurisdictions, such clearinghouses and centres that conduct systematic research reviews to identify what works and collate evidence on program effectiveness include:

- Washington State Institute for Public Policy (WSIPP)
- Evidence-Based Policymaking Resource Center and Results First Clearinghouse Database
- What Works Network

The DCJ Resource Centre has a number of different resources that provide information about DCJ clients, the services they receive and the outcomes they achieve. These resources include:

- Online Dashboards:
  - Services for children and young people dashboard
  - Domestic and family violence dashboard
  - Social housing delivery dashboard
  - Social housing residential dwellings dashboard

- Annual reports and other publications
- Family and Community Services Insights, Analysis and Research Publications
- Pathways of Care Longitudinal Study

BOCSAR provides data on crime, victims and offenders in NSW LGAs, suburbs or postcodes. There are a number of BOCSAR resources that you might find useful:

- Recorded Crime Reports: quarterly and annual reports that examine trends in crime
- NSW LGA Excel Tables: tables that provide information on trends and patterns in crime
- Crime Mapping Tools: interactive maps that show the spatial distribution of recorded crimes.

Need more support?

Developing a program logic is not always as straightforward as it sounds, particularly for complicated or complex programs. FACSIAR can help DCJ staff develop a program logic by:

- facilitating a program logic workshop with key stakeholders
- supporting you to access the best available evidence for program effectiveness
- connecting you with experts in your field
- providing guidance and helpful resources
- reviewing draft program logics and providing constructive feedback

Contact us at FACSIAR@dcj.nsw.gov.au

Glossary

Attribution	Attribution is the identification of the source or cause of an observed change. Attribution refers to the extent to which an observed change resulted from a specific activity. (taken from the Outcomes Framework Glossary)
Baseline	Information collected before or at the start of a program that provides a basis for planning and/or assessing subsequent program progress and outcomes.
Causal	Indicates that one event is the result of the occurrence of another event; i.e., There is a causal relationship between the two events. This is also referred to as cause and effect.
Client Cohort	A group of people with shared vulnerabilities, needs and characteristics.
Effective/Effectiveness	Used to describe the extent to which a program achieves statistically significant improvements in intended outcomes.
Evaluation	A rigorous, systematic and objective process to assess the effectiveness, efficiency, appropriateness and sustainability of programs. For further information please refer to the NSW Government Program Evaluation Guidelines.
Evidence	Factual information used as proof to support a claim or belief. There are three main types of evidence used at DCJ for service planning and commissioning: 1) data; 2) literature (both peer-reviewed and grey); and 3) the client voice. Simultaneously collecting all three types of evidence helps to accurately triangulate client needs and tailor service delivery accordingly.
NSW Human Services Outcomes Framework (Outcomes Framework)	Is a cross-agency framework designed to support NSW Government agencies and non-government organisations adopt an outcomes-focused approach in human services design, delivery and evaluation.
Input	The resources that are required to conduct a program or intervention, e.g., funds, staff, time, facilities, equipment, etc.
Intervention	The implementation of an activity or a program of activities that seeks to improve client outcomes.
Mechanism of change	The rationale for why a proposed program is expected to achieve the proposed outcomes. The mechanism of change will challenge those designing new, or refining existing, programs to be clear about exactly what outcomes each program component is attempting to achieve.

Glossary

Needs assessment	A systematic method of identifying risk factors and/or needs experienced by a population. The process involves using data, literature and the client voice to make an assessment of the most important and urgent needs that should be targeted with program activities to improve client outcomes (i.e. reduce needs).
Outcome	The change that occurs for individuals, groups, families or communities during or after participation in a program or intervention. Outcomes can be changes in knowledge, attitudes, values, behaviours or conditions. Outcomes can be short-, medium- or long-term: *Short-term outcomes* – primarily attributed to the program and typically represent steps toward achieving medium- or long-term outcomes. *Medium-term outcomes* – partly attributed to the program. Beginning of shared attribution. Link a program's short- and long-term outcomes. *Long-term outcomes* – result from achieving short- and medium-term outcomes, often beyond the timeframe of a program. Shared attribution across agencies and organisations.
Outcome Domain	Categories that facilitate the organisation of similar outcomes into common subject matter groupings. The outcome framework specifies seven outcome domains: social and community, empowerment, safety, home, education and skills, economic, and health.
Outputs	The products, goods, and services which are produced by the program.
Program	A set of activities managed together over a sustained period of time that aim to deliver outcomes for clients.
Program logic	A tool that presents the logic of a program in a diagram or chart. The program logic illustrates the logical linkage between the identified need, or risks, that a program is seeking to address, its intended activities and processes, the mechanism or theory of change, and the intended program and client outcomes.
Randomised controlled trial (RCT)	A type of evaluation design that uses random assignment of participants, groups or clusters to an intervention, or control condition. It eliminates selection bias (i.e. where assignment to the intervention group might be influenced by perceived relevance or potential benefit), and is considered the most methodologically rigorous way of determining whether a cause-effect relation exists between intervention and outcome. It is the most robust way of ensuring that any observed differences in outcomes between groups can be attributed to the intervention rather than to another cause or external factors.

Glossary

Research	Research is the systematic process of the collection and analysis of data and information, in order to generate new knowledge, to answer a specific question or to test a hypothesis. In this context, research is usually undertaken to examine relevant issues and yield evidence for better program and policy advice.
Review	A review is often a quicker, more operational assessment of 'how we are going' and used to inform continuous improvement. Reviews generally take place after implementation has started and may be useful when there is insufficient information to conduct an evaluation. The emphasis is usually on timely generation of sufficient information (e.g., through benchmarking against performance data for other programs) to inform decision making or identify the scale of a problem or situation. The term 'review' is also sometimes used to refer to a review of functions or features common across government which focuses on delivering more efficient and effective government services from a financial point of view.
Stakeholders	Any group or individual who can affect or is affected by, an organisation or its activities.
Systematic Review	A type of literature review that uses systematic methods to collect secondary data, critically appraise research studies, and synthesise the results of large numbers of studies. Systematic reviews formulate research questions that are broad or narrow in scope, and identify and synthesise studies that directly relate to the systematic review question. They are designed to provide a complete, exhaustive summary of current evidence relevant to a research question. Systematic reviews of randomised controlled trials are key to the practice of evidence-based programming.
Triangulation	Facilitates validation of data through cross verification from more than two sources.

Appendix A: FACSIAR Program Logic Template

Download a copy of the FACSIAR Program Logic Template. Please use the version of the template attached (the example is the same).

NEED / PROBLEM	EVIDENCE	PROGRAM Program components and activities	MECHANISMS OF CHANGE	OUTPUTS	SHORT-TERM OUTCOMES	MEDIUM-TERM OUTCOMES	LONG-TERM OUTCOMES
Identify the problem areas this program seeks to change, by completing a needs assessment. This should include evidence based on: • *Population level data* • *Client level data* • *Community perspectives* • *Client perspectives* • *Staff perspectives (FACS and NGO)* *Be as specific as possible I.e. Describe the population group or cohort, delivery setting, client needs or risk factors experienced by this population group*	*Summarise the research evidence on the most effective programs, and/or program components, available to change the identified problems. Please start with evidence from published systematic reviews and high quality randomised controlled trials that demonstrate effectiveness. Please also include relevant evaluation reports.* *For further guidance on evidence and the quality of evidence, please consult the NHMRC Evidence Hierarchy:* *https://www.mja.com.au/sites/default/files/NHMRC.levels.of.evidence.2008-09.pdf* *Note: FACS Library can assist in providing relevant research evidence including literature searches Library@facs.nsw.gov.*	*Based on the identified problems, and what the evidence suggests is the most effective way to intervene to change these problems, describe what your program will look like. There is no limit to how many core components or activities you can include.*	*Describe how the program will specifically achieve the desired outcomes via the program activities*	*The products and/or services delivered to achieve the short-term outcomes? (e.g. fact sheets distributed, number of staff attending training, number of support sessions completed)*	*The Immediate (short-term) outcomes that can be attributed to the intervention*	*The Intermediate (medium-term) outcomes that can be attributed to the intervention*	*The Long-term outcomes that can be attributed to the intervention*

Worked Example

Below is an example of a completed program logic for the BackTrack program. BackTrack is a program for at-risk youth that aims to support young people to reconnect with education and training, become work ready and secure meaningful employment. The program has five core components delivered through a range of flexible activities (engagement, case management, diversionary activities, personal development and learning and skills development). The four key outcome areas of the program are shown in different coloured text. The coloured text also illustrates how the intended outcomes are directly related to the identified needs.

NEED / PROBLEM	EVIDENCE	PROGRAM Program components and activities	MECHANISMS OF CHANGE	OUTPUTS	SHORT-TERM OUTCOMES	MEDIUM-TERM OUTCOMES	LONG-TERM OUTCOMES
BackTrack - A program for at-risk youth Young people aged 12 to 25 years who experience co-occurring risk factors such as: - Dis-engagement with the education system and/or un-, under-employment - Emerging or established involvement in criminal incidents and the criminal justice system - Risky drug and alcohol use - Inability to regulate emotions - Low self-esteem and/or emerging mental health issues.	Findings from a systematic review of programs that can effectively intervene to improve outcomes for young people who experience co-occurring risk factors found that the critical program components are: 1) engagement; 2) case management; 3) skills and education; 4) personal development; 5) diversionary activities.	**Core component 1: Engagement** Activities: - Horse riding - Buddying up with a working dog - Team sport - 'Jam' sessions and informal music activities	- Successfully engaging with participants so they are exposed to sufficient number of intervention components	- Number of participants attending each session - Number of activities delivered for each core component e.g. number of counselling sessions delivered	An improvement in school attendance (self-reported measure of school attendance cross-checked with school attendance data)	An increase in the number of participants enrolling in a Tafe course (Department of Industry Tafe data)	An improvement in employment (self-reported measure of employment status or admin data) An increase in the number of participants completing year 10 or above at school (Department of Education school attendance data) AND/OR An increase in the number of participants completing a Tafe course (Department of Industry Tafe data)
		Core component 2: Case management Activities: - Legal aid tutorials - Contingency planning - Inter-agency liaison	- Prioritising participants' most immediate problems (e.g. legal issues), and developing pragmatic solutions to these problems, allows participants to focus on pro-social activities				
		Core Component 3: Diversionary activities Activities: - Attending sporting events as a group on the weekend - Camping trips over the weekend - Day-to-day attendance of program during the week	- Reducing participants' exposure to high-risk situations (at home and in public), at high-risk times (e.g. the weekend)		A reduction in participant engagement with the Justice System (self-reported measure of engagement with the Justice System, cross-checked with records from Department of Justice)	A reduction in crime/severity of crime (Routinely collected police incident data [BOCSAR])	
		Core Component 4: Personal development Activities: - One-on-one counselling with program staff if needed - Daily meditation group - Buddying up with a 'graduated' program member for mentoring support	- Improving participants' capacity to manage when they are in high-risk situations			A reduction in substance misuse (The Alcohol Use Disorder Identification Test [AUDIT], the Alcohol, Smoking and Substance Involvement Screening Test [ASSIST], the Heaviness of Smoking Index [HSI])	A reduction in drug and alcohol and/or mental health related Emergency Department presentations (Routinely collected health data)
		Core component 5: Learning and skills development Activities: - Work ready preparation - Vocational education or training - Work experience - Mentoring support	- Improving participants' education and life skills to increase their opportunities for active participation in employment		An improvement in participants' ability to regulate their emotions in stressful situations (Adolescent self-regulatory Inventory [ASRI])	A reduction in suicide ideation and/or psychological distress (self-reported measure of suicide ideation and the Kessler-6)	

Appendix B

Inputs

Inputs are the resources that are required for the program to function, which may include:

- Funding
- Personnel
- Expertise
- Technology

Assumptions

Assumptions are the beliefs we have about the program, how it will work, and the program participants (e.g. how they learn, how they behave, their motivations).[12] Often, inaccurate or overlooked assumptions are the basis for failure or disappointing results.[13] That is why it is important to make explicit the assumptions that have been made when developing the program logic, and to validate them with evidence from research and past experience. Examples of common assumptions include:

- program resources will be adequate and available
- staff with the necessary skills and abilities can be recruited and hired
- a culturally appropriate program will be developed and delivered effectively
- the target population will be able to access to the program and will be willing to engage and motivated to change.

External factors

External factors relate to the environment in which your program is being delivered. Economic, political, cultural, historical and social contexts all impact the way a program is delivered, and the outcomes that can be achieved. A program is also rarely the sole cause of the medium- and long-term outcomes outlined the program logic. Rather, it will contribute towards achieving these outcomes.

References

[1] Knight, A., Maple, M., Shakeshaft, A., Shakeshaft, B., Pearce, T 2018. Improving the evidence base for services working with youth at-risk of involvement in the criminal justice system: developing a standardized approach. *Health and Justice.*

[2] Better Evaluation https://www.betterevaluation.org/pl/node/236

[3] NSW Agency for Clinical Innovation 2013. *Understanding Program Evaluation: An ACI Framework.* Agency for Clinical Innovation, Sydney. https://www.aci.health.nsw.gov.au/__data/assets/pdf_file/0008/192437/Framework-Program-Evaluation.pdf

Holt L 2009. Understanding program logic. Victorian Government Department of Human Services. Available online: https://www2.health.vic.gov.au/about/publications/policiesandguidelines/Understanding-program-logic

[4] NSW Department of Premier and Cabinet. Evaluation Toolkit. Available online: https://www.dpc.nsw.gov.au/tools-and-resources/evaluation-toolkit/

[5] NSW Department of Premier and Cabinet 2016. *NSW Government Program Evaluation Guidelines*. NSW Department of Premier and Cabinet, Sydney.

[6] WK Kellogg Foundation 2004. Logic Model Development Guide. Battle Creek, Michigan: WK Kellogg Foundation. Retrieved from: https://www.betterevaluation.org/sites/default/files/LogicModelGuidepdf1.pdf

Taylor-Powell, E., Jones, L. & Henert, E. 2003. Enhancing program performance with logic models. University of Wisconsin-Extension. Available online: https://fyi.extension.wisc.edu/programdevelopment/files/2016/03/lmcourseall.pdf

NSW Agency for Clinical Innovation 2013. Understanding Program Evaluation: An ACI Framework. Agency for Clinical Innovation, Sydney.

NSW Department of Premier and Cabinet. Evaluation Toolkit.

[7] Funnell SC, Rogers PJ. (2011). *Purposeful Program Theory: Effective Use of Theories of Change and Logic Models*. Wiley: Hoboken.

[8] NSW Department of Premier and Cabinet. Evaluation Toolkit.

[9] Funnell SC, Rogers PJ 2011.

[10] Pawson R & Tilley N 2004. Realist Evaluation. Available online: http://www.communitymatters.com.au/RE_chapter.pdf

[11] Funnell SC, Rogers PJ 2011.

[12] Holt L 2009.

[13] Taylor-Powell, E., Jones, L. & Henert, E. 2003.

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