Variation in suicide rates between Health Board areas

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Introduction

The Report of the Minister's Task Force on Suicide,[1] issued in January 1998, in its last two recommendations stated:

- The Chief Executive Officers of each Health Board shall nominate a Resource Officer(s) with responsibilities, in the broad field of suicide;
- The Resource Officer(s) shall act as a counterpoint with Voluntary Groups and facilitate research into all aspects of suicidal and parasuicidal behaviour and their consequences in the Health Board area.

The rise in suicide has been shown to be a rural rather than an urban phenomenon, a male rather than a female phenomenon affecting the young[2] and the young elderly;[3] and that some counties have exhibited rates of suicide much higher than neighbouring counties which overall could not be explained by variation in recording practices.[4] The present study set itself the task of clarifying whether the problem of suicide was of similar magnitude in the eight different Health Board areas.

Materials and Methods

The years studied were 1976 (the first year that data were comprehensively available on computer) to 1995, the last available year. There were four National Population censuses taken during that time, in the years 1979, 1981, 1986 and 1991.[5] According to the 1991 Census, the Republic of Ireland has a population of 3,525,719. The country is divided into eight Health Board Areas namely the Eastern (Dublin, Wicklow and Kildare, population 1,245,225); South-Eastern (Carlow, Kilkenny, Tipperary South Riding, Waterford, Wexford, population 383,188); North-Western (Donegal, Leitrim and Sligo, population 208,174); North-Eastern (Cavan, Louth, Meath and Monaghan, population 300,183); Midland (Laois, Longford, Offaly and Westmeath, population 202,984); Western (Galway, Mayo and Roscommon, population 342,974); Mid-Western (Clare, Limerick and Tipperary North Riding, population 310,728); Southern (Cork and Kerry, population 532,263).

For each Health Board area, the annual number of suicides was tabulated into five-year age groups for each sex, using data supplied by the Central Statistics Office. Rates, age-adjusted to the European Standard Population[6] were calculated according to the nearest previous census, except for 1976-1978 when the 1979 data were used. Because the numbers of suicides occasionally fluctuate widely from year to year, five-year moving averages of the suicide rates were plotted.

Results

Between 1976 and 1995, all eight Health Boards show a rise in male suicide (Figure 1), the rise being least pronounced in the Eastern Health Board. At the end of the study period, the rate in the Eastern Health Board is 13.6 per 100,000 whereas the other seven range from 19.4 in the Mid-Western to 23.4 per 100,000 in the South-Eastern.

The female rates are more volatile due to the smaller numbers of suicides but the rates have converged to some degree (Figure 2). Initially, the rates ranged from 1.5 to 5.1 per 100,000 whereas by the end of the study they are between 3.5 and 5.0 per 100,000. However, over the past 10 years female suicide in the Southern, South-Eastern and Mid-Western Health Boards has been consistently higher than in the other health boards.

Discussion

The rate of undetermined deaths in Ireland has fallen consistently over the past 15 years or so.[7] With the exception of Limerick City, this fall has been roughly similar for each county and city of Ireland. This enables us to conclude that the differences between the Health Board areas presented here are genuine.

Why should males in the Eastern Health Board, 80% of whom reside in Dublin, be relatively protected against suicide? This goes against what one would expect when one considers the extent of the problems of homelessness[8] and drug misuse[9] in Dublin. Is it that the services are better, more accessible and more user friendly? This would counter the frequent claims in the medical press that there is a shortage of psychiatric beds in the Dublin area. By contrast, are the services in other more rural Health Boards, too remote and inaccessible? It has been stated in the Combat Poverty Report of 1997[10] that medical card holders in the West of Ireland are ten times more likely to be more than five miles distant from the nearest health care facility. In country areas, public transport is less frequent and perhaps, because of distance, more expensive for the individual. It is also possible that having psychiatric services in a community increases its exposure to

the reality of the high incidence of mental illness. This could help to reduce the stigma and isolation that, otherwise, sufferers might experience and thus make them more willing to contact such services when in difficulties.

It has been shown that male suicides are less likely than female ones to have been in touch with medical services in the year before their death. In a study of 100 consecutive suicides adjudicated by the Coroners in the city of Cork, it was shown that only half of the men had been in contact with such services. Among the young men, this figure was as low as one in five. It is quite possible that rural youth suicides are even less likely to seek medical or psychological care. A study of 100 third-level students has shown that, whereas most knew personally of a suicide and some 40% had experienced suicidal thoughts with 13% having made an attempt in the past, virtually none knew how to summon help.[11] Each of these students had achieved very high points in the Leaving Certificate Examination.

The situation with women is less clear. Over the last ten years, the southern half of the country, comprising the Southern, South-Eastern and Mid-Western Health Boards, has had the higher rate of suicide. This region is made up of nine counties and three cities. A previous study which ranked the counties and cities of Ireland by their suicide rate shows that ten of the top fifteen places are occupied by counties/cities from this region.[5]

These data clearly point to a need for the development of more acceptable and accessible services for those at risk of suicidal behaviour, especially in the less urbanised areas. This should not be imposed on the local community and will only be sucessful if the services are developed in co-operation with existing resources such as youth clubs, community groups, even sports clubs whose local knowledge would be invaluable. This should be at the top of the agenda for any Resource Officer to be appointed subsequent to the Task Force Report.

Acknowledgements

This research work was funded by the Southern and Mid-Western Health Boards, the Department of Health and a Unit Grant from the Health Research Board.

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References

1. National Task Force on Suicide in Ireland. Final Report. Dublin: The Stationery Office, Government Publications Sale Office, 1998.
2. Kelleher MJ, Corcoran P, Keohane B. Suicide, road traffic and cancer deaths among the young in Ireland. Irish Medical Journal 1995;**88**(3):96-98.
3. Kelleher MJ, Corcoran P, Keeley HS. Elderly suicides in Ireland. Irish Medical Journal 1997;**90**(2):72-74.
4. Kelleher MJ, Keeley HS, Corcoran P. The service implications of regional differences in suicide rates in the Republic of Ireland. Irish Medical Journal 1997;**90**(7):262-264.
5. Central Statistics Office. National Census Reports, 1979, 1991, 1986, 1991: Volume II - Ages and Marital Status. Dublin: Government Stationery Office.
6. Waterhouse J, Muir C, Correa P, Powell J (eds). Cancer Incidence in Five Continents, Volume III (IARC Sciencific Publications No. 15). Lyon: International Agency for Research on Cancer, 1976.
7. Kelleher MJ, Corcoran P, Keeley HS, Dennehy J, O'Donnell I. Improving procedures for recording suicide statistics. Irish Medical Journal 1996;**89**(1):16-17.
8. Nolan B, Callan T (Eds) Poverty and Policy in Ireland. Dublin: Gill and Macmillan, 1994.
9. O'Higgins K, Duff P. Treated drug misuse in Ireland - First National Report, 1995. Dublin: Health Research Board, 1997.
10. Curtin C, Haase T, Tovey H. Poverty in Rural Ireland: A political economy perspective. Combat Poverty Agency/Oaktree Press, Dublin 1997, quoted by Breda O'Brien in The Sunday Business Post, 25th January 1998.
11. Keeley HS, Kelleher MJ. Results of a questionnaire regarding youth services in Ireland. Psychiatric Bulletin 1998 (in press).