

# Data and Services Discovery projects - Transformative Data Collections

Title: Indigenous Data Network National Survey: Indigenous Controlled Research Organisations - Final Report

## Approach

This project was undertaken by the Indigenous Data Network (IDN), based at the Indigenous Studies Unit, Melbourne School of Population & Global Health, University of Melbourne. The project comprised a nationwide survey of leading Indigenous controlled research organisations within the land council and native title sector, including both Aboriginal land councils (ALCs) and native title service providers (NTSPs). The objective of the survey was two-fold: a) to ascertain data collection, storage, and distribution practices among these organisations, and; b) to establish what potential administrative and technical transformations would be necessary in order to link together multiple small-scale population models maintained by these organisations into an integrated population model for each organisation in the first instance, and into a national population model in the second instance.

Of the nineteen ALCs and NTSPs operating across Australia, a total of ten organisations were short-listed for survey. Of these, eight were approached for participation, with two having been documented previously. Of the eight organisations approached, four responded. These included the Central Land Council (CLC), Kimberley Land Council (KLC), First Nations Legal and Research Services (FNLRs), and South Australian Native Title Services (SANTS). Two organisations previously documented included NTSCORP and Anangu Pitjantjara Yankunytjatjara (APY). Organisations that failed to respond included the Northern Land Council (NLC), Southwest Land and Sea Council (SWALSC), Ngaanyatjarra Land Council (Ngaanyatjarra), and New South Wales Aboriginal Land Council (NSWALC). This engagement rate matched expectations described in the project proposal (see Table 1 below for details). Cumulatively, the six organisations surveyed represent an Indigenous service sector clientele of over 360,000 individuals (see Table 2).

*Table 1: Survey participants and engagement details.*

Organisation	Location	Response	Consultation Dates	Staff Involved
SANTS	Adelaide	Engaged	26/8/2019	All research staff, operations management
			28/8/2019	All research staff, operations management
CLC	Alice Springs	Engaged	29/7/2019	Executive

			12/8/2019	Executive, operations management
			3/10/2019	Research management, information systems management
KLC	Broome	Engaged	13/9/2019	Research management
			16/10/2019	All research staff
FNLRS	Melbourne	Engaged	6/8/2019	Executive, research management
			13/9/2019	Executive
NTSCORP	Sydney	Documented	NA	All research staff
APY	Umuwa	Documented	NA	All research staff
Ngaanyatjarra	Alice Springs	No Response	NA	NA
NLC	Darwin	No Response	NA	NA
SWALSC	Perth	No Response	NA	NA
NSWALC	Sydney	No Response	NA	NA

The survey was conducted via structured interviews with a combination of executive, management, operations, research, and information systems staff from each organisation. Wide variation in the size, funding, qualifications, and other resources available to each participating organisation made pro forma survey questionnaires impractical. For example, the CLC with a research staff of over twenty social anthropologists, and dedicated in-house information systems personnel, has a research jurisdiction of 700,000 km<sup>2</sup>, inclusive of a 48,000-person clientele. By comparison, SANTS maintains a research unit of just three social anthropologists and no in-house information systems personnel, yet maintains a research jurisdiction of 1,000,000 km<sup>2</sup> inclusive of a 34,000-person clientele.

Outputs of the survey include detailed accounts of research information and data management practices in each organisation, together with a preliminary meta-register of Indigenous population information and data assets maintained by participating organisations. As a result of the consultation process, four of the six participating organisations have committed to engage in the establishment of a national collaborative federation of Indigenous-led research organisations, centered on a variable combination of shared research platform infrastructure, training, governance and mutual cooperation led by the IDN.

In addition to commencing formal implementation of this collaborative federation, the IDN has launched a research database platform environment hosted on a University of Melbourne resource, and has commenced deployment of two research database platforms for three of the six organisations surveyed. The IDN has commenced scoping for the subsequent integration of these platforms and transfer to a Nectar Cloud resource (see below).

As a consequence of the survey's promotion, the IDN was also approached by a number of other Indigenous controlled research organisations outside of the land council and native title sector, which were not originally involved in the survey. These organisations expressed an interest in collaborating in the development of joint research platforms (see below).

Prompted by these approaches, the IDN opted to coordinate a meeting of leading national ICROs in on 27 November 2019 in Shepparton, Victoria, jointly hosted by the regional Victorian ICRO, the Algabonyah Data and Research Unit, of the Kaiela Institute<sup>1</sup>. In addition to leading ICROs, key Commonwealth and Victorian state government agencies and departments, and universities were invited to participate in order to focus coordination of opportunities and challenges currently facing ICROs in their efforts to develop individual and collective data governance capacities. ICROs, government departments and agencies, and universities that attended the meeting included:

- The National Indigenous Australians Agency
- The Australian Productivity Commission
- The Australian Institute of Health and Welfare
- The Australian Institute of Family Studies
- The Australian Bureau of Statistics
- The Victorian Department of Health and Human Services
- The Centre for Victorian Data Linkage
- Births Deaths and Marriages Victoria
- Generation Victoria (GenV) – Murdoch Children’s Research Institute
- Empowered Communities
- Coalition of Peaks, National Aboriginal Community Controlled Health Organisation (NACCHO)
- The Kimberley Land Council
- Barang Regional Alliance
- Aboriginal & Torres Strait Islander Community Health Service Brisbane
- National Indigenous Research and Knowledges Network
- Queensland University of Technology
- Melbourne Data Analytics Platform
- The University of Melbourne

This meeting resulted in the formation by meeting attendees of the Indigenous Data Governance Working Group, including Terms of Reference, and an undertaking by members to convene ongoing biannual meetings. The objectives of the IDG Working Group were consequently formalised as a) addressing the individual and collective data governance needs of ICROs distributed across Australia, and; b) providing recommendations to Commonwealth, state and territory governments and to the university sector in relation to Indigenous data governance best practice.

## FAIR

The promotion of the FAIR Guiding Principles was measurably advanced among Indigenous controlled research organisation by this survey. At the commencement of the survey participating organisations expressed varying degrees of awareness that their activities involved the holding, controlling, and processing of data. By contrast, all organisations exhibited a uniform awareness that their research activities generated information assets, typically in the form of discrete long-form reports. A major outcome of the survey was an extension of this awareness to recognise the relationship between information and data, and that enhancing the findability, accessibility, interoperability, and reproducibility of research data represented a significant prospective benefit to ICROs.

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<sup>1</sup> <https://www.kaielainstitute.org.au/>

Of the six organisations surveyed, varying attitudes were expressed regarding the value of research data as either an asset for the parent organisations, or for research purposes beyond the specific projects for which data may have been tacitly collected or generated. By contrast, all organisations recognised that the information they explicitly collect and generate is valuable to the Indigenous individuals and communities that it documents. At the conclusion of the survey all organisations recognised that although they do not necessarily intend to collect or generate data, the information that they collect and generate nevertheless encodes data.

Data governance concepts underpinning the FAIR Guiding Principles were unfamiliar to all six organisations surveyed. Despite this lack of familiarity, the range of attitudes expressed by staff indicate a broadly shared awareness regarding three key data attributes, fundamental to future development of FAIR-oriented governance frameworks. This awareness included:

- A recognition that data is distinct from information, being a product of the coordinated processing of information;
- A recognition of the persistence of both information and data over time, beyond the lifespan of discrete research projects for which that data was originally collected or generated, and as therefore comprising an asset over which some form of ongoing governance should be implemented;
- A recognition of distinctions between data ownership, custodianship, and stewardship, as roles attributable variously to Indigenous individuals and communities, research organisations, and government.

Interest among surveyed organisations in developing data governance frameworks consistent with the FAIR Guiding Principles varied. The strongest corollary for this variable interest appeared to be the prevalence of mistrust within the operational culture of each organisation. Organisations that exhibited higher levels of trust among research staff also appeared to exhibit a higher level of interest in adopting governance instruments consistent with the FAIR Guiding Principles, while organisations that exhibited more rigid and hierarchical organisational structures appeared to exhibit less interest. Of most concern among larger organisations was the prospect of data derived from their research information assets being made findable and accessible. Interoperability and reproducibility were of lesser concern to these organisations.

At the inaugural 27 November 2019 Indigenous Data Governance Working Meeting described above, the Terms of Reference adopted by the Group included a commitment to implementing the FAIR Guiding Principles into all advice provided by the group. As a consequence, any intra- and inter-organisational data governance frameworks developed on the basis of that advice will make explicit reference to the fair Guiding Principles.

## Collaboration and coverage

The six organisations surveyed exercise service delivery responsibilities in five state and territory government jurisdictions, including New South Wales, Victoria, South Australia, the

southern part of the Northern Territory, and the Kimberley region of far-north Western Australia. Cumulatively the Indigenous populations comprising their nominal clientele total 362,000 individuals (see Table 2 below).

*Table 2: Survey participant coverage by representative Indigenous population*

Organisation	Region	Indigenous Population Represented
NTSCORP	NSW (all)	216,000 <sup>2</sup>
FNLRS	VIC (all)	48,000 <sup>3</sup>
SANTS	SA (all)	34,000 <sup>4</sup>
APY	SA (far northwest region)	2,300 <sup>5</sup>
CLC	NT (southern region)	48,000 <sup>6</sup>
KLC	WA (far northeast region)	14,300 <sup>7</sup>
<b>Total</b>		<b>362,600</b>

Of the six organisations surveyed, only NTSCORP and APY currently maintain integrated models for the Indigenous populations that fall within their service delivery jurisdictions. Although neither of these two organisations was in a position to provide precise numbers at the time of the survey, the NTSCORP dataset is known to comprise approximately 100,000 uniquely identified individuals, while the APY dataset is known to document approximately 2,500 individuals. Both datasets have been developed into integrated population models.

None of the other four organisations surveyed currently maintains either integrated population models, or integrated registers of datasets from which a reliable estimate of data asset scale could be drawn. Anecdotal estimates of aggregate dataset scale provided by SANTS were 10,000 individuals, and 7,500-10,000 for FNLRS. Neither CLC nor KLC were able to provide independent estimates. However, taking into account the comparatively long operational histories of these latter two organisations, the IDN estimates that the aggregate size of a prospectively integrated dataset for each organisation would range from 30%-50% of the living Indigenous clientele populations in each case, i.e. ~5,000-8,000 individuals for the KLC and 16,000-24,000 individuals for the CLC.

<sup>2</sup> ABS 2016 Census, New South Wales:

[https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/1](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/1)

<sup>3</sup> ABS 2016 Census, Victoria:

[https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/2?opendocument](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/2?opendocument)

<sup>4</sup> ABS 2016 Census, South Australia:

[https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/CED701?opendocument](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/CED701?opendocument)

<sup>5</sup> ABS 2016 Census, APY

Lands: [https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/406021138](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/406021138)

<sup>6</sup> ABS 2016 Census, Lingjari:

[https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/CED701?opendocument](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/CED701?opendocument)

<sup>7</sup> ABS 2016 Census, Kimberley:

[https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/51001?opendocument](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/51001?opendocument)

Negotiations with these survey participants on the adoption of a common set of guidelines for the modelling and integration of their datasets are ongoing. It is expected that over the next 12-24 months, agreements will be implemented that allow for the development of internal dataset registers, which will in turn form the basis for further data asset development. The convening of the inaugural Indigenous Data Governance Working Group meeting in Shepparton on 27 November 2019, described above, was a major stepping-stone towards this end.

In the course of the survey, Empowered Communities<sup>8</sup> and the National Aboriginal Community Controlled Health Organisation (NACCHO)<sup>9</sup>, which together represent national networks of over 150 ICROs, both entered into negotiation of independent memorandums of understanding with the IDN geared towards the development of a national Indigenous data governance framework. The MoU between Empowered communities and the IDN was finalized on 12 December 2019, while the MoU with NACCHO is expected to be finalized in the new year.

## Sustainability

As a consequence of the survey, the IDN has initiated negotiations for discrete collaborative research agreements with four of the six organisations surveyed, including the FNLRS, SANTS, CLC and KLC. Due to the operational cultures prevalent across the sector, as described above, these negotiations are necessarily delicate, and require careful moderation in order to succeed.

Of the four organisations listed above, SANTS have committed in principle to immediate engagement with the IDN to coordinate digitisation and transferal of their existing research data onto a research database platform developed by the IDN and hosted on a University of Melbourne resource. FNLRS and KLC have indicated interest in adoption of similarly designed and hosted platforms for their purposes.

The current use of compatible platforms by NTSCORP and APY means that these organisations are well-placed to either or both transfer database hosting services to a University of Melbourne resource and/or develop remote linkages between their platforms in their current hosting environments and platforms hosted at the University of Melbourne. APY has indicated that they are amenable to hosting their database at the University of Melbourne. Preparations are underway for this to take place in the near future. FNLRS, SANTS, CLC and KLC all concurred on the benefit of adopting a common set of data governance principles and guidelines for the holding, controlling and processing of Indigenous data.

As noted above, negotiations initiated during the survey will continue and be expanded to include other Indigenous-led research organisations that were either not approached or did not respond to an invitation to participate. A number of non-ALC and non-NTSP Indigenous controlled research organisations have already expressed interest in joining the Indigenous

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<sup>8</sup> <https://empoweredcommunities.org.au/>

<sup>9</sup> <https://www.naccho.org.au/>

Data Network as a result of this survey. In particular, the Strehlow Centre in Alice Springs NT<sup>10</sup>, Binarri-Binyja Yarrowoo (BBY) in Kununurra WA<sup>11</sup>, and Inner Sydney Empowered Communities NSW<sup>12</sup>, have approached the IDN to inquire about assistance in the development of integrated data assets.

While prospective partnerships with a number of these individual organisations have subsequently been captured by the higher level MoUs already finalised or under negotiation with representative bodies such as Empowered Communities and NACCHO, others continue to negotiate at regional and local levels. It is anticipated that for individual galleries, libraries, and museums such as the Strehlow Centre, and for individual university research organisations, comparable higher level MoUs with respective representative entities such as the Australian Museums and Galleries Association (MaGA)<sup>13</sup> and the Group of Eight (Go8)<sup>14</sup> may be more practical.

## Learnings

The key learning from this survey is that Indigenous controlled research organisations are broadly anxious of government intentions with regard to data findability and accessibility. This anxiety presents the greatest impediment both to the transformation of the research collections held by some of the largest organisations, and to their collaboration as part of a national federation.

Smaller organisations surveyed appeared exhibit higher levels of openness to external collaboration, including with government, as well as trust among staff internally. By contrast, larger organisations exhibited lower levels of openness to collaboration, and also appeared to struggle with internal cultures of mistrust among staff, exacerbated by more rigid administrative hierarchies.

A further corollary of organisational size was technological expertise, although this was countered by the effects of organisational culture. While larger organisations employed dedicated information systems officers, the experience and expertise of these expert staff appeared to be constrained by organisational culture and structure.

Conversely, smaller organisations that lacked dedicated information systems staff exhibited higher levels of agility and more thoughtful attitudes towards how their research might be developed into mature data assets. This indicates that inter-organisational collaboration would likely confer a net benefit to all organisations in terms of information and data governance culture.

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<sup>10</sup> <https://www.magnt.net.au/strehlow-research-centre>

<sup>11</sup> <https://www.bby.org.au/>

<sup>12</sup> <https://isec.org.au/>

<sup>13</sup> <https://www.amaga.org.au/>

<sup>14</sup> <https://go8.edu.au/>

Independently of the variation among organisations, all recognised the importance of protecting the research information assets over which they maintain either one or a combination of ownership, custodianship, and/or stewardship, in the interests of living and future generations of Indigenous individuals and communities comprising their clientele.

In order to promote the normalisation of best-practice information and data governance among Indigenous-led research organisations, the ARDC is encouraged to sponsor dedicated forums, and to host panels and present at relevant conferences and symposia. Conferences sponsored by higher level representative entities, such the National Native Title Council<sup>15</sup> in the case of NTSPs, would be particularly suited to this purpose.

## Impact

The primary impact of this survey has been initiation of the development of a nationwide federation of Indigenous controlled research organisations, starting with those operating in the land council and native title sector, and consequently expanding to include other Indigenous controlled organisations in adjacent sectors.

The secondary impact of the survey has been the preliminary development of a number of research database platforms for use by survey participants, hosted at the University of Melbourne. It is anticipated that these platforms, which are intended to operate on a pilot basis, will be adapted into an integrated platform, planned for deployment over the coming three years, and potentially hosted on a Nectar Cloud resource. The IDN has already submitted an expression of interest to the ARDC as part of the Platforms and Services funding program and has been accepted to progress to the RFP stage for the adaptation of these pilot platforms into a single, integrated national Indigenous research platform.

The key beneficiaries of this survey will be Indigenous communities and individuals who, together with their ancestors, are documented in the information and data assets maintained by survey participant organisations. As a result of the transformation in data governance initiated among these organisation by this survey, Indigenous communities and individuals will gain enhanced access to the information and data assets derived from themselves and their ancestors. The commencement of negotiations among participant organisations to develop mechanisms for integration of their population datasets and models will also deliver benefits to Indigenous communities and individuals via consequent improvements in data integrity, accuracy and scale.

Although not an intended objective of the survey, the convention of the inaugural Indigenous Data Governance Working Group in Shepparton on 27 November 2019, which emerged from feedback generated by the survey, was a significant outcome. This meeting achieved a major impact in the national ecosystem of ICROs and non-Indigenous data owners, custodians and stewards, and was made possible by funding provided the ARDC.

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<sup>15</sup> <https://nntc.com.au/>



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