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## Short Report

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# Suicides in public places: findings from one English county

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Little is known about where suicides take place. We collected data from coroners' files on all suicides and undetermined deaths in one large English county from 2000 to 2004. The data show that >30% of suicides occurred in public places. A quarter of these involved jumping from a height and nearly a quarter involved car exhaust poisoning. Several sites were associated with multiple methods of suicide. Identifying and managing high-risk locations should be an important part of an overall suicide prevention strategy and is best tackled at local level.

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## Introduction

Little is known about where suicides take place. In the UK, research is hampered by the fact that Her Majesty's Coroners are not required to include this information in their annual reports to the Office for National Statistics. Place of death is a mandatory field, but this may differ from the location of the suicidal act if the individual is transferred to hospital and dies there. Information about the location at which a suicidal act took place often remains buried in the hand-written text of coroners' files and is time-consuming to extract.

Not all suicides occur in the privacy of the home. Individuals who are non-resident in the area in which they choose to die are more likely to use public spaces.<sup>1</sup> Suicidal acts carried out in public places can be highly traumatic for witnesses.<sup>2,3</sup> Moreover, they are considered more newsworthy than those occurring at home, and media reporting may encourage further suicides.<sup>4,5</sup> Suicides in public places may be more easily preventable than those occurring at home, due to greater potential for observation and intervention.

Restricting access to means is recognized as one of the most effective strategies for preventing suicide.<sup>6</sup> Recent UK guidance has drawn attention to the fact that particular public locations may provide means or opportunity for suicide and has outlined a range of measures that can be taken to reduce risk at such sites.<sup>7</sup> The guidance is being widely implemented within the UK and has been translated into Japanese. However, the role of location in suicide remains a neglected issue within the wider literature. We present preliminary data from one English county on the locations of suicidal acts.

## Methods

We hand-searched coroners' files relating to all suicides and undetermined deaths in the county of Devon during the period 1 January 2000 to 31 December 2004. No undetermined

deaths were excluded. Along with basic demographic data, we collected information on the date and time of death, and of suicidal act if different, and the method of suicide. Using free text, we also recorded as much detail as available about the location of the act. This information was later used to classify deaths as having occurred in either a public or private location, and was geo-coded for mapping purposes.

We defined a 'public place' as any location at which there was a likelihood of the death being witnessed, or the body being found, by a member of the public. This included street, highway or car park; railway; industrial area; open country or woods; cliffs, beach or in the sea. 'Private' encompassed the deceased's own or another's home (including garage and outbuildings), private business premises (including warehouse, farm buildings or store) and any residential establishment, including prison, psychiatric inpatient unit, nursing home and hotel. If the individual jumped from a residence into the street or public area, the location was classified as public.

In accordance with the UK guidance, we use the term 'hotspot' to refer to a specific public site (e.g. a particular bridge) that has been used for suicidal acts on two or more occasions within the study period.<sup>7</sup>

## Results

Devon is a large county in South-West England with a population of 1 135 000, mainly concentrated in two medium-sized cities and one dense cluster of neighbouring seaside towns. It is otherwise predominantly rural. The county contains two national parks, both consisting of wild open moors, and is bordered on two sides by spectacularly beautiful coastline.

During the 5-year period, 610 suicides and undetermined deaths were recorded within its three coroners' jurisdictions. Information relating to location of act was missing in 28 cases, which meant that these deaths (5%) could not be classified. In one jurisdiction, 14% of deaths (25 out of 183) were unclassifiable.

Of the 582 deaths that were classifiable, 182 (31%) resulted from acts carried out in public places. At least 85% of these were county residents, suggesting that 'suicide tourism', or travelling into the area for the purposes of killing oneself, is not a major contributory factor.<sup>1</sup>

A quarter of the 182 deaths involved jumping from a height (table 1). Almost as many (23%) involved car exhaust

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**Table 1** Relationship between method and location

	Jumping from height	Car exhaust poisoning	Drowning	Hanging	Jumping or lying in front of moving object	Poisoning (other than CO)	Burning	Other	Unknown	Total (%) at each location
Beach, foot of cliff or in sea	18	0	17	0	0	2	0	0	2	39 (21)
Open country or woods	1	10	0	16	0	4	3	3	1	38 (21)
Rural car park or highway	1	24	0	0	2	2	3	3	0	35 (19)
Urban car park or street	16	5	0	5	0	2	1	2	2	33 (18)
Railway	5	0	0	1	13	0	0	0	0	19 (10)
River, lake or reservoir	3	0	10	0	0	0	0	0	1	14 (8)
Industrial area	0	2	0	0	0	0	0	1	0	3 (2)
Not known	1	0	0	0	0	0	0	0	0	1 (1)
Total (%) by each method	45 (25)	41 (23)	27 (15)	22 (12)	15 (8)	10 (5)	7 (4)	10 (5)	5 (3)	182 (100)

Suicides and undetermined deaths occurring in public places, Devon, UK 2000–04.

poisoning, and deaths involving drowning, hanging and jumping or lying in front of a moving object account for substantial numbers.

Public places were used in 100% of the drownings recorded during 2000–04 and all cases of jumping/lying in front of a moving object; also in 98% of deaths involving jumping from a height (all except one, which occurred within a military establishment), 79% of car exhaust poisonings and 70% of burnings. On the other hand, only 12% of all hangings, 12% of cases involving firearms and 8% of overdoses occurred in public places.

Nearly half of all deaths in public places occurred in rural locations. This includes 38 (21%) occurring in open countryside, woods, moors or farmland; 35 (19%) in rural car parks or country highways; and 14 (8%) involving rivers, lakes or reservoirs. Table 1 shows the relationship between location and method. Most of the cases of car exhaust poisoning occurred in remote rural locations, particularly in car parks at beauty spots, and several rural car parks were identified as suicide hotspots.

Coastal deaths also formed a large category, accounting for 39 (21%) of the 182 deaths in public places. This number included 18 jumps from cliff-tops, 17 cases of drowning in the sea and 4 others in which the deceased's body was found on the beach or in the sea.

Urban and industrial locations were much less heavily used. Thirty-three deaths (18% of those in public places) occurred in an urban car park or street. These included 16 jumps from high buildings, 5 cases of car exhaust poisoning and 5 hangings. Railways were the site of 19 (10%) of the deaths in public places.

Within the county we identified 22 hotspots, which accounted for 67 (37%) of the deaths in public places. Most of these were isolated rural and coastal locations. Three urban multi-storey car parks, one high-rise hotel and one river bridge also acted as hotspots.

Some of the hotspots were associated with a range of methods. At one wooded country park there were six suicides during the 5-year period: three involved car exhaust poisoning, two individuals hung themselves from trees and one jumped from a tower. Elsewhere, seven deaths occurred within a 3-mile stretch of coastline: five involved jumping from cliffs, one individual drowned in the sea and another set fire to himself in his car in a quiet lane.

## Discussion

Our data suggest that nearly a third of all suicides occur in public places. The pattern of locations is heavily influenced

by local geography and would obviously be different for a land-locked county dominated by urban industrial landscapes. Further comparative research is therefore needed.

Whilst some methods of suicide, such as suffocation with a plastic bag, lend themselves to being carried out at home, others can only be accomplished in public spaces. The association of bridges and high buildings with suicide by jumping is well-known, but many other public places offer means or opportunity for suicide. Hanging, car exhaust poisoning and burning involve elaborate preparations and require seclusion. For these deaths, woods and isolated rural car parks provide the perfect opportunity.<sup>8</sup>

Every area will have particular sites and structures that lend themselves to suicide attempts and detailed analysis of local data is the only way to identify high-risk locations. Some locations may offer possibilities for suicide by a range of methods. Effective management may reduce their attractiveness and accessibility, but is dependent on the formation of strong local multi-agency alliances.<sup>7</sup>

Lack of consistency in reporting procedures<sup>9</sup> is a barrier to large-scale research into locations of suicidal acts. The introduction in the UK of a standardized tool for population-based suicide audit may help to address this problem.<sup>10</sup>

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## Key points

- Little attention has been given to where suicides take place.
- More than 30% of all suicidal acts are carried out in public places.
- Particular locations can provide means and opportunity for suicide.
- Effective management of high-risk locations may reduce their attractiveness and accessibility.

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