



Identifying priority areas of research to be addressed in the area of suicide prevention

Interim Report 3: Review of funded grants

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Chapter 1: Background

Consistent with the evidence-based approach of the National Suicide Prevention Strategy, the national Advisory Council for Suicide Prevention has recommended the development of a national suicide prevention research agenda and options to encourage further research in the field.

As a consequence, the Commonwealth Department of Health and Ageing has funded a consortium from the University of Melbourne (School of Population Health and ORYGEN Research Centre), Griffith University (Australian Institute for Suicide Research and Prevention) and Suicide Prevention Australia to conduct a project designed to identify future areas of research to be addressed in suicide prevention. The project aims to identify current priorities in suicide prevention, by reviewing relevant grants that have been funded and literature that has been published in recent times. It also aims to identify future priorities, by considering the gaps in existing research, and by consulting with stakeholders in the field via a web-based survey and a series of focus groups. A national research agenda will be recommended, based on the project's findings.

The findings from the review of published literature and the focus groups have been reported elsewhere.^{1 2} The current report outlines the findings from the review of funded grants. Specifically, it describes the grants that have been awarded for Australian suicide prevention research in the past seven years (i.e., the duration of the National Suicide Prevention Strategy). It does this with a view to informing questions related to current priorities.

Chapter 2: Method

Overview

The review critically examined the extent and nature of grants provided for suicide prevention research during the period 1999-2006 inclusive. It drew on the methodology employed by Jorm and colleagues in their examination of research priorities in mental health.^{3,4} The grant identification and retrieval process is described in more detail below, as is the way in which the grants were coded. The approach to data analysis is also described.

Defining suicide prevention research

Suicide prevention research was defined relatively broadly, drawing on the definition of mental health research used by Jorm and colleagues.^{3,4} Specifically, 'suicide prevention research' was defined as:

'... [involving] activities which collect new data or carry out some novel analysis of existing data, and which pertain to suicide prevention but may not necessarily involve evaluation of suicide prevention initiatives.'

For the purposes of the current review, research relating to euthanasia and suicide terrorism was excluded from the above definition.

Identification of information about funded grants

The review included grants provided for projects and fellowships by the following key Australian academic funding bodies: the National Health and Medical Research Council (NHMRC), the Australian Rotary Health Research Fund (ARHRF) and the Australian Research Council (ARC).

Each of these funding bodies was contacted by one of our team (JR), who explained the purpose of the review and requested the required information. The amount of information available varied according to the organisation, as did the format of this information:

- The NHMRC provided an Excel spreadsheet detailing all grants which they classified as pertaining to suicide prevention between 1999 and 2006.
- The ARHRF provided summaries of all grants funded between 2000 (the year they began funding mental health grants) and 2006 via their information booklet. These were examined by JR and all those that appeared to relate to suicide were identified. JR then contacted the ARHRF and requested hard copies of the summaries of these grants.
- The ARC provided an Excel spreadsheet of all grants which they classified as pertaining to suicide prevention between 2002 and 2006. Information regarding funded projects prior to 2002 was not available.

Table 1 provides a summary of the information available on each of the grants, broken down by funding body, and shows that the ARHRF and the ARC were able to provide additional information over and above that provided by the NHMRC, in the form of abstracts or summaries.

Table 1: Information available on suicide prevention research grants, by funding body

	NHMRC	ARHRF	ARC
Funding years	1999-2006	2000-2006	2002-2006
Grant type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Chief investigator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project/fellowship title	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Administering institution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
State/territory	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Start year	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Duration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Amount of funding per year	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total funding	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Abstract/summary		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Coding the grants

Consideration of definitional issues and preliminary inspection of the grants enabled a comprehensive framework to be developed within which the grants could be coded. This framework permitted each grant to be classified according to the following categories:

- Type of data;
- Research design;
- Research type;
- Suicidal behaviour;
- Suicide method;
- Target group; and
- Setting.

The sub-categories within each of these overarching categories are provided at Appendix A.

Each grant was examined and coded according to the above categories by JR, in consultation with the team leader (JP) wherever necessary.

Data management and analysis

Data provided by the funding bodies and generated during the course of coding the grants were entered into an Excel spreadsheet. Simple frequencies and percentages were calculated using the descriptive statistics capacity of Excel.

Chapter 3: Results

Overview

In total, 31 grants were provided for research into suicide or suicidal behaviour between 1999 and 2006. Twenty nine (94%) of these grants were for projects and two (6%) were for fellowships. Table 2 provides a breakdown of these grants by year of initial funding and funding body.

Table 2: Number of grants provided for research into suicide or suicidal behaviour, by year of initial funding and funding body

	NHMRC	ARHRF	ARC	Total
1999	3		0	3
2000	3			3
2001	7			7
2002	1		1	2
2003	2	1	2	5
2004	2			2
2005	1	1	3	5
2006	1	2	1	4
Total	20	4	7	31

The total funding for these grants during the observation period was \$5,159,594.^a Table 3 shows the relative distribution of this funding by year and funding body. Note that a the funding for projects of longer than one year duration is split across funding years, according to the way in which it was allocated by the funding body.

Table 3: Value of grants provided for research into suicide or suicidal behaviour, by year and funding body

	NHMRC	ARHRF	ARC	Total
1999	\$205,012			\$205,012
2000	\$398,101			\$398,101
2001	\$913,436			\$913,436
2002	\$540,923		\$100,000	\$640,923
2003	\$143,250	\$50,600	\$190,000	\$383,850
2004	\$442,125		\$195,000	\$637,125
2005	\$671,850	\$59,750	\$283,074	\$1,014,674
2006	\$593,675	\$104,000	\$268,798	\$966,473
Total	\$3,908,372	\$214,350	\$1,036,872	\$5,159,594

The total funding for suicide prevention research has fluctuated over the past seven years. The NHMRC has been the most significant funder of suicide prevention research, which is perhaps not surprising given its relative level of resources and its health and medical remit. Its investment has varied from year to year, with 2001 being the year

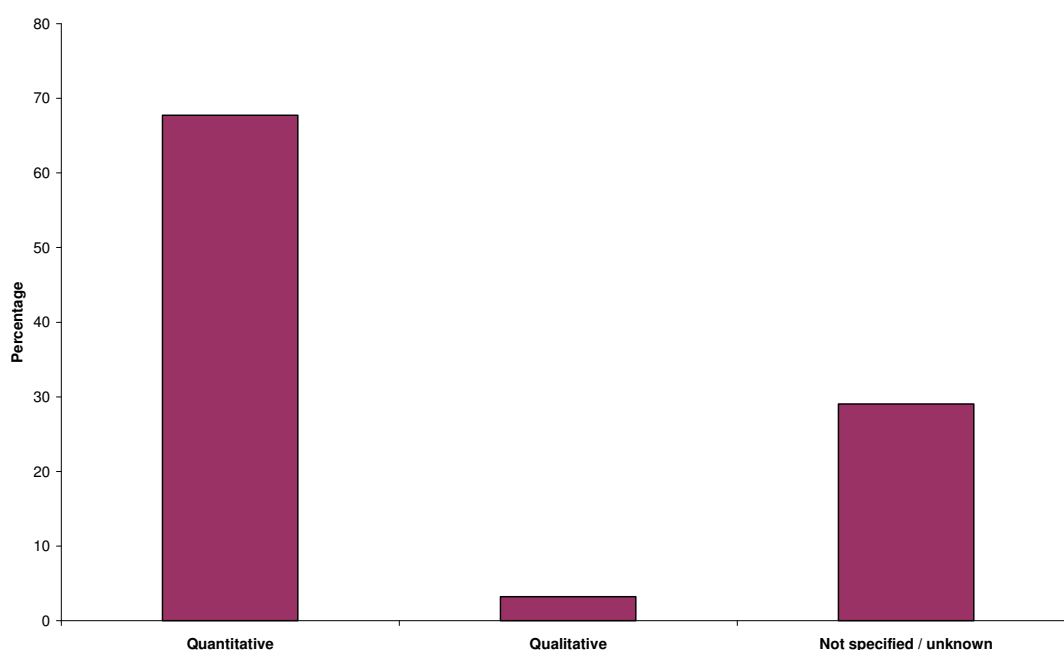
^a It should be noted that some of the later projects provided funding for the years 2007-2009, but this additional funding is not included here.

associated with the greatest level of grant funding. In this year, there was a special funding round devoted to youth suicide prevention research projects. The NHMRC was the sole granting body to fund suicide prevention research between 1999 and 2001, but the ARHRF and the ARC have since begun to make increasing investment in this area.

Type of data

Figure 1 summarises the broad type of data collected via the projects and fellowship activities funded through each of the 31 grants. Over two thirds collected quantitative data, while a much smaller proportion (3%) drew on qualitative data. It should be noted, however, that in 29% of cases, the data type was not clear from the grant abstract.

Figure 1: Grants provided for suicide prevention research (n=31), by type of data

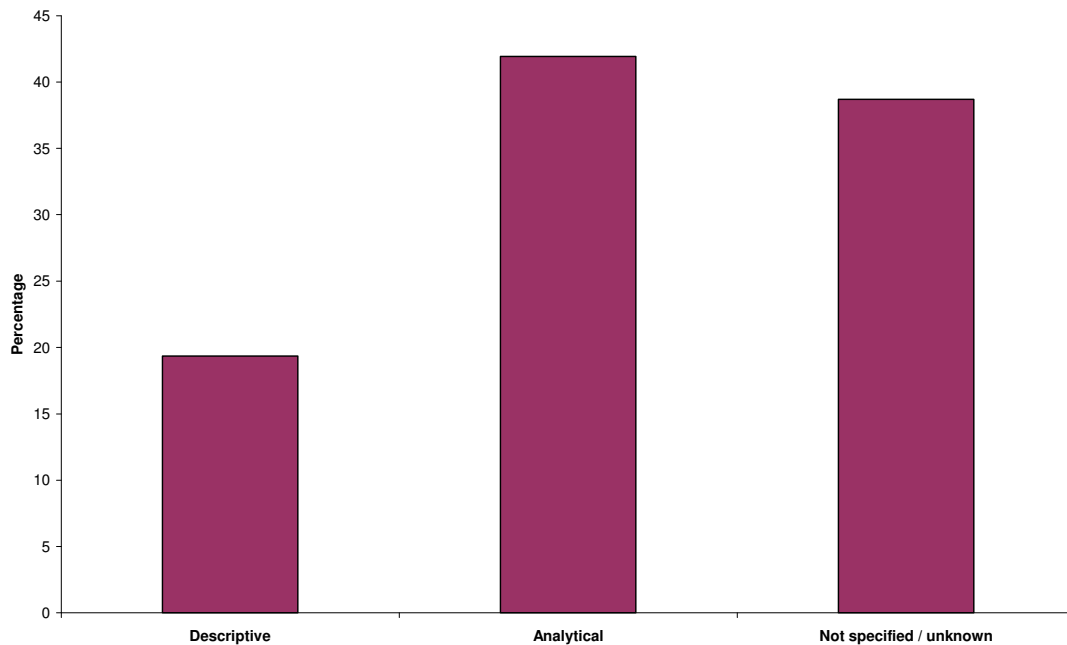


* Multiple responses permitted.

Research design

Figure 2 reports on a related concept to type of data, namely research design. Specifically, it considers whether the projects and fellowship activities funded through a given grant constituted descriptive studies or analytical studies. Following Hennekens and Buring,⁵ descriptive studies were defined as those which profiled characteristics of suicide or suicidal behaviour in relation to particular individuals or groups, with no point of comparison. By contrast, analytical studies were defined as those which explicitly made comparisons between different groups in terms of risk and/or protective factors (i.e., exposure variables) and suicide or suicidal behaviour (i.e., outcome variables). It is acknowledged that these distinctions apply more to quantitative studies than to qualitative ones (see above), and are particularly applicable in the context of epidemiological studies and intervention studies (see below), but an effort was made to classify all grants according to this taxonomy.

Figure 2: Grants provided for suicide prevention research (n=31), by research design



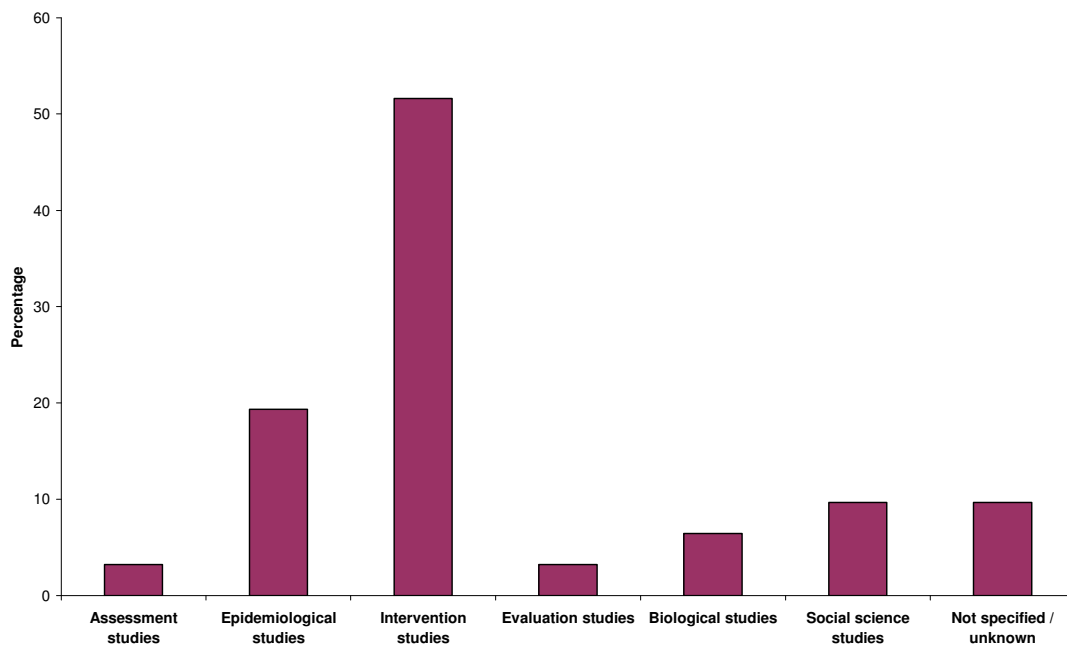
* Multiple responses permitted.

It can be seen from Figure 2 that 19% of all abstracts were classified as descriptive, 42% as analytical, and 39% as not specified or unknown.

Research type

Figure 3 profiles the grants by the type of suicide prevention research they funded, recognising that such research occurs in both medical/psychiatric domains and in the social sciences.

Figure 3: Grants provided for suicide prevention research (n=31), by research type



* Multiple responses permitted.

Just over half (16, or 52%) of the grants funded intervention studies. Of these, 50% considered the efficacy of indicated interventions,^b 25% the efficacy of universal interventions,^c and 6% the efficacy of selective interventions.^d Nineteen per cent examined practice guidelines.

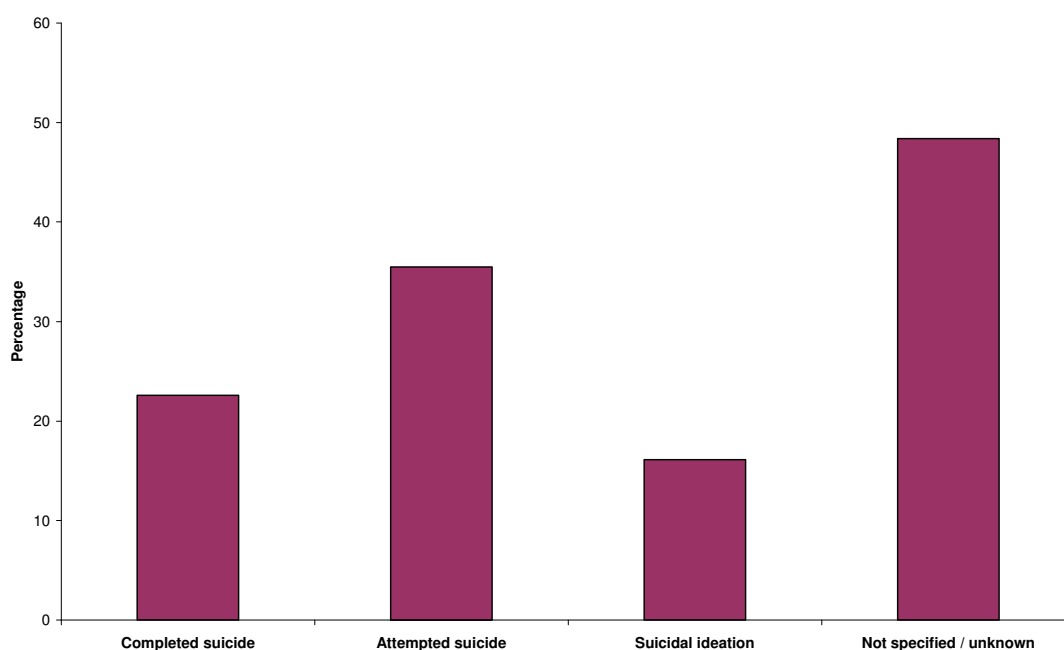
Epidemiological studies were the next most common research type, accounting for 19% of all grants, or a total of six grants. Half of these (50%) involved studies of rates of suicide or suicidal behaviour, one third (33%) involved studies that considered risk factors, and one sixth (17%) involved studies that looked at protective factors.

Comparatively less grant funding had been devoted to assessment studies (3%), evaluation studies (3%), biological studies (7%) and social science studies (10%).

Suicidal behaviour

Figure 4 provides a breakdown of the suicidal behaviour of interest in the projects and fellowship activities funded through the grants. Thirty six percent of all grants funded work that focused on attempted suicide; lesser proportions funded activities related to completed suicide and suicidal ideation (23% and 16%, respectively). It should be noted, however, that the information available for 48% of grants did not permit a judgement to be made about the suicidal behaviour of interest.

Figure 4: Grants provided for suicide prevention research (n=31), by suicidal behaviour



* Multiple responses permitted.

^b Interventions designed for people who are already beginning to exhibit suicidal thoughts or behaviours

^c Interventions targeting whole populations, with the aim of favourably shifting risk and protective factors across the whole population

^d Interventions targeting population subgroups with particular risk factors for suicide who are not yet exhibiting suicidal thoughts or behaviours

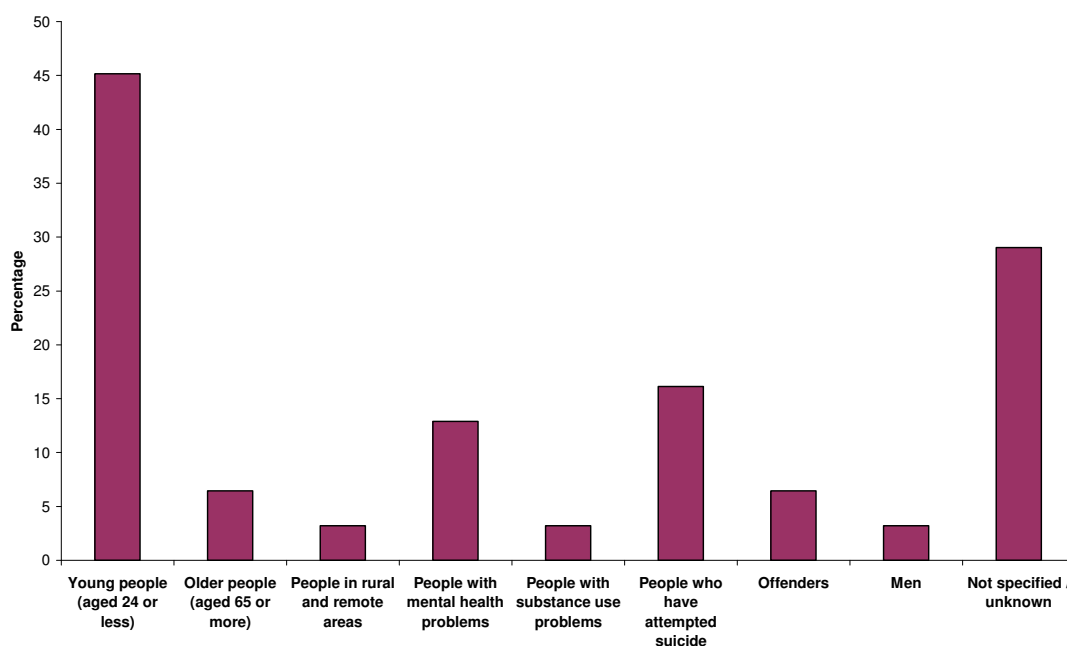
Suicide method

Insufficient information was available on the grants to determine whether they funded projects and/or fellowship activities relating to particular suicide methods. Having said this, most appeared to address suicide and/or suicidal behaviour generally, rather than focusing on specific methods.

Target group

Figure 5 shows the target group of interest in the projects and fellowship activities funded through the grants. It shows that greatest emphasis has been given to young people (45%), followed by people who have attempted suicide (16%) and people with mental health problems (13%). Relatively lesser attention has been directed towards older people, people in rural and remote areas, people with substance use problems, offenders and men. No grants could be identified as having funded research targeting a number of at-risk groups, including adults, Indigenous people, people from culturally and linguistically diverse backgrounds, people bereaved by suicide, people who are gay, lesbian, bisexual or transgender, people with physical health problems, women or veterans. It should be noted, however, that for 29% of all grants, it was not possible to make a judgement about whether they focused on a particular target group.

Figure 5: Grants provided for suicide prevention research (n=31), by target group

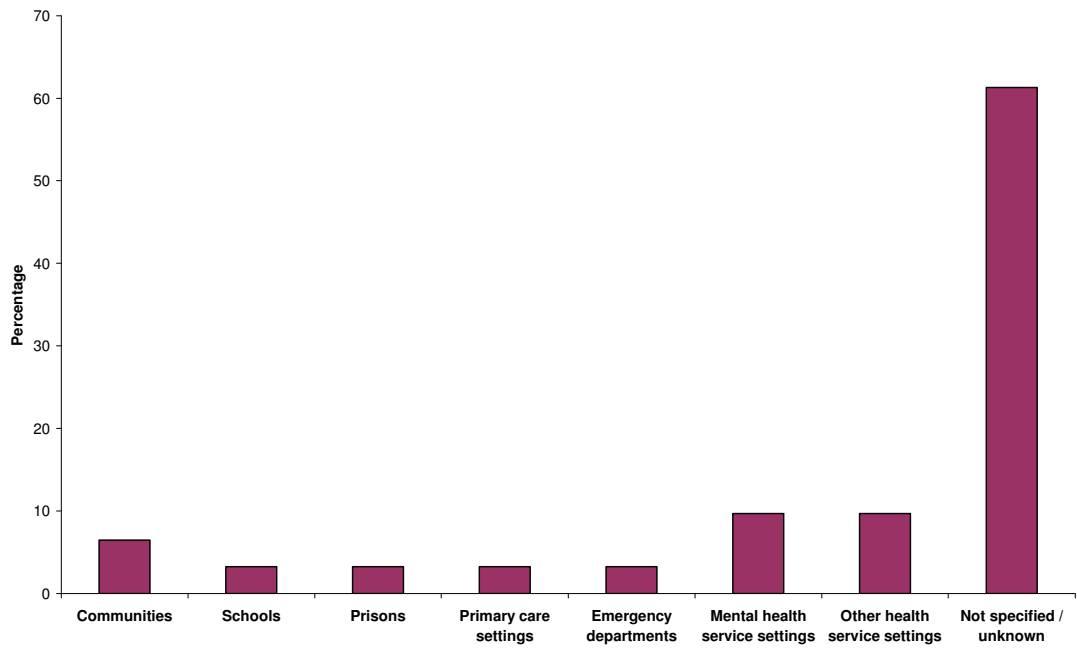


* Multiple responses permitted.

Setting

Figure 6 shows the settings with which the research funded through the grants was concerned. In 61% of all grants, no setting was specified. Certain settings took precedence in the remaining grants, with mental health service settings and other health service settings receiving particular emphasis (each accounting for 10% of all grants). Communities were the setting of interest in the research funded through 7% of grants, and schools, prisons, primary care settings and emergency departments each accounted for a further 3% of grants. Tertiary institutions and workplaces were not the subject of any grants.

Figure 6: Grants provided for suicide prevention research (n=31), by setting



* Multiple responses permitted.

Chapter 4: Discussion

During the life of the National Suicide Prevention Strategy, 31 grants have been funded for projects or fellowships in the area of suicide prevention. Together, these grants have amounted to \$5,159,594 in research funding. Although this is not insignificant, it does not seem to be commensurate with the high individual, societal and economic burden of suicide and suicidal behaviours.

The majority of research funded through these grants has involved analytical studies that have assessed the efficacy of interventions via quantitative data. In particular, these studies have evaluated indicated interventions, aimed at individuals who are already manifesting suicidal thoughts or behaviours. They have more commonly focused on suicide attempts than on completed suicide or suicidal ideation, perhaps reflecting the fact that people who have attempted suicide are a common target of indicated interventions and subsequent suicide attempts may be a more readily measurable outcome against which to judge the efficacy of these interventions than completed suicide. Those who have attempted suicide and those with mental health problems (another group for whom indicated interventions are often provided) are certainly among the most commonly emphasised target groups, although young people are the most common. Setting-wise, the pattern is also consistent, in that grants that have provided funding for research in specific settings have tended to do so for mental health service settings and other health service settings, which tend to be the locus from which indicated interventions are provided.

It is worth considering how the findings of the current review compare with the other component of this project which is designed to assess current priorities in suicide prevention, namely the review of published literature.¹ The profiles of funded grants and published literature are different. By contrast to the predominance of intervention-based studies identified in the review of grants, the review of published literature yielded a picture of largely descriptive epidemiological studies of rates and, to a lesser extent, risk factors. Studies of completed suicide also received greater emphasis in the published literature. Having said this, there were some commonalities, in that the review of published literature also contained many examples of studies which drew on quantitative data, and identified an emphasis on similar target groups (e.g., young people) and settings (e.g., other health service settings).

The different emphases identified through the two reviews is perhaps not surprising, given their varying scopes. The review of published literature was restricted to articles published in peer-reviewed journals, but was not limited to studies funded by academic granting bodies and would therefore have been likely to include research funded through other sources. By contrast, the current review was, by design, limited to research funded by the three key granting bodies in Australia. Such granting bodies tend to favour investigator-driven intervention studies, particularly those where the intervention itself is relatively cheap, specifically targeted, and lends itself to relatively rigorous evaluation designs (e.g., where participants can be randomised and where outcomes can be readily measured). They are less likely to fund information-gathering or scoping exercises (e.g., descriptive epidemiological studies) or evaluations of policies, programs or service systems. The latter types of studies are more likely to be funded by health departments, and are more likely to be funded in a priority-driven fashion.

It is also worth examining how the findings of the current review marry with those from the focus group component of the project.² The most commonly raised issue among focus group participants was the need for greater emphasis on the evaluation of interventions. The greater emphasis in the current review on intervention studies is therefore promising. Arguably, however, these intervention studies do not go far enough,

given that they are largely limited to indicated interventions, and given that there is little evidence of strong evaluations of policies, programs or service systems.

To conclude, the current review complements the other two completed components of the current project by 'fleshing out' the status quo with regard to suicide prevention research. It identifies some areas where there are clear gaps and others where relatively greater efforts have been made, and indicates that research funded by key granting bodies may form a defined subset of research funded in the area. It suggests that some priority has appropriately been given to intervention studies, but that a greater range of interventions and broader initiatives will need to be tested in order to progress knowledge about what works and what does not work in suicide prevention. For this to occur, key granting bodies and other funders may need to join forces and consider how best to fund suicide prevention research in a manner that is strategic and co-ordinated.

References

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3. Jorm AF, Griffiths KM, Christensen H, Medway J. Research priorities in mental health. Part 1: An evaluation of the current research effort against the criteria of disease burden and health system costs. *Australian and New Zealand Journal of Psychiatry* 2002;36:322-326.
4. Griffiths KM, Jorm AF, Christensen H, Medway J, Dear KBG. Research priorities in mental health. Part 2: An evaluation of the current research effort against stakeholders' priorities. *Australian and New Zealand Journal of Psychiatry* 2002;36:327-339.
5. Hennekens CH, Buring JE. *Epidemiology in Medicine*. Boston: Little, Brown and Co., 1987.

Appendix 1: Framework for classifying grants

Type of data	
a. Quantitative	c. Other
b. Qualitative	d. Not specified / unknown
Research design	
a. Descriptive	c. Other
b. Analytical	d. Not specified / unknown
Research type	
a. Assessment studies <ul style="list-style-type: none"> • Assessment/classification of suicide risk (including development/validation of risk assessment tools) • Assessment studies – Other 	d. Evaluation of policies/programs/services <ul style="list-style-type: none"> • Policy evaluation
b. Epidemiological studies <ul style="list-style-type: none"> • Rates (including comparisons of rates) • Risk factors • Protective factors • Epidemiological studies – Other 	<ul style="list-style-type: none"> • Program evaluation • Services evaluation • Evaluation of policies/programs/services - Other
c. Intervention studies <ul style="list-style-type: none"> • General intervention issues and methods • Practice guidelines • Efficacy of universal interventions • Efficacy of selective interventions • Efficacy of indicated interventions • Intervention studies - Other 	e. Biological research <ul style="list-style-type: none"> • Neurobiology (including brain anatomy and physiology) • Genetics • Biological research – Other
	f. Social science <ul style="list-style-type: none"> • Sociology • History • Literature • Media studies • Social science – Other
	g. Other
	h. Not specified / unknown
Suicidal behaviour	
a. Completed suicide	d. Other
b. Attempted suicide	e. Not specified / unknown
c. Suicidal ideation	
Suicide method	
a. Poisoning by drugs	f. Jumping from a high place
b. Poisoning by other	g. Jumping or lying before a moving object
c. Hanging	h. Other
d. Firearms	i. Not specified / unknown
e. Drowning	
Target group	
a. Young people (aged 24 or less)	j. People with physical health problems
b. Adults (aged 25-64)	k. People with substance use problems
c. Older people (aged 65 or more)	l. People who have attempted suicide
d. Indigenous people	m. Offenders
e. People from culturally and linguistically diverse backgrounds	n. Men
f. People in rural and remote areas	o. Women
g. People bereaved by suicide	p. Veterans
h. People who are gay, lesbian, bisexual or transgender	q. Other
i. People with mental health problems	r. Not specified / unknown
Setting	
a. Communities	g. Emergency departments
b. Schools	h. Mental health service settings
c. Tertiary institutions	i. Other health service settings
d. Prisons	j. Other
e. Workplaces	k. Not specified / unknown
f. Primary care settings	