PURPOSE: Research consistently shows that crimes do not occur everywhere, but that ‘hotspots’ of crime instead form. But it also shows that there are patterns to precisely where and when crimes occur, such that crimes are more likely to occur at or near those locations that crimes have recently taken place. Where crimes occur nearby and shortly after another they are referred to as “near repeats”. That such patterns exist has clear implications for crime prevention. The aim of this brief is to discuss some of the more advanced analyses possible to detect such patterns and to consider how they might inform crime reduction activity.

THEORY: Research based on the analysis of crimes detected by the police, interviews with burglars and computer simulation suggests that patterns of near repeats can be explained by two things: 1) some places are more risky than others; and, 2) for acquisitive crime at least, offenders act like foragers, selecting those places that they believe to offer the greatest rewards (with acceptable risks). This often means that they return to commit further offences at those places they have successfully targeted and those nearby, since they are likely to offer similar rewards, with similar associated risks and require a similar amount of effort.

METHOD: There are a number of techniques for detecting space-time patterns of crime. The “Knox test” can be used to determine if crimes of the same type (e.g. burglary) cluster in space and time more than would be expected on the basis of chance, or if the patterns could be explained by the fact that some areas are hotspots while others are not. A second type of analysis compares patterns across crime types and allows the analyst to determine if crimes of one type are more likely to occur at location if crimes of another have recently occurred at that location. For example, one might see if incidents of shoplifting tend to occur near to, and shortly after, incidents of burglary (or vice versa). A third type of analysis can be used to inform comparative case analysis by assisting the analyst in identifying and mapping crimes (of the same or different types) that occur near to each other in space and time.

APPLICATION: Patterns of “near repeats” have been observed in cities around the world and for a variety of crime types. Such intelligence has informed a number of interventions that have been implemented to successfully reduce crime. For example, in Edmonton (Canada) a Neighbourhood Empowerment Team (N.E.T.) developed an intervention referred to as the Notification of Community Crime (NOCC). As part of this, youth volunteers visit burglary victims and their neighbours to deliver crime prevention advice and kits. Teams deliver advice and kits as swiftly as possible. First implemented in 2009, the teams involved claim it to have had “a substantial impact on rates of residential burglary” - reducing burglary by 66% in a six-month interval in the Bonnie Doon N.E.T. area, for example.

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