

First Report of the Suicide Support and Information System

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Ms Eileen Williamson
Mr Eoin O'Shea
Professor Ivan J Perry



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National Suicide Research Foundation 2012

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Foreword I

Understanding can have two meanings, a greater awareness and knowledge or a greater empathy for the experience of another. Since its formation the National Suicide Research Foundation has contributed so much to our knowledge in the area of self harm and suicide, this report takes this information a step further, into understanding.

The Suicide Support and Information System report is the culmination of patient and diligent work by the NSRF. Building upon the experience of colleagues in the UK, the SSIS was piloted in Cork between 2008 and 2011. In the preparation of this report the NSRF have demonstrated the importance of collaborating with the various helping agencies active within the community. Knowing where these supports can be found at a time of vulnerability and great distress is key to protecting those living through traumatic loss.

The sudden loss of a loved one through suicide can cast a person into an uncertain and unfamiliar world. While many supports are available, at a time of crisis it is essential that those in immediate need can find the appropriate services within their local community.

The SSIS also improves our understanding of the many factors that can contribute to suicide in modern Ireland. The loss of a close and special relationship, substance misuse, mental illness and unemployment can all elevate the risk of self harm. Having immediate access to services which can offer a caring response and skilled interventions can make the vital difference when an individual is feeling overwhelmed by life's challenges.

Addressing a painful issue like suicide is not easy for a community and we are particularly grateful to the people of Cork for their genuine engagement in this study. This took great courage, and this report which was undertaken with great care and sensitivity has already improved our understanding of the factors and patterns which can contribute to self harm and suicide. The compounded grief experienced by a community when a suicide cluster occurs is devastating and we need to understand the factors that can contribute to this tragic phenomena. With this knowledge we can provide more effective responses into the future.

The SSIS project reflects the benefits of collaboration between those who respond directly to suicide within a community; *GPs, Emergency Department Staff, Mental Health Services, Coroner Services, Bereavement Support services and voluntary agencies*. The SSIS report successfully links these frontline efforts to the critical background support provided by researchers, Government Departments, academic partners and national agencies. I am happy to note that the HSE's National Office of Suicide Prevention was also in a position to support this important work.

The NSRF are to be congratulated for their work preparing this report and further advancing our understanding of suicide in Ireland. This knowledge greatly assists us in our collective efforts to reduce the incidence of suicide and to better support those hurt by a loss through suicide.

Martin Rogan

Assistant National Director for Mental Health, Health Service Executive, Dublin

July 2012

Foreword II

Deaths by suicide are individual and societal tragedies and so measures which reduce suicide risk must be embraced. This report describes the internationally innovative work of the Suicide Support and Information System (SSIS). What is unique about this project is that it combines two vital components of effective suicide prevention: providing support to families bereaved by suicide and collecting high quality information about deaths which have occurred.

As well as the distress and emotional effects they experience, bereaved individuals are themselves at higher risk of suicide. Providing effective and timely help for this group of people is a priority for suicide prevention initiatives in Ireland but also internationally. Indeed in England, providing support for those bereaved or affected by suicide has been adopted as one of the main areas for action in the forthcoming suicide prevention strategy. However, such support is not always available. What the SSIS has been able to demonstrate is that a pro-active approach increases the uptake of support among those who need it most.

Information on the characteristics of those who have died by suicide is very helpful for efforts to understand why such deaths occur and prevent them in the future. The SSIS has provided new insights into the factors associated with suicide in Ireland, for example evidence for the negative impact of the economic recession. Information on suicide is obtained much earlier than from traditional sources of statistics so the SSIS has been able to provide up to date findings and identify so called 'suicide clusters' at an early stage. Relying on conventional data sources can mean that by the time possible clusters are identified it is sometimes too late to take the most appropriate preventative action. Because the SSIS involves multiple sources of information one of its other benefits has been to encourage collaboration between coroners, health professionals, and bereaved families.

It is well known that suicide becomes more common in times of economic turmoil, so the expansion of the SSIS to a national system would be extremely timely. This would help to ensure that health professionals and policy makers get the information they need and bereaved families get the help they deserve.

Nav Kapur

Professor of Psychiatry and Population Health, Centre for Suicide Prevention, University of Manchester, Manchester

July 2012

Project Management and Acknowledgements

Suicide Support and Information System Management Team

Dr Ella Arensman	Director of Research NSRF and Principal Investigator
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Dr Margaret Kelleher and Dr Helen Keeley have provided advice throughout the development and implementation phase of the SSIS pilot study.

Ms Sara Kelly continued the core data collection of the SSIS between September 2011 and March 2012 on a voluntary basis. We sincerely thank her for her valuable input.

The Suicide Support and Information System pilot study was funded by the National Office for Suicide Prevention (NOSP). We sincerely thank Mr Geoff Day and the NOSP team for their support and collaboration.

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We would like to extend particular thanks to Mr Paul Kelly, Director of Console, who pro-actively has supported the SSIS pilot phase and who has undertaken steps to maintain and expand the SSIS.

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We would like to express our sincere thanks and appreciation to all family members who participated in the family informant interviews throughout the SSIS pilot phase. The invaluable information and insights that they provided will help us to make major steps forward in the area of suicide prevention.

Executive Summary

Ireland has made significant progress in suicide research and prevention in the past decade. Despite this, there are major gaps in our knowledge and understanding of the causes of suicide. We struggle to respond to the occurrence of suicide clusters and the bereaved are often unaware of the relevant support services that are available.

In 2008, The National Office for Suicide Prevention (NOSP) funded the National Suicide Research Foundation to establish a National Suicide Support and Information System (SSIS) to be piloted initially in the Cork region. The SSIS is innovative as it was developed to prevent suicide by facilitating access to support for the bereaved while at the same time obtaining information on risk factors associated with suicide and deaths classified as open verdicts, which is in line with key priorities of Reach Out (HSE, 2005), the Reports of the Houses of the Oireachtas Joint Committee on Health and Children (Joint Committee on Health & Children, 2006; Joint Committee on Health & Children, 2008), and the Form 104 Report *Inquested deaths in Ireland* (NSRF, 2007; Corcoran & Arensman, 2010). The objectives of the SSIS are also in line with priorities stated in the Coroners Bill (Coroners Review Group, 2007). The NOSP provided funding for a pilot study in the Cork region.

The NSRF has established the National Registry of Deliberate Self Harm (NRDSH) in Ireland, collecting data from every general hospital accident and emergency department in the country. The Registry has reliably established the incidence and pattern of hospital-treated deliberate self harm in Ireland. It is informing service providers in hospitals and policy makers in the Health Service Executive on an ongoing basis. A target of reducing repeated deliberate self harm has been set for Reach Out, the evaluation of which will rely on the Registry data. A similar system to the National Registry of Deliberate Self Harm is required for suicide.

Specific objectives of the Suicide Support and Information System are to:

- 1) Improve provision of support to the bereaved
- 2) Identify and better understand the causes of suicide
- 3) Identify and improve the response to clusters of suicide and extended suicide (e.g. filicide-suicide and familicide)
- 4) Better define the incidence and pattern of suicide in Ireland
- 5) Reliably identify individuals who present for medical treatment due to deliberate self harm and who subsequently die by suicide.

Preparations to develop the Suicide Support and Information System go back as far as 2005 when the NSRF, in collaboration with the NOSP, started consultations with key stakeholders such as the Department of Health, Department of Justice and Equality, the Coroners Society of Ireland, the Central Statistics Office (CSO), An Garda Síochána and mental health and primary care services. In addition, intensive consultation has taken place with the National Confidential Inquiry into Suicide and Homicide at the University of Manchester, a unique suicide information system which was established in 1995.

The SSIS pilot study was conducted in County Cork over the period September 2008 – March 2011. The SSIS operates according to a stepped approach whereby step 1 involves pro-active facilitation of support for family members bereaved by suicide, followed by step 2: obtaining information from different sources including information from coroners' records, family informants and health care professionals who had been in contact with the deceased in the year prior to death.

In total 178 cases of suicide and 12 open verdicts (total 190) were ascertained in the Cork region during the

pilot phase of the SSIS, with very satisfactory response rates for the three information sources.

Key outcomes include:

- In 39.5% of cases the SSIS pro-actively facilitated bereavement and other support. In 47.5% of cases bereavement support had been obtained prior to contact with the SSIS team. In 8.2% of cases the bereaved did not wish to avail of formal bereavement support from a specific service, but they welcomed further contact with a member of the SSIS team. A small proportion (4.8%) did not wish to receive further contact following the initial letter from the SSIS team.
- Mental health risk factors associated with suicide included mood disorder of the deceased, mental disorder of family members, history of deliberate self harm and lifetime alcohol abuse in the year prior to death.
- Major precipitating factors in the month prior to suicide included significant losses, significant or perceived significant disruption of a primary relationship and significant life changes. Evidence was found for the impact of the economic recession in terms of job loss, increased suicide risk associated with specific occupations, financial problems and loss of possessions, such as house etc.
- Evidence was found for long term adversity in the lives of people who died by suicide, often starting in childhood or early adolescence and continuing in later life, such as mental and physical maltreatment, problems in making contact with others and loneliness over a long period of time.
- The majority of the deceased had been in contact with their GP or a mental health service in the year prior to death, and those who had contacted their GP had done so 4 times or more.
- Challenges exist in the contact with health services including difficulties in accessing health care services, difficulties in adhering to treatment appointments and lack of compliance with instructions related to prescribed medication.
- The SSIS has been able to use official data sooner than the CSO, which has facilitated the identification of emerging suicide clusters.
- Through the multiple sources of information accessed by the SSIS, contagion effects could be identified and direct and indirect relationships among the suicide cluster cases could be established.
- Even though the number of open verdicts was relatively small, comparison with confirmed suicide cases revealed more similarities than differences, such as alcohol consumption at time of death, history of deliberate self harm, a high prevalence of mood disorders and use of psychotropic medication.
- During the SSIS pilot phase, first analyses were performed to link the SSIS data with the data from the National Registry of Deliberate Self Harm (NRDSH). Examination of suicides and deaths classified as open verdicts ascertained by the SSIS between 2008 and 2010 showed that at least 10% of the cases had been medically treated for deliberate self harm in the Cork region over the time period 2007-2009.

Key recommendations:

1. The outcomes of the SSIS pilot study and the independent evaluation by the University of Manchester recommend the maintenance of the SSIS in Cork and expansion to other regions in the country,

in particular regions with high rates of suicide and a history of suicide clusters. Recommended options for expansion of the SSIS include:

- a) Phased implementation in collaboration with the Department of Health and the Department of Justice and Equality;¹
 - b) Phased implementation in collaboration with suicide bereavement support services.¹
2. Pro-active facilitation of bereavement support would be the recommended approach for services working with families bereaved by suicide, ensuring that all families bereaved by suicide are offered bereavement support through the services currently in place.
 3. It is recommended to increase the awareness of coroners of local bereavement services and materials and to offer these as a matter of course.
 4. The association between the impact of the recession (unemployment, financial problems, loss of possessions) and suicide, as identified by the SSIS, underlines the fact that suicide prevention programmes should be prioritised during times of economic recession.
 5. Based on the association between alcohol/drug abuse and suicide as identified by the SSIS, it is recommended that:
 - a) National strategies to increase awareness of the risks involved in the use and misuse of alcohol should be intensified, starting at pre-adolescent age
 - b) National strategies to reduce access to alcohol and drugs should be intensified
 - c) Active consultation and collaboration between the mental health services and addiction treatment services be arranged in the best interest of patients who present with dual diagnosis (psychiatric disorder and alcohol/drug abuse)
 6. The fact that the majority of people who died by suicide had been in contact with their GP 4 times or more in the year prior to death provides evidence for increased suicide awareness and skills training for GPs.
 7. In areas with emerging suicide clusters, it is recommended to encourage involvement of GPs and other primary care professionals in a response plan and in early identification of people at risk of suicidal behaviour.
 8. It is recommended to improve access to health care services for people who have engaged in deliberate self harm, people at high risk of suicide and people with multiple mental health and social problems.
 9. In areas with emerging suicide clusters, the HSE-NOSP guidelines for responding to suicide clusters should be implemented and supported by additional capacity and specialist expertise as a matter of priority.
 10. Comparing the characteristics of confirmed cases of suicide to open verdicts, the SSIS identified more similarities than differences, which underlines the need for further in-depth investigation into cases classified as open verdicts.

In September 2010 an independent evaluation of the SSIS was conducted by the University of Manchester (Appendix 1). The evaluation indicates that the SSIS is an innovative and valuable system that contributes to improved prediction of suicide risk and improved support for families bereaved by suicide. The evaluation

¹ Proposed implementation plans for the SSIS are included in Appendix 5

recommends maintaining the Suicide Support and Information System in County Cork and expanding to County Limerick. The evaluation has identified that the NSRF has a history of successful regional and national roll-out of research programmes. The National Registry of Deliberate Self-Harm is based at the NSRF and will serve as a model for the regional roll-out of the SSIS. The NSRF has the infrastructure to continue to host the SSIS, and to co-ordinate and run a national roll-out of the SSIS according to a stepped approach.

A further indication of the quality of the SSIS is the achievement of Dr Carmel McAuliffe, the main Senior Research Psychologist involved with the SSIS, to be one of the recipients of the prestigious Andrej Marušič Award by the International Association for Suicide Prevention at the 13th European Symposium on Suicide and Suicidal Behaviour in 2010. This award was assigned to young researchers involved in innovative and high quality projects in the area of suicide prevention following a rigorous peer review procedure conducted by 6 international experts in suicide research and prevention.

Based on the major benefits demonstrated by the outcomes of the SSIS pilot study and the quality assurance of the SSIS by international experts in the field of suicide research and prevention, it is hoped that the completion of the pilot phase is not the end of the SSIS, but the beginning of national implementation.

Dr Ella Arensman

Director of Research
National Suicide Research Foundation

July 2012

1. Introduction

Ireland has made significant progress in suicide research and prevention in the past decade. Despite this, there are major gaps in our knowledge and understanding of the causes of suicide. We struggle to respond to the occurrence of suicide clusters and the bereaved are often unaware of the relevant support services that are available.

In 2008, The National Office for Suicide Prevention (NOSP) funded the National Suicide Research Foundation to establish a National Suicide Support and Information System (SSIS) to be piloted initially in the Cork region. The SSIS is innovative as it was developed to prevent suicide by facilitating access to support for the bereaved while at the same time obtaining information on risk factors associated with suicide and deaths classified as open verdicts, which is in line with key priorities of Reach Out (HSE, 2005), the Reports of the Houses of the Oireachtas Joint Committee on Health and Children (Joint Committee on Health & Children, 2006; Joint Committee on Health & Children, 2008), and the Form 104 Report *Inquested deaths in Ireland* (NSRF, 2007; Corcoran & Arensman, 2010). The objectives of the SSIS are also in line with priorities stated in the Coroners Bill (Coroners Review Group, 2007). The NOSP provided funding for a pilot study in the Cork region.

The NSRF has established the National Registry of Deliberate Self Harm (NRDSH) in Ireland, collecting data from every general hospital accident and emergency department in the country. The Registry has reliably established the incidence and pattern of hospital-treated deliberate self harm in Ireland. It is informing service providers in hospitals and policy makers in the Health Service Executive on an ongoing basis. A target of reducing repeated deliberate self harm has been set for *Reach Out*, the evaluation of which will rely on the Registry data. A similar system to the National Registry of Deliberate Self Harm is required for suicide.

Specific objectives of the Suicide Support and Information System are to:

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- 5) Reliably identify individuals who present for medical treatment due to deliberate self harm and who subsequently die by suicide.

Preparations to develop the Suicide Support and Information System go back as far as 2005 when the NSRF, in collaboration with the NOSP, started consultations with key stakeholders such as the Department of Health, Department of Justice and Equality, the Coroners Society of Ireland, the Central Statistics Office (CSO), An Garda Síochána and mental health and primary care services. In addition, intensive consultation has taken place with the National Confidential Inquiry into Suicide and Homicide at the University of Manchester, a unique suicide information system which was established in 1995.

2. International Context - A Review

Functions and elements of the SSIS are in line with the National Confidential Inquiry into Suicide and Homicide, which provides an evidence base for the development of suicide intervention and prevention programmes. Based on routine data on suicide cases obtained through the UK inquiry, specific information has been obtained on the ecological association between suicide and deprivation (Hunt et al, 2007; Rezaeian et al, 2007), precipitants of suicide in the three months prior to suicide (Hunt et al, 2009) and factors associated with frequently used methods of suicide, such as hanging (Gunnell et al, 2005). The outcomes of the UK inquiry form a major evidence base for intervention and prevention programmes in preventing suicide (Hunt et al, 2006; Hunt et al, 2007; Hunt et al, 2009; Kapur, 2004).

The impact of suicide

While figures on suicide ‘survivors’ – those bereaved by suicide – vary depending on who is included in such data, some research (Harvard Mental Health Letter, 2009) describes as ‘conservative’ a six-fold number of survivors compared to those who complete suicide. A study by Crosby & Sacks (2002) places the figure as high as 7% of the general population over a one year period (when including friends and acquaintances as well as family members). As such, the impact of suicide is far greater than is reflected by figures concerning the deceased. Although randomised and rater-blind trials of suicide bereavement support are lacking (Jordan & McMenemy, 2004), some evidence suggests that bereavement support following suicide of a loved one can reduce anger, hostility, anxiety and depression as well as providing alleviation of despair, rumination, and depersonalisation (Constantino & Bricker, 1996; Pfeffer et al, 2002). Of further importance is the greater tendency of those related to suicide completers to constitute a higher risk group themselves (Brent & Mann, 2005). The support aspect of the SSIS is posited to address these needs and risks need through pro-active facilitation of support for those left behind.

The impact of the inquest procedure

Research (e.g. Biddle, 2003) attests to the possible distress and negative impact on the natural grieving process posed by the experience of inquest following a loved one’s suicide. An inquest can adversely affect resolution of grief in two main ways: firstly, by exacerbating common grief reactions associated with suicide such as shame, guilt and anger; and secondly, by interfering with necessary grief work, such as the task of arriving at a meaningful and acceptable account of the death. Whereas these results may not typify all inquest experiences, the findings do suggest that a number of reforms are needed to avoid the possibility of the inquest distressing such a vulnerable group of people. Ideally, there should be a clear protocol for dealing with bereaved relatives, such as included in a recent report concerning reform of the Coroners Service of Northern Ireland (Criminal Justice Inspection Northern Ireland, 2009). The report details changes made both in terms of how bereaved families are dealt with by the Coroners Service itself as well as highlighting the coroner’s provision of information concerning external bereavement support services. The SSIS has taken the support element one step further by pro-actively facilitating the arrangement of support for those who request it.

The psychological autopsy method

The psychological autopsy method of study is suggested as being highly suitable for an investigation of this kind. Research shows that, even though participation in research can initially bring up painful material for participants, a substantial number experience a beneficial effect and are glad to have taken part (Dyregrov, 2004; Beskow et al, 2007). Psychological autopsies can be helpful to interviewees in helping them to find meaning in the suicide, to find a sense of purpose through their altruistic participation, to acquire psychological support, to experience connectedness with others, to accept the loss as real and to gain insight into their coping (Henry & Greenfield, 2009). This is especially the case where certain procedures are adhered to, such

as researchers contacting the families themselves by letter as well as providing bereavement information packs to those interested in receiving them (Hawton et al, 2003). The SSIS adheres to the recommendations made arising from such research (Pouliot & De Leo, 2006; Snider et al, 2006) and utilises researchers who possess professional practitioner qualifications in psychological therapies.

In the Republic of Ireland, there is limited research into suicide using the psychological autopsy approach. Kevin Malone and colleagues are currently conducting a psychobiographical and visual arts autopsy study into suicides.

Risk factors associated with suicide

In terms of previous research into risk factors associated with suicide, common factors include substance-related disorder, psychiatric disorder, adverse marital status, adverse employment status and previous self-harm behaviours (Yoshimasu et al, 2008). Other studies have highlighted the impact of exposure to suicide through friends, acquaintances or the media, the level of communication of suicidality and whether or not the person receives treatment or not for psychiatric conditions (Portzky et al, 2009). In the Republic of Ireland, Bedford et al (2006) found indications for an association between alcohol misuse/abuse and suicide. However, the study involved a relatively small number of cases (N=31).

Developmental research focuses on gender and the effects of lifespan positioning in understanding suicidality (Shiner et al, 2009) as well as the impact of adverse life events (Foster, 2011). Added to this are factors concerning economic restructuring and deprivation (Almasi et al, 2009) – a highly relevant issue in the context of today's economic crisis in Ireland. By examining co-occurring influences on the suicidal process of individuals, some studies (e.g. Fortune et al, 2007; Harwood et al, 2006) seek to identify sub-groups of those who are especially vulnerable to suicide. Help-seeking behaviours have also been investigated to identify which factors occurring between the onset of suicidality and the completed act, e.g. encouragement from family members and friends to seek help from professionals, seem to be key in influencing eventual death. It is suggested that the investigation of such a large number of previously identified factors is advantageous. In addition to providing a large and varied dataset for consideration, it also facilitates analysis of the interaction of multiple factors and the relative risk and protective properties of each in interplay. Such a strategy has been recommended – but seldom adopted – in much research conducted into suicide (Wasserman & Wasserman, 2009; Young et al, 1994).

Risk profiles

An important outcome of the SSIS is the development of suicide risk profiles to target high risk groups and situations locally. This is important in preventing suicide but such profiles are subject to geographical effects. For example, while psychiatric disorder is a well established mediator of completed suicide internationally, there is evidence that the relative proportions of specific psychiatric disorders found among completed suicides vary significantly across different geographical areas (Arsenault-Lapierre et al, 2004). Suicide risk profiles are also subject to change and require regular updating to reflect local changes that may occur (WHO, 2000). A related problem to the changing nature of suicide risk profiles is that of suicide clusters. A suicide cluster is commonly defined as a temporary increase in the frequency of suicides within a defined catchment area, relative to both the suicide rate before and after the cluster and the rate in neighbouring areas (Gould, 1989, 1990b). Mesoudi (2009) has found evidence to support a *homophily* hypothesis that spatial but not temporal point clusters are caused by “*the tendency for similar individuals to preferentially associate with one another*”. In deriving suicide risk profiles it is therefore important to identify whether the time-space characteristics of cases of suicide also meet the criteria for a suicide cluster and to examine the risk profiles of members of any identified cluster. It is also important to compare separate clusters to ascertain if there are additional distinct characteristics of individuals who are prone to clustering. There is evidence to suggest, that suicide clusters occur primarily among teenagers and young adults (Gould et al, 1990b) and although the proportion of youth suicides that occur in clusters tends to be small, the relative risk of suicide in the case of exposure to one or

more other suicides may be considerable. This represents a subgroup of suicides that is preventable (Gould et al, 1990a). More recent evidence has also been found for suicide clusters among people with mental illness (McKenzie et al, 2005).

So far, limited research has been conducted into specific suicide related and contextual factors that reinforce the social learning process underlying suicide clusters, which is one of the main objectives of the SSIS.

3. Methodology

The SSIS pilot study was conducted in County Cork over the period September 2008 – March 2011. The SSIS operates according to a stepped approach whereby **STEP 1** involves pro-active facilitation of support for family members bereaved by suicide, followed by **STEP 2**, obtaining information from different sources including information from coroners' records, family informants and health care professionals who had been in contact with the deceased in the year prior to death (Figure 1).

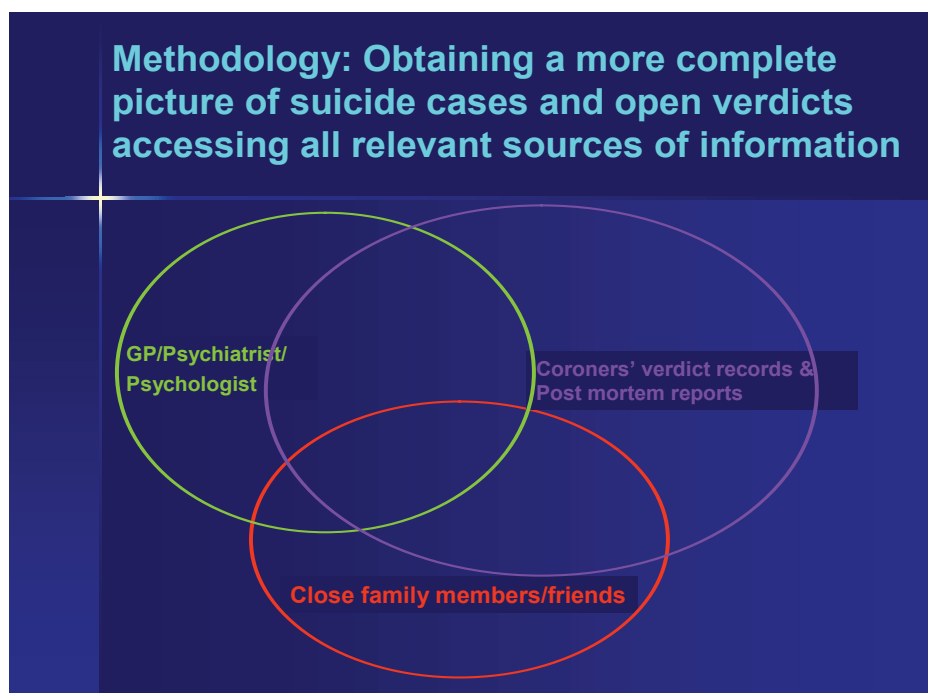


Figure 1: SSIS – Access to multiple sources of information

Case finding criteria

Inclusion criteria of the pilot SSIS comprises: (a) the inquested death having occurred within the Cork City and County coroners' defined catchment areas, (b) the verdict at conclusion of inquest being that of either 'suicide' or 'open' (undetermined deaths) or a narrative verdict in which the death is likely to have been a suicide, and (c) the death occurring and having gone to inquest within the time scale of the pilot study. Given clarification on coroner jurisdiction, suicide verdicts are returned whenever it has been established beyond a reasonable doubt that a person has taken their own life.

In order to be considered a probable suicide, the death must have been self-inflicted and there must be evidence to suggest that the deceased intended to cause his/her death. In some cases, the means by which the deceased caused his/her death may clearly suggest that it was a probable suicide. The following may be considered as evidence of a death being a probable suicide (Rosenberg et al, 1988):

- Explicit verbal or nonverbal expression of suicide intent
- Inappropriate or unexpected preparations for death
- Expression of farewell, desire to die, hopelessness, great emotional or physical pain
- Precautions to avoid rescue
- Previous deliberate self harm acts or threat
- Serious depression or mental health problems
- Stressful events or significant losses

Procedure

The main elements and timing of the Suicide Support and Information System are presented in Figure 2. Consultation with the three Cork coroners participating in the study led to a standardised procedure for contacting family members. This included provision of minimum details regarding each case by the coroners or one of their staff, i.e. name of deceased, verdict, date of birth, date of death and name and contact details of the deceased's next of kin. Shortly following inquest, the family received the initial contact via the SSIS which is described in greater detail in the following paragraphs.

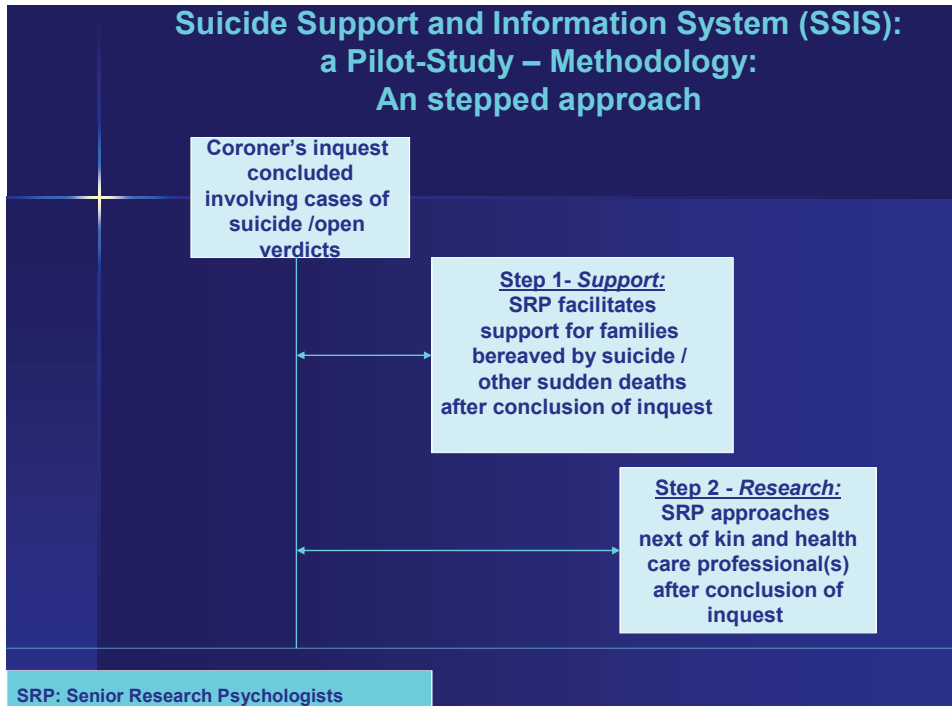


Figure 2: SSIS Methodology – A stepped approach

STEP 1 – Pro-active facilitation of support

The Senior Research Psychologists (SRPs) facilitated support for families bereaved by suicide and open verdict cases after conclusion of the inquest. The first contact between the SRPs and a bereaved family was made after conclusion of the inquest by sending a letter explaining about the SSIS and offering support (Appendix 2). If family members did not indicate that they would not wish to be approached further, the SRPs contacted the family by telephone within 10 days after having sent the letter. During the telephone contact the SRPs assessed the needs of the family in relation to support. If required, the SRPs subsequently liaised with representatives from an appropriate bereavement support or related service who would be available to provide support to bereaved families in the Cork region. Additionally, a bereavement support pack with details of such services was posted to family members who agreed to receive such a pack and facilitation of support started at the 2-week follow-up. A record was kept of those families/individuals already receiving/having received bereavement support prior to contact by the SPR. In situations where family members expressed a preference to receive follow-up phone calls, this was always facilitated by the SPR.

STEP 2 - Information / research

In addition to the pro-active facilitation of support, a retrospective study using a mixed methods approach obtaining both quantitative and qualitative analyses of data was conducted. The psychological autopsy method was used in order to achieve better knowledge and understanding of factors contributing to the occurrence of suicide. During the study period, information on each case of suicide and open verdict was obtained from verdict records and post-mortem reports that are preserved by the coroner and made available to the public after the inquest has been concluded.

Following facilitation of support, the SRP invited a family member who had a close relationship with the deceased to participate in a semi-structured psychological autopsy interview. Participation in the interview was on a voluntary basis and the family member could decide to end the interview at any time. If a family member expressed a preference to participate in the interview together with another family member, every effort was made to accommodate such an arrangement.

Following completion of the interview with family members, they were asked for permission to contact one or more health care professional(s) who had been in contact with the deceased prior to death. Following agreement, a semi-structured questionnaire (Appendix 4c) was sent to the health care professional involved and they were subsequently contacted by the SPR by telephone to verify if they would be interested in participating in the study and if required, they were able to provide any further information about the SSIS. During the pilot phase this questionnaire was originally 24 pages in length. However, experience of contacting GPs and psychiatrists involved in cases suggested that a more concise, 10 page version of this questionnaire was advisable in optimising numbers of participants whilst also retaining the items to which health care professionals were most likely to be able to contribute insightfully.

Table 1 presents an overview of the data items accessed through the 3 main sources of information: coroners, family informants and health care professionals. Further details of the data items are provided in Appendix 4.

Cause of death	Demographic information	History
Description of cause of death	Date of birth	Precipitants to death
Verdict based on inquest	Gender	History of non-fatal suicidal behaviour
Toxicology results in relation to alcohol, drugs and poisons	Nationality	Suicidal behaviour by persons known to the deceased
Presence of suicide note/text/ e-mail message	Ethnicity	Psychiatric history incl. psychiatric diagnoses
	Marital status	Physical health
	Accommodation	Alcohol and drug abuse
	Living arrangements	Treatment history
	Level of education	History of physical maltreatment and/or sexual abuse
	Employment status and profession	Family and personal history
		Stressful and traumatic life events
		Social network

Table 1: Data items accessed through the 3 main sources of the SSIS

Ethical considerations

The SSIS was approved by the Social Research Ethics Subcommittee of the Clinical Research Ethics Committee of the Cork University Teaching Hospitals and the Coroners Society Ireland. A stepped approach was adopted in relation to the contacting of families and other relevant parties. A number of explicit communications occurred to clarify, both in writing and during telephone correspondence, that participation was voluntary, that this could be discontinued at any point during contact, and that non-participation would not in any way affect access to services, etc. Every effort was also made at various points throughout the research to make explicit and transparent the purposes, methods, and reasoning underlying the study itself, and participants therefore provide informed consent throughout the study. The pilot study stage has seen an acceptance and appreciation of the work by a number of parties concerned – these include coroners, family

members and other loved ones of the deceased, and other individuals such as health care professionals, in particular GPs and psychiatrists.

Data protection

The NSRF takes very seriously issues concerning the collection, storage, and access of individuals to data. Confidentiality and anonymity of individuals participating in the research, as well as those whose deaths are the subject of the study, was ensured in a number of ways. Firstly, data are stored securely in offices at the buildings of the NSRF. Laptops were password-protected and sensitive information was filed on the secured NSRF server (rather than on the individual laptop hard-drive). Numerical case codes were used to avoid identification of individuals on Excel databases. Digital audio recordings of interviews with family members were saved to the central server as soon as researchers returned to the office and the audio file on the recorder itself was promptly deleted. Additionally, laptops used in the study were stored in a physically secure manner, i.e. in locked desk drawers, when not in used by researchers.

Data analysis

The data was entered in Excel and data analyses were conducted using SPSS. Data obtained from the checklists completed on the basis of the coroners' records was available for 189 cases, data from completed interviews with family informants was available for 70 cases and data from the completed semi-structured questionnaires obtained from health care professionals was available for 64 cases. There was missing data for some data items. Percentages were adjusted for missing data. Frequencies were calculated for all data items. Differences between subgroups were analysed using Chi-square tests for categorical variables and t-tests for continuous variables. Transcription of the qualitative data is still ongoing.

4. Results

4.1 Response

In total, 178 cases of suicide and 12 open verdicts (total 190) were ascertained in the Cork region during the pilot phase of the SSIS (Figure 3). Coroner checklists were completed for all 190 cases. The next-of-kin (family informant or friend) were written to in 189 (99.4%) cases. In 6 cases (3.1%) the next-of-kin refused further contact beyond the initial letter. Pro-active facilitation of bereavement support involving one or more follow-up phone calls was carried out until July 2010, at which point this procedure was discontinued due to a lack of resources. As a result a contingency arrangement was put in place and the next-of-kin of the remaining 65 cases ascertained were contacted by letter with a bereavement support pack enclosed. They were invited to make contact with the SRP should they wish to avail of additional information or bereavement support. Prior to the contingency plan, of the 106 next-of-kin asked, 70 (66.0%) completed a psychological autopsy interview with the SRP. This response rate compares favourably with previous psychological autopsy studies where response rates of 50-60% are common for interviews with key informants (Owens et al, 2004). Consent was sought at interview to contact the treating GP and, where relevant, the treating psychiatrist of the deceased. In total, 83 healthcare professionals (67 GPs and 16 psychiatrists) were asked to participate, of whom 64 completed HCP questionnaires (77.1% response rate).

4.2 Pro-active facilitation of bereavement support

In addition to the bereavement support pack which was made available in all cases, the next-of-kin were contacted by phone and asked if they or another member of the deceased's family had availed of any bereavement support since the death of their relative. In 59 cases (47.6%) bereavement support had already been obtained by one or more of the next-of-kin prior to contact by the SRP. In every case the family informant or friend was asked if they were satisfied with the support they had received and if they or someone else among the bereaved would like to access bereavement support at that time. In 49 cases (39.5%) the next-of-kin was interested in making contact with a specific bereavement support service and was either provided with the contact details of the relevant service or was asked for their consent to have their details passed on to the relevant service. While a minimum of two follow-up phone calls over a minimum 2 week period was made with the consent of the next-of-kin, in many cases the total number of follow-up calls made, with their consent, far exceeded this. In some cases the bereaved who did not wish to avail of formal bereavement support from a specific service welcomed the opportunity to be contacted further by the SRP and to discuss how they were getting on (N=10, 8.0%).

In a minority of these cases the bereaved requested follow-up after the important first anniversary of the deceased and were not in a position to avail of any specific supports until after this major milestone had passed. In a number of these cases the bereaved indicated that they found the subsequent year after the first anniversary even more difficult as the numbing effect of the shock of the death had now worn off and the full impact of the loss of the deceased and the finality of their altered circumstances was only now beginning to register. Others indicated that they would have welcomed the opportunity of bereavement support sooner than the first contact by the SRP. A small proportion (4.8%, N=6) did not wish to receive further contact following the initial letter from the SSIS team. Of the 65 contingency cases contacted only 4 (6.1%) responded by phone to the initial letter and pack they had received through the SSIS. Only one of these took up a referral to a bereavement support service.

4.3 Risk factors associated with suicide

Demographic factors

Age, gender and nationality

Men were over represented among those who had died by suicide (80.8%). The average age was 37.6 years (SD 17.7) with men being significantly younger (M=35.8, SD 16.1) compared to women (M=45.4, SD

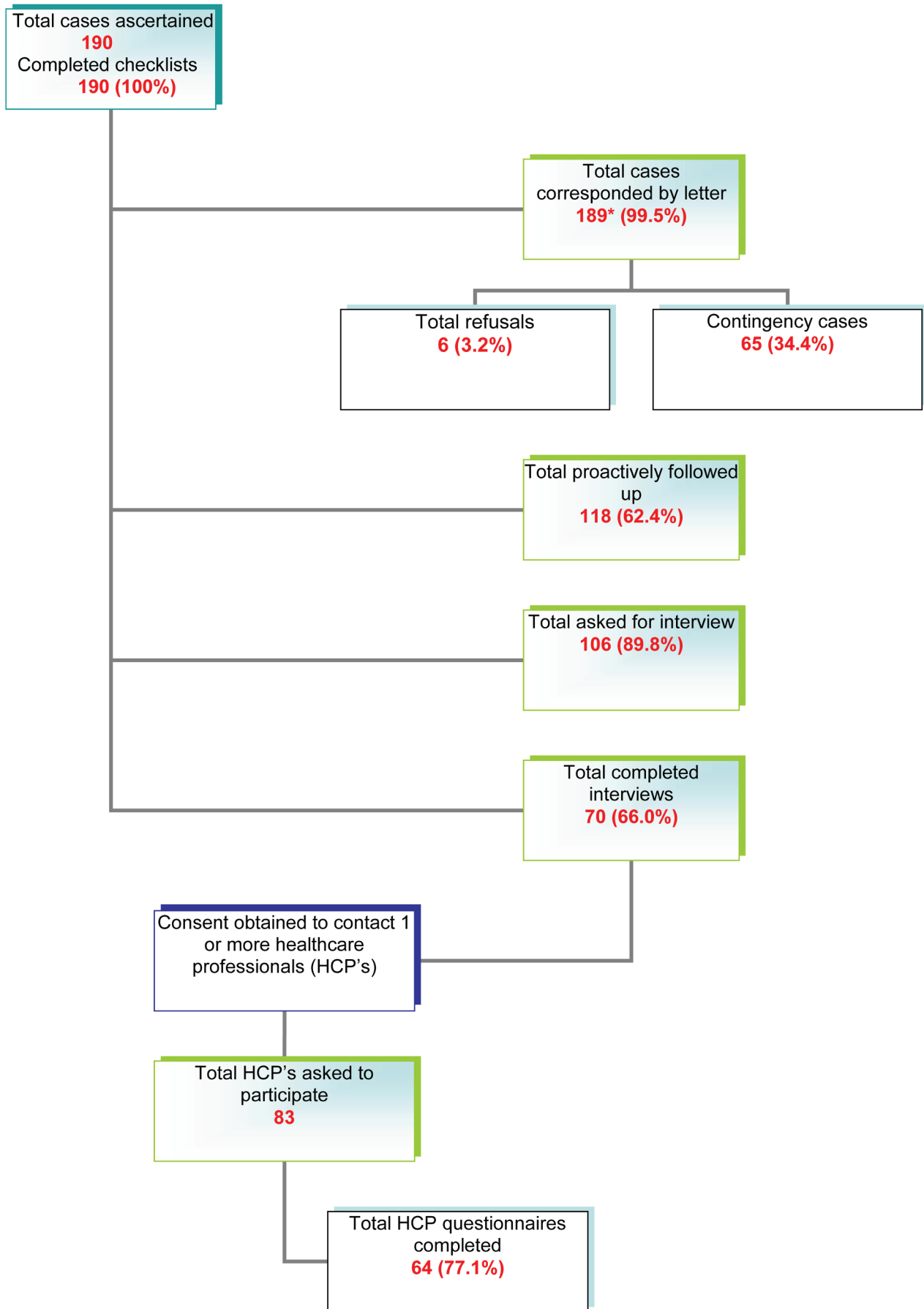


Figure 3: Flowchart illustrating flow of cases and response rates through the SSIS

**In one case the Senior Research Psychologist was advised by the Gardaí to refrain from contacting the bereaved family*

22.4) ($p < .01$). In terms of nationality, 91.8% were Irish, 2.9% were British, 2.9% were from Eastern European countries and the remaining people were from other countries.

Marital status, employment and education

At the time of suicide, the majority were single (55.8%), 30.2% were married or co-habiting, 10.5% were divorced or separated and 3.5% were widowed. The majority (96.2%) were residing in a house or flat at the time of death and 3.8% were living in a supervised hostel. More than one third (36.6%) were living with their family, 21.4% were living alone, 18.3% with partner and children, 8.4% with partner only, 1.5% with children only and 13.7% had a shared living arrangement. In terms of employment status, 38.1% were unemployed, one third were employed (33.3%), 9.5% were retired, 6.3% were long term disabled, 6.3% were students and 6.3% were homemakers.

Occupation

In terms of occupation, nearly one third (32.8%) had been working in the construction sector (e.g. plumber, carpenter, plasterer), a sector which suffered wide-spread downsizing since the start of recession, followed by agricultural occupations (12.5%), students (7.8%), medical profession (6.2%), community services assistant (6.2%), business/commerce (4.7%), educational sector (3.1%), taxi drivers (3.1%), homemakers (3.1%). In addition, a range of other occupations were identified that were less frequently represented. These findings show that some occupational groups in Ireland are associated with an increased risk of suicide.

Characteristics of suicide

The majority of the people had died by hanging (70.5%), 11.1% had died by drowning and 9.8% had taken an intentional overdose of medication or drugs. A minority had used other methods, including cutting or stabbing, carbon monoxide poisoning, firearms and self-immolation.

The medication used in the intentional overdoses included both prescribed (17.2%) and non-prescribed medication (82.8%). Drugs used in intentional overdoses included cocaine and heroin. In 17.5% of the cases, medication and/or drugs were taken in combination with other, more lethal methods such as hanging and drowning. Over one third (35.9%) had consumed alcohol at the time of suicide. Forty-six percent of the suicide cases had left a suicide note, either as a letter, e-mail or text message.

Mental health and social risk factors associated with suicide

Family and personal history

In nearly two-thirds of the suicide cases there was a history of mental disorder in the family (61.3%) and a personal or family history of substance abuse (60.7%). Personal experience of significant physical, sexual or emotional abuse or a family history of abuse was reported for 39.3% of the cases. The experience of a non-natural death of a parent or sibling, such as suicide, homicide or accident was reported for 9.5% of the suicide cases.

History of deliberate self harm

Prior to suicide, in 45.0% of cases the individual had engaged in at least one act of deliberate self harm. Among those known to have engaged in deliberate self harm, 50% had undertaken one act of DSH, 20.8% had engaged in two DSH acts and 29.2% had engaged in 3 or more DSH acts. In terms of methods of DSH, nearly half had engaged in intentional overdoses (48%), 16% had attempted hanging, 16% had engaged in self-cutting, 4% had attempted drowning, 4% had attempted asphyxiation and 12% had used other DSH methods. With regard to time between last episode of DSH and death by suicide, 52% had engaged in DSH 12 months or more prior to ending their lives. However, 12% had engaged in DSH less than a day prior to suicide and 24% had done so less than a week before. Forty-four percent had presented to general hospital following their last act of DSH and 12% had received treatment from a GP. However, 44% had not received any type of medical treatment. The majority (54.5%) had not received any type of psychiatric treatment

following their last DSH act. Just over one third had received inpatient psychiatric treatment (36.4%) and 9.1% had received outpatient psychiatric treatment.

Suicidal behaviour by persons known to the deceased

Over two-thirds were known to have experienced suicidal behaviour (fatal and/or non-fatal) by family members or friends at some point in their lives (68.3%). In most cases this involved the experience of suicidal behaviour by a family member (57.5%), for example a partner, child, brother or sister, and 37.5% had experienced suicidal behaviour by a close friend. The majority of the experiences involved fatal acts of suicidal behaviour (71.4%). In most cases, the experience of suicidal behaviour by a family member or friend and time of death by suicide had occurred 12 months or more prior to suicide of the persons involved (87.7%). In 7.3% of the suicide cases the time period was less than 12 months, in 2.5% this was less than 3 months and in 2.5% this was less than one day.

Symptoms of depression

Depressive symptoms in the 3 months prior to death using the Depression Symptom Checklist revealed a mean score of 6.5 (SD 3.58), which is relatively high. With regard to symptoms of mania in the 3 months prior to death a relatively low mean score of 1.8 (SD 2.21) was found.

Psychiatric diagnoses

A psychiatric assessment was confirmed to have taken place in 31.4% of the cases. In the majority of cases, mood disorder was the primary diagnosis (61.1%) with 7.4% having a bipolar mood disorder. Anxiety disorder was the primary diagnosis in 12.9%, 9.4% had a diagnosis of alcohol dependence and 9.2% had received a diagnosis of schizophrenia.

Substance abuse

In the year prior to death, alcohol and/or drug abuse was present in 51.7% of the cases. Among those, 78.1% abused alcohol in the year prior to death, 34.4% abused both alcohol and drugs and 15.6% abused drugs only. An increase in alcohol and/or drug abuse was observed in the year prior to death for 29.6% and 44.1% had attempted to stop abusing alcohol or drugs.

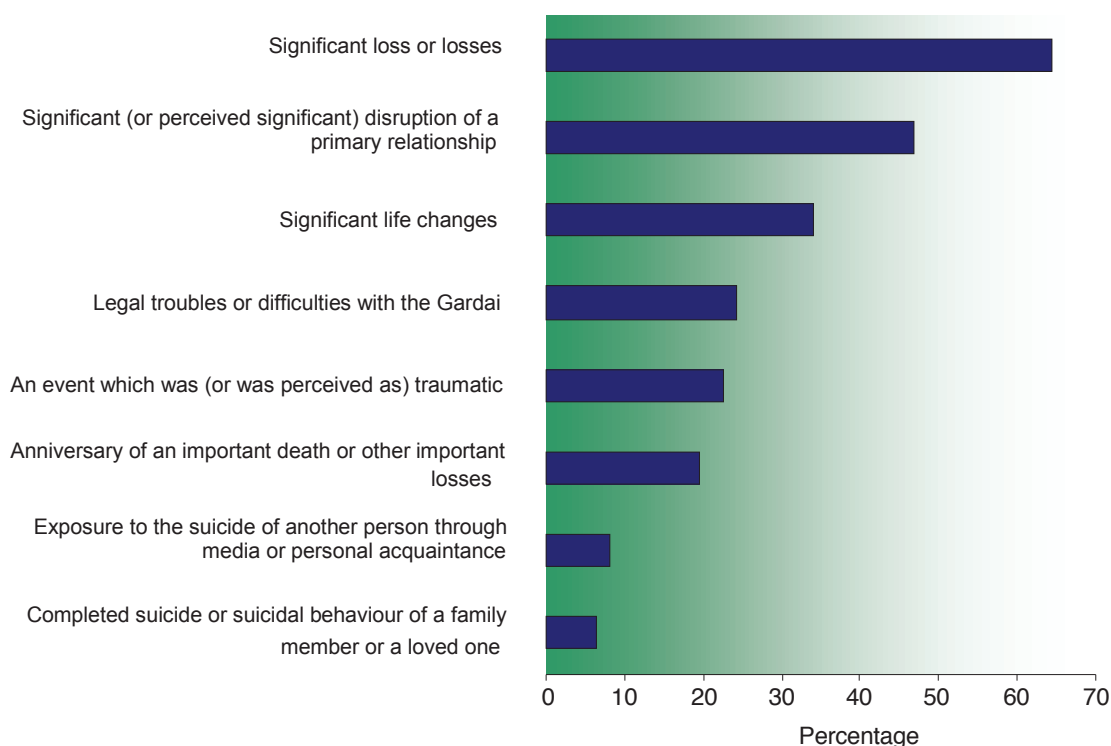


Figure 4: Precipitating factors in the month prior to suicide

Negative and traumatic life events and precipitating factors

Precipitating factors in the month prior to suicide

Figure 4 provides an overview of precipitating factors in the month prior to suicide. Frequently reported precipitating factors were significant loss or losses (e.g. relationships, family members/friends, prestige and finances) (64.5%), significant or perceived significant disruption of a primary relationship (46.8%), significant life changes (33.9%), legal trouble with the Gardaí (24.2%), experience of an event which was or was perceived as traumatic (22.6%), and the anniversary of an important death or other important loss (19.4%).

Negative and traumatic life events in the year prior to death and earlier in life

The outcomes for negative and traumatic life events in the year prior to suicide and earlier in life (but after the age of 15) are presented in Figure 5. In the year prior to suicide, more than half of the people involved had serious relationship problems which lasted for more than a year (52.8%). Loneliness over a long period of time in the year prior to suicide was reported for 46.6%. Other commonly reported negative events in the year prior to suicide were serious financial problems (44.3%), problems with eating (e.g. overeating or less/not eating), unemployment (31.1%), problems in bringing up children (28.1%), mental maltreatment by a partner (27.8%) and failure in achieving an important goal (19.7%).

The most commonly reported negative events that occurred earlier in the lives of people who died by suicide were serious relationship problems lasting for more than a year (65.8%), problems in bringing up children (43.8%), addiction to alcohol, drugs or medication (41.3%), serious financial problems (39.7%), the experience of loneliness over a long period of time (37.9%) and a sudden and unexpected emergency (36.8%).

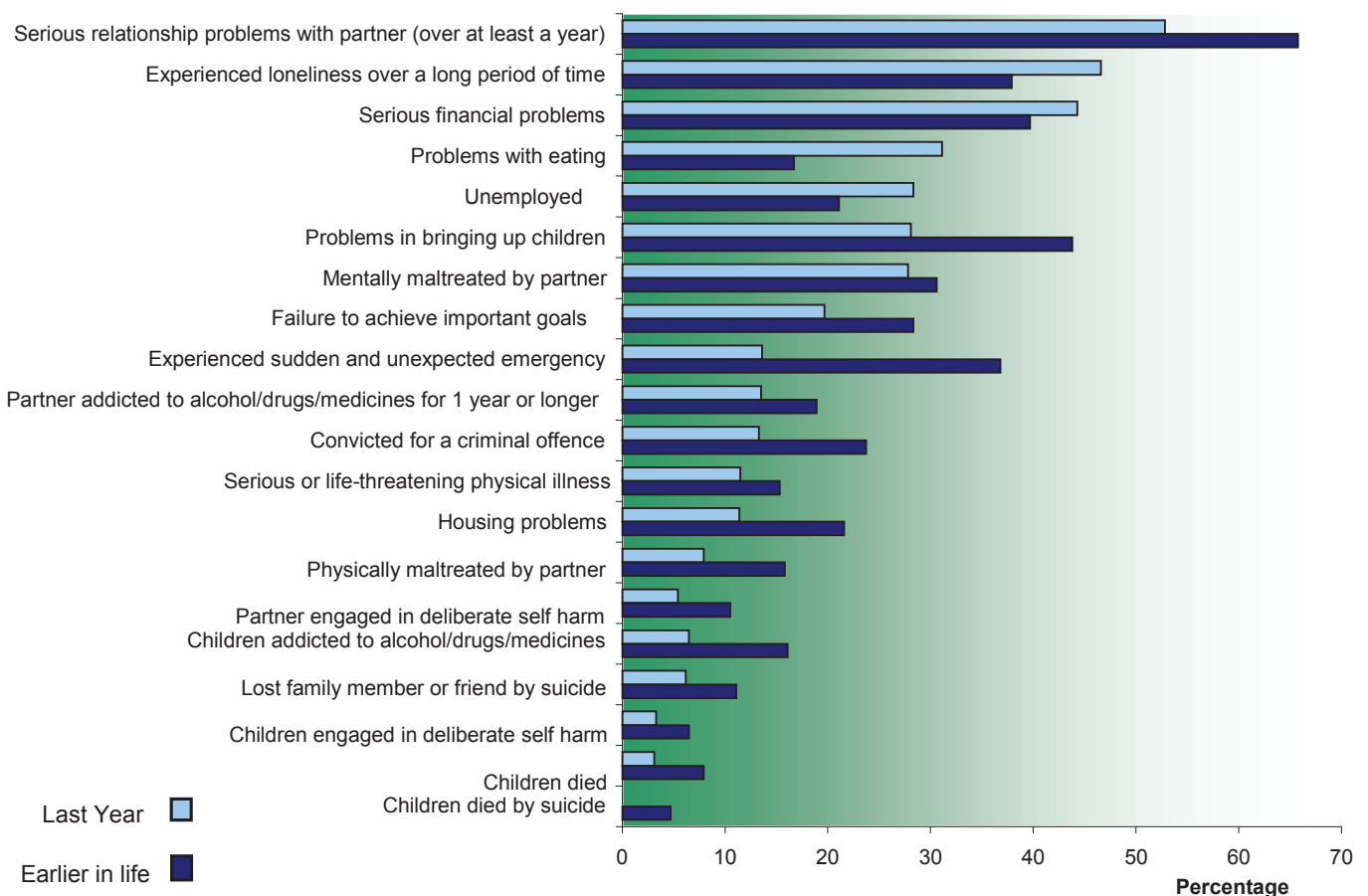


Figure 5: Negative and traumatic life events in the year prior to death and earlier in life

Figure 6 illustrates commonly reported negative and traumatic events that occurred in childhood and early adolescence (until 15 years). Over one-third of the people who died by suicide had experienced problems with school (38.7%). Problems in making contact with others were reported for 18.3% and 18.0% had lost a close family member or close friend to death. Mental maltreatment by a family member or friend and physical maltreatment by parent(s) or carer(s) were reported for 16.4% and 15.8% respectively. The experience of loneliness over a long period of time and serious physical illness were reported less frequently.

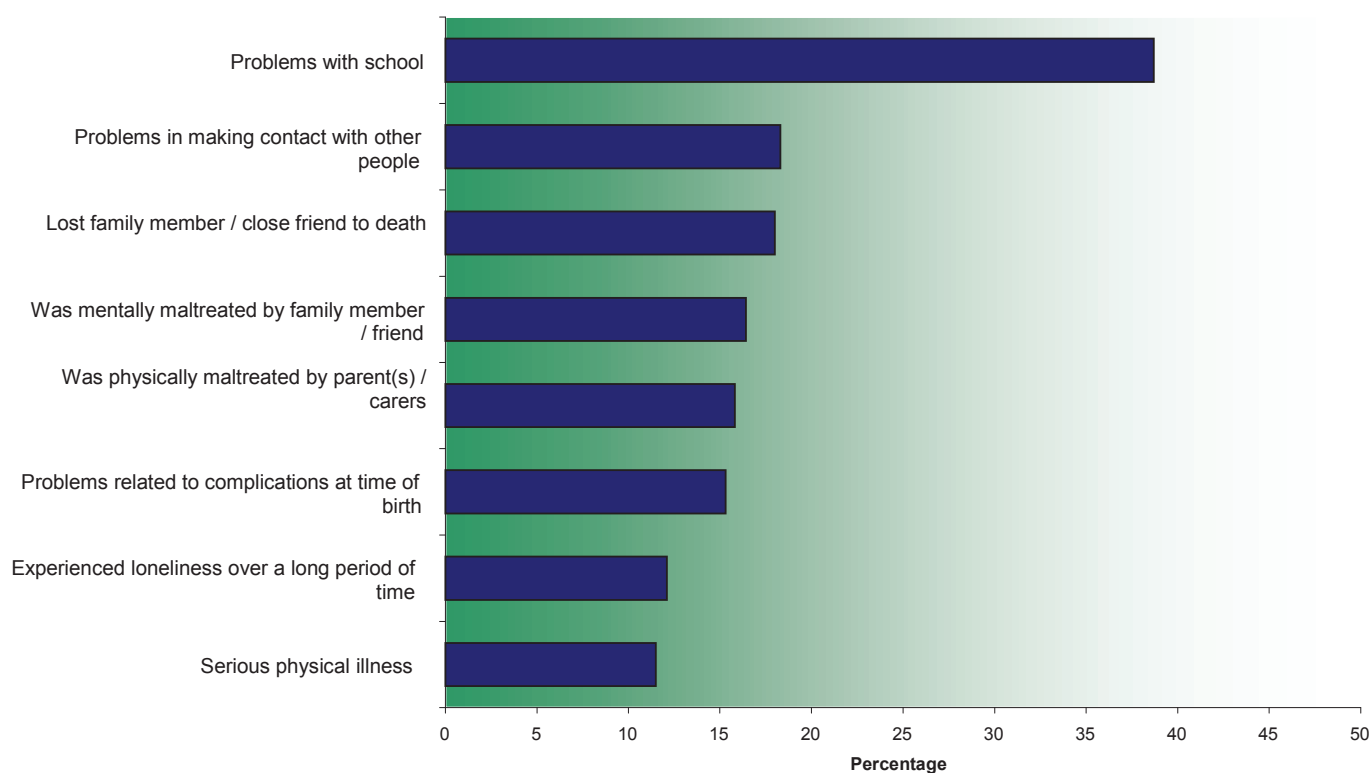


Figure 6: Negative and traumatic life events in childhood and early adolescence

Physical health

A physical illness including symptoms and illnesses well controlled by treatment was reported in 45.0% of cases. A wide range of physical symptoms and illnesses were reported including hypertension (18.5%), coronary heart disease (14.8%), respiratory diseases (11.3%), stomach ulcers (11.3%) and cancer (7.4%). One-third (32.3%) suffered from physical pain in the year prior to death, such as severe headaches, chronic pain following accidents and pain associated with chest and urinary infections.

Contact with health care services

In the year prior to death, 81% of the people involved had been in contact with their GP or a mental health service. Among those who had been in contact with their GP, the majority (67.4%) had been in contact with their GP 4 times or more during the year prior to death, 17.4% had been in contact 2-3 times and 15.2% had been in contact once. Thirty percent of the deceased had a lifetime history of inpatient psychiatric treatment at a psychiatric hospital or on a psychiatric ward of a general hospital, and 13.5% had received inpatient psychiatric treatment during the year prior to death. Forty-one percent had been offered outpatient appointments with the mental health services. However, nearly half (47.8%) had difficulties attending these appointments and in 65.2% of cases there were no apparent benefits from attending the recommended outpatient mental health services. A notably high proportion (48.2%) had difficulties in accessing health care services.

Among the deceased, 56.6% used prescription medication for a mental disorder in the year prior to death. However, a remarkably high proportion (46.4%) did not comply with the instructions on the medication.

4.4 Suicide clusters and extended suicide

The suicide cluster in Cork

During the pilot phase the SSIS identified a cluster of 19 suicides in two small areas in Cork comprising 40,125 inhabitants (males: 19,997, females: 20,128). The cluster suicide cases involved adolescent and young adult males aged 14-36 years (mean age: 23 years) who all died by hanging between September 2008 and December 2010 in a small area in Cork. Suicide clusters are commonly defined as “a temporary increase in the frequency of suicides within a defined catchment area, relative to both the suicide rate before and after the cluster and the rate in neighbouring areas” (Gould, 1990; Mesoudi, 2009). According to this definition, a large and statistically significant increase in suicide was identified in the area in which the suicide cluster occurred. During the period September 2008 – December 2010, the suicide rate peaked at 350 per 100,000, for young men aged 15-39, which was more than 11 times greater than the average rate of 30 per 100,000 in the same area in the years prior to the occurrence of the suicide cluster. The increase in suicide was paralleled by a significant increase in deliberate self harm. During the period in which the suicide cluster occurred, the deliberate self harm rate peaked at 591 per 100,000, for the same age group. The time-space criteria for suicide clusters were further confirmed using Health Atlas Ireland (Figure 7).

In addition to the cluster of 19 cases of suicide, the SSIS identified one other small area in County Cork with an emerging suicide cluster. In this area 6 men, aged 34-67 years, took their lives over a period of 13 months. During this period the suicide rate in this area had increased significantly, to 158 per 100,000. Two contagion effects were identified. Within one family, three men, aged 15-49 years, took their lives within a period of 11 months. Another contagion effect involved 2 friends, both aged 47 years, who took their lives within a period of 4 weeks.

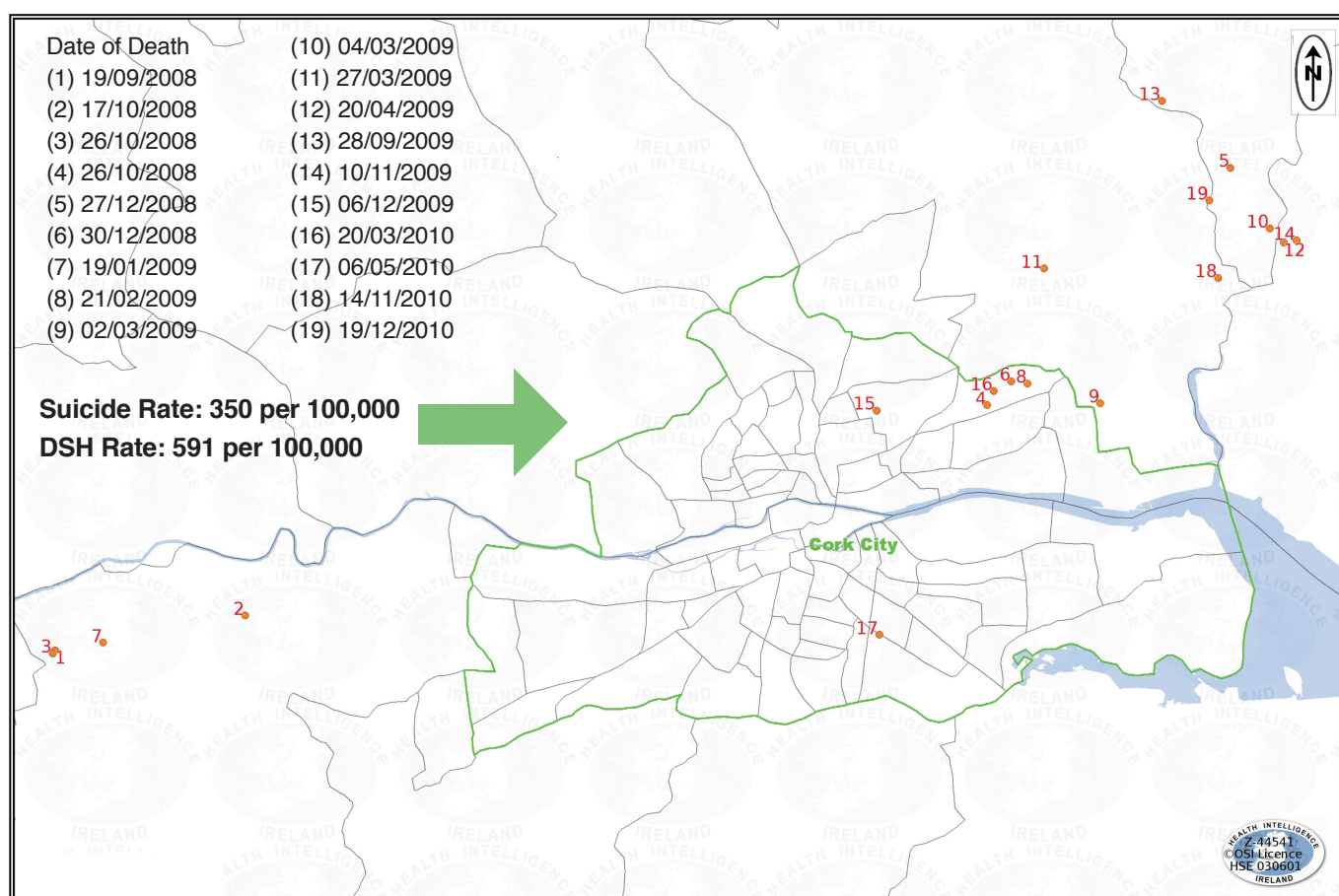


Figure 7: Suicide cluster of young men in Cork (September 2008 - December 2010)

Through the multiple sources of information accessed by the SSIS, direct links were identified among at least 10 young men (more than half of the cases) involved in the suicide cluster in terms of being close friends or neighbours and indications of indirect links (e.g. links through youth service or activities in the community) were present in the other cases. One example of a direct link is the situation in which 3 close friends died by suicide over an 8-month period. The first two friends died by suicide within one month. The third friend tried to rescue the second friend from an attempt to take his life but failed to do so. Six months later this young man also took his own life. The direct relationship between the suicide deaths of these two young men indicates that so-called ‘contagion effects’ contributed to the development of the suicide cluster, i.e. *“the exposure to suicide or suicidal behaviours within one’s family or one’s peer group can result in an increase in suicide and suicidal behaviours”* (Exeter and Boyle, 2007, Mesoudi, 2009).

Based on information from multiple sources accessed by the SSIS, we were able to investigate contagion effects in greater detail by examining whether there were similarities among the young men involved in the suicide cluster in terms of risk profile.

A matched comparison between cluster and non-cluster suicide cases in terms of mental health and social risk factors was undertaken (Table 2). All except 3 of the young males involved in the cluster had used multiple drugs (prescription and street drugs) often combined with alcohol, while this was significantly less prevalent among the non-cluster suicide cases. Compared to the non-cluster suicide cases, the suicide cluster cases were less likely to communicate their suicidal intentions, they had more often experienced the loss of a friend by suicide, and they had more often a history of alcohol and/or drug abuse since early adolescence.

	Suicide cluster cases (n=19) n / (%)	Non-cluster suicide cases (n=19) n / (%)
Substances taken at time of death:		
- Street drugs/prescription drugs	16 (84.2)	3 (15.7)
- Alcohol	15 (79.9)	9 (47.3)
Experience of suicide by a close friend	8 (42.1)	3 (15.7)
Communication of suicidal Intent	4 (21.0)	10 (52.6)
History of alcohol/drug abuse since early adolescence	10 (52.6)	3 (15.7)

All differences are statistically significant, at least $p < .01$

Table 2: Differences between suicide cluster and non-cluster cases

Apart from differences, the suicide cluster and non-cluster cases were also similar in certain aspects, such as relatively high levels of unemployment, mental health problems in their families, the experience of suicide by a family member and relatively high levels of depressive symptoms in the 3 months prior to death (Table 3). In both groups a remarkably high proportion had experienced sexual abuse. Among both the suicide cluster and non-cluster cases a fairly similar proportion had left a suicide note or final e-mail or text message prior to suicide, 36.8% and 42.1% respectively.

	Suicide cluster cases (n=19) n / (%)	Non-cluster suicide cases (n=19) n / (%)
Unemployed	8 (42.1)	10 (52.6)
Mental health problems in family	9 (47.3)	6 (31.5)
Sexual abuse experiences	4 (21.0)	3 (15.8)
Experience of suicide by a family member	9 (47.3)	7 (36.8)
Left suicide note/e-mail/text message	7 (36.8)	8 (42.1)
Symptoms of depression 3 months prior to death	M=5.91 (SD 3.18)	M=6.33 (SD 3.77)

Table 3: Similarities between suicide cluster and non-cluster cases

Common themes reported in relation to the suicide cluster

Themes that were recurrently reported in the psychological autopsy interviews with family informants of the cluster suicide cases included:

- Major issues with alcohol and drug abuse
- Undiagnosed and untreated ('hidden') mental health problems
- Lack of parental involvement and over-attachment to peers
- Violence and homicide (both within families and among friends)
- Recurring suicides and long term effects of bereavement
- Lack of coherent services and lack of specialised counsellors
- Glorification of a young person who has died by suicide
- Distorted perception of death (lack of understanding of the finality of death)

The role of the SSIS and the media

Already in 2009 the first signs of an emerging suicide cluster in Cork were identified by the SSIS. From this point in time, the NSRF consistently underlined the importance of adherence to the media guidelines in order to avoid sensationalised and detailed reporting of individual cases involved in the suicide cluster. Because, the SSIS was able to detect the emerging suicide cluster these precautions were possible. This may have contributed to the absence of media reporting of specific cases, which is in sharp contrast with the extensive and detailed media reporting during the development of other suicide clusters in recent years, such as in Bridgend (Wales) and Dundee (Scotland). Although no conclusions can be drawn, it is noteworthy that there was no media coverage during the development of the suicide cluster.

The role of the SSIS in responding to the suicide cluster

The information obtained through the SSIS has been used to support and optimise a coordinated response to address the needs of families and agencies affected by the suicide cluster. Since the identification of the suicide cluster by the SSIS, the NSRF has provided detailed information to the National Office for Suicide Prevention, the Department for Health and Children and many other key stakeholders on an ongoing basis. Through the SSIS, the NSRF has provided support to families and agencies in the suicide cluster area on an ongoing basis including arranging referral of bereaved family members to appropriate services, information and debriefing sessions for key stakeholders and the general public.

Even though the funding for the SSIS pilot study has ceased, the NSRF is still providing information and support to families, health care and community based agencies in the suicide cluster area because the suicide cluster is still ongoing and the impact of the suicide cluster on the families involved and on the community as a whole will last for a number of years. Through the SSIS pilot study, the NSRF has expanded its expertise in identifying emerging suicide clusters and monitoring the changing profile of individuals involved in suicide

clusters over time. As a result the NSRF has optimised its advisory role in supporting key stakeholders in responding to suicide clusters.

Filicide-suicide

During the SSIS pilot implementation phase a tragic case of filicide-suicide occurred in the Cork region where a father took the lives of his two children. According to the coroner's verdicts the children died from asphyxiation. The father died from inhalation of smoke and fire gasses, and burns, self-inflicted. Since this tragedy occurred, the SSIS team has been approached for information and support by the surviving mother, health care professionals and other agencies that are involved in providing aftercare. While cases of filicide-suicide are rare, when they occur they pose a considerable challenge even to specialist suicide bereavement services. In response to the specific needs identified in this case, the SSIS team has provided advice, facilitated support and prepared a briefing document on murder-suicides.

As the coroner's inquest was concluded after completion of the SSIS pilot study, the surviving wife and mother could not be invited during time of the pilot study for a family informant interview. However, considering the exceptional circumstances of this tragedy, together with the specific needs of the bereaved wife and mother, the SSIS team will provide the possibility for further pro-active support and the conducting of an interview.

4.5 Better define the incidence and patterns of suicide in Ireland

A unique feature of the SSIS is that for the first time in Ireland there is a system that enables timely identification of suicide cases and emerging suicide clusters ca. 3 years earlier than the Central Statistics Office, which is a major benefit for both suicide prevention and postvention. It also ensures that all suicide bereaved families are identified and offered bereavement support according to a standardised protocol.

Even though anecdotal information on emerging suicide clusters may be available in the community, the systematic approach of the SSIS in identifying emerging suicide clusters increases the accuracy and completeness of the required information. Another major benefit is the wide range of information on demographic, mental health and social factors on cases of suicide obtained through the different sources of information accessed by the SSIS (coroners' records, family informants and health care professionals) which has been used to describe risk factors associated with suicide and specific risk factors associated with the clustering of suicide and contagion. Routine data on suicides and undetermined deaths provided by the CSO has shown limited completeness of information on demographics, cause of death, medical history and psychosocial characteristics of the persons involved (Corcoran and Arensman, 2010; NSRF, 2007).

Research in the UK has shown the majority of undetermined deaths are likely to be suicides (Cooper et al, 1995; Linsley et al, 2001). So far in Ireland, independent research into undetermined deaths and deaths classified as open verdicts is limited. Therefore, one of the objectives of the SSIS was to obtain detailed information on cases classified as open verdicts.

Deaths classified as open verdicts

During the SSIS pilot phase, 12 cases classified as open verdicts were identified, the characteristics of which were in line with the case finding criteria. The majority were men (66.7%) and the mean age was 55.9 (SD 15.12).

Table 4 presents an overview of key characteristics of those who died and were classified as open verdicts. In terms of demographic characteristics, a relatively high proportion was widowed (16.7%) and retired (41.7%) which is associated with the older average age compared to the confirmed cases of suicide. With regard to cause of death, a relatively large proportion had died by drowning, 25% had died by hanging and 33% had used other methods. Due to the small numbers, specific details about the other causes/methods are not included in this report. A relatively large proportion (45.5%) had consumed alcohol at the time of death

Demographic characteristics	Percentage
Marital status:	
- Married/co-habiting	50.0
- Single	25.0
- Widowed	16.7
- Divorced/separated	8.3
Economic situation:	
- Employed	50.0
- Retired	41.7
- Unemployed	8.3
Characteristics related to cause of death	
Cause of death	
- Drowning	41.6
- Hanging	25.0
- Other causes/methods	33.4
Alcohol consumed at time of death	45.5
Left suicide note/e-mail/text message	16.7
Mental and physical health	
Presence of psychiatric diagnosis	66.6
Primary psychiatric diagnosis:	
- Mood disorder	87.5
- Other	12.5
History of one or more acts of deliberate self-harm	41.6
Physical illness	25.0
History of alcohol abuse	25.0

Table 4: Characteristics of deaths classified as open verdicts

which is similar to the confirmed cases of suicide. A suicide note, e-mail or text message prior to death was present in 16.7% of the open verdicts. A relatively high proportion (66.6%) were assessed with a psychiatric diagnosis, the majority having a mood disorder (87.5%), which is higher than the confirmed suicide cases. The presence of a history of deliberate self harm was determined among 41.6% which is fairly similar to the confirmed suicide cases. The presence of a history of alcohol abuse and physical illness was reported for 25% of those classified as open verdicts, which was lower than among the confirmed suicide cases. In the year prior to death, 58.3% used psychotropic medication, which was similar to the confirmed suicide cases.

4.6 Identification of individuals who present for medical treatment due to deliberate self harm and who subsequently die by suicide

In order to enhance the prediction of suicide risk, the use of the data obtained through the SSIS can be optimised by making a link with the National Registry of Deliberate Self Harm (NRDSH). This is already a common procedure for other disease registries, such as the National Cancer Registry in Ireland.

International research shows that deliberate self harm is the most important risk factor for suicide (Claassen et al, 2006; Haw et al, 2007; Hawton and Van Heeringen, 2009). It has been estimated that in the year after an act of DSH the risk of suicide is 30-50 times higher than in the general population (Owens et al, 2002; Kapur, 2004).

Reviews of international psychological autopsy studies show that a lifetime history of deliberate self harm is one of the 5 most important risk factors for suicide, in addition to alcohol abuse, mood disorders, unemployment and marital/relationship problems (Yoshimasu et al, 2008).

Linking the SSIS and NRDSH data

The need to link deliberate self harm data with suicide mortality has been reinforced by the findings of the SSIS that a relatively large proportion of people who die by suicide and deaths classified as open verdicts have engaged in one or more acts of deliberate self harm at some point during their lives, 45.0% and 41.6% respectively.

Between 2003 and 2010, the NRDSH has recorded routine data on more than 87,000 cases of deliberate self harm that presented to all 40 Irish hospital emergency departments. Examination of the suicides and open verdicts ascertained by the SSIS between 2008 and 2010 showed that at least 10% of these cases had been medically treated for deliberate self harm in the Cork region over the time period 2007-2009. Further retrospective checks will be completed by the end of 2011. Comparison between the SSIS mortality data and the NRDSH self harm data has been an important first step in the process of linking the NRDSH self harm data with the CSO mortality data, which will significantly enhance the prediction of people at risk of suicide.

5. Costs of suicide versus benefits of the SSIS

Reporting on the feasibility and effectiveness of a newly developed Suicide Support and Information System also requires consideration of the cost-effectiveness of such a system in terms of suicide prevention. The outcomes of the SSIS as described in the previous sections clearly underline that suicide is a human tragedy, which in most cases is preceded by life-long adversity, and the occurrence of a suicide clearly has a devastating impact, not only on families and friends, but also on the wider community. This impact is further intensified when we are confronted with a suicide cluster or extended suicide.

In challenging times, such as the current economic recession in Ireland, where we are facing a paradoxical situation of increasing suicide rates and at the same time reduced access to services for people at risk of suicide and those with mental health problems, it is important to address the cost-effectiveness of newly developed systems such as the SSIS.

According to economists, the costs involved in suicide include direct, indirect and intangible human costs (Kennelly, 2007; Zechmeister et al, 2008). Direct costs include explicit monetary outlays, such as funeral expenses, emergency services and medical treatment. Indirect costs refer to the value in terms of lost output or production associated with paid and unpaid work due to premature mortality. Intangible human costs refer to pain, grief and suffering, which are difficult to conceptualise and measure (Kennelly, 2007; Zechmeister et al, 2008). Based on the number of suicides in Ireland 2002 (n=478), Kennelly (2007) estimated the total cost of suicide (incl. direct, indirect, human costs) at €835,662,917 with a significantly higher cost of suicides for men (n=387) €691,132,851 than for women (n=91) €144,530,067. These outcomes clearly underline that investment in suicide prevention and mental health promotion can be justified on the basis of the cost associated with suicide in Ireland.

The SSIS pilot study has provided evidence for major benefits of such a system, for example, successful facilitation of close to 40% of bereaved family members, improved suicide risk identification and early identification of emerging suicide clusters. The costs involved in running the SSIS pilot study in the Cork region over 27 months were €148,750. In the context of the cost of suicide in Ireland, the cost of national implementation of the SSIS would be low when considering the many proven benefits.

In the context of the cost of suicide in Ireland, the benefits of maintaining and expanding the SSIS clearly outweigh the costs.

6. Summary

International context – A review

- Research into the impact of suicide on next of kin consistently shows that they are at increased risk of suicide themselves.
- Research indicates the need to implement protocols for dealing with bereaved relatives in order to better support them in going through the coroners' inquest procedure.
- The psychological autopsy approach is an internationally recommended research method for suicide research and would be recommended for systems such as the SSIS.
- International research shows consistency in relation to a number of risk factors associated with suicide, such as the presence of alcohol and drug abuse, psychiatric disorder, marital/relationship problems, unemployment, history of deliberate self harm and adverse life events. However, risk factors may change in the context of socio-economic developments.
- Research is required in determining suicide risk profiles in order to target high risk groups and situations when implementing suicide prevention programmes.
- Research is required in determining specific suicide related and contextual factors that reinforce the social learning process underlying both time-space clusters and mass clusters.

The Suicide Support and Information System (SSIS)

- In the international context, the SSIS is an innovative system in that it combines objectives in relation to support for people bereaved by suicide and research objectives. A further unique aspect is the access to multiple sources of information relating to the deceased (information from coroners records, family informants and health care professionals).
- During the pilot phase, the SSIS established a unique interdisciplinary structure in the Cork region including coroners, pathologists, GPs, Gardaí and health care professionals, facilitating both postvention and suicide prevention initiatives.
- The objectives of the SSIS are in line with international best practice (e.g. National Confidential Inquiry into Suicide and Homicide in the UK).
- Throughout the SSIS pilot phase, the response rates from coroners, family informants and health care professionals were either in line with international averages or even higher.

Results of the SSIS pilot study

Pro-active facilitation of bereavement support

- In all except one case (99.4%), the SSIS provided bereavement support packs to bereaved families.
- In 39.5% of cases, the SSIS pro-actively facilitated bereavement and other support. In 47.5% of cases bereavement support had been obtained prior to contact with the SSIS team.

- During the pilot phase, evidence supporting the benefits of the pro-active facilitation approach of the SSIS was obtained. However, following a contingency plan the pro-active facilitation approach had to be discontinued. As a consequence the uptake of support through the SSIS dropped significantly.
- Pro-active facilitation of bereavement support following conclusion of the coroner's inquest has a number of advantages, such as many bereaved family members reported that they did not feel ready to avail of any support until the first anniversary of the deceased had passed and until the inquest had been concluded, which were perceived as major milestones. Some families experienced the year after the first anniversary as more difficult as the shock and numbing effects of the death had worn off and the full impact of the loss of the deceased was only now beginning to register

Risk factors associated with suicide

- Demographic risk factors associated with suicide included men in the younger age groups, frequent separation or divorce and unemployment.
- The most frequently used suicide method was hanging, followed by drowning and intentional overdose. Consumption of alcohol at the time of suicide was present in more than one third of the deceased.
- Mental health risk factors associated with suicide included mood disorder of the deceased, mental disorder of family members, history of deliberate self harm, lifetime alcohol abuse and in the year prior to death.
- Major precipitating factors in the month prior to suicide included significant losses, significant or perceived significant disruption of a primary relationship and significant life changes. Evidence was found for the impact of the economic recession in terms of job loss, increased suicide risk associated with specific occupations, financial problems and loss of possessions such as house etc.
- Negative and traumatic events in the year prior to suicide included serious relationship problems, / loneliness over a long period of time, addiction to alcohol, drugs or medicines, financial problems and eating problems.
- Evidence was found for long term adversity in the lives of people who died by suicide, often starting in childhood or early adolescence and continuing in later life, such as mental and physical maltreatment, problems in making contact with others and loneliness over a long period of time.
- Nearly half of the deceased had a physical illness (45.0%) comprising of a wide range of symptoms and diseases, such as hypertension, coronary heart disease, respiratory diseases, stomach ulcers or cancer.
- The majority of the deceased had been in contact with their GP or a mental health service in the year prior to death, and those who had contacted their GP had done so 4 times or more.
- Challenges exist in the contact with health services including difficulties in accessing health care services, difficulties in adhering to treatment appointments and lack of compliance with instructions related to prescribed medication.

Suicide clusters and extended suicide

- The SSIS has been shown to be effective in identifying emerging suicide clusters.
- Through the multiple sources of information accessed by the SSIS, contagion effects could be identified and direct and indirect relationships among the suicide cluster cases could be established.

- Matched comparison between the suicide cluster and non-cluster suicide cases revealed a risk profile of the suicide cluster cases characterised by severe alcohol and drug abuse, often starting in early adolescence, exposure to and grief related to loss of friends by suicide and non-communication of suicidal intent. In addition, over-attachment to peers and glorification of suicide may have reinforced the development of the suicide cluster.
- The SSIS has contributed significantly to the implementation of the media guidelines during the development of the suicide cluster, resulting in the absence of sensationalised media reporting of specific cases involved in the cluster.
- The SSIS has been proven to be an important system in informing suicide prevention policy and optimising a coordinated response to address the needs of families, friends and agencies affected by the suicide cluster.
- Through the SSIS, the NSRF has provided support to families and agencies in the suicide cluster on an ongoing basis including arranging referral of bereaved family members to appropriate services, information and debriefing sessions for key stakeholders and the general public.

Better define the incidence and patterns of suicide in Ireland

- Considering the timely access to information on suicide cases and deaths classified as open verdicts significantly earlier than the CSO, the SSIS is the first system in Ireland that enables identification of emerging suicide clusters.
- Through its access to multiple sources of information, the SSIS has achieved a high level of completeness of information on risk factors associated with suicide and specific risk factors associated with the clustering of suicide, in particular with regard to medical history and psychosocial characteristics. This is a major improvement compared to limited completeness of similar information provided by the CSO.
- Even though the number of open verdicts was relatively small, comparison with confirmed suicide cases revealed more similarities than differences, such as alcohol consumption at time of death, history of deliberate self harm, a high prevalence of mood disorders and use of psychotropic medication.

Identification of individuals who present for medical treatment due to deliberate self harm and who subsequently die by suicide

- During the SSIS pilot phase first analyses were performed to link the SSIS data with the data from the National Registry of Deliberate Self Harm (NRDSH). Examination of suicides and deaths classified as open verdicts ascertained by the SSIS between 2008 and 2010 showed that at least 10% of the cases had been medically treated for deliberate self harm in the Cork region over the time period 2007-2009.
- Comparison between the SSIS mortality data and the NRDSH self harm data has been a fundamental step in the process of linking the NRDSH self harm data with the CSO mortality data. These findings further underline the value of the SSIS in improving the prediction of people at risk of suicide.

Costs of suicide versus benefits of the SSIS

- Benefits of the SSIS as identified by the pilot study include successful facilitation of nearly 40% of suicide bereaved family members (in addition to those who already received support), improved suicide risk identification and early identification of suicide clusters.
- Comparing the estimated cost of suicide in Ireland with the outcomes and benefits of the SSIS implemented in the Cork region, the pilot study has provided consistent evidence that the cost of national implementation of the SSIS would be low when considering the proven benefits.

7. Recommendations

1. The outcomes of the SSIS pilot study and the independent evaluation by the University of Manchester recommend the maintenance of the SSIS in Cork and expansion to other regions, including those with high rates of suicide and a history of suicide clusters. Recommended options for expansion of the SSIS include:
 - a) Phased implementation in collaboration with the Department of Health and Children and the Department of Justice and Equality ;¹
 - b) Phased implementation in collaboration with suicide bereavement support services.¹
2. Pro-active facilitation of bereavement support would be the recommended approach for services working with families bereaved by suicide, ensuring that these families are offered bereavement support through the services currently in place.
3. Recommended sources of information for further implementation of the SSIS or similar systems include coroners, family informants and health care professionals.
4. It is recommended to increase the awareness of coroners and health care professionals of local bereavement support services and materials and to offer these to bereaved family members and friends as a matter of course.
5. The association between the impact of the recession (unemployment, financial problems, loss of possessions) and suicide as identified by the SSIS underlines the fact that suicide prevention programmes should be prioritised during times of economic recession.
6. Based on the association between alcohol/drug abuse and suicide as identified by the SSIS, it is recommended that:
 - a) National strategies to increase awareness of the risks involved in the use and misuse of alcohol should be intensified, starting at pre-adolescent age
 - b) National strategies to reduce access to alcohol and drugs should be intensified
 - c) Active consultation and collaboration between the mental health services and addiction treatment services be arranged in the best interests of patients who present with dual diagnosis (psychiatric disorder and alcohol/drug abuse).
7. It is recommended that suicide risk assessment be included as a core element of routine practice within health care services working with clients with deliberate self harm, mood disorders, alcohol/drug abuse, and long-term adversity and/or traumatic life events.
8. Based on the high proportion of suicide cases who had experienced self harm and suicide among family members and close friends, it is recommended that suicide risk assessment needs to be incorporated as part of routine practice in services delivering bereavement support.
9. The fact that the majority of people who died by suicide had been in contact with their GP 4 times or more in the year prior to death provides evidence for increased suicide awareness and skills training for GPs.
10. In areas with emerging suicide clusters, it is recommended to encourage involvement of GPs and other primary care professionals in a response plan and in early identification of people at risk of suicidal behaviour.

¹ Proposed implementation plans for the SSIS are included in Appendix 5

11. It is recommended to improve access to health care services for people who have engaged in deliberate self harm, people at high risk of suicide and people with multiple mental health and social problems.
12. The outcomes of the SSIS in terms of specific risk factors associated with suicide clustering underline the need for intensive multi-level suicide prevention programmes whereby multiple interventions are implemented with key stakeholders at the same time.
13. It is recommended that in areas with large and ongoing suicide clustering effects, high levels of socio-economic deprivation and fragmentation, the implementation of suicide prevention programmes should be combined with interventions that address these social problems as part of a multi-agency approach.
14. In areas with emerging suicide clusters, the HSE-NOSP guidelines for responding to suicide clusters should be implemented and supported by additional capacity and specialist expertise as a matter of priority.
15. Comparing the characteristics of confirmed cases of suicide to open verdicts, the SSIS identified more similarities than differences, which underlines the need for further in-depth investigation into cases classified as open verdicts.
16. Based on the value of linking SSIS mortality data with the NRDSH self harm data it is recommended to link the NRDSH data with the CSO mortality data, which will be a fundamental next step in improving the prediction of people at risk of suicide.

8. Contribution of current study to the area of suicide research and prevention

What is already known on this subject:

- Research into the impact of suicide on next of kin consistently shows that they are at increased risk of suicidal behaviour themselves.
- Research indicates the need to implement protocols for dealing with bereaved relatives in order to better support them in going through the coroner's inquest procedure.
- Research shows consistency in relation to a number of risk factors associated with suicide, such as the presence of alcohol and drug abuse, psychiatric disorder, marital/relationship problems, unemployment, history of deliberate self harm and adverse life events. However, risk factors may change in the context of socio-economic developments.
- There is a knowledge gap in determining suicide risk profiles in order to target high risk groups and situations when implementing suicide prevention programmes.
- Research is required in determining specific suicide related and contextual factors that reinforce the social learning process underlying clusters and contagion in suicidal behaviour.
- There is no system, service or model that combines the objectives of pro-actively facilitating for people bereaved by suicide and obtaining detailed information on factors associated with suicide from multiple sources.

What this study adds:

- The SSIS has demonstrated that a pro-active approach in facilitating support for people bereaved by suicide significantly increases the uptake of support.
- In addition to risk factors that are consistent with previous research, the SSIS provided evidence on other factors significantly associated with suicide in Ireland, including long term adversity, often starting in childhood, the presence of a physical illness, and the impact of the economic recession in terms of job loss, financial problems and loss of possessions.
- The SSIS shows that in the year prior to death, the majority of people had been in contact with their GP or a mental health service, and those who contacted their GP had done so 4 times or more.
- Nearly half of the deceased had difficulties in accessing health services and nearly half of those who were taking prescribed medication did not comply with the instructions on the medication.
- Through its systematic approach and access to multiple sources of information, the SSIS has shown to be effective in identifying emerging suicide clusters and contagion effects.

What this study adds ctd:

- The SSIS has provided insight into a constellation of factors associated with clustering of suicide including exposure to grief related loss of friends by suicide, non-communication of suicidal intent, severe alcohol and drug abuse, over-attachment to peers and glorification of suicide.
- The SSIS has proven to be an important system in informing suicide prevention policy and optimising a coordinated response to address the needs of families, friends and agencies affected by the suicide cluster.
- Comparison between confirmed suicide cases and open verdicts revealed more similarities than differences, such as alcohol consumption at time of death, history of deliberate self harm, a high prevalence of mood disorders and use of psychotropic medication.
- Comparison between the SSIS mortality data and the self harm data obtained through the National Registry of Deliberate Self Harm (NRDSH) has been a fundamental step in the process of linking the NRDSH self harm data with the CSO mortality data. This further underlines the value of the SSIS in improving the prediction of people at risk of suicide.

Implications for suicide research and prevention:

- The outcomes of the SSIS pilot study support the wider implementation of the SSIS in collaboration with key stakeholders including coroners, suicide bereavement support services and health care professionals.
- The outcomes of the SSIS pilot study support a wide range of recommendations to increase awareness among key stakeholders and to optimise service provision for people who have engaged in deliberate self harm, those with high risk of suicide and people bereaved by suicide, such as
 - Increased awareness of coroners and health care professionals of local bereavement support services and materials and to offer these to bereaved family members and friends as a matter of course.
 - Pro-active facilitation of bereavement support by services working with families bereaved by suicide.
 - Intensify strategies to increase awareness of the risks involved in the use and misuse of alcohol, starting at pre-adolescent age.
 - Active consultation and collaboration between the mental health services and addiction treatment services be arranged in the best interests of patients who present with dual diagnosis (psychiatric disorder and alcohol/drug abuse).
 - Increased suicide awareness and skills training for GPs and other primary care professionals.
 - Improve access to health care services for people who have engaged in deliberate self harm, people at high risk of suicide and people with multiple mental health and social problems.

Implications for suicide research and prevention ctd:

- It is recommended that in areas with large and ongoing suicide clustering effects, high levels of socio-economic deprivation and fragmentation, the implementation of suicide prevention programmes should be combined with interventions that address these social problems as part of a multi-agency approach.
- In areas with emerging suicide clusters, the HSE-NOSP guidelines for responding to suicide clusters should be implemented and supported by additional capacity and specialist expertise as a matter of priority.
- Comparing the characteristics of confirmed cases of suicide to open verdicts, the SSIS identified more similarities than differences, which underlines the need for further in-depth investigation into cases classified as open verdicts.
- Based on the benefits of linking the SSIS mortality data with the NRDSH self harm data it is recommended to link the NRDSH data with the CSO mortality data, which will be a fundamental next step in improving the prediction of people at risk of suicide.

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Appendix 1: Independent Review of the SSIS

A Review of the Suicide Support and Information System (SSIS):

National Suicide Research Foundation (NSRF), Ireland

Date	September 2010
Reviewer	Dr Kirsten Windfuhr
Title	Senior Project Manager and Research Fellow National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (Inquiry) University of Manchester, England

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September 2010

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EXECUTIVE SUMMARY

This review was carried out by Dr. Kirsten Windfuhr. The overall aim was to undertake a brief review of the SSIS to assure the quality of the SSIS. Specific objectives included an assessment of the: 1) methodological quality, 2) benefits in terms of facilitation of suicide bereavement support and research (i.e. new information about risk factors, information about risk profiles of suicide and premature undetermined deaths, risk factors associated with suicide clusters), 3) sustainability of the SSIS in Cork and regional roll-out beyond the pilot phase at the end of December 2010, and 4) to assess any potential resource savings beyond December 2010. The sources used to review the SSIS included: 1) substantive emails from the SSIS research team, 2) SSIS proposal, 3) proposal for the extension of the SSIS to include risk profiles and suicide cluster analysis, 4) updates on SSIS figures, 5) SSIS presentation for the Department of Health and Children (30/06/10), 6) the SSIS data collection tools, and 7) the Irish National Strategy for Action on Suicide Prevention, *Reach Out*. Interviews were also carried out with the Coroner for South and West Cork, Mr. Frank O'Connell and with Dr. Ella Arensman, Director of the National Suicide Research Foundation and Dr. Carmel McAuliffe, Senior Researcher, National Suicide Research Foundation.

Overall, I strongly recommend that the National Suicide Research Foundation (NSRF) continue the SSIS in Cork and extend into Limerick. The NSRF have the infrastructure to co-ordinate the continuation and regional roll-out of the SSIS. Further, the pilot study directly addresses the targets set in *Reach Out* and has met the deliverables agreed with the National Office of Suicide Prevention. The SSIS is a novel study combining both proactive bereavement support and research, and is methodologically robust. The NSRF have provided value for money and the full resources proposed for the continuation of the SSIS in Cork and the extension to Limerick are an accurate and reasonable reflection of the level of resources required. A reduction in resources would negatively affect the ability of the NSRF to effectively deliver the SSIS and would likely require a realignment of priorities.

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REVIEW PROCESS

Review Commissioner

The review of the SSIS pilot study was commissioned by Mr. Geoff Day, National Office for Suicide Prevention and Dr. Ella Arensman, Director of Research for the National Suicide Research Foundation for submission to the Department of Health and Children, Ireland.

Reviewer

This review was carried out by Dr. Kirsten Windfuhr as an independent reviewer with expertise in suicide research and the management of large national research projects. Dr. Windfuhr is the Senior Project Manager for the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (Inquiry) at the University of Manchester, England.

Terms of Reference

The overall aim was to undertake a brief review of the SSIS to assure the quality of the SSIS.

Specific objectives of the review included an assessment of:

- a) the methodological quality
- b) the benefits in terms of facilitation of suicide bereavement support and research:
 - new information about risk factors
 - information about risk profiles of suicide and premature undetermined deaths
 - risk factors associated with suicide clusters
- c) the sustainability of the SSIS in Cork and national roll-out beyond the pilot phase at the end of December 2010
- d) any potential resource savings beyond December 2010

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Background paperwork provided for the review

- Emails with substantive information about the SSIS work programme
- Implementation of a Suicide Support and Information System (SSIS): A Pilot Study in Ireland, in *IASP Post-vention Task Force News Letter*
- SSIS proposal
- SSIS Update 24-06-2010
- SSIS pilot study presentation for DOHC 30-06-2010
Research Proposal for Dr. Carmel McAuliffe titled: Identification of suicide risk profiles and emerging suicide clusters: A psychological autopsy study, successful submission to the ANDREJ MARUSIC PRIZE 2010, Suicide prevention category
- SSIS Checklist for accessing Verdict Records and Post-Mortem Reports July 2010
- SSIS Interview instrument (I-Family member of friend) July 2010
- Self-Report Questionnaire for Informant (II- Health Care Professional) July 2010
- SSIS update June 2010

Interviews (summary included as Appendix A and Appendix B)

- Mr Frank O'Connell, Coroner for South and West Cork, 2 September 2010
- Dr Ella Arensman, Director of Research, National Suicide Research Foundation & Dr. Carmel McAuliffe, Senior Researcher National Suicide Research Foundation, 16 September 2010

Other documents referred to

- Reach Out – Irish National Strategy for Action on Suicide Prevention 2005-2014

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Timescale

The review was carried out over several days in August and September 2010.

Terminology

For the remainder of this Review, the term suicide cases will be used to refer to both confirmed suicide cases and undetermined deaths.

SUICIDE INFORMATION AND SUPPORT SYSTEM (SSIS) SUMMARY

Background

The idea for the Suicide Support and Information System (SSIS) pilot study originated in 2005/06 following the publication of the National Strategy for Action on Suicide Prevention for the Republic of Ireland, titled *Reach Out*. During 2005/6 – 2008/9, discussions took place with the Department of Health and Children, the National Office for Suicide Prevention, the Central Statistics Agency, and the Coroners Society of Ireland to agree the methodology, deliverables and ethical approvals. The initial commission was for a pilot project from 2008-2010 in the Cork area of the Republic of Ireland.

Aims

The overall aims of the SSIS are to improve access to bereavement support and address gaps in knowledge regarding the factors associated with suicide. The specific objectives of the SSIS are to:

1. provide feedback on the four original objectives:
 - improve provision of support to the bereaved,
 - identify and better understand the causes of suicide
 - identify and improve the response to clusters of suicide, filicide-suicide and familicide
 - better define the incidence and pattern of suicide in Ireland
2. provide the outcomes of these objectives to be disseminated in a report
3. provide recommendations on how to maintain the SSIS

Method

The SSIS incorporates elements of existing national suicide studies, in particular the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (NCISH) (e.g. the content of the questionnaires/interview schedules). However, the combination of a proactive bereavement system for families and a suicide research study is novel, as is the collection of data from multiple sources (e.g. primary care, secondary care, next of kin, police).

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The stages of case ascertainment and data collection can be summarised as follows:

1. Cases of suicide or probable suicide are identified to the SSIS team via local coroners (August 2008- June 2010).
2. NSRF research team send an initial contact letter to the bereaved family with the primary purpose of:
 - establishing whether bereavement support has been arranged and,
 - whether support would be welcomed currently (if not already arranged) and the secondary purpose of:
 - inviting those bereaved by suicide to participate in a research interview.

The letter informs the bereaved that the research team will make contact in 10 days unless otherwise instructed.

3. Second contact is made by telephone 10 days after initial contact (unless contact has been refused by the bereaved) with the primary purpose of:
 - establishing whether the bereaved received support
 - whether support they have received (if received) has met their needs
 - whether other family members require bereavement support that is currently not in place
 - whether the bereavement support provided to family members (if provided) has met their needs
 - assessing whether the bereaved family would like a bereavement support pack
 - arranging bereavement support where requested by the bereaved
 - offering the bereaved a follow-up phone call in 2 weeks to verify if support had been provided to meet their needs.

The secondary aim of the phone call is to ask if the family agrees to a follow-up phone call in two weeks to talk more about the interview.

4. If permitted by the bereaved, the researcher makes a second phone call to the same family members as previously. The primary objectives are to:
 - verify if support has been provided
 - whether support met the needs of the bereaved

- verifying whether any bereavement support is required (where there was no initial expressed need for bereavement support).

The second objective of the phone call is to invite close relatives to participate in a semi-structured interview, arranging a time and venue for those interested. A further phone call is made (with permission) to individuals who wish to consider participating at this stage.

5. The next contact with the researcher is to carry out the interview with the bereaved. During this session:
 - the interviewer introduces the study
 - the family member signs the consent form
 - consent is requested to contact the decedent's health professionals
 - researcher verifies if any (or any further) bereavement support required
 - researcher ascertains whether family member agrees to a follow-up phone call in 3 weeks for the purposes of:
 - getting feedback from the interviewee /discussing the interview with the interviewee
 - ascertaining any bereavement needs.
6. The researcher contacts the health care professional involved with the care of the decedent via letter and then phone. Health professionals are asked to fill in a semi-structured self-report questionnaire.
7. Final contact with family occurs 3 weeks after interview to ascertain:
 - any further needs for bereavement support
 - any feedback from the interview

A contingency plan was implemented in August as a result of uncertainties regarding the continued funding of the SSIS, an increase in the number of suicide verdicts, the relatively large number of ongoing cases and the increasing workload of Dr Carmel McAuliffe. The decision to implement the contingency plan was a joint decision between the National Office for Suicide Prevention (NOSP) and National Suicide Research Foundation (NSRF).

The contingency plan is a temporary measure until renewed funding for the SSIS has been confirmed after which the original protocol will again be implemented.

The following is a summary of changes to the method of data collection as a result of the contingency plan.

1. Accessing information from the Coroner's records following conclusion of inquest - completion of Coroner's checklist for all new cases (this remains unchanged).
2. Facilitation of bereavement support - Sending out letters to bereaved family members of all new cases with inclusion of bereavement support pack and family member can contact Dr. Carmel McAuliffe for further information on their own initiative; follow-up contact by telephone no longer offered.
3. Psychological autopsy interviews with family members - For the duration of the contingency plan until the end of September no new psychological autopsy interviews to be conducted.
4. Accessing information from health care professionals who had been in contact with the deceased prior to death - Since there will be no direct contact with family members, an amendment will be required from the Ethics Committee because the SSIS has received ethical approval to contact Health Care Professionals only following consent by a family member.

Ethics

This study received ethical approval from the Social Research Ethics Subcommittee of the Clinical Research Ethics Committee of the Cork University Teaching Hospitals. Further, the study proposal was approved by the Coroners Society of Ireland.

REVIEW FINDINGS

The following section comprises general comments, and comments specific to the Terms of Reference (ToR) for the review.

General comments

The SSIS is a well run, methodologically robust, novel study incorporating proactive bereavement support and a suicide research study. It directly addresses the targets of the suicide prevention strategy, *Reach Out*, and has met the deliverables agreed with the National Office for Suicide Prevention (NOSP).

The original deliverables agreed with the NOSP were to:

1. provide feedback on the four original objectives:
 - improve provision of support to the bereaved,
 - identify and better understand the causes of suicide
 - identify and improve the response to clusters of suicide, filicide-suicide and familicide
 - better define the incidence and pattern of suicide in Ireland
2. provide the outcomes of these objectives to be disseminated in a report.
3. provide recommendations on how to maintain the SSIS

In relation to the first deliverable, the SSIS pilot study has created the infrastructure for a proactive bereavement support system, which was previously not available in Ireland. The bereavement support system actively seeks to support families, put them in touch with support services and follow-up bereaved families to ensure that the correct support is provided (both in terms of quality and level of support required). Detailed information is collected from multiple sources providing detailed in-depth data on individual cases of suicide to better understand the factors associated with suicide. In particular, the system is designed to identify suicide clusters, which provides timely data to relevant agencies to reduce suicide risk in specific areas. To date, there have been no cases of filicide-suicide or familicide identified although the infrastructure is in place to identify these types of rare events as well. The SSIS is epidemiologically based, systematically identifying and

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collecting real time data on all cases of suicide – including cases of probable suicide (i.e. undetermined deaths). Although this data is available from the Central Statistics Office (CSO), the publication of this data is significantly delayed, sometimes by several years, due to inherent delays in the collection and publication of mortality statistics. The SSIS could become a national resource for timely, regional data, which could link in with the work of the CSO.

In relation to the second deliverable, the findings have been presented both to the NOSP, the Department of Health and Children and the international academic and professional community in a presentation at the European Symposium of Suicide and Suicidal Behaviour (ESSSB) in Rome in September 2010. Further, information has been disseminated to coroners, families and other relevant agencies, particularly those in suicide cluster areas. Pending further funding and the continuation of the SSIS beyond December 2010, the Coroners Society of Ireland, the Department of Justice, the Department of Health and the NOSP have been identified as key agencies to include in a dissemination strategy. In terms of the specific methods of feeding back information on suicide clusters, the following have been identified: meetings, seminars, newsletters, publications to GPs, mental health services, bereavement support services, teachers, guidance counselors and youth workers. Further, an annual report in the style of the National Registry of Deliberate Self Harm would be one of the primary methods of disseminating the findings of the SSIS.

In relation to the third deliverable, this Review was commissioned to recommend how the SSIS can go forward beyond the end of the current funding period, ending December 2010. Further, Dr. Arensman has submitted costings to the Department of Health and Children reflecting an accurate assessment of the resources required to enable the continuation of the SSIS in Cork and to extend to the region of Limerick in 2011 and 2012.

Findings in the context of the specific Terms of Reference (ToR)

The comments in this section specifically address the Terms of Reference (ToR) set out at the start of this review.

a) Methodological quality

The SSIS pilot study is methodologically robust. The SSIS pilot is epidemiologically based. The study design is a prospective population based psychological autopsy study. The surveillance data collected systematically from coroners on all suicide and undetermined suicide cases occurring in the general population provides an epidemiological profile of suicide and undetermined death in each region of Ireland (pending further roll-out of the study). This data is available from the Central Statistics Office, although the time lag in the publication of the data is substantial (in the region of 3 years), given the inherent delays in producing mortality statistics. The real time data collected by the SSIS team provides current epidemiological data which can be used by health professionals and other agencies to develop strategies and interventions to reduce suicide risk in the local population, and to inform national approaches to the reduction of suicide risk. In particular, real time data can identify emerging suicide clusters and provide agencies with information to intervene and manage localised suicide risk. The SSIS has already identified emerging suicide clusters and has liaised effectively with local health agencies, families and colleagues in the field of suicide research to better understand and manage the suicide risk in these specific areas.

The psychological autopsy study design involves the collection of data from multiple sources. This study design provides detailed and in-depth information regarding the antecedents of suicide in individual cases and is a standard approach used in suicide research. It has been described as “*probably the most direct technique currently available for determining the relationship between particular risk factors and suicide*” (Cavanagh et al, 2003).¹ The inclusion of several different sources of information ensures the best

¹ Cavanagh, J. T. O., Carson, A. J., Sharpe, M. & Lawrie, S. M. (2003) Psychological autopsy studies of suicide: a systematic review. *Psychological Medicine*, 33, 3, 395-405.

quality information. In the SSIS pilot, data is collected from the following sources: health professionals (e.g. GP, Psychiatrist, Psychologist), next of kin, Gardai, coroners records (including post mortem reports). The research team have suggested that a friend of the deceased should also be included as an additional data source. Pending funding, the study will be amended to include this data source in the next phase of the SSIS.

Analysis of the data has been quantitative to date, providing information on the number and characteristics of suicide cases and suicide cases within suicide clusters. Qualitative analysis of the data has been identified as an additional analytical method to be applied to the data in the next phase of the data, pending funding. This approach to data analysis may identify themes running throughout the suicide cases, which may not be readily identifiable from a quantitative analysis of data.

The development of the SSIS pilot study has been carefully considered and an additional study developed to identify suicide risk profiles (i.e. a specific summary of key risk factors for suicide which are mutually exclusive and identify homogenous suicide sub-groups) and emerging suicide clusters. This study uses the existing methodology but applies more sophisticated methods of analysis to the data to address the research questions. This is an example of how an established infrastructure (e.g. the core SSIS) can be used to develop additional studies to address more specific research questions, providing added value to health professional and policy makers. Further, the high quality of the study proposal has been externally confirmed with the award of a research prize to Dr. Carmel McAuliffe (Andrej Marušič prize 2010 in suicide prevention).

b) Benefits in terms of facilitation of suicide bereavement support and research.

Specifically:

- new information about risk factors
- information about risk profiles of suicide and premature undetermined deaths
- risk factors associated with suicide clusters

The SSIS is novel in two respects. First, it incorporates a proactive bereavement support system for the families of the decedents. This was a specific aim of the *Reach Out* suicide prevention strategy document published in 2005. Second, the SSIS uses a psychological autopsy study design, which involves the collection of detailed data from multiple sources about different aspects of the decedents life. This builds up a detailed picture of the potential factors associated with completed suicide in individual cases. This is a unique opportunity to collect detailed information on suicide cases occurring in the general population of (potentially) an entire country across a broad range of potential risk factors. The data collected as part of the autopsy study could be used to further investigate independent risk factors using a different study design (e.g. matched case-control study). This study design would generate data to show which factors are independently associated with suicide, and the magnitude of that association, across the group of suicide cases identified in the SSIS.

The SSIS have/has already extended the core work to include a study identifying risk profiles using cluster analysis. The results of this type of analysis can help to generate further hypotheses about the factors underpinning completed suicide, which can be explored using a different study design (i.e. matched case-control studies).

One of the benefits of the SSIS is the short time lag between a suicide death and the SSIS collecting data on the suicide cases. This provides a real time account of the incidence of suicide in any given region in which the SSIS is operating. The real time data collection of the SSIS, coupled with the detailed information collected on each case has, and will continue, to contribute to a better understanding of the factors associated with suicide and rare events such as suicide clusters.

- c) To assess the sustainability of the SSIS in Cork and regional roll-out beyond the pilot phase at the end of December 2010.

My assessment is that the SSIS is sustainable in Cork. The deliverables identified by the NOSP at the start of the pilot in 2008 have been met (see General Comments section

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above). The necessary ethical approvals are in place, including the support of the Coroners Society of Ireland. The SSIS now has an established infrastructure, which has already led to the development of a second study to identify risk profiles and emerging suicide clusters. It has established itself as a reliable source of information for bereavement support and suicide information resource for coroners, health professionals, the voluntary sector and bereaved family and friends.

Further, my assessment is that the SSIS could be rolled out in Limerick. Limerick is an interesting region as it has similar suicide rates compared to other areas of Ireland although it has higher than average rates of self-harm. The work of the NSRF is already known in the Limerick area through a European Community (EC) project that the NSRF has been involved with related to the high self-harm rates in the area. The study established links with police to implement gatekeeper awareness training. In the first instance 22 police officers were trained, training which was to be rolled out to approximately 600 officers in the Limerick area. It is likely that the previous work carried out by the NSRF in the Limerick area will facilitate the roll-out of the SSIS in Limerick.

Importantly, the NSRF has a history of successful regional and national roll-out of research programmes. The National Registry of Deliberate Self-Harm is based at the NSRF and will serve as a model for the regional roll-out of the SSIS. In brief, the co-ordination of the National Registry of Deliberate Self-Harm is centrally run from Cork at the NSRF although there are individuals based in different areas collecting data and reporting to the hub in Cork. To summarise, the NSRF has the infrastructure to continue to host the SSIS, and to co-ordinate and run a regional roll-out of the SSIS.

d) To assess any potential resource savings beyond December 2010

The costs proposed by Dr Arensman are an accurate and reasonable reflection of the running costs associated with this novel and important study. It is my assessment that the resources outlined in Table 1 are required to carry out the SSIS in Cork and to extend into

Limerick in 2011 and 2012. A resource reduction has been proposed as one option for the continuation of the Cork SSIS (Table 2). However, in my opinion, the reduction in resources would compromise the integrity of the SSIS for the following reasons. First, it is likely that a reduction in resources may lead to the extension of some aspects of the contingency plan (see SSIS summary section, pgs 9-10), which will negatively impact on the ability to carry out the aims of the SSIS. Second, the pilot work has shown that many families require longer term bereavement support than was originally envisaged at the start of the SSIS pilot. A reduction in resources will specifically impact on the ability of the SSIS to meet the needs of these bereaved families. Third, the SSIS team currently relies on placement students to support data entry and analysis (under supervision) to efficiently and effectively carry out the work of the SSIS. A resource reduction will likely lead to further reliance on voluntary support, although this may not be sustainable given the fluctuating availability of students, particularly students with sufficient expertise. Taken together, the impact of any resource reduction would negatively impact on the ability of the NSRF to carry out the agreed work programme of the SSIS and would likely require a realignment of priorities.

Table 1. Resource summary for SSIS in Cork and Limerick for 2011-2012

Annual Cost	2011	2012	Total costs
Maintain in Cork	€ 101,752	€ 101,752	€ 203,504
Expand to Limerick	€ 68,713	€ 79,171	€ 147,884
Total costs	€ 170,465	€ 180,923	€ 351,388

Table 2. A resource reduction for the continuation of the SSIS in Cork

Annual Cost	2011	2012	Total costs
Maintain in Cork	€101,752	€101,752	€203,504
Resource savings in Cork	€ 86,871	€ 86,871	€173,742
Total savings	€14,881	€14,881	€29,762
Percent savings	15%	15%	15%

REVIEW RECOMMENDATIONS

Overall, I strongly recommend the continuation of the SSIS in Cork and to extend the SSIS to Limerick. The NSRF are well placed to continue the work of the SSIS, and to co-ordinate the regional roll-out of the SSIS. I recommend that the SSIS be funded at the levels proposed by Dr. Ella Arensman (both for the continuation in Cork and for the roll-out to Limerick) as set out in Table 1. The proposed funding level is an accurate and reasonable assessment of the resources required to carry out the work of the SSIS.

The SSIS is just coming to the end of the pilot phase (December 2010). The following are recommendations for the development of the SSIS over the next funding period. To be clear, these are suggestions intended for consideration only. The recommendations for consideration are as follows:

1. to qualitatively analyse the interview data to identify themes and subthemes emerging from the data
2. to extend the methodology to include case-control studies to identify independent risk factors for suicide
3. explore the potential for data linkage between the SSIS and the National Registry of Deliberate Self-Harm
4. to explore how data can be managed to enable linkage of data by family unit if more than one family member dies by suicide or self-harms; risk of suicide is increased in families where a family member has died by suicide and the SSIS is well placed to collect this important data over the long term
5. to develop a dissemination strategy to ensure key findings and recommendations can be implemented by relevant agencies
6. to further develop the governance arrangements to include families bereaved by suicide.

Appendix A: Points of discussion for the interview with Mr. Frank O’Connell, Coroner South and West Cork

FO = Frank O’Connell EA = Ella Arensman (Director of Research, NSRF) CM = Carmel McAuliffe (Senior Researcher, NSRF)
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Questions

1. How long have you been a coroner? In the area?
2. Can you describe how you came to be involved with the SSIS?
3. What has been your contribution to development and running of the project?
4. What would be your assessment of the SSIS? In terms of its impact? Is there anything you would alter about the programme, including your involvement in it etc. how it is run?
5. How do you work with the other coroners in the area – I understand there are three coroners, including you? What population size do you cover?
6. Could you tell me the about the new Coroner’s Bill and how that impacts on the SSIS? This was mentioned in the information that Ella sent through to me. Did this instigate the SSIS or did it coincide with work already developing at the National Research Centre? What is the timeframe for this Bill?
7. What, in your opinion, is the view of the other coroners you work with about the local SSIS? What is their view on the national roll out of the programme?
8. How many coroners are there in Ireland? Are there good working relationships in the main? Do you think there would be any resistance to the national roll-out of this programme?
9. What is your view of how the project is run, and the continued running of the project, including widening it out across Ireland?
10. Do you think that this kind of system would work elsewhere or does it/will it work in Ireland for specific reasons?

Interview summary

FO is the coroner for South and West Cork. There are two other coroners who work in the area covering Cork City and North Cork. Out of a population of approximately 420,000, 120,000 reside in the Cork City area, 200,000 in the south and west cork areas and 100,000 in the North Cork area. These figures are approximate. The Cork City coroner sees a disproportionate number of cases given the central location of Cork City and because there are three main hospitals in Cork City.

FO became involved with the SSIS after being approached by EA to assist in providing information on cases of suicide or probable suicide when the study began (2008). He was supportive of the study and he thought his colleagues working in the other areas of Cork City and North Cork were equally supportive.

The proposal for the SSIS had to be agreed by both an ethics board and the Coroners Society. The methodology of the SSIS that was initially proposed to the Coroners Society was that CM would attend the Inquests following notification from FO, with a view to approaching the families immediately after the Inquest. However, the view of the Coroners Society was that it was not appropriate to approach families immediately following an Inquest; that this impacted on their right to privacy and that families may feel pressured into participation with the study. Further, there was an issue regarding the assumption that the death was suicide when in law, a probable suicide would be considered an open verdict. The methodology was amended to reflect the view of the Coroners Society.

The role of the coroner is to notify the SSIS team of upcoming Inquests and to facilitate access to information on suicide and probable suicide cases. FO notifies the SSIS of the names of individuals who had received an Inquest, after which a member of the SSIS team who look through the Inquest files and begin the process of contacting families via letter. FO sends an information pack to the next of kin which includes an invitation to obtain information on support services via the Coroner directly. FO said that this offer of direct information from the Coroner was not taken up much - less than 5%. He noted that

in some instances families contacted him several years after the death of a family member.

When asked about any potential problems in rolling out the pilot study to other regions or nationally FO did not foresee that this would be problematic. The pilot study had addressed the view of the Coroners Society as to the appropriate way to approach families. Further, facilitating access to data did not significantly increase the workload of the Coroner. As such, FO did not think there would be any further issues, from the Coroners perspective, that would prevent the study from being rolled out to other regions.

When asked about the Coroners Bill and the impact of the Bill on the SSIS, he noted that the Bill had been shelved indefinitely given the difficult financial climate. The Bill would have centralized the Coroners service, which would require offices, staffing and other costs associated with centralization. When asked about any changes that the Bill included regarding verdicts, he commented that the Bill included proposals to broaden notification of the circumstances around a death. In practice, there was quite a lot of variation in the breadth of information included in Coroners records. In any case, the Bill would not have an effect on the SSIS, primarily because it was unlikely to progress in the foreseeable future.

When asked about the impact of the SSIS, FO stated that he found the data interesting and informative. In particular, it was informative to note the number of cases for a given time period in each area and also, to compare data for different areas. He specifically noted the acute difference in the rate of suicide in neighbouring areas of North Cork, South and West Cork, and Cork City.

When asked about whether this study could be carried out in other countries, FO could not identify anything specific to the Irish context that would prevent this study from being carried out elsewhere.

Approved Frank O'Connell 22/09/2010

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Appendix B: Points for discussion with Dr Ella Arensman, Director of Research and Dr. Carmel McAuliffe, Senior Researcher

EA = Ella Arensman

CM = Carmel McAuliffe

Points for discussion, 16 September 2010

1. The coroners Bill has been shelved according to Frank. How will this impact on the SSIS and a roll-out of the SSIS?
2. How did the funding for this come about- what was process? Was it an open bid or more like a research grant?
3. You mention that the NOSP was pleased with the outcomes and value of SSIS for early intervention. Were there any outputs identified at the start of the pilot study, to evaluate how well the project was progressing against targets? What have the NOSP been particularly pleased with? Is there anything that the NOSP would like the SSIS to deliver that it hasn't yet?
4. What is the relationship of the specific project looking at clusters/sub-groups to the main SSIS programme?
5. Are there any other programmes such as this internationally, that combine bereavement support and data collection?
6. Do you collaborate on the self-harm/suicide data at all? Any possibility of this kind of collaboration, as an added value of this project?
7. Has there been any discussion of how this study should go forward, in a streamlined fashion? Could more of the work be done by voluntary sector and less expensive administrative support?

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8. What are the governance arrangements? Is there a steering group – have users been involved in the development of the bereavement support side of this project? Is there any plan to have a Steering Group or Advisory Board to assess outputs, progress against key targets etc. ?
9. Is the current ethical support sufficient to cover the roll out of the SSIS to other regions?
10. How is the data held? A database of all variables – access/spss?
11. Communication and dissemination strategies
12. Is long term bereavement support part of the programme?
13. Are you able to keep contact with the families of people who died by suicide?
Given increased familial risk, this could be an important piece of information that the SSIS is able to collect.

Interview summary

EA began the discussion with a description of the long history of the SSIS pilot project. The idea for the pilot began in 2005/06 following the publication of the National Strategy for Action on Suicide Prevention for the Republic of Ireland, titled *Reach Out*. The main conclusions of the Strategy were that there was a need for more suicide research, greater coronial involvement, and the development of a robust bereavement support system for families of the deceased. During the years between 2005/06 and 2008/09 the research team at the National Suicide Research Foundation (NSRF) met with colleagues at the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (Inquiry) at the University of Manchester(England), the National Office for Suicide Prevention, the Department of Health and Children, the Central Statistics Office, the Coroners Society of Ireland the Garda (Police) Commissioner to agree the method,

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deliverables and ethical approvals required to carry out the pilot study. There was no strong history of carrying out psychological autopsy studies (with the exception of the work of Dr Tom Foster), which was the proposed study design for the research component of the pilot SSIS. Further, the proposed protocol for approaching families at the inquest was a point of discussion for the Coroners Society, who agreed for the study to go forward with coronial support following an amendment to the original protocol. The change in protocol is reflected in the current method: families are contacted a few days following the inquest by letter and not directly at the Inquest. Originally, prior to the change in the protocol the research team routinely approached families at the inquest. The research team did not find any difference in the uptake of the bereavement support arm and subsequent involvement with the study as a result of the change to initially contacting families by letter. Following both approaches families were felt to be very responsive to the researcher.

The combination of a proactive bereavement support system and suicide research study is novel. Further, the psychological autopsy approach involving the collection of data from multiple sources as part of a suicide information system is novel, particularly within the Irish context. It is the collection of data from multiple sources that is felt to have contributed to the identification of suicide clusters, and a better understanding of the factors associated with suicide clusters. Further, it is the real-time data that the SSIS can collect that is beneficial to the identification of factors associated with suicidal behaviour, in particular suicide clusters. Currently, suicide statistics are only available from the Central Statistics Office. While this is an essential national data resource it can only provide suicide data 3 years after a death by suicide has occurred. EA and CM noted that they had conducted a literature review of suicide research programmes (and continue to update the literature review) but that they had not found any other programme that had the novel combination of facilitating bereavement support and research, with the latter designed as a psychological autopsy study. They described a recent presentation at the European Symposium of Suicide and Suicidal Behaviour (ESSSB) in Rome at which they had a very positive reaction to the work of the SSIS which was in part due to the innovative design of the SSIS. A proposal based on the SSIS entitled ‘Identification of

suicide risk profiles and emerging suicide clusters' was awarded the Andrej Marusic award at the symposium by the International Association for Suicide Prevention, The International Academy for Suicide Research and the ESSSB committee.

The SSIS pilot is now being considered for roll-out in the Limerick region. Limerick is an interesting region as it has similar suicide rates compared to other areas of Ireland although it has higher than average rates of self-harm. It is also the first region to which the NSRF extended a WHO/EC funded monitoring study of deliberate self-harm in 1996. EA also described a European Commission (EC) project that the NSRF is currently running in Limerick as a direct result of the high self-harm rates. The study had established links with police to implement gatekeeper awareness training. In the first instance 22 police officers had been trained, which was to be rolled out to approximately 600 officers in the Limerick area. As such, the work and track record of the NSRF in the Limerick area was already well established and EA felt this would have a beneficial effect on the roll-out of the SSIS in the Limerick area.

Further, the NSRF has a history of successful regional and national roll-out of research programmes. The National Registry for Deliberate Self-Harm (NRDSH) is based at the NSRF and will serve as a model for the regional and eventual national roll-out of the SSIS. In brief, the co-ordination of the NRDSH is centrally run from Cork at the NSRF although there are staff members based in different areas collecting data and reporting to the management team in Cork. To summarise, the NSRF has the infrastructure to continue to host the SSIS, and to co-ordinate and run a regional or national roll-out of the SSIS.

EA and CM felt that the work of the SSIS had received sufficient support and recognition by stakeholders, including the NOSP and Department of Health and Children. They had presented the cluster data to the Department of Health in a recent meeting, and felt that the Department recognised that without the SSIS they would not have been able to identify confirmed and emerging suicide clusters, which mainly involved young people. In particular, EA and CM described situations where the SSIS study design had been

instrumental in identifying clusters of suicide cases. First, there had been no known connection between four young people until an interview had been carried out with the mother of one young person. Second, in preparing for an interview with families on two separate occasions, a researcher had identified that the address was on the same street as another suicide case.

The cluster information had been discussed with coroners and other healthcare professionals in the areas where the clusters had been identified. To date, no media reporting of the clusters had occurred. CM and EA had facilitated discussions with families and youth workers; individuals involved with young people felt that the SSIS was one of the few places to turn and that there was no other means of support. The ability of the SSIS to identify clusters had also generated interest from other colleagues interested in suicide research (Professor David Gunnell from the University of Bristol) who was analyzing the Bridgend (Wales) cluster data. There is now scope to carry out joint research into the antecedents of suicide clusters.

The future development of the SSIS was discussed. EA and CM described how the research team stayed in contact with families for up to one year following the inquest and sometimes beyond depending on the level of support required by the families. However, they also acknowledged that maintaining contact with 'high risk' families (for example families with multiple suicide deaths, or sudden deaths) on a longer term basis to facilitate bereavement support and to collect data on familial risk of suicide was an important issue to consider, and was something that could potentially be incorporated into the next phases of the SSIS. EA noted that they were interested in expanding their sources of data to include an interview with a peer. This was a direct result of the findings of the initial suicide cluster data analysis, which showed that young people were strongly connected to their peers and less connected to their families. EA and CM also described that it would be possible with the cases they identified to link with the NRDSH and that this would be an interesting development in order to enhance identification of suicide risk among people who have engaged in acts of non-fatal suicidal behaviour. They also

described a potential linkage study with suicide data from the Central Statistics Office in future. These changes would require an amendment to the existing ethical approval.

A recent development (since August 2010) that had already taken place was that a contingency plan had been introduced, in agreement with the Department of Health and Children, NOSP and the NSRF. This was introduced as a result of the increase in the number of suicide verdicts, the relatively large number of ongoing cases and the increasing workload of CM in the absence of any confirmation of funding to extend the SSIS beyond the end of 2010. In these circumstances no commitments can be given to bereaved families, that ongoing support in the medium to long term could be provided. The contingency plan introduced changes to the level of support offered as part of the bereavement support arm. Under the contingency plan, CM sends bereavement support packs and contacts families by letter but does not proactively follow-up with families with a phone call unless they contact CM. Further, no new interviews are carried out with families of decedents. There have been 21 suicide cases identified by the coroner since the contingency plan came into effect and only one family has contacted CM to enquire about bereavement support or the research study. As such, there has been a substantial drop in the response rate since the proactive follow up has been temporarily halted. CM and EA are only able to contact other sources of data (e.g. General Practitioner of the deceased) once permission has been granted by the family members. They have therefore not been able to collect any additional data from other sources (family members or healthcare professionals) on any of the 21 cases that have occurred since the contingency plan came into effect. For the efficient running of the SSIS in future, an amendment to the current ethical approval will be sought to enable researchers to collect data from health care professionals even if families have not given express consent. There will be a requirement in any case, to get regional ethical approval with each new region that the SSIS is rolled out in (and for any of the future developments mentioned in the above paragraph). However, EA felt that from experience, it seemed that once one region had provided support other regions would be more willing to provide support as they were more confident that the project was run well.

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We discussed the governance, day-to-day arrangements (e.g. how the data is processed, stored) and financial arrangements. The governance arrangements for the SSIS currently include regular meetings with coroners, regular NSRF peer steering group meetings and biannual meetings with the NOSP. Regular scheduled supervision is provided for researchers following an interview. Statistical support is provided by other members of the NSRF (Dr Paul Corcoran) who were involved in the early stages of setting up the SSIS pilot. The data collected is held on separate excel databases for the checklist data collection from coroners, informant (families) interviews and healthcare professional questionnaires. The data has been analyzed quantitatively to date, but EA and CM acknowledged that it would be fruitful to carry out a thematic analysis on the data to extract key themes (e.g. exposure to drugs and alcohol abuse in the environment). Funding is provided by the NOSP who commissioned the NSRF to carry out the SSIS pilot. EA had prepared costings for 2011-2012 with a full and a reduced staffing complement. The reduction in the staffing complement for the maintenance of the Cork SSIS was a reduction of a 1 WTE assistant psychologist to a 0.5 WTE. EA and CM said that they currently rely on student placements to support the SSIS work (e.g. to transcribe the interviews and enter data (under supervision)), which they consider a less than optimal situation because of the limited availability and expertise of the students. The reduction to a 0.5 WTE assistant psychologist would require even greater reliance on student placements. EA and CM stated that they have established links with voluntary organizations that were providing support to families. However, while voluntary organizations were providing the support to families, the follow-up to ensure appropriate services were being provided to families was the role of the SSIS research team.

Approved CM 22/09/2010 EA 23/09/2010

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Appendix 2: Letters to Bereaved Families

Appendix 2a: Letter from the project team of the NSRF to bereaved families of unconfirmed cases of suicide (Proactive follow-up)

Dear Mr / Mrs /Ms...

We would like to take this opportunity to express our deep sympathy on the death of your.....In September 2008, we started a project to improve access to support for people who have lost a family member by sudden death. While the project is independent of the coroner service we have consulted with the coroners in Cork and they are very supportive of the work. The project has been approved by the Social Research Ethics Committee of the Cork Teaching Hospitals.

Many families who experience the sudden loss of a family member may not receive the support they need and sometimes receive no support at all. In order to address any support needs you may have, Dr. Carmel McAuliffe will be in contact with you by telephone in the next 10 days.

At a later stage, there will be an opportunity for you or another family member to have an interview with Dr. Carmel McAuliffe. The objective of this part of the project is to improve our understanding of causes related to sudden death. This information will help us to improve treatment and prevention programmes for those who may be at risk in the future.

If you have any questions in relation to this letter you can contact either Dr Ella Arensman or Dr. Carmel McAuliffe. If you do not wish to be contacted further in relation this project, you can inform Dr. Carmel McAuliffe by telephone (021 4277499) or e-mail (Carmel.McAuliffe@nsrf.ie) in the next 10 days.

Yours sincerely,

Dr. Carmel McAuliffe
Senior Researcher

Dr Ella Arensman
Hon. Senior Lecturer.

Appendix 2b: Letter from the project team of the NSRF to bereaved families of confirmed cases of suicide (Proactive follow-up)

Dear Mr / Mrs /Ms...

We would like to take this opportunity to express our deep sympathy on the death of your.....The National Suicide Research Foundation (NSRF) started a project in September 2008, to improve access to support for people who have lost a family member by sudden death, including suicide. While the project is independent of the coroner service we have consulted with the coroners in Cork and they are very supportive of the work. The project has been approved by the Social Research Ethics Committee of the Cork Teaching Hospitals.

Many families who experience the sudden loss of a family member may not receive the support they need and sometimes receive no support at all. In order to address any support needs you may have, Dr. Carmel McAuliffe will be in contact with you by telephone in the next 10 days.

At a later stage, there will be an opportunity for you or another family member to have an interview with Dr. Carmel McAuliffe. The objective of this part of the project is to improve our understanding of causes related to sudden death, including suicide. This information will help us to improve treatment and prevention programmes for those who may be at risk in the future.

If you have any questions in relation to this letter you can contact either Dr Ella Arensman or Dr. Carmel McAuliffe. If you do not wish to be contacted further in relation to this project, you can inform Dr. Carmel McAuliffe by telephone (021 4277499) or e-mail (Carmel.McAuliffe@nsrf.ie) in the next 10 days.

Yours sincerely,

Dr. Carmel McAuliffe
Senior Researcher

Dr Ella Arensman
Director of Research/Hon. Senior Lecturer

Appendix 2c: Letter from the project team of the NSRF to bereaved families of unconfirmed cases of suicide (Contingency cases- no proactive follow-up)

Dear Mr./Mrs./Ms.,

We would like to take this opportunity to express our deep sympathy on the death of your.....In September 2008, we started a project to improve access to support for people who have lost a family member by sudden death. While the project is independent of the coroner service we have consulted with the coroners in Cork and they are very supportive of the work. The project has been approved by the Social Research Ethics Committee of the Cork Teaching Hospitals.

Many families who experience the sudden loss of a family member may not receive the support they need and sometimes receive no support at all. In order to address any support needs you may have, please find enclosed a bereavement support pack including information on bereavement support services and also on dealing with grief, which may be of interest to you or your family.

If you have any queries in relation to this letter or the enclosed pack please do not hesitate to contact Dr. Ella Arensman or Dr. Carmel McAuliffe by telephone (021 4277499) or e-mail (carmel.nsrif@iol.ie)

Yours sincerely,

Dr. Carmel McAuliffe
Senior Researcher

Dr Ella Arensman
Director of Research/Hon. Senior Lecturer

Appendix 2d: Letter from the project team of the NSRF to bereaved families of confirmed cases of suicide (Contingency cases- no proactive follow-up)

Dear Mr./Mrs./Ms.,

We would like to take this opportunity to express our deep sympathy on the death of your.... The National Suicide Research Foundation (NSRF) started a project in September 2008, to improve access to support for people who have lost a family member by sudden death, including suicide. While the project is independent of the coroner service we have consulted with the coroners in Cork and they are very supportive of the work. The project has been approved by the Social Research Ethics Committee of University College Cork.

Many families who experience the sudden loss of a family member may not receive the support they need and sometimes receive no support at all. In order to address any support needs you may have, please find enclosed a bereavement support pack including information on bereavement support services and also on dealing with grief, which may be of interest to you or your family.

If you have any queries in relation to this letter or the enclosed pack please do not hesitate to contact Dr. Ella Arensman or Dr. Carmel McAuliffe by telephone (021 4277499) or e-mail (carmel.nsrif@iol.ie)

Yours sincerely,

Dr. Carmel McAuliffe
Senior Researcher

Dr Ella Arensman
Director of Research/Hon. Senior Lecturer

Appendix 3: Contact Protocol

First contact between senior research psychologist and family:

If the family has not indicated to the SRP that they do not wish to receive any further contact, the SRP will contact the family by telephone 10 days after they have received the letter informing them about the project. The central focus of this telephone contact is to verify if family members have been offered support following the bereavement and whether the support which they received has been in line with their needs. The SRP will also verify if currently there are members of the family who are in need of support related to the bereavement but which has not yet been arranged. In the situation when support has already been provided to family members following the bereavement, the SRP will verify if the support that has been offered to members of the family has been in line with their needs. If in the first contact with the SRP any needs for support related to the bereavement are expressed by the family member, the SRP will offer the possibility to arrange an appointment with the appropriate bereavement support service (Console or other general bereavement support service¹). During this contact the SRP will also ask if the family would appreciate receiving a bereavement support pack. The SRP will ask the family member if he/she agrees with a follow-up contact in 2 weeks in order to verify if the support provided is in line with their needs and to inform the family about the second (interview) part of the project. If the family has not expressed specific needs for support in relation to the bereavement, the SRP will ask the family member if he/she agrees with a follow-up contact in 2 weeks in order to verify if they wish to receive support and to inform the family about the second (interview) part of the project.

Second contact between senior research psychologist and family:

If the family has agreed to be contacted again 2 weeks after the first contact, the SRP will contact the same family member by telephone. The first objective of the contact is to verify if the support provided by the bereavement support service (Console/general bereavement support service) is in line with their needs. If during the first contact the family did not express a need for bereavement related support, the SRP verifies again if this may be applicable now.

The second objective of the contact is to invite a relative who had a close relationship with the deceased to participate in a semi-structured interview. The SRP will explain the purpose and content of the interview and will propose to send a written summary of the interview part of the project by post after the telephone contact.

If during this telephone contact the relative expresses a wish to participate in the interview, the SRP will ask the relative for options for a date and time which is convenient for him/her. The SRP will also ask the relative for his/her preference with regard to the venue of the interview (in their home, NSRF offices, other preferred venue). The SRP will send a letter confirming the date-time-venue of interview including a summary of the interview part of the project.

If during this telephone contact the relative indicates that he/she would like to reflect on this invitation and make a decision at a later stage, the SRP will ask the relative to indicate when he/she would like to be contacted again by telephone to hear about his/her decision. The SRP will confirm with the relative the date and time to contact him/her again by telephone.

¹With regard to family members of cases of probable suicides, an initial appointment will be offered with a general bereavement support service (Appendix 1.1).

Third contact between senior research psychologist and family:

Following an introduction by the SRP the SRP will ask the relative to sign a consent form prior to the interview. An interview session with a relative will not exceed 3 hours including breaks. If required the SRP will propose a second appointment to complete the interview. At the end of the interview, the SRP will ask the relative if he/she agrees that the SRP will contact one or more health care professionals² who had been in contact with the deceased family member within 12 months prior to his/her death. After completion of the interview, the SRP will verify again with the relative if there is a need for bereavement related support. The SRP will ask the family member if he/she agrees with a final follow-up contact 3 weeks after completion of the interview in order to verify if he/she would like to discuss any reflections following from the interview and if there may be any needs for bereavement related support.

Contact between senior research psychologist and health care professionals:

The SRP will contact one or more health care professionals who had been in contact with the deceased within 12 months prior to death. The health care professionals will be informed about the purpose of the project by the SRP in writing and through a follow-up telephone call. If the health care professionals agree to participate³, the SRP will send a semi-structured self-report questionnaire to the health care professionals involved. The SRP will be available to respond to any questions from the health care professionals in relation to completion of the questionnaire.

Fourth and final contact between senior research psychologist and family:

Three weeks following completion of the interview with the family member, the SRP will contact the family member to discuss any reflections that he/she may have had following the interview. During this contact the SRP will verify again whether there are family members who would appreciate support related to the bereavement.

²For some cases of suicide or probable suicide more than one health care professional may need to be contacted, e.g. a GP may be able to provide information on data items related to long term personal history while a psychiatrist who had been in contact with the deceased in the four months prior to death may be able to provide more details about specific precipitating factors associated with the death.

³Letters will be sent to the clinical directors of the relevant psychiatric units and the practice managers of the relevant general practices prior to commencing interviews with health care professionals.

Appendix 4: Data Items

Appendix 4a: Data items of the coroners checklist used to access verdict records and post-mortem reports that are made available to the public after the inquest has been concluded

Core items

1. Sociodemographic information:

- Date of birth
- Area of residence (geocoded)
- Gender
- Nationality
- Ethnicity
- Marital status
- Accommodation incl. homelessness
- Living arrangements
- Children - number of children, provision of care for children under five years
- Employment status and profession
- Highest level of education obtained
- History of residence in industrial school, orphanage or foster care as a child
- History of being in prison

2. Cause(s) of death:

- Detailed description of cause(s) of death
- Verdict based on inquest

3. Cases of suicide or probable suicide:

- Toxicology results in relation to alcohol, drugs and poisons
- Presence of suicide note(s)/text message(s)
- Situation around time of death / events leading to death: Background stressors and precipitating events
- History of non-fatal suicidal behaviour
- Suicide/deliberate self harm by persons known to the deceased
- Psychiatric history including psychiatric diagnoses: primary and secondary
- Physical health including use of prescribed medication
- Substance abuse
- Treatment history including psychiatric treatment and psychotropic medication in/outpatient care
- History of physical maltreatment and/or sexual abuse

4. Other external causes of death:

- Toxicology results in relation to alcohol, drugs and poisons
- Situation around time of death/events leading to death: Background stressors and precipitating events
- Psychiatric history including psychiatric diagnoses: primary and secondary
- Physical health including use of prescribed medication
- Substance abuse
- Treatment history including psychiatric treatment and psychotropic medication

Information obtained through semi-structured interview with relative/friend who had a close relationship with the deceased

Core items

1. Sociodemographic information:

- Date of birth
- Gender
- Nationality
- Ethnicity
- Marital status
- Accommodation incl. homelessness
- Living arrangements
- Children - number of children, provision of care for children under five years
- Employment status and profession
- Highest level of education obtained
- History of residence in industrial school, orphanage or foster care as a child
- History of being in prison

2. Cause(s) of death:

- Detailed description of cause(s) of death

3. Cases of suicide or probable suicide:

- Presence of suicide note(s)/text message(s)
- Situation around time of death / events leading to death
- Recent symptoms/behaviours
- Family and personal history including history of physical maltreatment and/or sexual abuse
- Stressful and traumatic events in childhood, later life and in year prior to death
- History of non-fatal suicidal behaviour
- Precipitating factors for the deceased's last previous episode of deliberate self harm
- Suicide/deliberate self harm by persons known to the deceased
- Contact with health care services including psychiatric treatment and psychotropic medication
- Physical health including use of prescribed medication
- Substance abuse
- Social network

4. Other sudden deaths:

- Situation around time of death / events leading to death
- Recent symptoms and behaviours
- Contact with health care services including psychiatric treatment and psychotropic medication
- Physical health including use of prescribed medication
- Substance abuse

Information obtained from health care professional (GP/Psychiatrist) who had been in contact with the deceased prior to death

Core items

1. Cause(s) of death:

- Detailed description of cause(s) of death

2. Cases of suicide or probable suicide:

- Situation around time of death / events leading to death
- History of non-fatal suicidal behaviour
- Precipitating factors for deceased's last previous episode of deliberate self-harm
- Suicide/deliberate self harm by persons known to the deceased
- Family and personal history including history of physical maltreatment and/or sexual abuse
- Psychiatric history including psychiatric diagnoses: primary and secondary
- Recent symptoms/behaviours
- Physical health including use of prescribed medication
- Substance abuse
- Treatment history: including psychiatric treatment and psychotropic medication
- Final contact with services

3. Other external causes of death:

- Situation around time of death / events leading to death
- Psychiatric history including psychiatric diagnosis: primary and secondary
- Recent symptoms/behaviours
- Physical health including use of prescribed medication
- Substance abuse
- Treatment history including psychiatric treatment and psychotropic medication
- Final contact with services

Appendix 5: Proposals to sustain and expand the SSIS

Appendix 5a: Proposal-Implementation of the Suicide Support and Information System (SSIS)



National Suicide Research Foundation

Proposal

Implementation of the Suicide Support and Information System (SSIS)

National Suicide Research Foundation
23rd April 2012

Proposal

Implementation of the Suicide Support and Information System (SSIS)

Background

In 2008, the HSE's National Office for Suicide Prevention commissioned the National Suicide Research Foundation (NSRF) to develop and pilot a Suicide Support and Information System (SSIS). Functions and elements of the SSIS are in line with a similar system in the UK (National Confidential Inquiry into Suicide and Homicide), which was established in 1995 and which provides an evidence base for the development of suicide intervention and prevention programmes. The SSIS is innovative as it was developed to prevent suicide by facilitating access to support for the bereaved while at the same time obtaining information about risk factors associated with suicide and deaths classified as open verdicts, which is in line with key priorities of Reach Out, the Irish National Strategy for Action on Suicide Prevention (2005-2014) (HSE, 2005) and Vision for Change (Government Report, 2006).

Specific objectives of the SSIS are to:

- 1) Improve provision of support to the bereaved,
- 2) Better define the incidence and pattern of suicide in Ireland,
- 3) Identify and better understand the causes of suicide,
- 4) Identify and improve the response to clusters of suicide,
- 5) Reliably identify those individuals who present for medical treatment for deliberate self-harm and subsequently die by suicide.

Since 2008 the SSIS has been piloted successfully in close collaboration with Coroners in Cork City and County. Information on confirmed cases of suicide and undetermined deaths is obtained after conclusion of the coroners' inquest. Bereaved family members receive information on suitable support services and are referred to quality assured bereavement support services if required. Relevant data on factors associated with the death and the deceased are obtained in an appropriately sensitive and confidential manner from sources including coroners, the family and health care professionals, especially GPs who had been in contact with the deceased.

Between September 2008 and March 2011, 178 cases of suicide and 12 open verdict deaths have been included. Up until March 2011 in 96.8% of cases, family members expressed a preference to be approached further after the first contact. In one third of cases, the SSIS Senior Researcher facilitated bereavement support following conclusion of the inquest. Of family members invited to participate in an interview, so far 66% have agreed, and 77.1% of the health care professionals contacted have completed questionnaires.

The benefits of the pro-active approach towards suicide bereaved family members are clearly evidenced by the outcomes of the pilot SSIS in Cork between September 2008 and July 2010. Prior to the implementation of a contingency plan in August 2010, 39.5% of the bereaved family members were successfully referred by the SSIS to appropriate support services. Due to reduced funding, a contingency plan had to be implemented from August 2010 onwards and the pro-active support role could not be maintained. As a consequence, the uptake of support by bereaved family members fell to 6%. This clearly illustrates that information on its own is not sufficient to ensure that the sub-group of families who require more intensive support successfully access that support, for example a support group, counselling or psychotherapy.

Key outcomes of the SSIS pilot-study

- The SSIS has identified a subgroup of families with severe psychosocial problems in which multiple family members had taken their lives.

- The SSIS has identified a large cluster of 19 suicides by hanging of mainly adolescent and young adult males aged 14-36 years between September 2008 and March 2010 in a small area in Cork. The suicide rate for young males aged 14-34 years in Cork based on the most recent year with official data was 30 per 100,000. In contrast, the equivalent suicide rate was 350 per 100,000 in the area of the cluster, an excessively high rate (In comparison, the international range of the number of cases involved in suicide clusters varies between 3 and 11).
- The SSIS has identified specific suicide risk profiles including:
 - Undiagnosed and untreated mental health problems
 - Alcohol and drug abuse
 - History of deliberate self harm
 - Impact of economic recession as a precipitating factor
 - Recent separation of young men from partner/children
 - Long term consequences of sexual abuse in childhood and adolescence
- Based on preliminary examination of the suicides and deaths classified as open verdict ascertained by the SSIS between 2008 and 2010, in at least 10 per cent of cases these had been medically treated for deliberate self harm in the Cork region over the time period 2007-2009. Further retrospective checks are ongoing.

Added value of the SSIS

- The SSIS ensures that for all inquested deaths where a verdict of suicide is returned, bereaved families are proactively approached for bereavement support.
- The SSIS contributes to timely and enhanced bereavement support for families and communities affected by suicide.
- A major benefit of the SSIS is the timely identification of suicide cases and emerging suicide clusters – ca. 3 years earlier than the Central Statistics Office.
- The SSIS provides the best source of information on current risk profiles of suicides and in so doing can contribute to prevention of further suicides including copycat suicides. This work was awarded the prestigious Andrej Marušič Award by the International Association for Suicide Prevention at the 13th European Symposium on Suicide and Suicidal Behaviour in 2010.

Link between the SSIS and the CORONERS BILL (2007)

One of the key objectives of the SSIS is to enhance early identification of people at risk of suicide and early identification of emerging suicide clusters, which has shown to be feasible on the basis of the SSIS pilot-study in County Cork (Arensman et al, 2012). This objective links in with one of the principal functions of the Coroner Service: **9f**, stating that “*the Coroner Service shall contribute to the enhancement of public health and safety*” (p. 11, CORONERS BILL, 2007).

During the course of the SSIS pilot study, the SSIS team has provided training workshops to the Coroners and their staff addressing aspects related to bereavement following suicide or sudden deaths, consequences of multiple deaths in families or peer groups and complicated grief associated with contagion and clustering of suicide. This objective links in with another principal function of the Coroner Service: **9c**: “*liaise efficiently and sympathetically with bereaved families and interested persons involved in an investigation or inquest*” (p.11, CORONERS BILL, 2007).

Collaboration between NSRF and other relevant health care agencies and professionals

During the implementation of the SSIS in County Cork, the SSIS team established a close link with primary care professionals and mental health services, initially with a view to obtaining information on people who had died by suicide and who had been in contact with a GP or mental health professional prior to death. However, based on the information obtained by the SSIS and training programmes delivered by the SSIS team, the capacity of primary care and mental health professionals in responding to people presenting with suicidal behaviour and those who are suicide bereaved has been enhanced.

In pro-actively facilitating support for bereaved family members, the SSIS team has established a close link with Console offices in several areas across the country. Many bereaved families identified through the SSIS have been successfully referred to Console with mutual benefits for both the bereaved family members, the SSIS and Console. In addition to Console, the SSIS team has also established strong links with other suicide bereavement support services, such as the Irish Friends of the Suicide Bereaved and Living Links. The SSIS team has also established close links with members of An Garda Síochána in providing information and training in addressing specific needs related to responding to emerging suicide clusters and suicide contagion.

Proposed SSIS implementation model

An important model for the regional roll-out of the SSIS is provided by the National Registry of Deliberate Self-Harm which is based at the NSRF. The co-ordination of the National Registry of Deliberate Self-Harm is centrally run from Cork at the NSRF although there are individuals based in different areas collecting data and reporting to the NSRF in Cork. In an independent evaluation of the SSIS, Windfuhr (2010) concluded that the NSRF had the infrastructure to continue to host the SSIS, and to co-ordinate and run a regional roll-out of the SSIS. On this basis it is proposed to expand the SSIS according to a stepped approach (Figure 1).

The SSIS in County Cork, which has already been successfully piloted in collaboration with three Coroners, will become the main SSIS co-ordinating centre which will conduct the following key tasks:

- Provide training and guidance to Coroners and their staff in the new SSIS areas.
- Establish links with suicide bereavement services and health care professionals in the new areas.
- Co-ordinate and prepare applications to ethics committees in the new areas.
- Co-ordinate data collection and manage data entry and data analysis.
- Disseminate outcomes of the SSIS in reports and peer review papers.
- Pilot changes in relation to the SSIS procedure in County Cork prior to implementation in other SSIS areas.

Obtaining minimal information on cases of suicide

It is proposed that for each of the new SSIS areas, minimal information on each case of suicide will be obtained following completion of the inquest. Based on the pilot SSIS in County Cork the checklist to obtain information from the Coroners records on each case of suicide has been shortened to a 2-page form including core information.

Involving existing bereavement counsellors in implementing a pro-active approach towards family members bereaved by suicide

It is proposed that counsellors of existing suicide bereavement support services (depending on the area, e.g. Console, Living Links, Irish Friends of the Suicide Bereaved) will facilitate support for families bereaved by suicide after conclusion of the inquest according to a stepped approach. The first contact between the counsellor and bereaved family members will take place after conclusion of the inquest. During the first contact with the bereaved family, the counsellor will assess the needs in relation to support and in accordance with the level of need will arrange referral to an appropriate service including referral to a Console counsellor where necessary. The estimated average time involved in conducting the pro-active support role would be 3 hours per week.



Figure 1: SSIS implementation model according to a stepped approach

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 23rd April 2012

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National Suicide Research Foundation



Proposal

Expansion of the Suicide Support and Information System (SSIS) –

National Suicide Research Foundation
in collaboration with Console
5th April 2011

Proposal

Expansion of the Suicide Support and Information System (SSIS)

Background

In 2008, the HSE's National Office for Suicide Prevention commissioned the National Suicide Research Foundation (NSRF) to develop and pilot a Suicide Support and Information System (SSIS). Functions and elements of the SSIS are in line with a similar system in the UK (National Confidential Inquiry into Suicide and Homicide), which was established in 1995 and which provides an evidence base for the development of suicide intervention and prevention programmes. The SSIS is innovative as it was developed to prevent suicide by facilitating access to support for the bereaved while at the same time obtaining information about risk factors associated with suicide and deaths classified as open verdicts, which is in line with key priorities of Reach Out, the Irish National Strategy for Action on Suicide Prevention (2005-2014) and the Review of General Bereavement Support and Specific Services Available Following Suicide Bereavement (Petrus Consulting et al., 2008).

Specific objectives of the SSIS are to:

- 1) Improve provision of support to the bereaved,
- 2) Better define the incidence and pattern of suicide in Ireland,
- 3) Identify and better understand the causes of suicide,
- 4) Identify and improve the response to clusters of suicide,
- 5) Reliably identify those individuals who present for medical treatment for deliberate self-harm and subsequently die by suicide.

Since 2008 the SSIS has been piloted successfully in close collaboration with Coroners in Cork city and county. Information on confirmed cases of suicide and undetermined deaths is obtained after conclusion of the coroners' inquest. Bereaved family members receive information on suitable support services and are referred to quality assured bereavement support services if required. Relevant data on factors associated with the death and the deceased are obtained in an appropriately sensitive and confidential manner from sources including coroners, the family and health care professionals, especially GPs who had been in contact with the deceased.

Since the start of the project, 172 cases of suicide and deaths of undetermined intent have been included. Up until March 2011 in 96% of cases, family members expressed a preference to be approached further after the first contact. In one third of cases, the SSIS Senior Researcher facilitated bereavement support following conclusion of the inquest. Of family members invited to participate in an interview, so far 66% have agreed, and 78% of the health care professionals contacted have completed questionnaires.

The benefits of the pro-active approach towards suicide bereaved family members are clearly evidenced by the outcomes of the pilot SSIS in Cork between September 2008 and July 2010. Prior to the implementation of a contingency plan in August 2010, one in three bereaved family members (33%) were successfully referred by the SSIS to appropriate support services. Due to reduced funding, a contingency plan had to be implemented from August 2010 onwards and the pro-active support role could not be maintained. As a consequence, the uptake of support by bereaved family members fell to 6%. This clearly illustrates that information on its own is not sufficient to ensure that the sub-group of families who require more intensive support successfully access that support, for example a support group, counselling or psychotherapy.

Key outcomes so far:

- The SSIS has identified a subgroup of families with severe psychosocial problems in which multiple family members had taken their lives.
- The SSIS has identified a cluster of 17 suicides by hanging of mainly adolescent and young adult males aged 14-36 years between September 2008 and March 2010 in a small area in Cork.
- The SSIS has identified specific suicide risk profiles including:
 - Undiagnosed and untreated mental health problems
 - Alcohol and drug abuse
 - History of deliberate self harm
 - Impact of economic recession as a precipitating factor
 - Recent separation of young men from partner/children
 - Long term consequences of sexual abuse in childhood and adolescence
- Based on preliminary examination of the suicides and deaths classified as open verdict ascertained by the SSIS between 2008 and 2010, in at least 10 per cent of cases these had been medically treated for deliberate self harm in the Cork region over the time period 2007-2009. Further retrospective checks are ongoing.

Added value of the SSIS

- The SSIS ensures that for all inquested deaths where a verdict of suicide is returned, bereaved families are proactively approached for bereavement support
- The SSIS contributes to timely and enhanced bereavement support for families and communities affected by suicide.
- A major benefit of the SSIS is the timely identification of suicide cases – ca. 3 years earlier than the Central Statistics Office.
- The SSIS provides the best source of information on current risk profiles of suicides and in so doing can contribute to prevention of further suicides including copycat suicides. This work was awarded the prestigious Andrej Marušič Award by the International Association for Suicide Prevention at the 13th European Symposium on Suicide and Suicidal Behaviour in 2010.

Collaboration between NSRF and Console

During the pilot SSIS (September 2008 – to date) the NSRF has established a constructive link with Console offices in several areas across the country. Many bereaved families identified through the SSIS have been successfully referred to Console with mutual benefits for both the bereaved family members, the SSIS and Console. Closer collaboration between the NSRF and Console will enhance mutual benefits, such as increased uptake of support by SSIS participants and increased efficiencies due to exchange of knowledge and expertise between the NSRF and Console.

Proposed NSRF-Console model for expansion of the SSIS

According to Rinzenbrink (2002) best practice in bereavement support services not only refers to direct involvement with bereaved people but also programme infrastructure and the sequencing of care. An important model for the regional roll-out of the SSIS is provided by the National Registry of Deliberate Self-Harm which is based at the NSRF. The co-ordination of the National Registry of Deliberate Self-Harm is centrally run from Cork at the NSRF although there are individuals based in different areas collecting data and reporting to the NSRF in Cork. In an independent evaluation report Windfuhr (2010) concluded that the NSRF has the infrastructure to continue to host the SSIS, and to co-ordinate and run a regional roll-out of the

SSIS. On this basis it is proposed to expand the SSIS in collaboration with the Suicide Bereavement Support Service Console according to a stepped approach (Figure 1). Console has now established eight offices across the country: Dublin, Cork, Limerick, Galway, Wexford, Kildare, Athlone and Donegal. It is proposed that for each of the new areas a Console counsellor and administrative officer will be involved in SSIS tasks on a part-time basis.

The SSIS in Co. Cork, which has already been successfully piloted in collaboration with three Coroners, will become the main SSIS co-ordinating centre which will conduct the following key tasks:

- Provide training and guidance to the designated Console counsellors and administrative officers in the new SSIS areas.
- Establish links with the coroners and health care professionals in the new areas.
- Co-ordinate and prepare applications to ethics committees in the new areas.
- Co-ordinate data collection and manage data entry and data analysis.
- Disseminate outcomes of the SSIS in reports and peer review papers.
- Pilot changes in relation to the SSIS procedure in Co. Cork prior to implementation in other SSIS areas.

Proposed SSIS tasks to be conducted by Console counsellors or administrative officers in new SSIS areas

- Obtain minimal information on cases of suicide from Coroners in the new SSIS areas following completion of inquest
- Pro-actively approach family members bereaved by suicide after completion of the coroner's inquest

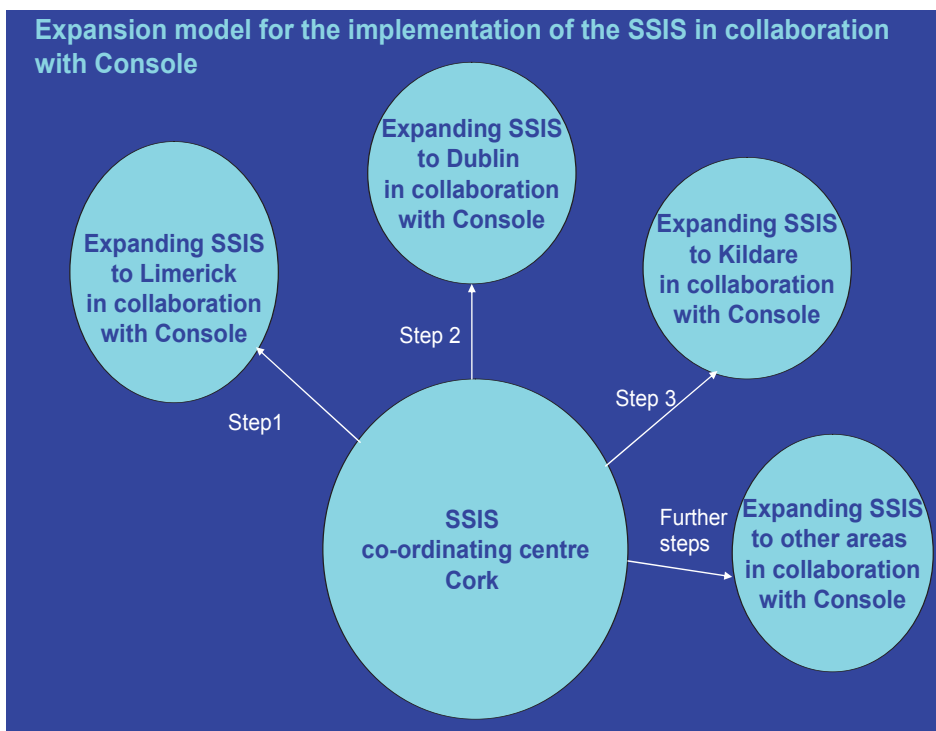


Figure 1: Expansion model for the implementation of the SSIS in collaboration with Console

Obtaining minimal information on cases of suicide

It is proposed that for each of the new SSIS areas a Console counsellor or administrative officer will be involved on a part-time basis in obtaining minimal information on each case of suicide following completion of the inquest. Based on the pilot SSIS in Co. Cork the checklist to obtain information from the Coroners records on each case of suicide has been shortened to a 2-page form including core information. The estimated average time involved in completing these forms at the local Coroner's office would be 3 hours per week.

Pro-active approach towards family members bereaved by suicide

It is proposed that the Console counsellor will facilitate support for families bereaved by suicide and probable suicide after conclusion of the inquest according to a stepped approach. The first contact between the counsellor and bereaved family members will take place after conclusion of the inquest. During the first contact with the bereaved family, the counsellor will assess the needs in relation to support and in accordance with the level of need will arrange referral to an appropriate service including referral to a Console counsellor where necessary. The estimated average time involved in conducting the pro-active support role would be 3 hours per week.

Timeline

The expansion of the SSIS will be conducted according to a stepped approach in collaboration with Console. Between May and December 2011 the SSIS will be expanded to Limerick. Between January and May 2012 the SSIS will be expanded to Dublin with a view to expand to all regions in the country where a Console office has been established.

Funding

Funding is sought to support the SSIS co-ordinating centre in Cork. The SSIS co-ordinating centre will co-ordinate and guide the implementation of the SSIS in collaboration with Console according to a stepped approach.

Budget

- Salary Senior SSIS Co-ordinator (0.9 FTE, incl. 10.75% PRSI and 6% pension, 1st May 2011 -1st May 2012)	€ 53,995
- Consumables	€ 3,000
- Travel	€ 2,500
<hr/>	
Total	€ 59,495

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National Suicide Research Foundation



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive