The WAGER, Vol. 4(9) – Measuring suicide: Methodology matters

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Is there a link between gambling and suicide? A definitive answer cannot be found in anecdotal data; rather, large-scale epidemiological research must be conducted. Even with such research, the results can be confusing and difficult to interpret. Two research teams, led by David Phillips* and Richard McCleary,** respectively, set out to investigate this problem. It should be noted that the study of the latter author was commissioned by the American Gaming Association and the former by the Sutherland Foundation and Alfred A. and Marian E. Smith Foundation. Both studies employ very different methodologies and report very different findings. A few of the points on which the authors differ are presented below.

Issue	*Phillips*	*McCleary*
Measuring visitor-suicides	• Visitor suicides account for 4.28% of all visitor deaths in Las Vegas, compared with 0.97% for the nation as a whole.	• Believes that Phillips' use of the ratio of visitor-suicides to total visitor-deaths is misleading. When the ratio of visitor suicides to the total number of visitors is employed, Las Vegas ranked 26th nationally.
Importance of proximity	• The suicide PMR (see below) for out-of-state visitors to Reno is 54.49% higher that calculated for a group of matched controls.	• 68.9% of out-of-state visitors committing suicide in Washoe County (Reno) came from neighboring California.
The effect of introducing gambling	• After the introduction of gambling, the suicide PMR for Atlantic City rose from 136.36 to 175.93.	• After the introduction of gambling, the suicide rate among Atlantic City residents rose 0.66%, but the change is not statistically significant.

Perhaps the most interesting element of the controversy is the differing methods employed by each author to calculate suicide parameters. The Proportionate Mortality Rate (PMR) used by Phillips represents the percentage of all visitor-deaths attributable to suicide. McCleary makes use of the suicide-specific mortality rate (SSMR), which is calculated by dividing the number of visitor suicides by the number of visitors. Depending on which parameter is reported, very different conclusions can be drawn about the same set of data. Unfortunately, both studies use gambling settings rather than actual gamblers as their unit of analysis. It would have been interesting to know whether the visitors who committed suicide were in fact gamblers. Thus, we cannot make inferences

about the relationship between gambling behavior and suicidality. And, like anecdotal data, correlational data is insufficient to prove causation. Science resolves these debates over extended periods of time with consideration to a wide range of research; these studies represent merely a beginning to what likely may be a long and difficult process.

Sources:

* Phillips, D.P., Welty, W.R. & Smith, M.M. (1997). Elevated suicide levels associated with legalized gambling. Suicide and Life-Threatening Behavior, 27(4), 373-378.

** McCleary, R., Chew, K., Feng, W., Merrill, V., Napolitano, C., Males, M. & Graffeo, B. (1998). Suicide and gambling: An analysis of suicide rates in U.S. counties and metropolitan areas (Report to the American Gaming Association). Irvine, CA: University of California Irvine, School of Social Ecology.

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