CONSULTATION TO CORNELL UNIVERSITY

"BASIC REPORT"

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INTRODUCTION

The City of Ithaca and Cornell University are faced with a challenge unlike any encountered elsewhere in the world. The settings that are essential identifying features of the community – and symbols that have been embraced universally as attractions – also are the sites of suicide, one of the least understood and most meaning-laden of all human actions. Rather than having one site for suicide – a so-called "hotspot" that has become iconic – Ithaca's bridges and gorges collectively stand as the points of concern. Moreover, while there has been intensive attention to scientifically designing and testing public health and individually oriented approaches to preventing suicide, this is a young science where results are preliminary and definitive evidence is lacking.

It is within this context that we were asked to consult on both immediate and intermediate-term response to the recent deaths of students who jumped from bridges on or adjacent to the Cornell campus. The focus of this report necessarily emphasizes the matters of the moment, maximizing safety to save lives, considering the continuance of temporary barriers that are offending in appearance to all eyes, and suggesting steps that can facilitate a safe transition to a more settled set of outcomes – built on collaborative discussion among the diverse groups that ultimately must have a "say." Such collaborative and collective responses are essential for any efforts, if they are going to have a chance of proving effective.

BACKGROUND

Ithaca is a city of 30,000 people situated at the south end of Cayuga Lake, the longest of the Finger Lakes of Central New York. It is famed for its natural beauty, with steep and spectacular wooded gorges and dramatic waterfalls. Ezra Cornell, in founding the University on the heights above downtown Ithaca and Cayuga Lake, decided 150 years ago to tie the identity of the school to its gorges, purposefully building the new campus between these magnificent landmarks. Cornell University registered 20,633 students this past academic year – 13,931 undergraduate and 6,702 graduate students.

To this day, students and faculty choose Cornell because of its scenery and surroundings, and its offer of a vibrant intellectual culture outside of a dense urban environment. The campus area includes seven bridges that cross the main gorges, and members of Cornell community, including its students, as well as faculty and staff, traverse these bridges daily, often on foot. The University owns four of the bridges, while the City of Ithaca owns the other three. Four of the seven have served as significant sites for suicides, considering deaths over the course of decades, with the most from the two Stewart Avenue bridges.

The rate of suicide over time at Cornell University has been consistent with national suicide data in higher education, despite Cornell's reputation as having had an elevated rate. However, six Cornell students died by suicide (five of these on or near the campus) during this immediately past (2009-10) academic year, including three who jumped from bridges or an adjacent gorge edge in close temporal proximity during February and March, the last two within two days. These six deaths constituted a statistically significant as well as a clinically meaningful suicide cluster. The

cluster generated substantial and persisting local, national, and international media attention. This news coverage, in turn, served to raise the risk level for further suicides among Cornell students – and among vulnerable people living in Ithaca and Upstate, or for those who might come to Ithaca from distant places to die.

In response, the University with the City's consent installed temporary chain link fences across all seven bridges. The erection of the temporary barriers over the spring break prompted extensive public discussion, both supportive and acrimonious, including protests that the barriers were a blot on the landscape, that they would not deter anyone with a strong intent to kill him/herself, or that their presence might be regarded by vulnerable individuals as so depressing that they might become more distressed.

The initial agreement to place the barriers included a time-certain deadline in early June for removal on the City-owned bridges, which recently has been extended another 10 weeks. It was within this context that we visited Ithaca on 3-4 May 2010 to view each bridge, and talk with students, faculty, administrators, and Ithaca leaders. Our group included three suicide researchers: Dr. Eric Caine, Chair of Psychiatry, University of Rochester Medical Center, and an alumnus of Cornell; Dr. Madelyn Gould, Professor, Departments of Psychiatry and of Public Health (Epidemiology), Columbia University/New York State Psychiatric Institute, and Dr. Annette Beautrais, Professor, Department of Emergency Medicine, Yale University School of Medicine. In addition to our data gathering, we were asked to provide education about suicide and suicide prevention for Cornell faculty, staff, and students, and for Ithaca city leaders and community, and to add expert input to the discussions of policy makers.

This report summarizes the key issues conveyed at the consultation meetings, and the major findings and recommendations of the consultants.

KEY ISSUES AND RELEVANT DATA

As part of its urgent response to the deaths in February and March 2010, in particular, the University initiated a series of coordinated steps to augment its already considerable efforts devoted to mental health promotion and suicide prevention. Central to these, temporary barriers were placed on six of the seven bridges over local gorges, and the seventh was closed. *This action was an essential demonstration of the University's commitment to safety above all else*, and it was entirely in keeping with what has been shown to work in other settings. It is important to underscore that this was not the only aspect of the University's response.

Three critical issues served to drive the urgency of the needed decisions and shape future discussions – 1) the nature of suicide contagion and clusters; 2) documented jumping from iconic sites, most especially bridges; and 3) the extent of media coverage of the recent suicides.

While individual risk factors, such as depression, anxiety, and substance abuse, have long been shown to exert a significant role in the etiology of suicide, mounting evidence also supports the role of imitation and modeling in suicide. The importance of modeling on suicide behavior has been suggested primarily by two areas of research: 1) clusters or "outbreaks" of suicide defined by temporal-spatial proximity; and 2) media influence on subsequent suicide related behavior. A brief review of these two sources of evidence as they relate to the current apparent suicide cluster at Cornell University is presented.

Early research provides descriptive accounts of suicide "epidemics" that rely heavily on anecdotal accounts of suicide behavior, usually case history methodology. Suicides that appear to be clustered or related (cluster suicides) have been noted in a variety of populations, including community samples such as college students, and selected samples such as incarcerated individuals and psychiatric inpatients. Collectively, these studies reinforce the concept that exposure to another person's suicide can precipitate *imitative* suicidal behavior, related to *temporal, geographic, and/or interpersonal proximity* as well as individual vulnerabilities.

Suicides that involve time-space clustering appear to be predominantly a phenomenon of adolescents and young adults. An inferential study employing stratified samples to investigate age-related effects among large-scale national populations has found that the cluster suicides are observed primarily among teenagers and young adults (15-19 and 20-24 year olds). In these studies, the relative risk of suicide following exposure to another individual's suicide was 2 to 4 times higher among 15-19 year olds than among other age groups, and also was significantly increased among college-aged individuals.

An ongoing national psychological autopsy research of youth cluster suicides has yielded the following key findings: 1) Clusters ranged in size from three to 11 cases (mean = 3.9, sd = 1.6). 2) The duration of clusters varied from one to 357 days (mean = 80 days; sd = 58.1 days); the interval between the first and second cases in the cluster varied from two to 103 days, with one cluster deemed to be an extension of another one that occurred two years earlier in the same community. 3) The relationships among individuals who died in a suicide cluster were relatively distant – victims were not likely to be close friends. 4) The deaths of the first cases in the suicide clusters, in comparison to the singleton controls, were more likely to have occurred in public locations. 5) There was significantly more publicity surrounding the deaths of the first cases in the cluster compared to that of the singleton controls. 6) The first cases in the cluster took fewer precautions to minimize interference during the suicide acts than the singleton controls. 7) The first cluster cases were more likely to be impulsive (i.e., planning for less than one day) than the singleton suicides.

The association between exposure to *media coverage of real-life suicides* and subsequent self-injurious behavior has been investigated for more than three decades. Reviews of nonfictional suicidal stories provide substantial evidence for a suicidal imitative effect. Consistently, the magnitude of the increase in deaths from suicide following a suicide story has been shown to be proportional to the amount, duration, and prominence of media coverage. Teenagers and college-aged students are particularly vulnerable to such suicide contagion. It appears that cluster suicides may be more impulsive than other suicides, at least at their onset, and the factors that may precipitate a suicide cluster include a public location of the death followed by a large amount of publicity. Moreover, publicity of a particular suicide method appears to lead to subsequent increases in the use of that method, and the Internet has the potential to rapidly amplify such exposure. Case reports underscore that youths as well as adults have turned to the Internet for detailed instructions on suicide methods and have received encouragement to commit suicide or made suicide pacts.

Taking the research evidence as a whole, the public nature of deaths from bridges in Ithaca increased the likelihood that the 2009-10 suicide cluster would continue unabated without protective actions. More jumping deaths in Ithaca would have added further to community trauma and international notoriety, which together could have had an even greater impact on the perceived serenity and beauty of the local gorges and parks.

Jumping is a violent, highly lethal method of suicide. Case fatality (the fraction who die of all those who attempt suicide using this method) is estimated at over 30% for jumping from all structures and buildings, and *is far higher (over 90%) for higher bridges.* Death is usually inevitable from jumps from five stories. The incidence of suicide by jumping varies markedly around the world, and tends to be much higher in places which provide opportunities for jumping, such as cities with extensive high rise housing.

"Suicide hotspot" is a term that is loosely defined but typically used to describe a specific site, usually in a public location, which is used frequently as a location for suicide, has easy access, and which gains a reputation and media attention as a place for suicide. All the world's leading suicide hotspots appear to be jumping sites. The Golden Gate Bridge in San Francisco is a readily apparent example of an iconic suicide hotspot.

The process by which a site attains iconic status as a place from which to jump is not clear. It may, in part, be a consequence of media reporting. Despite recommendations to the contrary, journalists persist in asserting that suicides from public sites are newsworthy. This newsworthiness may be argued in light of the relatively unusual method of death: Jumping is an uncommon method of suicide in many countries, and jumping from bridges is especially rare in comparison to other more accessible methods – *in most settings*. There are many potential attractions to jumping for some individuals: The public aspect of the suicide and the site, the beauty or aesthetic appeal of the structure (e.g., the Golden Gate Bridge), the cultural significance or social meaning of the setting (e.g. Mt Muhara in Japan), or the hazard that the suicide may pose for the public (which exists, for example, if a bridge extends over an expressway with the risk that other lives may be endangered when someone jumps).

There is some evidence, albeit conjecture for those who have died, that people tend to make their choice of method of suicide based upon their perceptions of what they understand to be certain to achieve death, to be quick, to be readily available, and to avoid risk of disfigurement (as conveyed by survivors of settings such as the Golden Gate Bridge). Jumping fulfils these conditions. However, the symbolism and romanticism associated with an iconic or symbolic suicide site appear to play a decisive additional role for those who choose to jump from such sites.

Thus, while there is no clear account of the mechanisms by which particular sites acquire iconic status as places for suicide, it seems likely that this process involves a combination of a public place, an attractive location, an aesthetically pleasing structure, the nature and persistence of media reporting of suicides from the site, and the development of local history, tradition and myth. All these features likely combine to render Ithaca as "an iconic site" for suicide. Unlike other settings in the United States or internationally, this attribution appears to relate to the region and its gorges generally, rather than to one specific bridge, promontory, or park.

In this context communities can consider a variety of approaches to enhance suicide prevention through interceding in jumping.

Barrier approaches to deter individuals from jumping include:

- Install additional permanent safety barriers.
- Retain temporary barriers until permanent safety barriers are installed.
- Proposed barrier options need to be designed to take into account the following issues.

- Barriers must deter and impede an individual from jumping from a bridge.
- Barriers must have a minimal visual and aesthetic impact on the bridges.
- Barriers must have a minimal visual and aesthetic impact on the surrounding geography and natural environment.
- Barriers should not significantly impede current pedestrian access to and over bridges.
- Barriers must be structurally and aerodynamically stable.
- Barriers must be easy, and not costly, to maintain and clean.
- Barriers should be cost-effective to construct and install.
- Barriers should not risk presenting a physical challenge to be overcome in daring (not suicidal) activities.

Augmenting non-barrier approaches that buttress primary barrier-based efforts to deter individuals from making suicide attempts by jumping from specific sites include:

- Signage and telephone access to crisis lines, with telephone "help" boxes placed at bridge accesses or on bridges.
- Surveillance measures.
- Security patrols on bridges.
- Closed circuit television cameras (CCTV) on bridges.
- Restricting pedestrian access to jumping sites.
- Improved rescue and response efforts.
- Prudent building codes for bridges, applied to new constructions and repairs.
- Muted media reporting.
- Training gatekeepers to pre-emptively identify individuals at-risk of self-harm.

Complementary community approaches to deter individuals from making suicide attempts by jumping include:

- Strengthen and promote mentally healthy and caring university and Ithaca communities.
- Improve student access to mental health services.
- Promote student help-seeking in times of crisis or stress.
- Promote faculty, staff, and student recognition of at-risk students, and student peer support.
- Improve after-hours access to emergency mental health services.
- Educate students, faculty, staff, and the local community about suicide risk, and best practices in suicide prevention, in general, and in preventing suicide by jumping from bridges, in particular.
- Address misperceptions and misinformation about suicide in campus and city communities.

SUICIDE IS PREVENTABLE

During the middle years of this past decade Gannett Health Services adapted to the Cornell Campus many of the features of the US Air Force program to prevent suicide. The work of the US Air Force since 1996 has shown that an organization can pull its resources together to prevent

suicide, with a sustained demonstration of reduced rates. Faced with a daunting increase in rates during the early-1990s, the Vice Chief of Staff of the US Air Force ordered his Surgeon General and all other component members of the service's leadership to work together to develop a sweeping and comprehensive program. Rather than view it as medically based, they developed a *community-oriented approach*, one that ultimately created an initiative involving 11 core elements. Included were attention to individual and family needs; workplace performance; education for command and non-commissioned officers, for all personnel and for members of the broader community; attention to mental health and inordinate alcohol use; reformulation of confidentiality policies; continuing surveillance; and perhaps most central to any programmatic effort, defined accountability.

In its version, Cornell developed a broadly based community health effort, a mental health advisory committee, and a combination of anonymous, student run, and campus-supported clinical services to greatly enhance access to care or support for those in need. It designed and implemented an array of educational programs for faculty, staff, and RAs, and consistently sought to destigmatize mental health concerns or service use, while also continuing to implement programs to reduce binge drinking and alcohol use across the entire University community. Of note, suicide on the Cornell Campus fell to zero during the three consecutive years following full implementation of the augmented programs, giving hope that they had in fact addressed many of the core issues leading to lethal suicidal behaviors.

Evaluation of the USAF Suicide Prevention Program made it evident that the whole was greater than the sum of its parts. At the heart of the program was an unequivocal change in culture that espoused and implemented programs that offered help while seeking to remove the stigma of accepting help ("strong men can ask for help"). It was clear that the cohesive nature of the service, long-standing values affirming "the Air Force family," and a sustained commitment that transcended the rotation of top leadership, all contributed to the capability of effectively implementing such a radical undertaking. The program led to a sustained decline in suicides, and just as important, in violent deaths and violence behaviors. Of note, the rate 'spiked' upward in 2004 at a time when implementation was lagging; leadership reapplied the program and enhanced monitoring, and since then rates have again fallen to prior levels. It was evident that, what had been deployed as a suicide prevention program was, in fact, a program that broadly promoted social health and violence prevention.

In comparing the Cornell program with that of the Air Force, it is clear that there are important differences. The latter is a tightly organized, hierarchical community with a potent top-down command structure. One cannot say the same for universities. The USAF has many complementary measures of job performance and personal functioning, and seeks to maintain readiness on a war footing. Thus it can command data and access information sources not available to a university. Given the nature of a military organization, it did not seek to specifically control its most prevalent means of suicide – firearms – but imposed other safety measures in its ability to restrict personnel at risk.

Past community discussions in Ithaca over the course of decades have rejected any suggestion of bridge barriers. Thus, Cornell has until recently experienced what in hindsight can be seen as "a hole" in what could be viewed as a suicide prevention safety net. In light of the unique qualities and history of Ithaca and the University, no one would have chosen barriers pre-emptively were it

not for the events of this year. Moreover, the three-year success of new initiatives gave rise reasonably to a sense that the University has been on the right track. However, mental health promotion and its linked suicide prevention efforts reflect a multilayered approach, where no one initiative or effort will 'catch' all potential deaths. While Cornell has developed and implemented what many would describe as "best practices" for university campuses, these ultimately were not enough in this particular community, one dotted with iconic sites for jumping.

The available scientific data regarding suicide deaths and attempts related to jumping from bridges strongly suggests that *most individuals who jump from iconic sites are ambivalent, act impulsively, choose a specific site, and if thwarted from an attempt at that site at a particular time, will survive.* The decision to attempt suicide may be a transient response to a particular set of emotional circumstances that resolve with time. If access to a lethal means of suicide is denied during this time, the individual may make a suicide attempt with a less lethal method or make no attempt at all. These observations are consistent with evidence that many of those who make suicide attempts are impulsive and suggest that measures to prevent suicides by jumping may be worthwhile by delaying or averting some fraction of impulsive suicide attempts. They are also consistent with a large body of evidence that suggests that restricting access to a range of methods of suicide may prevent suicides, and not immediately lead to method substitution.

Ithaca's gorges and parks are famous, and in particular, it is the bridges across the gorges that make Ithaca an iconic suicide site. Most suicide hotspots are single sites. No single bridge in Ithaca has emerged as *the* favored suicide. Over the course of years, suicides have occurred from multiple bridges that cross the two main gorges that bound much of the Campus, as well as settings such as Taughannock Falls. (While mindful that it is located in Ulysses, most people associate it with Ithaca). No doubt, Cornell has become identified as an iconic suicide campus by implication – most of the suicides are students because they constitute a large proportion of the population and live near the bridges – but we also noted that people have come from out of town in order to die in Ithaca.

Thus, restricting access to community-recognized, accessible jumping sites has a substantial probability of reducing deaths by this means. This does not guarantee that no one will die using these sites, assuming very high levels of determination, nor does it inherently protect against other methods. Yet the literature is replete with studies that show both a short-term lack of substitution and clearly evidenced reductions in rates when means controls are widely applied across communities, or a nation.

RECOMMENDATIONS AND CONCLUSION

Given the data available in the literature – about jumping, contagion and clusters, and youth suicide – together with the rapid unfolding of a major media event *locally and nationally*, the urgent decision and implementation of a program of protection initiatives on the Cornell campus and for the Ithaca community was an essential and prudent effort to staunch the likelihood of any further suicides from the local bridges. Immediately placing barriers on the bridges was one component and certainly the most visible. *It was an essential demonstration of the University's commitment to safety above all else*, and it was entirely in keeping with what has been shown to work in other settings. It is important to underscore that this was not the only aspect of the University's response, which has included bringing together diverse elements of the Campus and Ithaca

communities, engaging in frank discussion, offering crisis support as well as augmented educational and counseling services, and working collaboratively with outside consultants to rapidly and deliberatively define future potential courses of action.

The current temporary barriers are an "eyesore." *And, as in all human communities, there will be suicides in Ithaca and on the Cornell campus in the future. The issue for all to consider is this: How much do you want these to be associated with your bridges and your gorges?*

Inevitably, given both the history of suicide in Ithaca and the recent publicity (notoriety) that surely increased Ithaca's reputation as a suicide site, there will be more suicides and some will come from farther away to end their lives. When the next suicide occurs, it will be deemed even more newsworthy than in the past. If the barriers are removed, it will generate especially adverse news coverage. There will be speculation regarding why barriers were taken down, when 'experts' now point to 'best evidence' suggesting they should be installed permanently. There will be media-led speculation (and assignment of responsibility) about who estimated the risk and assessed the value of the life (lives) lost versus the cost or esthetics of barriers. In turn, this type of news coverage may render the sites even more risky.

As we discussed when visiting the campus and speaking with many individuals, we recognize the deep need to preserve the beauty that is so much a part of living in Ithaca and attending Cornell University. No one would ever choose to obstruct the views of the gorges or waterfalls, or impede access to the natural surroundings that truly are special for residents, students, and visitors. We also recognized that this problem of dying by throwing oneself into the gorges is long-standing, and it is apparently contagious. It certainly has become a lightening rod in the community and in the print and Internet media.

We see no alterative but to promote safety and caring for vulnerable persons as the central driving elements of this discussion. *It is our recommendation that temporary barriers that meet standards of effectiveness remain in place, until permanent safety measures can be built.* There are many approaches to such measures, and the expertise regarding what will work best for the different bridges – in a fashion that is respectful of the glorious beauty of the settings – is beyond our skills.

It is one thing for us to make a recommendation; it is another for Ithaca and Cornell to create an effective community discussion that can forge a common approach to saving lives. Truly, everyone is 'in this together.' The longer term success of any comprehensive prevention agenda – of which barriers at but one part – depends on building coalitions for collective actions.

Acknowledging the glare from widespread coverage in the national media and the unfortunate notoriety of this year's deaths, permanent barriers must be in place to address heightened suicide risk and perceptions that will not be undone, or at a minimum, will not change for many years. The contagion risk that arose this year will not soon abate!

A central lesson from the US Air Force related to the power of leaders to set dramatic change into motion, and to use their institutional authority to develop both a culture and infrastructure needed to save lives and to create a healthier community, and ultimately, to sustain the needed self-scrutiny to foster continuous improvement. It has been difficult nationally to transport this lesson to other settings, and for communities to come together to build the array of interwoven efforts needed to prevent suicide. Cornell and Ithaca together, by necessity, are now confronted with

such an opportunity. It is our recommendation that the involved leaders use their positions to create the collective movement needed. We recognize the potential costs – in dollars, social capital, and political futures. At the same time we see this as a potentially galvanizing cause, one that builds towards a national model of health and community-academic collaboration.