

Appendix 1 (as supplied by the authors): Detailed description of methods

1. Moving from the sample frame to the study sample

We excluded cases if the coronial investigation was still open at the date of extraction (20 June 2010) or was closed but the coroners' finding was not available in the NCIS. In New South Wales, the proportion of cases recorded in the NCIS as still open (18.4% of all cases in the study window), or as closed but without findings appended (35.1% of inquests), was substantially higher than other jurisdictions. We therefore excluded all New South Wales cases from the sample. Two other states had a substantial proportion of missing findings, but the problem was confined to a few years, so we dropped only those years (2000–01 in South Australia, 2001–05 in Queensland).

In addition, approximately two thirds of deaths reported to Australian coroners result from natural causes and one third result from external causes.¹ Inquests are held in only a small proportion of natural death cases—~1%, compared to ~13% among external case deaths—and these cases may involve unusual circumstances. Therefore, we elected to focus the analysis on predictors of inquests among external cause deaths only. We conducted a sensitivity analysis to test whether inclusion of natural deaths made a difference to the main findings, the results of which are described in the section 4, below.

2. External-cause death categories

The nine categories were: intentional self-harm; transport; poisoning; drowning, choking or suffocation; falls, assault; complications of medical care; other, not known. These categories replicated four NCIS categories (intentional self-harm, assault, complications of medical care, other); collapsed two NCIS categories (legal intervention, operations of war) with only a few cases into the "other" category; and collapsed three similar NCIS categories (undetermined, still enquiring, unlikely to be known) into a "not known" category. The last NCIS category, "unintentional injury", captures the most cases and is a heterogeneous group. Using information from elsewhere in the NCIS about the object and mechanism involved, we classified unintentional injury cases into four further categories: transport; poisoning; drowning, choking, or suffocation; and falls. Any deaths from the NCIS unintentional injury category that did not fall into these specific categories were placed in the "other" category.

3. SEIFA measure of socio-economic status

The Australian Bureau of Statistics' SEIFA index uses census data to score geographic areas by levels of socio-economic advantage and disadvantage.² We linked the residential postcode of deceased persons in our sample to the corresponding SEIFA score for each postcode. Deaths from 2000–2003 were linked to the 2001 index, and deaths from 2004–2007 were linked to the 2006 index.

4. Sensitivity Analyses

(i) *Inclusion of natural-cause deaths in the multivariate model:* This modification to the study sample had only modest effects on the main findings: the odds of discretionary inquests among children increased (OR 2.81; 95% CI 1.54–3.06) but the coefficients for the causes of death variable were essentially unchanged.

(ii) *Re-estimation of the multivariate model by jurisdiction:* The direction of the coefficients on key predictors (age and cause of death) was broadly consistent in models stratified according to the 5 states and territories, but the analysis was underpowered in states with relatively few cases. An analysis on a combined subsample of all cases from non-Victorian states showed the same set of key predictors as the main model, with the exception of transport as a cause of death, which was no longer significant.

(iii) *Respecification of multivariate analysis as conditional logistic regression model.* This sensitivity analysis was conducted on a subsample of cases from Victoria—specifically, cases finalised between 2000 and 2005. (Thus, this subsample constituted 21% of the full study sample.) We compared estimates obtained from the conditional logistic regression model (conditioned on coroner) with estimates obtained by analysing the

1. Studdert DM, Corder SM. Impact of coronial investigations on manner and cause of death determinations in Australia, 2000–2007. *Med J Aust* 2010; 192:444–47.

2. Pink B. Socio-Economic Indexes for Areas (SEIFA) – Technical Paper. Canberra: Australian Bureau of Statistics; 2008. <<http://www.abs.gov.au/ausstats/abs@.nsf/mf/2039.0.55.001>> (accessed May 2011)

subsample using the same model as was used in the main analysis. Only five estimates in the conditional model differed from the corresponding estimates in the unconditional model by more than 20%: the odds ratio for assault decreased from 0.23 to 0.14, the odds ratio for complications of medical care decreased from 8.74 to 6.65, the odds ratio for falls decreased from 0.60 to 0.48; the odds ratio for deaths caused by an unclassified cause decreased from 2.26 to 1.71, and the odds for deaths reported in 2004–05 decreased from 1.21 to 0.85.

5. Distinguishing Mandatory and Discretionary Inquests

We distinguished mandatory and discretionary inquests by reference to the coronial finding and, where necessary, the applicable state and territory legislation. In this section we describe the statutory arrangements for mandatory and discretionary inquests in each jurisdiction included in the study and give an indication of the classification process.

I NORTHERN TERRITORY

A *Inquest Status Described in Finding*

Most inquest findings in the Northern Territory describe whether or not the inquest is mandatory or discretionary, for instance:

Given that it was not a death in custody, this Inquest was held at my discretion pursuant to s. 15(2) of the Coroner's Act.

I have exercised my discretion to hold an inquest pursuant to section 15(1A) of the Act.

This means we did not usually need to refer to statute to determine if an inquest was mandatory or discretionary. But occasionally the coroner is silent on the jurisdiction under which the inquest is held; so, in these cases, we compared the circumstances of the death as described in the finding with the terms of the *Coroners Act* and other supporting Acts.

B *Legislation*

1 *The Principal Act*

Coroners' jurisdiction to hold inquests is set out in s 15 of the *Coroners Act 1993* (NT).

(a) *Mandatory Inquests*

The circumstances which require mandatory inquests are described in s 15(1). The coroner is required to hold an inquest if the deceased person was a 'person held in care or custody' immediately before their death, if the death was the result of injuries sustained in custody, or if the identity of the deceased is not known.

A person is 'in care' if they are in the CEO's care as described in the *Care and Protection of Children Act 1998* (NT). This includes foster children and children who are otherwise cared for by the Northern Territory government, on either a temporary or permanent basis.³

A person held 'in care' also includes people with a psychiatric illness detained in a hospital or temporarily removed from such detention under the *Mental Health and Related Services Act 1998* (NT). This includes involuntary patients who are detained in an approved treatment facility. This also includes patients who are apprehended under the authority of the Act because of the appearance of mental illness and the imminent prospect of harm either to themselves or to others.⁴ This section was only added by the *Mental Health and*

³ *Care and Protection of Children Act 2007* (NT), s 67, 46.

⁴ *Ibid* s 32A.

Related Services Amendment Act 2007 (NT) which commenced on 2 March 2009, after our period of interest. But such people would have been 'persons held in custody' in any case, although before 2 March 2009, the precise authority under which they were held was not clear. It does not include patients who are being treated in the community under Interim Community Management Orders⁵ or Community Management Orders.⁶

A person is 'in custody' if they are detained in the 'custody or control' of the police (either Territory or Federal), a prison officer or a sheriff. A person will also be in custody if they are detained in a prison or youth detention centre or if they are in the process of being taken into custody or escaping from police custody or a prison or youth detention centre.⁷

(b) *Discretionary Inquests*

The coroners' discretion to hold inquests is divided into two categories, there is an unrestrained discretion which permits a coroner to hold an inquest if 'they think fit'⁸ and they are specifically permitted to hold an inquest if the body is in the Northern Territory or the death appears to have occurred in the Northern Territory and the coroner suspects unlawful killing.⁹ The discretion to hold inquests into deaths that may be the result of 'unlawful killing' seems to be unnecessary in light of availability of a wide general discretion. In fact, the reason for the explicit description of this discretion is historical—as enacted in 1993, holding inquests into deaths that appeared to be the result of 'unlawful killings' was mandatory. They were only made discretionary in 1998 and a specific discretion was most likely created to avoid ambiguity in the amendment.¹⁰ The reasons given for this amendment in the Second Reading Speech are that this category of mandatory inquest often involved 'unnecessary duplication of effort' as unlawful killings are usually the subject of considerable police investigation.

C *Legislative History*

An inquest is mandatory or discretionary on the basis of the legislation in force at the time. Therefore we needed to look at the legislative history. We are only interested in amendments to s 15 and s 12 that commenced after June 2000. There have been no amendments to the s 15 in this period, but there have been three to s 12. We examined each in turn.

1 *The Coroners Amendment Act 2004 (NT), s 3*

This amendment was (according to its second reading speech) intended to expand the definition of 'person held in custody' to include people held under immigration detention or similar. The amendment was recommended by the coroner after the death of an Indonesian fisherman under immigration detention in February 2003. That death was investigated by inquest but it was, at that time, a discretionary inquest. This amendment commenced on 27 October 2004.

2 *The Youth Justice (Consequential Amendments) Act 2005 (NT), s 5*

This amendment corrected references to detention centres approved under the *Juvenile Justice Act* (NT) and replaced them with references to the *Youth Justice Act* (NT) in the definition of 'person held in custody'. It does not appear to have altered that definition in any significant way.

⁵ *Mental Health and Related Services Act 1998* (NT) s 45.

⁶ *Ibid.*

⁷ *Coroners Act 1993* (NT) s 12

⁸ *Ibid* s 15(2)

⁹ *Ibid* s 15(1A).

¹⁰ *Coroners Amendment Act 1998* (NT) s 8.

D *The Care and Protection of Children Act 2007 (NT), s 337*

This amendment managed the transition from the *Community Welfare Act (NT)* to the *Care and Protection of Children Act 2007 (NT)*. The amendment does not change the definition of 'person held in custody' in a substantial way.

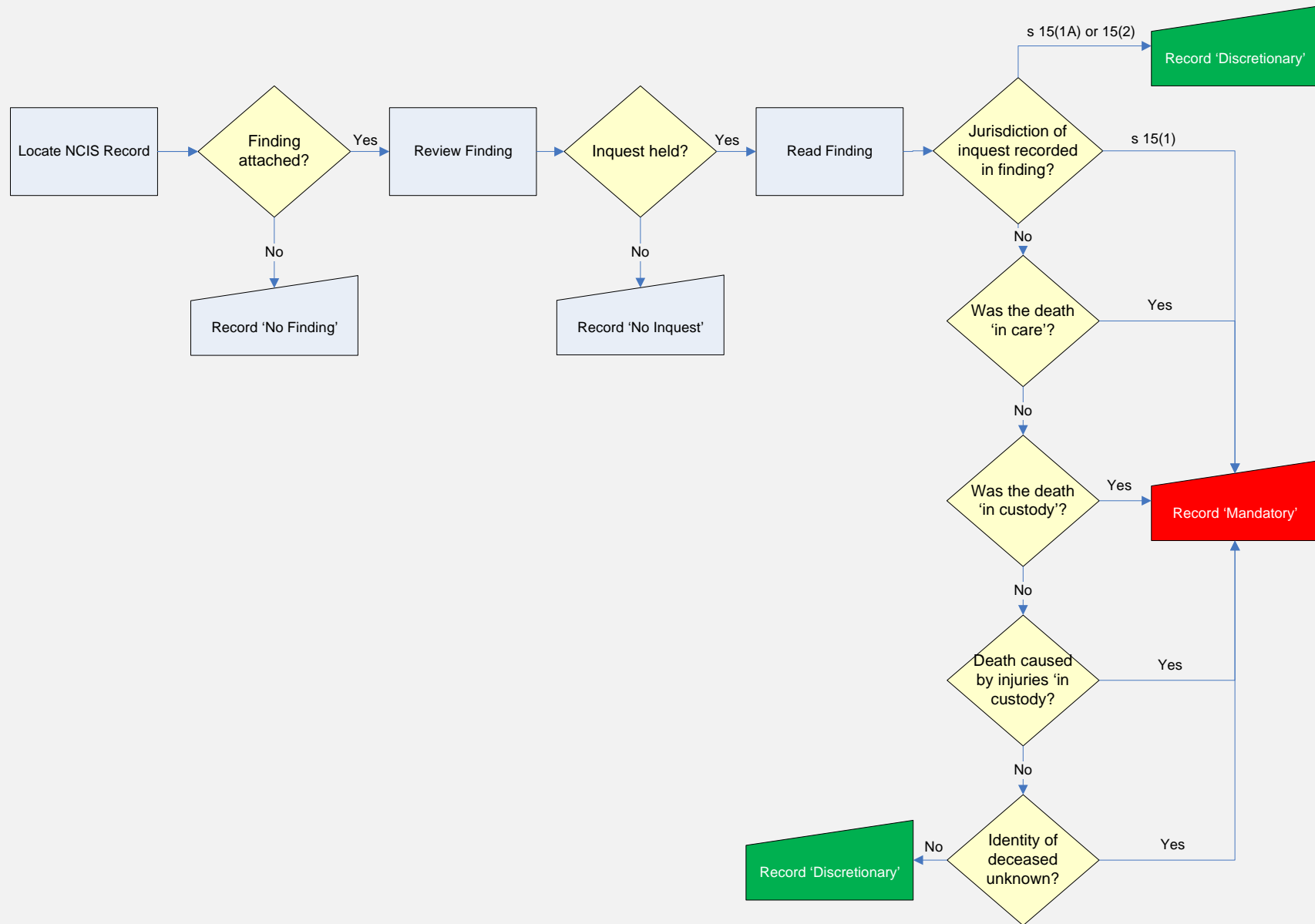
E *Summary of Legislative History*

The only significant amendment to the NT legislation which commenced within the period of interest was the incorporation of people under Commonwealth custody within the definition of 'persons held in custody' which commenced on 27 October 2004.

F *Flowchart Describing the Classification Process in the Northern Territory*

The general principles of the classification process can be summarised in the form of a flowchart.

Northern Territory



II TASMANIA

Tasmanian coroners, in contrast to those in the Northern Territory, do not usually record in the finding whether the inquest was a mandatory or discretionary, so we must refer to the legislation to make the determination.

A Legislation

1 Principal Legislation

In Tasmania, coroners' jurisdiction to hold inquests into reported deaths is granted by s 24 of the *Coroners Act 1995* (Tas).

(a) Mandatory Inquests

An inquest is mandatory if the coroner 'suspects homicide', if the deceased was a 'person held in care' or 'in custody' immediately before their death or if the deceased was attempting to escape from 'custody' or 'care' or being taken into 'custody' or 'care' by the police or other authorised person.

'Persons held in care' is defined in s 3 of the Act. They include foster children and other children and young people in government custody or guardianship as described in the *Children, Young Persons and Their Families Act 1997* (Tas) and people detained under the *Mental Health Act 1996* (Tas), who are people detained because of a mental illness in an approved hospital or designated secure mental health unit.¹¹

'Person held in custody' means anyone in the custody of the police or correctional officers or other government officials authorised to detain people for the purposes of law enforcement or to manage a psychiatric illness. It also includes people detained in prisons, in police stations and in detention centres.

(b) Discretionary Inquests

The discretion to hold inquests is only afforded to the chief magistrate¹² but this power can be delegated.¹³

B Legislative History

In Tasmania it is easiest to examine the legislative history by looking at the development of each section in turn. We have only included a discussion of sections which have changed during the period of this study.

1 Amendments to Coroners' Jurisdiction to Hold Inquests

(a) Section 24(1)(d)

This section was amended by the *Mental Health Amendment (Secure Mental Health Unit) Act 2005* (Tas) to include not just escapes and attempted escapes from detention centres and police custody but also escapes from the custody of a secure mental health unit or custody under a court order for the purposes of taking that person to or from court. This amendment commenced on 20 February 2006.

(b) Section 24(1)(e)

The language of this section was updated by *Statute Law Revision Act 2003* (Tas) to use the term correctional officer rather than prison officer.

¹¹ *Mental Health Act 1996* (Tas) s 3, 24.

¹² *Coroners Act 1995* (Tas) s 24(2)

¹³ *Ibid* s 9.

This section was expanded to include 'authorised officer or prescribed person, within the meaning of section 31 of the Criminal Justice (Mental Impairment) Act 1999,' by the *Mental Health Amendment (Secure Mental Health Unit) Act 2005* (Tas) which commenced on 20 February 2006.

(c) *Section 24(1)(ea)*

This section was added by the *Coroners Amendment Act 2005* (Tas), which commenced on 15 Dec 2005, so workplace deaths have only been mandatory since 15 December 2005.

C *Amendments to Definitions of 'in Care' and 'in Custody'*

(a) *'person held in care'*

This section was amended to include people detained in secure mental health units rather than just approved hospitals, this was the result an update in the language used in the *Mental Health Act* and does not seem to effect a substantial change in law. The change commenced on 20 February 2006.

(b) *"person held in custody"*

The definition of 'person held in custody' has been amended twice. It was expanded to include people detained in police stations by the *Police Services (Consequential Amendments) Act 2003* (Tas) which commenced on 1 January 2004. The *Mental Health Amendment (Secure Mental Health Unit) Act 2005* (Tas) which commenced on 20 February 2006 also expanded the category of people who can take people into 'custody' for the purposes of the act to include people responsible for detaining people under the *Criminal Justice (Mental Impairment) Act 1999* and people responsible for secure mental health units, or transporting someone to or from a court.

D *Overview of Legislative History*

The only revision that appears to have significantly changed the operation of the act was the inclusion of workplace deaths into the category of mandatory inquests which commenced on 15 December 2005.

III VICTORIA

The Victorian *Coroners Act 1985* was replaced on 1 November 2009 by a new *Coroners Act*. Our focus is on the prior legislation as only inquests that commenced after 1 November 2009, attract the operation of the new act.

A *Legislation*

1 *Principal Legislation*

Coroners' authority to hold mandatory and discretionary inquests is described in s 17 of the *Coroners Act 1985*.

(a) *Mandatory Inquests*

A coroner must hold an inquest if they 'suspect homicide', if the deceased was a person held 'in care' immediately before their death, if the identity of the deceased is not known, or the Attorney General or State Coroner directs.¹⁴

'Person held in care' is defined in section 3 of the Act and includes person under the control or care of the Secretary of the Department of Human Services, this includes foster children and people with diminished capacity who are cared for by the Department of Human Services. It also includes people in the custody of a member of the police force or the Secretary of the Department of Justice or the Chief Commissioner of

¹⁴ *Coroners Act 1985* (Vic) s 17(1).

Victoria Police, (who, in general, are people in police or prison custody) and patients in 'assessment or treatment' under the *Alcoholics and Drug-dependent Persons Act 1968* (Vic) or patients in an approved mental health services as defined in the *Mental Health Act 1986* (Vic) (who are people with a mental illness who are detained in a psychiatric hospital or who are subject to Community Treatment Orders).

(b) Discretionary Inquests

The discretion to hold inquests is described in s 17(2); it permits a coroner to hold an inquest into any death they have jurisdiction to investigate if they 'believe it is desirable'.

B *Legislative History*

1 *Amendments to Coroners' Jurisdiction to Hold Inquests*

The jurisdiction to hold inquests has been amended only once in 1999, which predates the period of our study.

C *Definition of 'person held in care'*

This definition has been amended several times, but only once during the period of our study by the *Corrections (Custody) Act 2001* (Vic) which commenced on 1 July 2001. These amendments of the Coroners Act definitions were a consequence of reforms to the arrangements by which prisoners were transferred and escorted between places of detention and courts. It clarified and updated the language used to describe police and protective services custody in the *Coroners Act* but it does not appear to make any substantial change in the meaning of the section.

D *Overview of Legislative History*

There have not been any changes which created substantial differences in the requirements for mandatory and discretionary inquests.

IV QUEENSLAND

Coroners' powers and responsibilities in Queensland are described in the *Coroners Act 2003* (Qld). Although this Act was only effective from 1 May 2003, and our sample includes deaths from July 2000, we excluded the years 2000•2005 in Queensland because of finding inaccessibility, so it is not necessary to consider the preceding act.

A *Legislation*

1 *Principal Legislation*

Coroners' jurisdiction to hold inquests is described in s 27 of the *Coroners Act 2003* (Qld) and provides for both mandatory and discretionary inquests.

(a) Mandatory Inquests

A coroner must hold an inquest into a 'death in custody', a death 'in care' that 'raises issues about the deceased person's care' or a death occurring in the course of police operations¹⁵ or if directed to do so by the Attorney General.¹⁶

A person is taken to be in custody if they were detained by a police officer or any other authorised person under arrest or under a court order or under the authority of any act except the *Mental Health Act 2000*

¹⁵ *Coroners Act 2003* (Qld) s 27(1)(a), s 8(3)(h)

¹⁶ *Ibid* s 27(1)(b).

(Qld) or the *Education (General Provisions) Act 2006* (Qld).¹⁷ Deaths in custody are defined, somewhat tortuously to include both deaths occurring in custody and deaths occurring while the deceased was escaping or trying to escape from custody or trying to avoid being taken into custody.¹⁸

A person is in care if they are living in disability accommodation provided by the state government or they are detained or temporarily removed from detention under the *Mental Health Act 2000* (Qld) or they are a foster child or a child otherwise cared for or subject to the attention of the state government.

(b) Discretionary Inquests

In Queensland Coroners are permitted to hold inquests into any reportable death if they believe it would be 'in the public interest'; in making this determination they may consider whether an inquest can help to prevent future deaths in similar circumstances or any guidelines made by the State Coroner.¹⁹

B *Legislative History*

The section describing a coroners' jurisdiction was not amended between 2000•2009 but the definition of 'death in custody' has been amended twice, by the *Justice and Other Legislation Amendment Act 2004* (Qld) and by the *Corrective Services Act 2006* (Qld). These acts only updated the language and references of the *Coroners Act*, (including changing references to the *Corrective Services Act 2000* to the *Corrective Services Act 2006*).

The definition of 'death in care' was subject to four amendments. It was amended by the *Child Safety Legislation Amendment Act 2004* (Qld), the *Child Safety Legislation Amendment Act 2004* (Qld), the *Disability Services Act 2006* (Qld) and by the *Corrective Services Act 2006* (Qld). None of these amendments appear to have changed the substance of the definition.

V SOUTH AUSTRALIA

A *Legislation*

1 *Principal Legislation*

Coroners' jurisdiction to hold inquests is described in s 21 of the *Coroners Act 2003* (SA). We also referred to the *Coroners Act 1975* which was in force until 1 July 2005, which describes coroners' jurisdiction to hold inquests in s 14.

(a) Mandatory Inquests

Under the *Coroners Act 2003* (SA) an inquest is mandatory only if the death was in custody.²⁰ This includes all deaths while the deceased person was detained or the cause of death occurred while the person was detained in South Australia under any act or law including home detention and including a person who is in the custody of an escort but absent from their place of detention or people escaping or attempting to escape from such detention. It also includes deaths that occur while a person is being apprehended by any authorised person within South Australia and people evading such apprehension.²¹

The definition under the *Coroners Act 1975* (SA) is very similar. An inquest is mandatory if the person was in detained in custody in South Australia under any act or law at the time death occurred or at the time the injury which caused the death occurred.²²

(b) Discretionary Inquests

¹⁷ Ibid s 10(2).

¹⁸ Ibid s 10(1).

¹⁹ Ibid s 28(2).

²⁰ *Coroners Act 2003* (SA) s 21.

²¹ Ibid s 3.

²² *Coroners Act 1975* (SA) s 12(1)(da).

Under the *Coroners Act 2003 (SA)* the state coroner has jurisdiction to hold an inquest into any reportable death if it appears to be necessary or desirable.²³ An identical jurisdiction is granted under the 1975 Act.²⁴

B *Legislative History*

There have been no amendments to the sections of the Coroners Acts describing mandatory and discretionary inquests, except for the replacement of the 1975 Act by the 2003 Act which commenced in 1 July 2005.

²³ *Coroners Act 2003 (SA)* s 21(1).

²⁴ *Coroners Act 1975 (SA)* s 14(1).