



Enhancing your administrative data when evaluating programmes or services

Using Evidence for Impact

MARCH 2017

Acknowledgement

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INFORMATION
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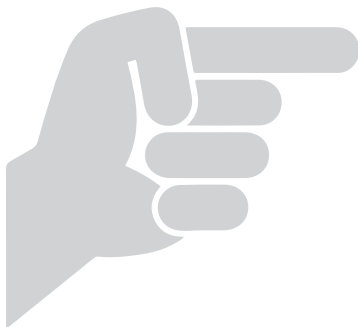
...Information is costly to create, but it's almost costless to share and replicate. It's infinitely scalable once it's created. It means anyone, anywhere can know anything for nothing.

Information is much more valuable when it's shared.”

Hon. Bill English, 28 September 2016



ARE YOU READY FOR THE JOURNEY?



Purpose

If you are part of a social service delivery agency and considering greater use of administrative data to help evaluate the effectiveness of your programme or service, this document is for you.

It is designed for those who are generally familiar with the evaluation process but who are still getting to grips with approaches to evaluation and how administrative data can assist in collecting, accessing and combining datasets, or using them for analysis. This user guide is also designed to outline pitfalls you might encounter and show how these might be addressed.

The principles contained in this document are applicable whether you are in the community and voluntary sector or a government agency getting up to speed with the possibilities for evaluation that are opened up by the use of administrative data. This guide refers to Statistics New Zealand's Integrated Data Infrastructure (IDI) as an example of administrative data.



Why are extensive datasets important?

Over the last few years, a number of New Zealand government agencies have been building databases containing extensive information on a variety of topics, including housing, health, education and justice. This process was prompted in part by the Open Government Partnership¹ and the social investment approach². This situation has implications for the ways in which government agencies and social service providers work and their ability to make better informed decisions.

One of the aims of creating such databases is to enable analysis of the data contained within them to better understand what programmes and services work best, and for whom. This is the beginning of a new era in New Zealand for data collection, sharing, analysis and use on a large scale. However, the current data environment and associated processes are complex and tricky to navigate. It is expected that over time, the changing data environment and associated processes will be streamlined, thus making extensive nationwide databases more usable.

Both your organisation and your clients benefit from having your programmes or services evaluated.

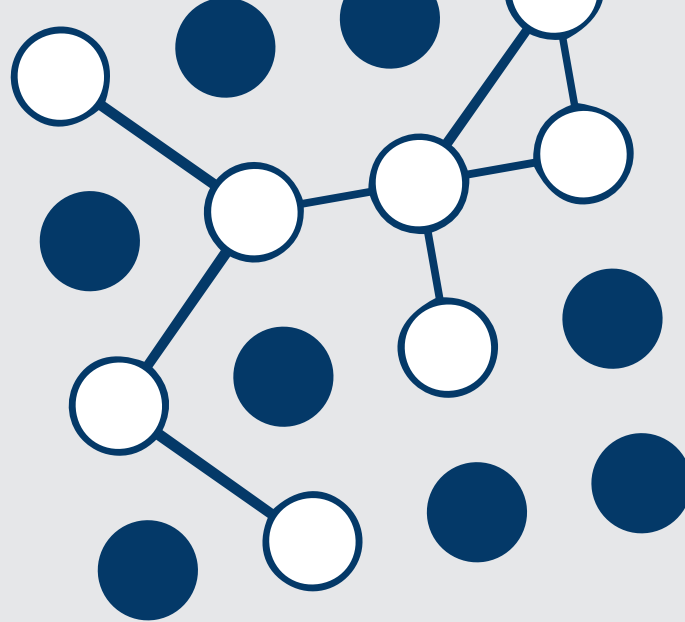
What is evaluation?

Evaluations are a way of providing a structured approach to assessing the quality, value and effectiveness of the social services you offer. Both your organisation and your clients benefit from having your programmes or services evaluated. As well as continuous improvement, you will achieve a clearer understanding of how well you deliver your service and what impact you have. Evaluations can also enable your organisation to plan for your future, for example, by setting priorities.

Evaluation is also a means of demonstrating to the government and other funders what difference your programmes or services are making in your clients' lives, ie to better understand the types of programme and services that work, and for whom.

To demonstrate programme effectiveness, it helps to develop and use good evidence, obtained from reliable sources via a robust methodology. Use and analysis of administrative data is emerging as a promising source of generating evidence, but there are some pitfalls. This document suggests ways to get ahead of, and address, those pitfalls.

1. opengovpartnership.org/country/new-zealand
2. treasury.govt.nz/statesector/socialinvestment



What is the IDI?

The IDI is hosted by Statistics New Zealand and contains data on people and households in a variety of areas such as education, justice, health, migration and housing.

*For more information, go to:
stats.govt.nz/browse_for_stats/snapshots-of-nz/integrated-data-infrastructure*

Just because data is available does not mean it will be a useful source of information, or that it can readily be translated into knowledge.

What is administrative data, and why is it useful?

Administrative data “is collected by government agencies or private organisations in the course of conducting their business or services [...], for operations such as delivering a ‘service’ [...], or legal requirements to register events [...] or as a record of transactions or events.”³

Many organisations collect administrative data as an integral part of their day-to-day activities and you may already be doing this. It is relatively cheap and easy to analyse and use your own administrative data to make better decisions, eg in allocating resources to programmes or services. This data may also help you to keep track of what is happening, to build historical knowledge and assist in planning.

You may also be aware of the increasing availability of external administrative data, including that originating from different government sources. This data may have the potential to provide deeper insights into what is happening for various groups within the total population. It could provide a richer source for identifying drivers, issues, solutions or service effectiveness in responding to social sector challenges. Your organisation may be in a position to use these richer datasets, but you will first have to be well prepared.

What follows is a discussion of some key points that you and your organisation should take into account when considering the use of administrative data.

3. Abbreviated from Statistics New Zealand (2014): “An overview of progress on the potential use of administrative data for census information in New Zealand: Census Transformation programme”. Accessed at stats.govt.nz/methods/research-papers/topss/census-admin-data.aspx



Can you use administrative data to help you evaluate your programme or service?

In principle, yes.

Administrative data related to a programme or service can be analysed to find out how well the programme/service is meeting its goals. Once you have accessed the required data, you are able to analyse it to find out what works well in your programme/service and what may need tweaking to improve its effectiveness. There are two methods you can use to do this:

- **1. Analyse your own administrative data.** You will gain valuable insights into how well your programme/service works. However, be prepared to identify the inherent strengths and limitations of your dataset, as these may have some implications for your findings.
- **2. Analyse your own administrative data against another (external) administrative dataset, such as the IDI.** The benefits of using this method can be significant if the datasets contain comparable information on the same population of interest. The statistical analyses performed using your own data and an external set of data may give you a superior, objective assessment of how well your programme/service works for your clients. Findings may be able to be generalised to the New Zealand population, as analyses are conducted using relatively large sample sizes.

However...

...regardless of the method (own data or analysis against an external dataset), some conditions have to be met to ensure good use of administrative data.

What prerequisites do you need to meet to use administrative data effectively?

To effectively analyse your own administrative data, you need to ensure:



Your data collection methods and reporting are robust. Relevant data is collected and reported purposefully, consistently, thoroughly, accurately and in a timely way. Your own dataset will therefore contain 'clean' and reliable data.



The population of interest that you collect appropriate information from is as large as possible. Collecting data from a large sample gives you more reliable information than from a small sample. Data regularly collected over a relatively long period of time gives a better understanding of the programme/service than shorter datasets.



If you want to analyse your own administrative data against another administrative dataset (eg IDI) or other types of datasets (eg surveys) you have to ensure that you have addressed all of the following decision factors:

Readiness to address the complexities of accessing and analysing external data. Data comparisons and analysis can be a time-consuming, expensive and labour-intensive process. Significant factors to bear in mind are:

- + **Data access is likely to require a formal application** where you need to clearly outline the purpose of your analysis, key ethical considerations for your research, and what you will do with your findings. You should be aware that the application and ethics review process for access to *health* data is demanding and time-consuming, so plan as far ahead as you can.
- + **In some cases, the actual data access may require the services of an expert intermediary** who understands the complexities of the public dataset and can manipulate it to serve your needs. Be prepared to explain your needs and build in time to liaise with them.
- + **Nationwide databases** are updated regularly and are becoming more sophisticated. However, they **may not yet contain all the data you require** and you may encounter some gaps in your research, eg in terms of topic, region, ethnicity or programme/service. Having a clear sense of what is available, how the two datasets could benefit each other, what gaps are likely and how you can address them will provide the best rationale and guidance for determining whether and how you undertake the analysis.
- + Currently, **government agencies have limited capacity to provide extensive support to organisations** requesting national dataset access and analysis. Be prepared for timeframes that may be longer than desirable to gain access. Your best insurance against this is to plan ahead, be very clear about what data you have, what you need, and what you are going to do with it and ensure that you meet all the access prerequisites.

Quality administrative data. Fundamentally this means you have to have collected the right data and your own dataset meets the description on page 4.

Commitment to ethics requirements. The critical ethical issue in accessing an external dataset is that your analysis should **never** be used for researching information about specific individuals, ie a ‘fishing expedition’, but **always** used for researching information about *groups* of individuals. This might be for identifying:

- + the extent to which one or more sub-groups have similar or different characteristics, or
- + the characteristics of a single group.

Your analysis should also:

- + help you to better understand the strengths and weaker areas of your programme/service, and how well you deliver your outcomes
- + be directly related to the purpose for which you were authorised access to the data, ie *evaluating the effectiveness of your programme or service*⁴
- + never report or publish data or information that could identify any individual
- + inform and benefit the wider learnings of social sector organisations, that is, be for the ‘public good’.

*It is essential that you have **obtained your clients’ permission** to access and analyse their data. You will then need to implement a strategy to **securely store** client information and to **destroy it** in accordance with the requirements accompanying your access to the data and your own organisation’s protocols, once the analysis is completed. It is essential that you maintain the **confidentiality** of your clients’ information through the process, from data collection through to analysis and reporting. You will also need to have thought about and identified alternative approaches for how, or if, you can proceed with your analysis if some clients refuse to grant you permission to use their data.*


4. This will be a condition of your access to the data.



If you meet all of these prerequisites, you may be able to access data held in the IDI.

Here is what you need to know to get access.

Statistics New Zealand strongly encourages you to discuss your project with them at a pre-application meeting rather than just submit an access application.

 04 931 4253

 access2microdata@stats.govt.nz

This meeting will focus on:

- + the project's feasibility
- + relevant data for the project (data may be found in alternative datasets)
- + experts who could help
- + areas of concern highlighted by the project.

Following the pre-application meeting there are another four steps to complete the application process:

- + submission of application
- + initial approval granted
- + final approval granted, and
- + set-up/support.

More information can be found at:
stats.govt.nz/tools_and_services/microdata-access/data-lab.aspx

Note: access to, and use of, IDI data may change in future.



Links to examples of datasets and statistics

Statistics New Zealand, nzdotstat.stats.govt.nz/wbos/Index.aspx

Inland Revenue, ird.govt.nz/aboutir/external-stats/tax-statistics-sitemap.html

Ministry of Health, health.govt.nz/nz-health-statistics/health-statistics-and-data-sets

Ministry of Social Development, msd.govt.nz/about-msd-and-our-work/publications-resources/statistics/index.html

Education Counts, educationcounts.govt.nz/statistics

Ministry of Justice, justice.govt.nz/justice-sector-policy/research-data/

What can you do if you are not yet ready to use administrative data?



Alternatives to accessing primary data from nationwide administrative datasets exist

You may be able to undertake similar data analyses using secondary data (ie data already analysed) from publicly available documents, eg from the New Zealand census, Te Kupenga, the Household Economic Survey and the Time Use Survey. All of these are found on the Statistics New Zealand website and can be accessed for free. From these sources, you are likely to obtain useful and meaningful contextual information or findings that you can link with your data in a relatively short timeframe and at a relatively low overall investment of labour, time and other resources.



Focus on building your own quality dataset

It is important that your organisation is able to collect the right data and use it in a meaningful way. Investing in developing and implementing practical and rigorous data collection, storage and reporting systems, as well as robust analysis methods will mean you are better prepared to access other national datasets as they become available. To ensure your organisation is prepared for future options, it is useful to consult with your staff to obtain buy-in and expand from an individual to an organisational ownership of the process and associated accountability.



The future is coming

At the moment, nationwide databases are complex and mostly used by government agencies. However, the environment related to national data access and linkages is changing rapidly and it is likely that access to national datasets will be easier and more efficient in the future, enabling it to be used by a much larger audience of non-experts.

Until that happens, it is worth thinking about how your organisation is positioned, how it will respond to the potential opportunities for analysis that administrative data may provide, and how that fits within a robust evaluation process.



About Superu

Superu is a government agency that focuses on what works to improve the lives of families, children and whānau.

What we do:

- + We generate evidence that helps decision-makers understand complex social issues and what works to address them.
- + We share evidence about what works with the people who make decisions on social services.
- + We support decision-makers to use evidence to make better decisions to improve social outcomes.

We also provide independent assurance by:

- + developing standards of evidence and good practice guidelines
- + supporting the use of evidence and good evaluation by others in the social sector.



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