

Reporting and evaluation of health and medical research



Measurement and evaluation are critical components of effective program delivery and design. By incorporating measurement and evaluation methods into a program, issues can be identified quickly, risks can be managed, evidence-informed decisions can be made to improve the program.

The Office for Health and Medical Research uses measurement and evaluation methods to assess the effect of our programs on the NSW health and innovation ecosystem. The Office tracks the implementation and effectiveness of programs it administers to support continuous improvement, and the impact of research grants to inform future strategic directions.

Measurement is categorised into one of three processes:

1. Monitoring: The regular and systematic collection of information on the progress, risks, outputs and outcomes of programs. Monitoring programs allows us to progress through program stages or to intervene when projects aren't proceeding as planned.

2. Reporting: The use and interpretation of data to provide accurate, timely and transparent information on active programs. The Office uses reporting to provide internal and external stakeholders assurances that programs are proceeding as planned. Reporting also allows us to meet accountability commitments in response to the needs of NSW Government.

3. Evaluation: The formal assessment of impact and value of projects and programs. Early (or formative) evaluations are used to improve processes, while later (summative) evaluations are used to demonstrate the effectiveness and value of programs, often to external stakeholders.

Measurements and metrics

Selecting the right suite of metrics is essential for high-quality reporting and evaluation. The Office uses metrics that best reflect the aims of the program, not simply because data is easy to collect. Metrics

should be identified at the start of a program and data collection planned before the program even starts.

Most evaluations require additional data to be collected to ensure all aspects of the program can be evaluated. For example, the data and information from surveys or interviews can be evaluated and help us to understand people's experiences of a particular program. Surveys can also be used to collect updated data on projects that were completed several years ago.

The metrics used for evaluation change over the lifetime of a program. For early evaluations, measures may be restricted to simple outputs, such as how many publications were released. Over longer time periods, focus can shift to how often those publications were used - including the number of times a publication was cited or the amount of media attention garnered.

The importance of health and medical research

Health and medical research is essential for ensuring the people of NSW have access to the best treatments and therapies. The integration of health and medical research within the health system supports innovation across healthcare, builds a strong culture of continuous improvement to ensure we deliver the best evidence-based health care for Australians, and is crucial for ensuring the health system's efficiency and sustainability. One way that the NSW Government supports research is by providing funding through grant programs.

Evaluations

The Office for Health and Medical Research undertakes regular formal evaluation of its projects and programs. The scope of these evaluations is dependent on achieving value for the time and cost of undertaking the evaluation. These evaluations can be about process, outcome or economic impact; or a combination of these. Due to the competitive nature of the grants, formal evaluations are conducted using an independent evaluator to ensure impartiality and quality. Small scale evaluations are sometimes conducted by the Office's staff, principally to review and improve grant processes but occasionally to support a key internal decision.

Evaluation lifecycle

The evaluation lifecycle aligns with the program lifecycle, informing iterative program design and improvement (**Figure 1**). Good program design is supported through the logic model, which informs the evaluation plan. By identifying data needs at the start of the program, the implementation phase

can include targeted collection of data for regular reporting and evaluation. The evaluation is undertaken in the reflective post-implementation phase, assessing the success of the program and providing insights into what could be improved. The program implements the improvements that are possible and, in subsequent program cycles, repeats the process of continuous improvement. The Office ensures transparency by publishing evaluation reports.

Program logic model

The Office uses logic models to document the purpose, aims, activities, outcomes and impacts of programs and large projects. This statement of intent provides the focus of the evaluation and informs the questions the evaluation aims to answer. Logic models inform what data needs to be collected during the lifetime of the program, facilitate the evaluation, and inform regular monitoring activities. Logic models are produced at the start of a program but can be updated at any point during the program.

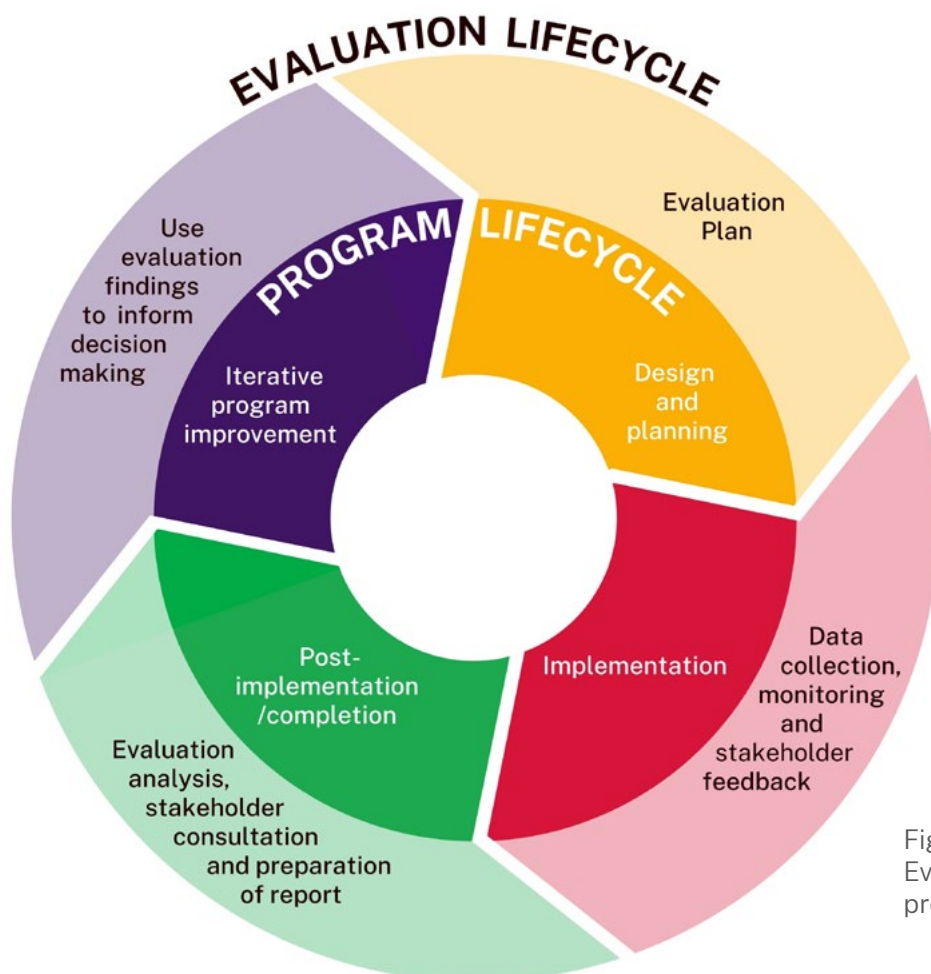


Figure 1:
Evaluation and
program lifecycle

Evaluation Plan

The defining document of the evaluation is the Evaluation Plan. Plans must describe the rigorous and pragmatic methodology for conducting all components of the evaluation. The content of the Plan is informed by the program logic model, which is used to identify the evaluation questions and guide selection of the evaluation metrics. Whenever possible, the evaluation plan should also be externally reviewed, for example, by the evaluation advisory group.

Types of evaluation

Evaluation is the rigorous and systematic process to assess a program’s effectiveness, efficiency, appropriateness and value. The Office for Health and Medical Research uses the three types of evaluation to assess a program’s success:

Process evaluation: The evaluation of program implementation and delivery, i.e. whether the implementation proceeded as intended, the issues encountered; the distribution to target audiences; whether stakeholder needs are being met; and alignment to NSW Government policy and guidelines.

Outcomes evaluation: This is the evaluation of the grant program outcomes and impact, i.e. an assessment of outcomes achieved to date against outcomes identified in the program logic; consideration of future outcomes and when these might mature; and consideration of variation in outcomes and impact between target audiences, especially priority populations.

Economic evaluation: The evaluation of the consequences and value of the program in relation to its costs, i.e. the description of major costs and benefits; return on investment; cost- effectiveness or cost-benefit analysis; environmental and economic sustainability; and value for money.

Domains of performance

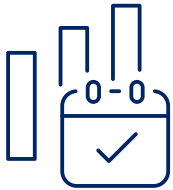
The Office uses six measurement dimensions to express the outcomes and impacts of programs. These domains reflect key components of the NSW Health Research and Innovation Strategy. **Figure 2** presents these domains and some of the key measures that the Office uses to assess performance.



Figure 2: Domains of performance

Principles of reporting and evaluation

Reporting and evaluation sit on a continuum of measurement that provides understanding of how well the Office for Health and Medical Research is supporting the NSW Health Research and Innovation Strategy. Evaluations are typically undertaken on large projects to assess the processes, benefits, and value of programs retrospectively, whereas reporting provides more current but limited information on performance. However, the same principles ensuring high-quality and useful information sit across both, specifically:



Measurement is integrated into program design

In planning a program, monitoring, reporting and evaluation should be considered at the onset and defined in key project documents. This ensures that data to be used in reporting and evaluation is available for the lifespan of the program, providing a baseline to assess change. Good planning minimises effort and burden by identifying what is needed and how it is best collected.



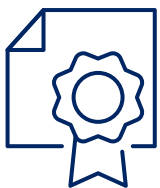
Assessments are proportional to the program

The scale, resources and methodology of assessments should be appropriate and proportionate to the program being evaluated. Considerations include the strategic importance, cost, lifecycle, anticipated outcomes, impact, and risk of the program, as well as the cost of data collection, analysis and evaluation.



Measures are fit-for-purpose

Metrics for how we assess the success of the program must address the purpose and intent of the program, as stated in the program logic. These metrics should be actionable, attributable, timely and relevant. These measures must be conveyed in a meaningful way to stakeholders and other uses of the evaluation.



High-quality data

Metrics must be based on high-quality data. That means the data must be accurate, complete, reliable, relevant, and timely. Metrics using data that does not meet these requirements may not detect or accurately quantify change.



Objectivity

Audiences of reports and evaluations must be able to trust that metrics accurately reflect the performance and impact of the program. The Office provides assurances of the quality of the assessment by making the process transparent (through publication) and independently evaluated.