



T H I R R I L I

National Coronial Information
Service Suicide Data Analysis for
Non-Indigenous Australians in the
Northern Territory, 2003 to 2018

Final Report

4 September 2019

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1. INTRODUCTION

PURPOSE

Thirrili Ltd (Thirrili) engaged Healthcare Management Advisors (HMA) to undertake an analysis of National Coronial Information Service (NCIS) data to support the continuing development of Thirrili's service model for the NICRS (National Indigenous Critical Response Service). This analysis aimed to:

- inform the rollout of NICRS services throughout Australia
- determine appropriate staffing needs based on revealed demand in particular regions, and
- serve as a source of information for Thirrili staff to refer to when preparing presentations or articles.

This paper presents the findings from the NCIS analysis for non-Indigenous Australians in the Northern Territory. The first section (introduction) describes the characteristics of the data and the approach to analysis.

STRUCTURE OF ANALYSIS

The format of analysis used to analyse non-Indigenous suicides in the Northern Territory is described below.

Time period

With the exception of relative analysis (suicides per 100,000), data has been presented over a 15-year time period, between 2003 and 2018, to enable trends over time to be captured. The relative analysis was limited to the period between 2006 and 2018, to eliminate variation in Australian Bureau of Statistics (ABS) population figures prior to this period.

Macro-level analysis

Macro-level analysis is provided in absolute and relative (suicides per 100,000) terms to demonstrate the incidence of suicide for non-Indigenous Australians in the Northern Territory. Suicides for non-Indigenous Australians in all other jurisdictions are also included to enable a baseline comparison.

Micro-level analysis

Micro-level analysis was conducted across three geographic sub-regions for the Northern Territory. These comprise:

- **Remoteness area:** suicides occurring in different remoteness areas within a jurisdiction (based on the Australian Statistical Geography Standard (ASGS) ¹)
- **Local Government Area (LGA):** An LGA is an administrative division of a country that a local government is responsible for. The size of an LGA varies by jurisdiction but it is generally a subdivision of a state, province, division, or territory².
- **Statistical Area 3 (SA3):** SA3s are designed to provide a regional breakdown of Australia. They generally have a population of between 30,000 and 130,000 people. The size of an SA3 differs by location²:

¹ ASGS- <https://www.abs.gov.au/websitedbs/D3310114.nsf/home/remoteness+structure>

² Abs.gov.au

- In regional areas, SA3s represent the area serviced by regional cities that have a population over 20,000 people.
- In the major cities, SA3s represent the area serviced by a major transport and commercial hub. They often closely align to large urban LGAs.
- In outer regional and remote areas, SA3s represent areas that are widely recognised as having a distinct identity and similar social and economic characteristics.

For each of these geographical regions, non-Indigenous suicides have been compared against Aboriginal and Torres Strait Islander suicides.

DATA QUALIFICATIONS

Lag in time between suicide and reporting

The data presented in this document covers the period from 1 January 2003 to 31 December 2018. By observing the data for each jurisdiction, it is clear that there is a reduction in reported suicides in 2018 compared with previous years. However, it is likely that this reduction is due to a 'lag' in the time that a suicide is reported, and a coroner's case is opened and thus entered into the NCIS. Because of this factor, it is important to note that some suicides may have occurred in 2018 that have not yet been entered into the system.

HMA has begun preliminary work on estimating the size of the 'lag'.

Difference between NCIS and ABS estimates

In September 2018 the Australian Bureau of Statistics (ABS) published statistics on the leading causes of death for Aboriginal and Torres Strait Islander people in 2017. The ABS statistics are sourced from death registrations systems administered by the various state and territory Registries of Births, Death and Marriages, which include deaths certified by medical practitioners and those supplied as a result of a coronial investigation. The estimates of the number of Aboriginal and Torres Strait Islander person deaths differ between each source.

For example, according to the ABS, in 2017 there were 43 Aboriginal and Torres Strait Islander people suicides in New South Wales. This number is more than double the estimated number of Aboriginal and Torres Strait Islander people suicides in 2017, according to the NCIS (which, at this stage, reports 21 deaths due to suicide), suggesting that actual levels of Aboriginal and Torres Strait Islander people suicide may be higher than those reported in the NCIS. The ABS data did not describe causes of death at a geographic level below jurisdiction, so the analysis was unable to explore whether geographic factors may be causing this difference. More work is required in this area.

The remainder of this report provides detailed analysis of the NCIS data at a jurisdiction level.

Aggregation of identifiable data

It is important to ensure that data presented throughout this report remains non-identifiable. To ensure that individual suicides are not identifiable in each jurisdiction, HMA has used the *ABS Confidentiality Series: Managing the Risk of Disclosure: Treating Microdata*³ and adhered to the National Health and Medical Research Council's *National Statement on Ethical Conduct in Human Research*⁴.

HMA has not reported on any identifiable characteristics in relation to the quantitative suicide data presented in this paper (i.e. personal characteristics). Additionally, HMA has not specified an exact number of suicides where fewer than three suicides were recorded in a particular geographic region for Aboriginal and Torres Strait Islander or non-Indigenous people. For regions with one or two suicides in the analysis period, the

³ Australian Bureau of Statistics 2017, 1160.0- ABS Confidentiality Series: Managing the Risk of Disclosure: Treating Microdata

⁴ National Health and Medical Research Council 2018 - National Statement on Ethical Conduct in Human Research

region was aggregated with the next-largest region to create an 'other' category, thus decreasing the likelihood that these individuals could be identified. Where there were fewer than three suicides recorded in a particular year for Indigenous and non-Indigenous Australians, this analysis reports the figure as less than three and provides data at a macro level (absolute total or a range value across all years).

2. ANALYSIS OF NORTHERN TERRITORY NON-INDIGENOUS SUICIDES

NON-INDIGENOUS SUICIDE IN NORTHERN TERRITORY: MACRO VIEW

Between 2003 and 2018 there were 394 non-Indigenous suicides in the Northern Territory, with the highest number recorded in 2007 (33), followed by 2014 (32) and 2015 (31). The fewest number of suicides occurred in 2006 (15), followed by 2003 (18) and 2010 (18). Table 1 demonstrates the number of non-Indigenous suicides by year over this period.

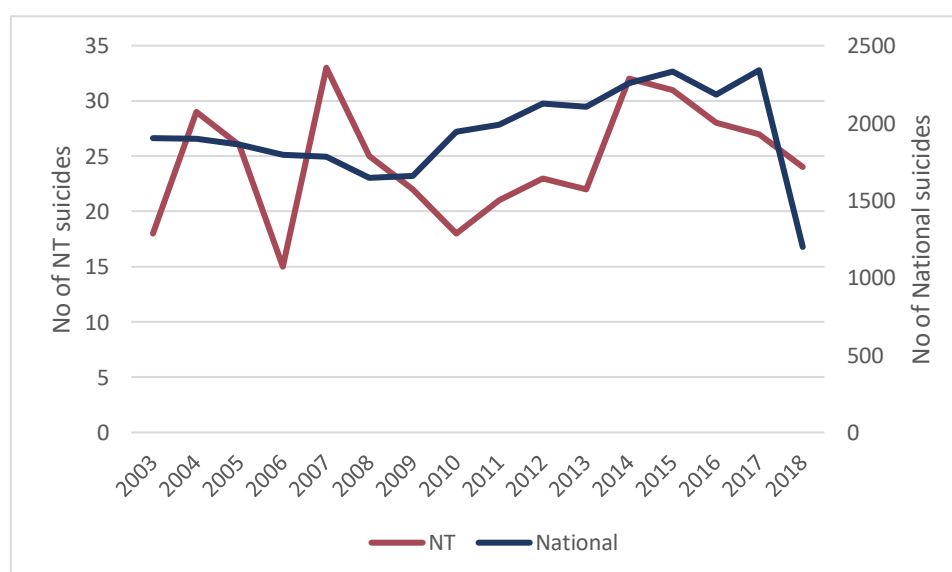
TABLE 1: NUMBER OF NON-INDIGENOUS SUICIDES, NORTHERN TERRITORY 2003–2018

Indigenous origin	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
NT Non-Indigenous	18	29	26	15	33	25	22	18	21	23	22	32	31	28	27	24	394

Non-Indigenous suicide rates Northern Territory

Figure 1 below compares the trend in non-Indigenous suicides in the Northern Territory and all other jurisdictions between 2013 and 2018. Over this time period, it can be observed that larger variation exists in the number of suicides occurring in the Northern Territory when compared to the rest of Australia. Additionally, Northern Territory non-Indigenous suicides rose sharply between 2006 and 2007. Over this period the total number of suicides across the rest of the country declined. More recently, the number of non-Indigenous suicides in the Northern Territory have decreased each year between 2014 and 2018.

FIGURE 1 NATIONAL AND NORTHERN TERRITORY NON-INDIGENOUS SUICIDES BETWEEN 2003 AND 2018



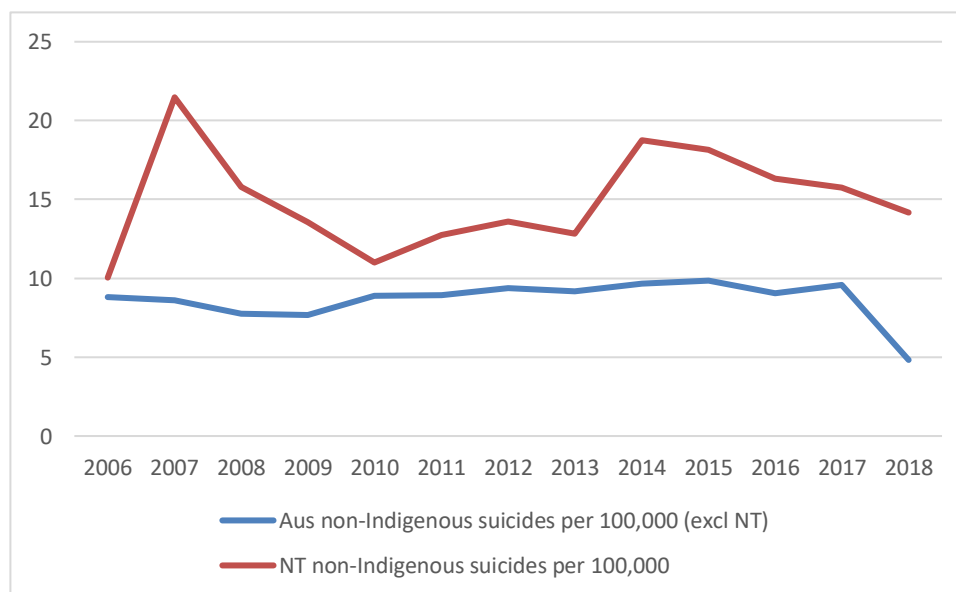
The rates of Northern Territory non-Indigenous suicides and the rest of Australia between 2006 and 2018 are presented in Table 2 below. The highest rates of suicide per 100,000 occurred in 2007 (21.48) and 2014 (18.75), while the lowest suicide rates were recorded in 2006 (7.11) and 2010 (11.02). Across the remainder of Australia, the highest suicide rates were reported in 2015 (9.85) and 2014 (9.68) and the lowest rates were observed in 2018 (4.81)⁵ and 2009 (7.68).

TABLE 2 COMPARISON OF NON-INDIGENOUS SUICIDE RATES PER 100,000 IN THE NT COMPARED TO ALL OTHER JURISDICTIONS

Indigenous origin	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NT non-Indigenous suicides per 100,000	10.04	21.48	15.79	13.56	11.02	12.75	13.6	12.83	18.75	18.16	16.31	15.76	14.18
Rest of Australia non-Indigenous suicides per 100,000	8.81	8.6	7.76	7.68	8.88	8.95	9.39	9.16	9.68	9.85	9.07	9.57	4.82

Figure 2 below provides a graphed comparison of the non-Indigenous suicide rates in the Northern Territory compared with the rest of Australia. It shows the high degree of variability in non-Indigenous suicide rates in the Northern Territory compared to all other jurisdictions. It also demonstrates that suicide rates for this population group were higher in the Northern Territory for all years between 2006 to 2018 when compared to the rest of the country.

FIGURE 2 GRAPH OF NON-INDIGENOUS SUICIDE RATES PER 100,000 IN THE NT COMPARED TO ALL OTHER JURISDICTIONS



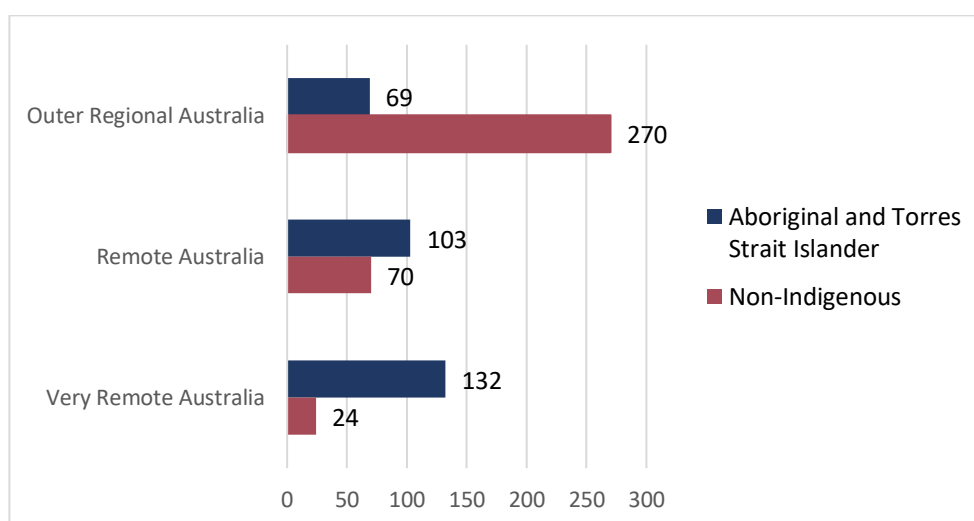
⁵ It should be noted that the rate of suicide for 2018 is significantly lower than all other years and should be treated as an outlier. A possible reason for this discrepancy may be due to unresolved cases and a lag in data reporting.

Remoteness area

From 2003 to 2018, a majority of non-Indigenous suicides in the Northern Territory occurred in Outer Regional Australia (270), followed by Remote Australia (70) and Very Remote Australia (24). In contrast, the most Aboriginal and Torres Strait Islander suicides in the Northern Territory occurred in Very Remote Australia (132), followed by Remote (103) and Outer Regional Australia (69). The number of Aboriginal and Torres Strait Islander people suicides reflected the population distribution in the Northern Territory, where no area is classified as Major Cities of Australia.

The remoteness areas for 48 suicides were not provided in the data and have been excluded from the analysis described above. **FIGURE 3** shows the total number of Aboriginal and Torres Strait Islander people suicides by remoteness area in the Northern Territory from 2003 to 2018.

FIGURE 3: ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE AND NON-INDIGENOUS SUICIDES BY REMOTENESS AREA, NORTHERN TERRITORY 2003–2018



NON-INDIGENOUS SUICIDES IN THE NORTHERN TERRITORY: MICRO VIEW

Local Government Area

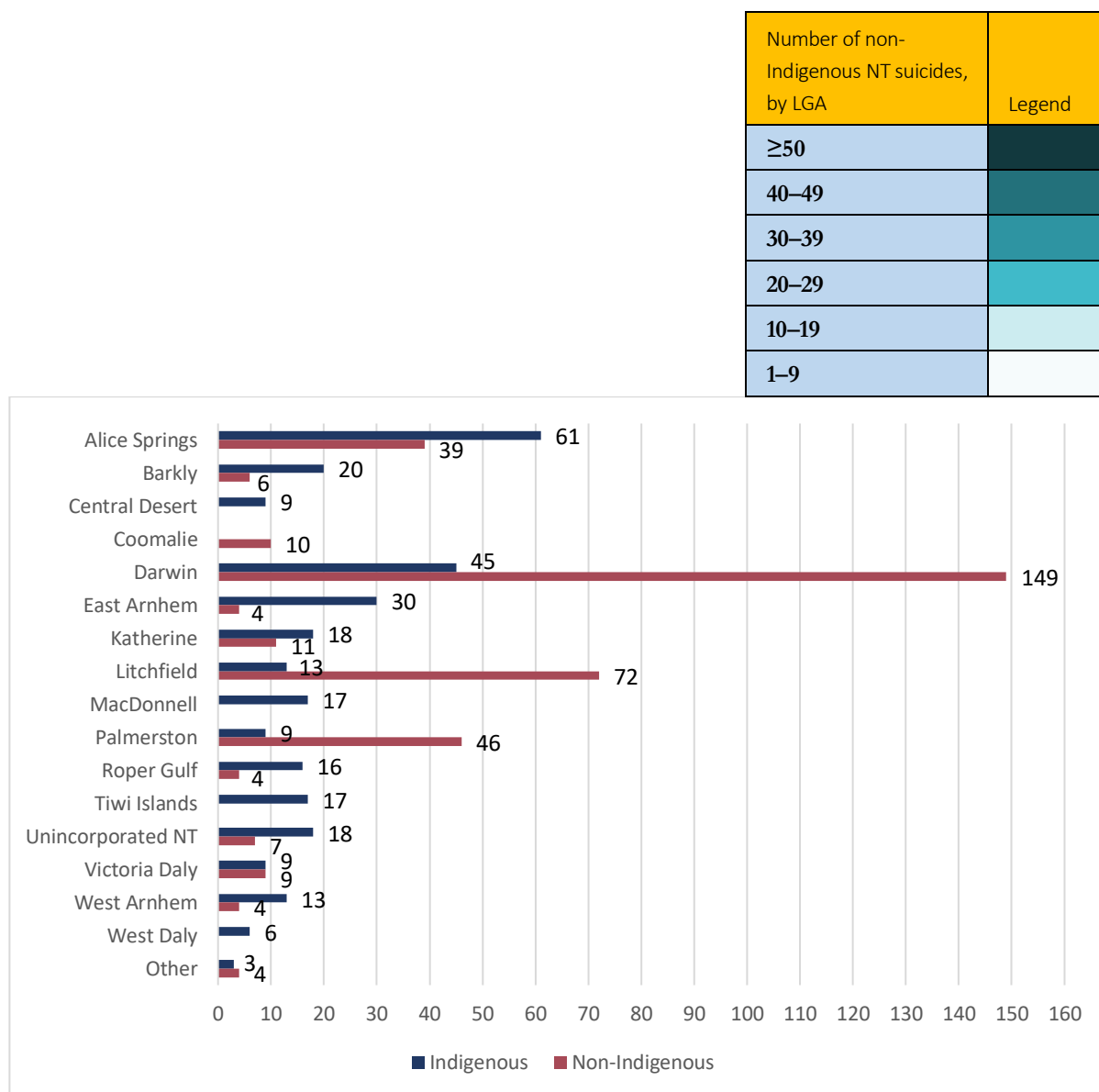
From 2003 to 2018 non-Indigenous suicides were reported across 15 of the 18 LGAs, with multiple suicides occurring in 13 LGAs. Darwin (169), Litchfield (72), Palmerston (46) and Alice Springs (39) experienced the highest number of non-Indigenous suicides over the fifteen-year period. In contrast:

- Aboriginal and Torres Strait Islander suicides occurred in 17 LGAs throughout the Northern Territory.
- The largest number of Aboriginal and Torres Strait suicides occurred in the Alice Springs LGA (61), followed by Darwin (45) and East Arnhem LGA (30).

Seventy-seven non-Indigenous suicides were not classified according to LGA and these have been excluded from the analysis for this geographic level. **FIGURE 4** shows the total number of Aboriginal and Torres Strait Islander people and non-Indigenous suicides, by LGA in the Northern Territory from 2003 to 2018 and

FIGURE 5 and Figure 6 show this data represented on a map in number ranges.

FIGURE 4: ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE SUICIDES BY LGA, NORTHERN TERRITORY 2003–2018



- Note: Other LGAs consists of four LGAs

FIGURE 5 NORTHERN TERRITORY LGAs WITH NON-INDIGENOUS SUICIDES REPRESENTED IN NUMBER RANGES

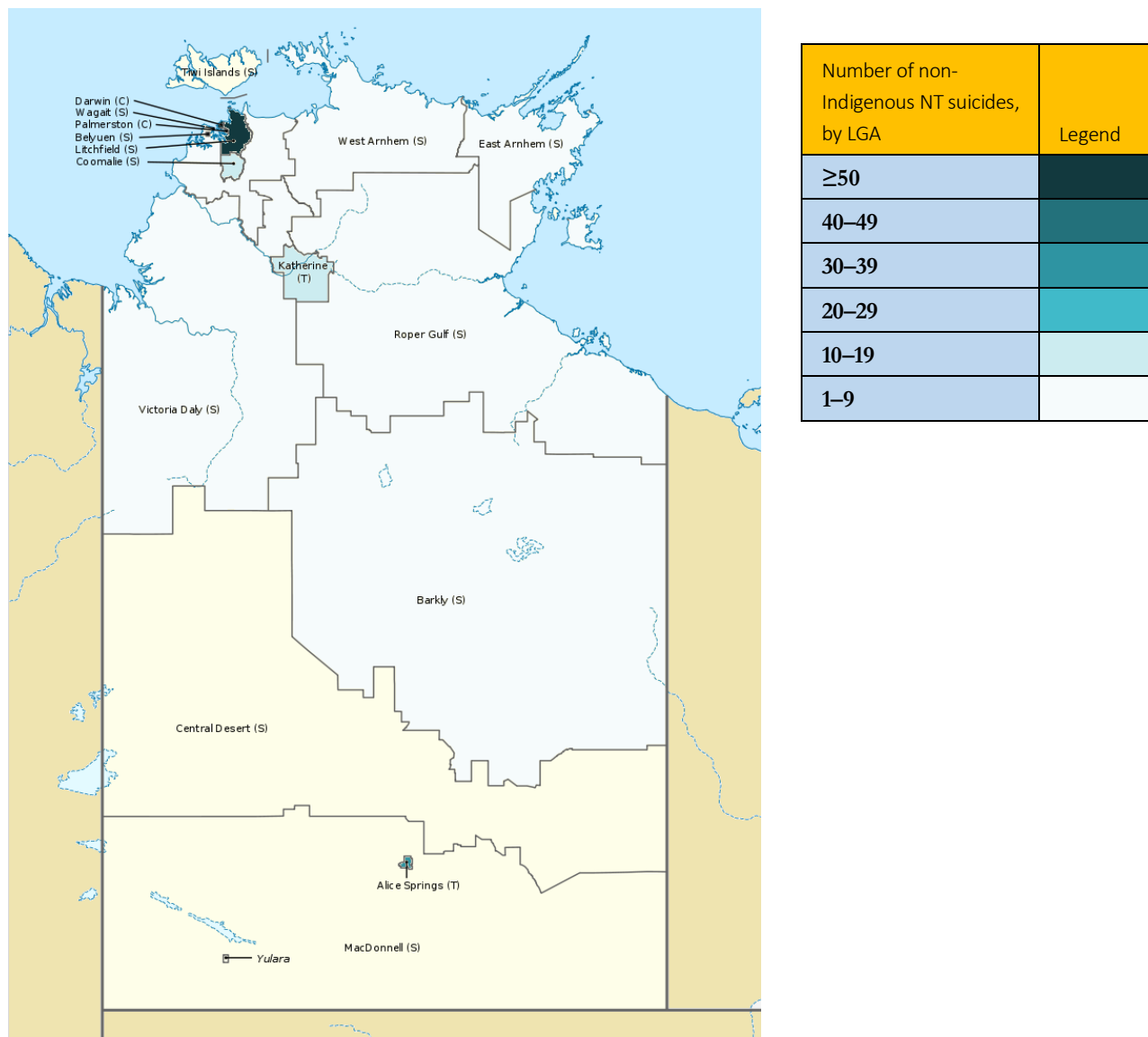
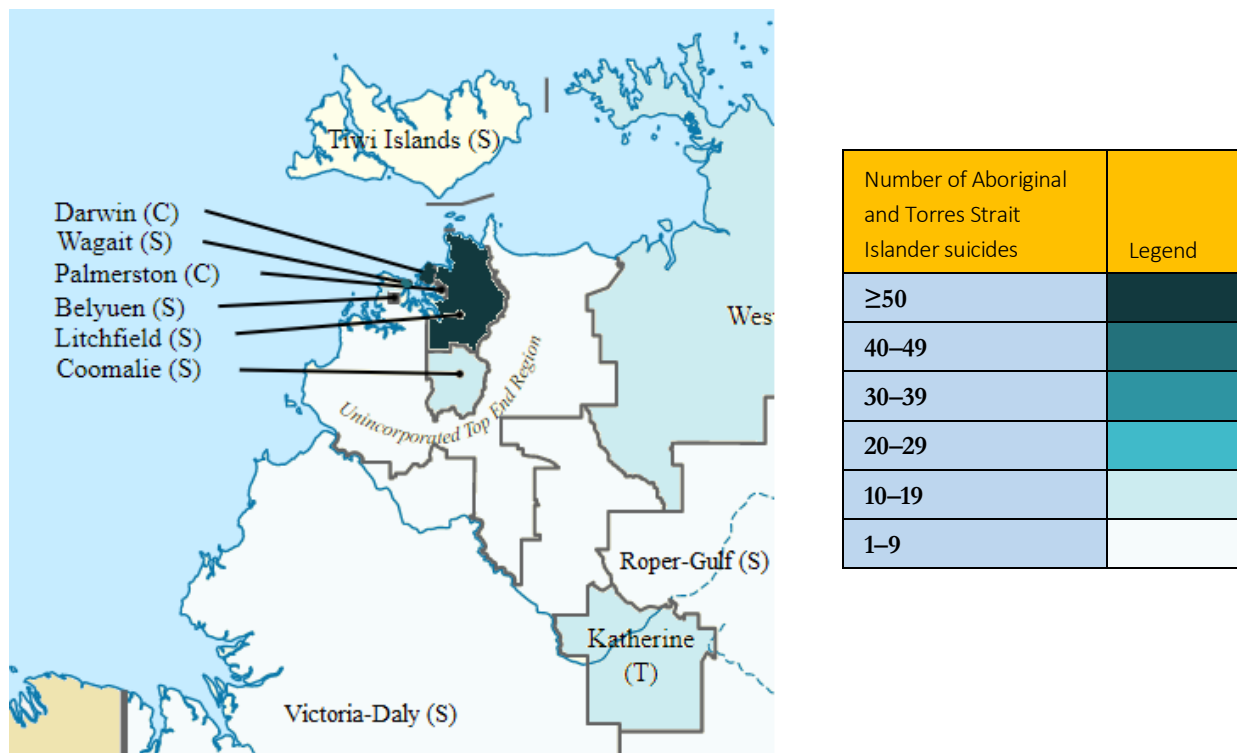


FIGURE 6 NORTHERN TERRITORY LGAs WITH NON-INDIGENOUS SUICIDES REPRESENTED IN NUMBER RANGES



Statistical Area Level 3

In the Northern Territory non-Indigenous suicides were reported in all nine SA3s between 2003 and 2015. The highest numbers were reported in Darwin Suburbs (92), Litchfield (72) and Darwin City (60). In comparison, Aboriginal and Torres Strait Islander suicides occurred across eight of the nine SA3s (Hobart – South and West was the exception). The largest number of suicides occurred in Alice Springs (90), followed by East Arnhem (44) and Daly-Tiwi- West Arnhem (43). The fewest suicides occurred in Palmerston (9).

Seventy-seven suicides were unclassified according to SA3 and are not presented as part of this analysis. **FIGURE 7** shows the total number of Aboriginal and Torres Strait Islander suicides, by SA3 in the Northern Territory from 2003 to 2018 and **FIGURE 8** shows this data represented on a map in number ranges.

FIGURE 7: ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE SUICIDES, BY SA3, NORTHERN TERRITORY 2003–2018

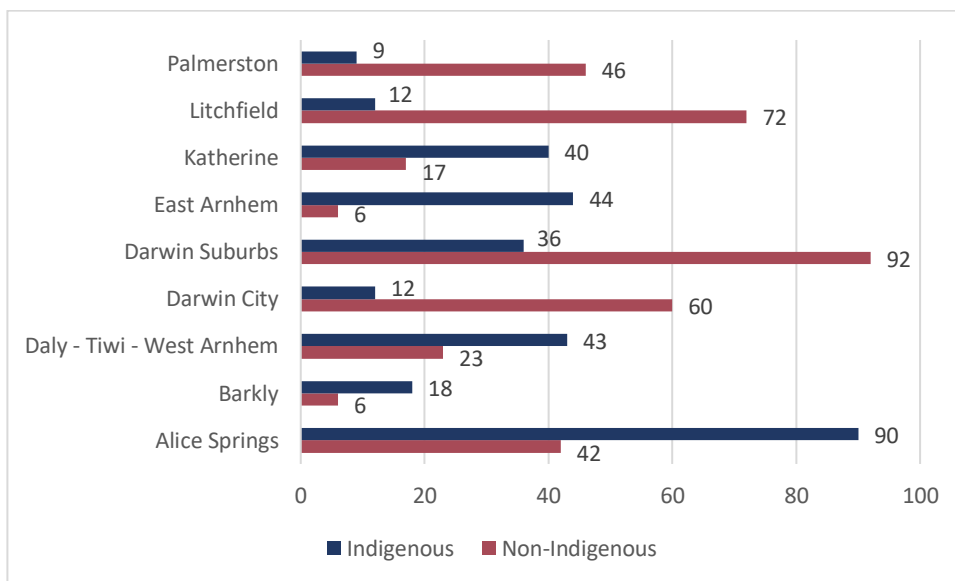
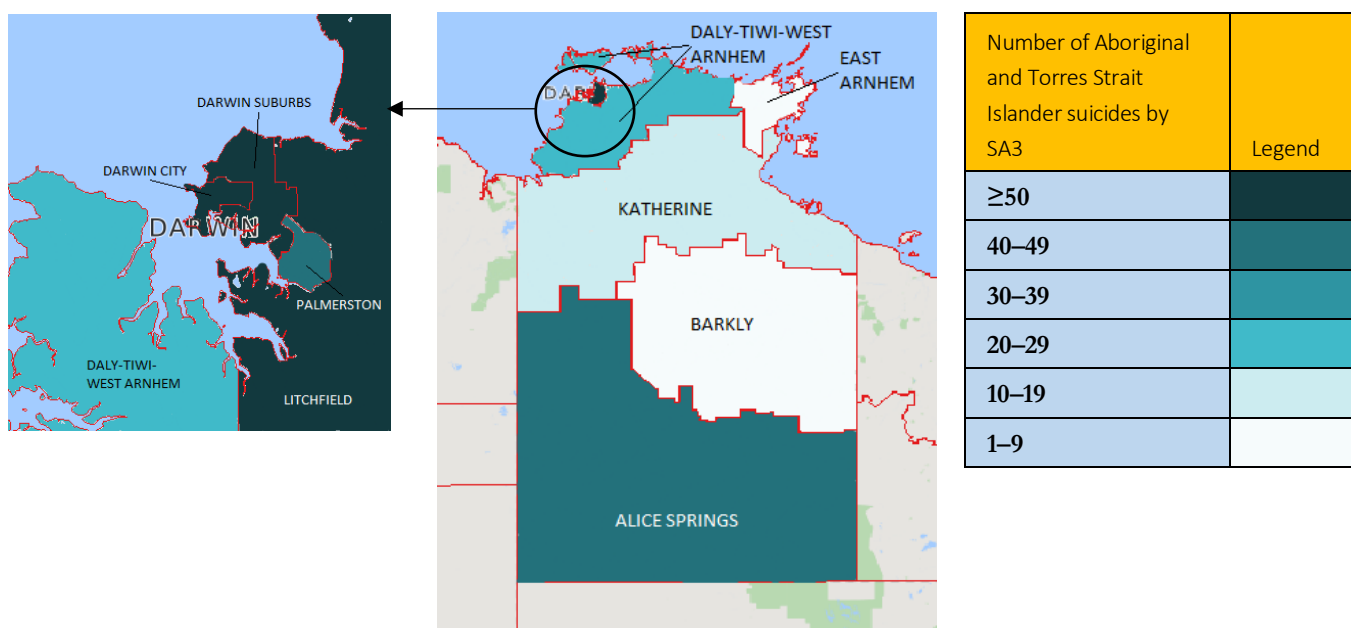


FIGURE 8 NORTHERN TERRITORY SA3s, NON INDIGENOUS SUICIDES REPRESENTED BY NUMBER RANGE



3. CONCLUSION



This paper has provided a description of suicides for the Northern Territory from 2003 to 2018, based on data from the NCIS. This information can be used to guide future NICRS service development and allow benchmarking of current service rates compared to revealed rates of suicide throughout Australia.