Reviewer's report

Title: Seasonal variations in suicides: exploring the reasons of suicide epidemics in Lithuania

Version: 1 Date: 3 November 2005

Reviewer: Timo Partonen

Reviewer's report:

General

1. This is a study on an important public health issue. Strengths include the use of a population-based dataset and a long study period. A weakness is that no data were available from the forensic examination samples to judge alcohol intoxication.
2. The manuscript is well written for the most part but there are still some points that need amendment as follows.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Since there were no data for the evidence of alcohol intoxication, the arguments suggesting alcohol as a key to suicide (in the Abstract, and on pages 10 to 11) need to be tuned down to some extent. If the authors want to make argumentation, there needs to be sound data on which the claim can be based. A reference to another dataset is not enough, taking into account that alcohol intoxication did co-exist in 53% of suicides (in 47% did not) and 60% of suicides were such in summertime (40% were not). Alcohol intoxication may not be just a co-incidence in these cases, but pointing at alcohol intake as a major cause is not justified by these data.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Abstract, Results, line 3. It says "July peak - 29% in women, compare to". It should say "July peak over 29% in women, as compared with". Please correct.
2. Page 5, Results, paragraph 1, lines 4 to 5. It says that the seasonal rhythm was not changed statistically significantly over time and gives a reference to Figure 1. Please give the statistics here.
3. Page 5, Results, paragraph 2, line 2. The daily average per year is presented as the reference value. Do the authors refer to the monthly or the 3-month moving average per year here, as the original data include the month (not the date) of death only. Please clarify.
4. Page 5, Results, paragraph 2, line 7. It says "statistically significant excess mortality in winter". It should say "in winter significantly lower rates", should not it.
5. Page 5, Results, paragraph 3, lines 2 to 3. It says that the greatest frequencies did occur in July 1998-2002. In Table 2, however, the biggest numbers are 25.0 in June 1993-1997 for men and 36.9 in July 1998-2002 for women. Please rewrite.
6. Page 8, line 11. "Before 1940's" may be a more precise point of reference concerning time than "before World War II" for the readers.
7. Page 9, line 15. It says "December shift" here. This is not clear. Please rewrite.
8. Pages 9 to 10. The authors refer to a recent sociological theory as an explanation for the seasonal distribution of suicides. According to this theory, when the expectations (feel better after holidays) are not met, the disappointment may trigger a suicidal reaction. However, the annual peak
of deaths from suicide is usually reached already before the end of summer vacation, so this theory
does not match well with the data. Please comment.
9. There are some spelling errors such as "Finish" (page 8, line 4 up), "seams" (page 9, line 7),
"seamed" (page 10, line 6) and "Lithuanian" (page 10, line 12) that need to be corrected.

Discretionary Revisions (which the author can choose to ignore)

1. Page 4, Methods, paragraph 1, lines 6 to 8. The total populations remained rather stable during
the study period. However, it would be more accurate to calculate the suicide rates per person-years
rather than to analyze the absolute numbers. Please comment.
2. Page 4, Methods, paragraph 2, bottomline. The definition for seasons is based on the calendar
months. There are alternative options for the definition. Please give a rationale for this particular
choice of yours.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the
major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.