METHODS: A number of analytic techniques have been developed:

1. The analysis of repeat and near repeat victimisation patterns. This type of analysis can establish whether patterns of repeat and near repeat victimisation exist. A number of police forces and other agencies have implemented successful crime prevention initiatives that are based on the finding that the risk of crime ‘spreads’ (see below). To be effective, such interventions need to be implemented in areas where there actually is a pattern of near-repeats, and they will be most effectively targeted if the distance and time over which risk spreads is known. To do this, it is necessary to conduct an analysis of patterns of crime.

   To do this, a test (the Knox test) originally developed to detect disease contagion has been adapted for the study of crime. The idea behind the test is that if the risk of a particular type of event (e.g. cases of a disease, or crime) does ‘spread’ then more events will be seen to occur near to each other in space and time than would be expected on a chance basis, or if the flag account were correct (see previous brief). For example, where patterns of near repeats occur, we would expect to see more crimes occurring within (say) one week and 1-100m of each other than would be expected by chance.

2. In addition to establishing whether near repeat patterns exist in general, it is possible to ask more precise questions such as “when one crime occurs in an area, what is the probability that another will occur shortly afterwards nearby in a particular area?” This type of analysis can be useful for understanding how crime risk is likely to change in an area following one or more offences, and how it differs from one area to another.

3. The analysis of near-repeat patterns across crime types. It is possible, for example, to examine whether incidents of burglary are more likely to occur in an area if incidents of (say) shop theft have just been committed. Where such patterns exist, this would suggest that offenders who commit one type of crime also tend to commit another and that the timing and location of one type of crime might be predicted on the basis of that of the other.

4. As noted, research in various police force areas has established that crimes that occur close to each other in space and time are more likely to be the work of the same offender(s). Establishing this can help to determine if near repeats (for the same or different crime types) tend to be the work of returning offenders, which could influence police tactics. Mapping series of offences that occur near to each other in space and time may provide further insight into a crime problem, or inform comparative case analysis (linking unsolved crimes to particular offenders).