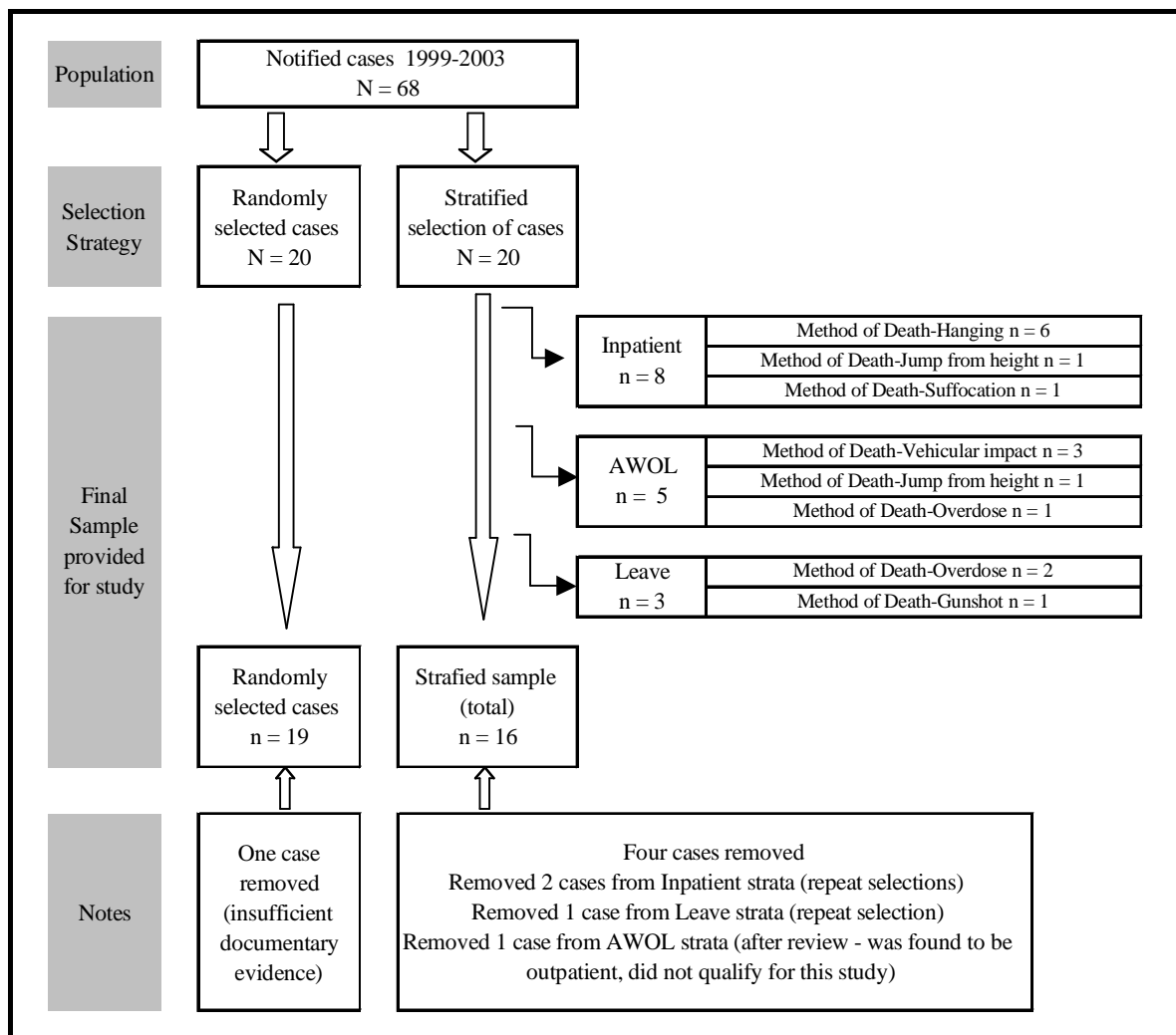


APPENDIX 2

Tables and Figures

Figure 1: Sampling strategy and final sample selection



Preliminary review revealed that some cases did not accurately reflect the sample selection criteria. For example, one person (Case 2235) had been discharged while AWOL and committed suicide 12 days after discharge. Another person (Case 1813) was also found to be a doubtful qualifier case for this sample, as he too was discharged from care before the suicide incident (but only two hours before the incident occurred, which happened on hospital premises). Four cases were ostensibly medical admissions, not mental health patients, and as such were not subject to the usual guidelines and protocols of care delivery. (Cases 1096, 1864, 986 and 1964). The six (6) cases were left in the sample because the reviewers considered that issues of discharge decision-making and judgment, as well as multi-specialty care issues would be worthy of further examination.

Table 1: Differences in patient status between notification data and after study results

Case Number	Notification data and selection strategy	After study finding
950	Leave strata	AWOL
1107	Leave strata	AWOL
1734	Inpatient strata	Leave
1813	Random (inpatient)	Discharged
1827	Inpatient strata	AWOL
1854	Leave strata	AWOL
2003	AWOL strata	Leave
2042	AWOL strata	Leave
2080	Leave strata	AWOL
2235	AWOL strata	Discharged

Table 2 shows the samples and their characteristics and composition, based on four (4) variables: gender, status, method of death, and principal diagnoses. These variables and values were taken from the notification data.

ANOVA: analysis of variance between each sample (population n=68, whole sample n=35 and random sample n=19):

Gender: F=0.634, p=0.532-not significant

Status: F=0.027, p=0.973-not significant

Method of death: F=1.031, p=0.360-not significant

Principal diagnosis: F=1.850, p=0.162-not significant

	Population (all cases)	Whole sample (collapsed across strata)	Randomly selected portion of study sample
N =	68	35	19
Gender			
n Male	48	28	14
%	70.6	80	73.7
n Female	19	7	5
%	27.9	20	26.3
n Missing Info	1	0	0
%	1.5	0	0
N	68	35	19
%	100	100	100
Status			
n Inpatient	34	18	10
%	50	51.4	52.6
n A W O L	21	9	4
%	30.9	25.7	21.1
n Leave	13	8	5
%	19.1	22.9	26.3
N	68	35	19
%	100	100	100
Methods			
n Hanging	25	14	8
%	36.8	40	42.1
n Stabbing, cutting	2	2	2
%	2.9	5.7	10.5
n Overdose	13	7	4
%	19.1	20	21.1
n Jump from heights	9	4	2
%	13.2	11.4	10.5
n Suffocation	4	2	1
%	5.9	5.7	5.3
n Gunshot	1	1	
%	1.5	2.9	
n Vehicular impact	8	5	2
%	11.8	14.3	10.5
n Other	3		
%	4.4		
n Missing Info	3		
%	4.4		
N	68	35	19
%	100	100	100
Diagnosis			
n Schizophrenia	17	9	4
%	25	25.7	21
n Depression	10	3	2
%	14.7	8.6	10.5
n Psychosis	15	9	6
%	22.1	25.7	31.5
n Substance abuse	5	1	1
%	7.4	2.9	5.3
n Personality disorder	2	2	1
%	2.9	5.7	5.3
n Dysthymia	1	1	1
%	1.5	2.9	5.3
n Other psych prob	2	1	
%	2.9	2.9	
n Medical problem	9	6	3
%	13.2	17	15.8
n Poisoning	1	1	1
%	1.5	2.9	5.3
n Injury	2	2	
%	2.9	5.7	
n Missing Info	4		
%	5.9		
N	68	35	19
%	100	100	100

Table 2: Comparison of Sample Composition

A spreadsheet was constructed using data from medical records, police and Coroners' reports, matched for each patient by name and case number with high level notification data made available electronically by NSW Health. This spreadsheet was extended by adding variables so that information relevant to causal factors could be tabulated appropriately. The reviewers then read and analysed every record and extracted information pertinent to these variables, collecting and cross referencing information and entering narrative extracts into the database constructed for the study.

After collection, the reviewers examined the narrative study data and, where possible, coded this in a way suited to quantitative analysis. For example; coded values of 1, 2, 3 were assigned to narrative that expressed whether: yes, the patient expressed suicidal intent during admission (=1); no, the patient did not express any suicidal intent during admission (=2); unknown, the record is silent about whether the patient was asked about his/her suicidal intent (=3). These data were then transferred out of

MS[®] Excel and imported to a SPSS spreadsheet for a frequency analysis for each of the variables.

Table 3 shows the patients' histories in terms of previous episodes and attempts, whether the patients were known to police, and evidence of drug use/abuse.

Table 3: Patients' histories

Patient history	n	%
Previous episodes and attempts		
Previous history and previous attempts ¹	11	57.9
Previous history, no previous attempts ¹	4	21.1
Medical history only, no mental health history	3	15.8
No history available	1	5.3
Known to Police, DOCS, Courts		
Known to police	10	52.6
Known to DOCS/other community services	2	10.5
Known to two or more of the above groups	2	10.5
Not relevant	3	15.8
Not known	1	5.3
Missing information	1	5.3
Substance use/abuse		
Evidence of substance use/abuse	15	78.9
No evidence of substance use/abuse	2	10.5
Not relevant	1	5.3
Missing information	1	5.3

1. Refers to previous history of mental health episodes or care, and suicide attempts.

Table 4 shows the number and percentage of patients with each type of principal diagnosis and/or co-morbidity.

Table 4: Patients with each type of principal diagnosis and/or co-morbidity

Diagnoses	Principal diagnosis		Co-morbidity	
	n	%	n	%
Schizophrenia	4	21.1	nil	nil
Psychotic	2	10.5	1	5.3
Depression	6	31.6	4	21.1
Personality disorder	1	5.3	1	5.3
Dysthymia	1	5.3	1	5.3
Other psychological disorders	nil	nil	2	10.5
Manic	nil	nil	3	15.8
Poisoning	1	5.3	nil	nil
Injury/attempts	nil	nil	nil	nil
Substance abuse	1	5.3	2	10.5
Medical problem	3	15.8	nil	nil
No co-morbidities	na	na	5	26.3

Diagnoses were taken from notification database and grouped into major categories

Table 5: Types of risk factors exhibited by numbers of patients in this sample

Type of red flags	No. of patients demonstrating
Trigger event	6
Suicidal ideation	8
Substance abuse	6
Previous attempts	9
Known to police	4
Family support	1

Table 6: Frequency of risk factors

Number of red flags demonstrated per case	No. of patients
6	0
5	1
4	1
3	2
2	5
1	7
0	3

Table 7 reports the principal diagnoses of males and females by age groups. Nearly all patients under 50 had a principal diagnosis of a psychological disorder, with schizophrenia and psychoses the most common forms of psychological disorder for males in this sample. For the three males over 50 years of age, the most common principal diagnoses were medical problems.

Table 7: Principal diagnoses of males and females by age groups

Age groups and diagnoses	Males	Females
20 years and younger		
Schizophrenia	2	
21-30 years		
Psychotic	3	1
Dysthymia	1	
Poisoning	1	
31-40 years		
Schizophrenia	1	
Depression		1
Psychotic	1	
Personality disorder		1
41-50 years		
Depression	1	
Psychotic	1	
Schizophrenia		1
Substance abuse		1
50 years and older		
Medical problem	3	
TOTAL	14	5

Table 8 shows the principal diagnoses of patients with different histories by age groups. For all age groups under 50, most of the patients had both a previous history and previous suicide attempts, whereas for the patients over 50 who had a principal diagnosis of a medical problem, there was no evidence of previous mental health episodes or previous suicide attempts.

Table 8: Principal diagnoses of patients with different histories by age groups

Age groups and diagnoses	History and attempt	History, no attempt	Medical history only
20 years and younger			
Schizophrenia	1	1	
21–30 years			
Psychotic	2	2	
Dysthymia	1		
Poisoning	1		
31–40 years			
Schizophrenia	1		
Depression	1		
Psychotic		1	
Personality disorder	1		
41–50 years			
Schizophrenia	1		
Depression	1		
Psychotic Substance abuse	1		
Over 50 years			
Medical problem			3
No history available	1		
TOTAL	11	4	3

Table 9: How patients were brought into the facility

Brought in by	n	%
Self-admitted	5	26.3
Brought in by other services/family	3	15.8
Transferred from other services	2	10.5
Medical admission only	3	15.8
Poor handover information	1	5.3
Not relevant or missing data	5	26.3
TOTAL	19	100

(Note that information was incomplete, irrelevant or missing for some cases).

Table 10: How patients were brought into the facility by admission type

Brought in by	Scheduled	Involuntary	Voluntary/ Informal
Self-admitted	4		2
Brought in by other services/family	2	1	
Transferred from other services	2	1	
Incomplete information	1		2
TOTAL	9	2	4

Table 11: Resources available at admission

Resources	n	%
Appropriate and available resources	9	47.3
Available, but wait or transport necessary	3	15.8
Problem with availability of staff or seclusion	1	5.3
Medical or mental health admission problem	3	15.8
Inappropriate resources	1	5.3
Missing information	2	10.5
TOTAL	19	100

Table 12: Resources available at admission by admission type

Resources	Scheduled	Involuntary	Voluntary/ informal	Medical admission
Appropriate and available resources	4	3	2	
Available, but wait/transport necessary	2		1	
Problem with staff availability/seclusion	1			
Inappropriate resources	1			
Medical/mental health admission problem				3
Missing information	2			
TOTAL	8	3	3	3

Most restrictive admission status assumed for some of these patients

Table 13 shows that only 63% or so of patients had a protocol applied as part is risk assessment and 21% of patients appear not to have had a protocol applied.

Table 13: Assessment protocol

Assessment	n	%
Dr assessed, used protocol, high risk	9	47.3
Dr assessed, used protocol, medium risk	2	10.5
Dr assessed, used protocol, low risk	1	5.3
Dr assessed, no protocol, high risk	1	5.3
Dr assessed, no protocol, medium risk	1	5.3
Dr assessed, no protocol, no risk stated	2	10.5
Not relevant and missing information	3	15.8
TOTAL	19	100

Table 14 demonstrates that information was available only for 16 patients, of whom 2 scheduled patients had no protocol recorded while 4 patients were recorded as 'involuntary' and had no protocol recorded.

Table 14: Assessment protocol by admission type

Assessment protocol	Scheduled	Involuntary	Voluntary/informal
Dr assessed, used protocol, high risk	5	2	2
Dr assessed, used protocol, medium risk	1		1
Dr assessed, used protocol, low risk	1		
Dr assessed, no protocol, high risk			1
Dr assessed, no protocol, medium risk		1	
Dr assessed, no protocol, no risk stated	2		
Medical cases and missing information		3	
TOTAL (19)	9	3	4

NB. Medical admissions are not shown as the assessment protocol is largely irrelevant to this group.

Table 15: Principal diagnosis by admission type

Principal diagnosis	Scheduled	Involuntary	Voluntary/informal
Schizophrenia	3	1	
Depression		1	1
Psychotic	4	1	1
Substance abuse			1
Personality disorder	1		
Dysthymia			1
Poisoning	1		
TOTAL (16)	9	3	4

Three medical admissions are not shown as the principal diagnoses of these were not mental health issues

Table 16 shows that of 19 patients who died by suicide, 7 had either a suicide attempt or self-harm recorded.

Table 16: Reason for admission by admission type

Reason for Admission	Scheduled	Involuntary	Voluntary/informal	Medical admission
Suicide attempt	1			
Reported self harm-intent	6	2	3	
Transfer	1			
Police-homeless, criminality	1			
Illness, medical condition				3
Aggression, violence	1	1		
TOTAL (19)	10	3	3	3

Table 17: Patients' histories by admission type

Patients' history	Scheduled	Involuntary	Voluntary/informal	Medical admission
Previous history and previous attempts	7	2	2	
Previous history, no previous attempts	2	1	1	
No previous history available			1	
Medical history only				3
TOTAL (19)	9	3	4	3

Table 18 shows that in only 42% of patients who died by suicide was care management considered to be 'good'.

Table 18: Care management

Category	n	%
Good	8	42.1
Fair	2	10.5
Poor	2	10.5
Too early in episode to judge	2	10.5
Not relevant or missing data	5	26.4
TOTAL	19	100

NB: In 5 cases, documentary evidence did not support care management review

Table 19: Level of supervision by admission type

Level of supervision	Scheduled	Involuntary	Voluntary/ informal	Medical admission
High, constant (CL1), 1:1 nursing	1	2	1	
Medium-high (CL2) 15min obs	5			
Medium (CL3) 30min obs			1	
Medium-low (CL4) 60min obs, open ward	1			
Low (CL5) regular obs, open ward			1	1
Other	1	1		
Missing or irrelevant	4			
TOTAL (19)	8	3	3	1

These categories were not always clearly documented. Where necessary the reviewers have inferred observation frequency from nursing notes, from clinician recommendations or from other documentation sources (family, police or Coroner statements).

Table 20 shows that only 4 out of 13 who died by suicide had high levels of supervision, and that 4 out of 9 high risk patients had high level supervision.

Table 20: Level of supervision by risk assessment

Level of supervision	High risk	Medium risk	Low risk	Risk unstated
High, constant (CL1), 1:1 nursing	4			
Medium-high (CL2) 15min obs	4			1
Medium (CL3) 30min obs	1			
Medium-low (CL4) 60min obs, open ward				1
Low (CL5) regular obs, open ward		1		
Other	2			
Missing	2			
TOTAL (19)	9	1	0	2

NB: Medical admissions not shown as none of these patients received a mental health risk assessment.

Table 21: Patient status at the time of death

Patient status	n	%
AWOL	6	31.6
Discharged	1	5.3
On leave	3	15.8
Medical inpatient	2	10.5
Scheduled inpatient	7	36.8
TOTAL	19	100

Table 22 shows that of this group of 14 people who died by suicide, 5 were AWOL.

Table 22: Level of supervision by admission status at death

Level of supervision	AWOL	Discharged	Leave	Medical inpatient	Other inpatient
High, constant (CL1) 1:1 nursing	1				3
Medium-high (CL2) 15min obs	2		1		2
Medium (CL3) 30min obs	1				
Medium-low (CL4) 60min obs, open ward		1			
Low (CL5) regular obs, open ward	1			1	
Other			1		1
TOTAL	5	1	2	1	5

Table 23: Methods by place of occurrence: Hospital ¹

Method	Bathroom/ cupboard	Hospital room	Open area¹
Hanging	4	1	1
Jumping		1	1
Stabbing, cutting, slashing		1	
Suffocation		1	

¹ Includes lounge, courtyard etc

Table 24: Methods by place of occurrence: Outside of hospital

Method	Public place: park/garden	Public place: shops/road	Home
Hanging	1		1
Overdose	2		2
Vehicular impact (train, car, traffic)		2	
Jumping			
Stabbing, cutting, slashing	1		

Table 25: Means by place of occurrence: Hospital ¹

Means	Bathroom/ cupboard	Hospital room	Open area¹
Own cord, rope, string-hospital fixture	2		1
Hospital cord, rope, string-hospital fixture	1		
Heights (from hospital building)		1	1
Hospital knife		1	
Plastic bags (own)		1	
Other	1		

¹Includes lounge, courtyard etc.

Table 26: Means by place of occurrence: Outside of hospital

Means	Public place: park/garden	Public place: shops/road	Home
Drugs	2		1
Own knife	1		
Own cord, rope, string-own fixture			1
Other vehicle (train, traffic etc)		2	
Heights (outside hospital premises)	1		

Figure 2: Number of deaths by number of days after admission

