PREVENTION OF YOUTH SUICIDE IN NEW SOUTH WALES

Organisation: 3rd Degree Consulting
Name: Mr Chris Miller
Position: Principal Consultant
Date Received: 31 August 2017
Submission on Prevention of Youth Suicide in New South Wales

July 2017
# Table of Contents

About eSafe Global .................................................................................................................. 3  
Executive Summary ................................................................................................................ 4  
Introduction .............................................................................................................................. 5  
Background .............................................................................................................................. 5  
Mental Health in Australia ......................................................................................................... 6  
Strategies for Identifying Mental Health Issues ....................................................................... 6  
  Gatekeeper .......................................................................................................................... 6  
  Self-referral .......................................................................................................................... 7  
  Regional, rural, and remote communities ......................................................................... 7  
eSafe Mental Health Monitoring Service .................................................................................. 8  
Summary .................................................................................................................................. 9  
Appendix .................................................................................................................................. 10  
  Table 1 ................................................................................................................................. 10  
  Data capture and storage ................................................................................................. 11  
  Incident reports ............................................................................................................... 12  
  Confidentiality ................................................................................................................... 12  
References ............................................................................................................................... 14
About eSafe Global

eSafe is a specialist world-class forensic monitoring service designed to help safeguard students against the risks that they encounter every day. Using a proven combination of technology and human behavioural expertise, eSafe helps protect almost 1,00,000 students and staff, and vulnerable young people in local authority care. Operating alongside specialist group resources, including CEOP trained staff, child mental health experts, experts in the fields of Digital Forensics, IT Security and Data Protection, eSafe delivers a unique service to identify even the subtlest markers of mental health issues.

eSafe manages the risk of exposure to safeguarding risk and provides early visibility of inappropriate behaviour via sophisticated, multi-lingual, threat detection technology and a unique specialist incident review, assessment and escalation service. With valuable experience and knowledge of child behaviour in the digital world, eSafe take responsibility for operational monitoring, contribute to policy setting groups and advise on areas relating to new and emerging threats, leaving educationalists to focus on the education of young people and intervention issues.

Each year our daily analysis of behaviour and material provides extensive and unique insight into real time online and offline activities of students and staff. This knowledge is used to create the most advanced and world-leading threat detection libraries available, ensuring e-Safe clients receive the best protection available.

Because eSafe can obtain actual user behaviour data, rather than survey data, eSafe have been asked to provide annual reports to the UK Council for Child Internet Safety (UKCCIS). UKCCIS makes recommendations across all UK government children’s agencies for the protection of children online, and look to identify and address activities that can impact the mental and physical wellbeing of children. These reports show significant increases across all risk categories that eSafe monitor. (Appendix: Table 1)
Executive Summary
Across all OECD countries, governments have been grappling with the increasing rate of youth suicide. In Australia, governments of all levels, have taken steps to redress the problems of self-harm and suicide from our own young people.

While any moves by government to assist with the mental health of young people are welcome, the activity has been largely focussed on the back end of the problem, that is, the provision of support services. Both the Federal and NSW state governments have increased funding for the triage and treatment of youth mental health issues, but have largely left the front end of the problem untouched. For potentially suicidal youth to gain access to the expanded services, we rely on either self-referral, or referral by others. Both referral methods are imprecise and make accurate mental health wellbeing determinations problematic.

The diagnosis of a depressive illness is difficult enough for mental health professionals. It becomes especially complex for an individual to identify gradual changes in their own state of mental health. This is compounded by the fact that these are young people who don’t have a strong base measure of their own mental health state, and they are dealing with rapid changes to both their external environment, and to their own physiology.

Further complicating the identification of mental health issues, and the delivery of mental services, is the large number of remote and regional areas in NSW. These areas have a disproportionately high number of youth suicides and a greater susceptibility to suicide clusters.

Despite the spectrum of geographical and demographic differences between young people in NSW, there is an almost single commonality. That is, they have access to an electronic device. This may be in the form of a phone, laptop, tablet, or school computer. These devices were once simply used as a tool but are now integrated into the daily lives of young people. Because they have become ubiquitous and such an important part of young people’s lives, they now provide a vast amount of data that can be analysed and used to identify risks and threats to young people. Using the electronic devices to identify potential mental health issues provides the same levels of assessments for all young people throughout the state, regardless of their physical location. It also delivers anonymity and privacy for the individual, the absence of which may hinder mental health services in smaller communities.

The earlier a mental health issue is identified, the better the outcomes that can be achieved, and the sooner these outcomes can be achieved. By monitoring the electronic devices of young people, eSafe can determine risk behaviours and analyse changes in behaviours over time. This information can be used to provide better and more timely outcomes, and to assess the effectiveness of existing strategies, and for the development of new strategies.

A much stronger, and comprehensive, risk identification strategy delivered through eSafe, allows for improved alignment of current mental health strategies. This is not a service that requires the restructuring of mental health services, or their delivery. The eSafe service simply provides much greater support for the existing strategies and programmes, and for service providers.
Introduction

3rd Degree Consulting welcomes the opportunity to make this submission to the Inquiry into Prevention of Youth Suicides in NSW. This submission is made on behalf of eSafe Global.

For countries who record and maintain accurate information, suicide is a leading cause of mortality for adolescents and it remains a major public health concern (Patton, Sawyer, Viner, Haller, & Bose, 2009). Australia’s youth suicide rates over the past decade have been consistently higher than the OECD average, and are now at 10 year highs.

Australian youth suicide rates bottomed in 2005 and have been increasing over the past decade. They are now at their highest rates in 10 years with one third of all deaths of young men being due to suicide (Robinson, Bailey, Browne, Cox, & Hooper, 2016) and have been called a national emergency by Lifeline (The Age, 2016).

Background

I just don’t think we have quite recognised the public health crisis that we are dealing with here. We have such a focus on terrorism … on homicide … on issues that are much more public, and yet suicide is a larger public health challenge. – Dr Tom Insell, former director of the US National Institute of Mental Health, 2016

It’s very difficult to obtain consistent, accurate data with respect to changes in global suicide rates. Many countries don’t maintain accurate records on the cause of death and research organisations are not consistent with the variables upon which they frame their research. According to the World Health Organisation, there was a 9% reduction in total recorded suicide between 2000 and 2012 (World Health Organisation, 2016). This is a significant fall in total suicides and there have been many theories put forward explaining the decrease. These range from improvements in global economic conditions, changes in climatic conditions, the evolution into greater acceptance of LBGT people, and increased awareness of mental health issues. Conversely, over this same period there has been a steady increase in the rates of youth suicide, particularly in countries such as Australia and New Zealand and, in Australia, a significant increase in the middle-aged suicide rate. The Australian middle-aged suicide rate is now also at its highest level in over a decade (Hahessy, 2017).

Around the world, governments and mental health experts have been trying to address this issue. In Australia, we have seen the Federal government, and state governments around the country commit to providing resources to help tackle the increasing youth suicide rates. The NSW government has made significant commitments to deliver mental health facilities, and to provide more mental health professionals (Williams, 2017). In the 2016/17 budget, the NSW government increase funding for mental health services from $1.694 billion to $1.8 billion and announced an additional 236 counsellors and psychologists would be made available to NSW schools as part of the “Supported Students, Successful Students” initiative. In the 2017/18 budget, the NSW government again increased mental health funding to $1.9 billion. The commitment to providing resources to deal with mental health issues is much needed.
Mental Health in Australia

More effective strategies to detect and treat children susceptible to a mental disorder are required. - Christopher Doran, Conjoint Professor School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle

Recent Australian studies have highlighted the declining mental health of Australia’s young people. These studies show that mental illness is one of the most urgent and important issues in the country. They also show that the range and types of pressures, that affect young people, are expanding. This will put even greater pressure on mental health resources that are trying to catch up with demand. The recent report by Mission Australia/Blackdog Institute estimates that ‘almost one in four young people met the criteria for having a probable serious mental illness – a significant increase over the past five years (rising from 18.7% in 2012 to 22.8% in 2016)’ (Mission Australia and Black Dog Institute, 2017).

While it’s clearly been recognised by governments that the mental health issues facing young people are increasing, the funding efforts to address the problem have focussed almost entirely on treatment strategies. There has been very few resources targetted at the identification of mental health issues despite significant research which shows that it is imperative for early identification of mental illness and early intervention (The Royal Australian & New Zealand College of Psychiatrists, 2010). Further, evidence suggests half of all lifetime cases of mental health disorders start by age 14 years and seventy five percent by age 24 (Kessler, et al., 2005). The earlier that these issues are identified and intervention is delivered, the better the outcomes and results that are achieved. Early intervention of mental illness provides a much more efficient use of our mental health resources, and makes these resources much more effective.

Strategies for Identifying Mental Health Issues

If we really want to address the suicide rate, we need to move beyond the focus on awareness campaigns and rethink how we tackle mental health issues in our society. More specifically, we need to be able to better identify people at risk of suicide and give them the care and support they need before they reach crisis point. - Helen Christensen, UNSW Scientia Professor of Mental Health and Chief Scientist and Director of the Black Dog Institute, 2016

Currently, the early identifiction and intervention programmes are reliant upon self referral and a ‘gatekeeper’ strategy which includes GP’s and other health professionals, as well as school staff members. There are a number of gaps with both of these strategies that limits both the effectiveness of the providers of mental health support, and it increases the risk of young people at-risk not being identified.

Gatekeeper

A recent study showed that over 40% of children identified with an emotional or behavioural problem were identified by school staff (Lawrence, et al., 2015). While the educators and school staff members are well placed to identify obvious changes in student’s behaviours, most lack the mental health training required to identify very subtle markers that can identify potential suicidal tendencies. As an example; a recent suicide cluster at a Central Coast high
school involved four student deaths over a thirteen month period. In the year leading up to the first suicide, the Deputy Principal (Wellbeing) asked staff to provide a list of who they thought were the most vulnerable students at the school. The list contained the names of one hundred and fifty students yet, none of the students that suicided were identified by the staff as being at risk.

To support the gatekeeper strategy, additional resources have been made available to GP’s, health professionals, and school staff members through organisations such as Lifeline, ReachOut, BeyondBlue, and Mission Australia. However, the responsibility to identify potentially suicidal students places an enormous burden on people who have very little professional training in mental health matters.

Self-referral
The strategy of self-referral also allows impacted young people to fall through the cracks. Studies have shown that there is an inherent difficulty in diagnosing depressive illnesses, even for those who are health professionals (Goldberg & Huxley, 1992). It becomes especially difficult for people to identify changes in their own behaviour and mental state over a period of time, and to associate those changes with a possible mental illness. This is particularly true for young people who are also facing significant changes to their external environment, and to their own physiology (Brown, Boardman, Whittinger, & Ashworth, 2010).

Regional, rural, and remote communities
Complicating the identification of mental health issues and the delivery of mental health services in NSW, is the vast distances between towns that are of a size to sustain fulltime mental health support services. Not only is it very costly to provide support services to smaller population centres, these communities often have their own unique issues that can impact on the mental health of young residents, such as social isolation, employment, and more easy access to lethal suicide methods (firearms). Smaller communities also reduce the effectiveness of the current identification strategies due to the perceived lack of anonymity when contacting local support services and, although awareness is improving, there is still a stigma that is associated with mental health issues.

Unfortunately, the consequences of inadequate mental health services in these communities is profound. Clustering of suicides is twice as frequent in young people as it is in adults, and there is a higher risk of clusters occurring outside of major towns and cities (Cheung, Spittal, Williamson, Tung, & Pirkis, 2014).
eSafe Mental Health Monitoring Service

One Friday afternoon, just a week after the software had been installed, a young female student posted disturbing content on her social networking page relating to self-harm. The e-safe team immediately flagged this with us and within an hour our Child Protection Officer was able to talk to the student and her parents to resolve the issue. In the past, this incident may not have been picked up until the Monday morning which could have had serious consequences for the girl over the weekend. Feedback from staff and governors has been that the service paid for itself from that one incident alone. - Paul Coulthard, Head of ICT - Gateacre Community Comprehensive School, Liverpool, UK, 2015

Electronic devices (including tablets, phones, laptops) are very common amongst all young people. Where they were once simply used as a tool, they have become an essential piece in young people’s lives. They are used as a comprehensive communication device, tool for exploration, and for a means of recording daily life. They provide a wealth of aggregated information that can be used to determine the mental wellbeing of a young person and, if there is an issue, the early identification of that issue. It provides an opportunity for mental health professionals to deliver an early intervention.

eSafe is a fully outsourced wellbeing service, that monitors the electronic devices of students for any signs of mental health issues. It monitors the input and interactions of young people on their devices and compares these interactions to a data base of know risk indicators. Any interactions that violate the risk indicators are captured on the device and transmitted when the device is next connected to the internet. The captured data is transmitted to the review team, which is made up of mental health professionals, who then analyse and determine the extent of the risk activity. The review team determines if the violation is a genuine risk behaviour, or simply a ‘false positive’. If it’s determined to be a genuine policy breach the review team will write a report, that includes the context of the violation, which is sent to the nominated authority (normally school principal). If it’s determined to be a high-risk incident the team will immediately call the contact that was previously provided.

While the technology supporting the service is important, the key to providing successful analysis is in having people in the the review team making the decisions. These are youth mental health professionals who are analysing and assessing each incident, and determining the risk level that provides the effectiveness of the service. The analysis conducted by the review team, and the written reports, ensure that on-the-ground mental health support organisations have accurate and timely information that they can use to determine the best intervention strategy for an at-risk young person.
Summary
While there is a large effort from governments to provide mental health support services to young people, there has been very few resources targeted to effectively identifying those young people that need mental health support. This is largely because there has not previously been a tool available that can provide an effective determination of the likelihood of a mental health issue being present, in an individual.

The eSafe monitoring service is able to provide a broad view of the mental health of NSW young people by analysing their interactions with their electronic devices. As electronic devices are now common amongst all young people, this allows the NSW government to deliver a mental health analysis tool to all NSW young people. It provides an equitable assessment for city, regional, rural, and remote young people within the state.

It allows for mental health support services to be delivered in a far more effective way than they are currently. By identifying the young people that are most in need of support, and by identifying the current risk level of the individual, support services can be more accurately focussed on delivering specific outcomes.

By identifying common issues that are affecting a similar cohort of young people, mental health support can be delivered on a one-to-many basis (such as a class/school discussion) rather than having to be delivered on a one-to-one basis. This vastly reduces the cost of delivering mental health services, particularly in regional and rural areas.

The eSafe monitoring service analyses actual user behaviour. This allows the service to measure the behaviour prior to an intervention, and again after the intervention. Because the data is obtained anonymously, it can be provided to mental health researchers to assist with developing mental health programmes, and with the evaluation of those programmes.
## Appendix

### Table 1
Incident data from English secondary schools, behaviour volume & trends during the period 1st August 2014 to 31st July 2016. Approximately 35,000 students, across 34 urban & rural secondary schools

<table>
<thead>
<tr>
<th></th>
<th>Illegal</th>
<th>Self Harm</th>
<th>Bullying</th>
<th>Porn</th>
<th>Sexting</th>
<th>Misuse</th>
<th>Violence/Threat</th>
<th>Depressed</th>
<th>Concerning</th>
<th>HBT, Racist</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014/15</td>
<td>34</td>
<td>267</td>
<td>663</td>
<td>371</td>
<td>196</td>
<td>597</td>
<td>2007</td>
<td>227</td>
<td>2485</td>
<td>1823</td>
</tr>
</tbody>
</table>

257 serious incidents per 1000 students per year

<table>
<thead>
<tr>
<th></th>
<th>Illegal</th>
<th>Self Harm</th>
<th>Bullying</th>
<th>Porn</th>
<th>Sexting</th>
<th>Misuse</th>
<th>Violence/Threat</th>
<th>Depressed</th>
<th>Concerning</th>
<th>HBT, Racist</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015/16</td>
<td>51</td>
<td>484</td>
<td>1085</td>
<td>1592</td>
<td>391</td>
<td>2294</td>
<td>5065</td>
<td>1236</td>
<td>4773</td>
<td>3241</td>
</tr>
</tbody>
</table>

594 serious incidents per 1000 students per year

<table>
<thead>
<tr>
<th></th>
<th>Illegal</th>
<th>Self Harm</th>
<th>Bullying</th>
<th>Porn</th>
<th>Sexting</th>
<th>Misuse</th>
<th>Violence/Threat</th>
<th>Depressed</th>
<th>Concerning</th>
<th>HBT, Racist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>8670</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Illegal</th>
<th>Self Harm</th>
<th>Bullying</th>
<th>Porn</th>
<th>Sexting</th>
<th>Misuse</th>
<th>Violence/Threat</th>
<th>Depressed</th>
<th>Concerning</th>
<th>HBT, Racist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>20212</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 3: Percentage increase in reported incidents by behaviour category over previous two years

<table>
<thead>
<tr>
<th>2014-2016</th>
<th>Illegal</th>
<th>Self Harm</th>
<th>Bullying</th>
<th>Porn</th>
<th>Sexting</th>
<th>Misuse</th>
<th>Violence/Threat</th>
<th>Depressed</th>
<th>Concerning</th>
<th>HBT, Racist</th>
</tr>
</thead>
<tbody>
<tr>
<td>% increase</td>
<td>50%</td>
<td>81%</td>
<td>64%</td>
<td>329%</td>
<td>99%</td>
<td>284%</td>
<td>152%</td>
<td>444%</td>
<td>92%</td>
<td>78%</td>
</tr>
</tbody>
</table>

(eSafe Systems Ltd, 2016)
Data capture and storage

In the normal course of delivering the eSafe monitoring service, eSafe Global Ltd hold customer contact data, and capture incident data, which is predominantly anonymous.

The following data is captured by eSafe in the course of monitoring users:
- The user login id (not the name of the user)
- The date and time stamp an incident occurred
- The id of the device (& serial numbers of various components within the device) that the user was logged in to at the point the incident occurred
- In most instances, a screen shot of the users’ screen at the point the incident occurred

The data above is held on dedicated servers located in an ISO 27001 accredited UK data centre.

The service monitors for markers that indicate safeguarding risk and illegal behaviour including illegal imagery, illegal activity, grooming, child abuse, self-harm & suicide risk, pornography, bullying & harassment, radicalisation, trafficking, FGM, substance abuse, threats of violence, gang crime etc. The service monitors imagery (static and moving), and words/phrases against a dynamically maintained library of threat markers.

The service will only capture user activity when a marker is detected e.g. a word or term in the threat library, or a pornographic image. It does not record user activity nor does it capture benign activity.

The data captured by eSafe, in the course of monitoring users, is protected during transmission and at rest:
- All data transmitted between a device & the eSafe server is encrypted (256 AES)
- The eSafe servers are located behind a secure firewall
- Server access is password controlled
- Access to the eSafe application on the servers, is password controlled
- Data is validated upon receipt to prevents code insertion attacks.
- Database access is password protected and the data ‘at rest’ in the database is encrypted to provide another level of database obfuscation
- Only authorised eSafe UK personnel have the access rights to the customer data
- To view the data transmitted from the customer device, an authorised user must access the eSafe UK server. If the data packet transmitted from the customer site is intercepted/redirected before it reaches the UK server, it is encrypted (AES 256) and the encryption key is held on the UK server. If the encryption was broken (very unlikely), the data revealed would still be meaningless to the hacker as access to the server is necessary to interpret the content. In addition, the data is very limited as described above.

The following data is held separately by eSafe to support the escalation process:
- Name of the school/college customer
- Name, email, direct dial (if available) and mobile number of contacts nominated by the school/college to receive telephone escalations (life threatening & illegal incidents)
• Name, email, direct dial (if available) and possibly a mobile number for contacts nominated by the school/college to receive encrypted report of incidents which are not life threatening or illegal

The data relating to the escalation process is held on a cloud based CRM system (salesforce.com) which is separated from the captured data.

Incident reports
• eSafe monitoring staff will produce reports containing narrative description of a behaviour/incident along with the user id, device id and date time stamp, in support of the escalation process.
• All reports are encrypted and emailed to the school/college safeguarding, pastoral care or leadership contacts nominated by the Headteacher.
• eSafe will only accept the addition of new contacts or contact deletion in writing from the Headteacher.
• Incident reports do not contain the school/college name
• All reports are held in an encrypted drive on a separate server located at eSafe secure monitoring unit.

Confidentiality
• Although eSafe is not capturing or retaining personal data, with the exceptions identified above, e-Safe acknowledges that its employees have access to the incident data to perform their duties. While the names and sex of an individual user is not known to eSafe, employees engaged in the monitoring of incidents are aware of the volume and type of incidents occurring at a school/college.
• To mitigate the risk of confidentiality breach, eSafe applies the following processes and procedures:
  • Rigorous review of candidates at the recruitment stage
  • Mandatory vetting of all employees to at least Non-Police Personnel Vetting Level 2 or Level 3 with enhanced Security Clearance (SC) depending on role (equivalent to senior Police management). SC also includes Counter Terrorism Clearance
  • The unauthorised disclosure of confidential data, including customer names and incident/monitoring information, is classed as gross misconduct and therefore immediate dismissal
  • Employee access to confidential information (customer names, contact details, monitoring information, incident reports etc) is limited by role and seniority e.g. non-monitoring staff have no access to monitoring information and incident reports; customer contact details are restricted to monitoring staff and certain managers
  • User access to all systems is audited to identify unusual behaviour
  • Printing, copying and pasting of documents is controlled by eSafe’s own proprietary security system of document classification, document access and usage
  • For the purpose of technical support, eSafe technical support staff, with the exception of the Technical Director, only have access to the server application programs. They do not have access to the database/customer data.

Please note that eSafe’s data protection procedures, data security, and physical security is reviewed by UK Police as a condition of the monitoring of sex offenders we perform on behalf of various UK Police Forces.
Please also note that new GDPR regulations which come into force May 2018 mean that the data protection clauses in the eSafe MSA will be changed. The regulations are further tightening the areas of Personal Data and Privacy, and eSafe’s liability. The changes to the eSafe MSA are currently being drafted by our lawyers and will be introduced by eSafe in September.
References


