

# London murders: Stats theory shows numbers are predictable

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Leading statistician Professor David Spiegelhalter claims today that the number of murders in London last year was not out of the ordinary and followed a predictable pattern. Spiegelhalter's report, published today in *Significance*, the magazine of the Royal Statistical Society, argues that shocking headline numbers are not as surprising as one might think.

Violence in London attracts headlines. After four people were murdered in separate incidents in London on July 10th, 2008, BBC correspondent Andy Tighe said "To have four fatal stabbings in one day could be a statistical freak." But could it? On July 28th thelondonpaper had the front-page headline: "London's murder count reaches 90". But Professor Spiegelhalter states that this number was predictable.

"[Murders](#) in London follow a [random pattern](#) that makes certain aspects predictable and so we can fairly accurately predict the number of murders there will be as the year progresses," explains Spiegelhalter, the Winton Professor of the Public Understanding of Risk at the [University of Cambridge](#). "We focused on London for this report as there is a general feeling, often driven by the media, that over the last 12 months murders have increased more than would be expected."

Spiegelhalter continues, "We counted how many murders occurred on each day over a three-year period. Four murders on the same day in London would be expected to occur about once every three years, and it has done. Seven days without a murder should occur about six times a year, and it does." Each murder is an unpredictable event, and the report

does not imply that specific events can be predicted, only that the overall patterns are remarkably predictable. "Tragic though every murder is, these numbers are not surprising, and there's no evidence of an increasing murder rate."

The study, which looked at the pattern of murders between April 2004 and March 2007, also shows that on around 64% of days we can expect there to be no murders at all. Each year the London Metropolitan Police record around 170 homicides and there has been little change over the last five years.

The *Significance* report was written in conjunction with the Risk and Regulation Advisory Council (RRAC) set up by the Prime Minister to consider public risk and responses to it. Rick Haythornthwaite, Chair of the RRAC, commented: "There seems to be a misconception that in 2008 London's murder rate suddenly rose; what this article shows is that in fact the numbers have remained fairly stable for the last five years. Statistical evidence must inform any decision making. Those in authority need to remain level headed and offer the general public a thoughtful, proportionate response. Sensible decisions can be made whilst never forgetting that each individual case is of course shocking and a tragedy for those affected."

Source: Wiley ([news](#) : [web](#))

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