JDiBrief - Analysis

Repeat victimisation: SUMMARY (1 of 5)

Author: Spencer Chainey, UCL Jill Dando Institute

PURPOSE: The purpose of performing repeat and near-repeat victimisation analysis is to identify those people, properties and places that are at a disproportionate risk of victimisation. Pure *repeat victims* (RVs) are targets that are victimised multiple times (e.g., a domestic violence victim or a school that is burgled three times in one year). *Near-repeat victims* (NRV) are targets that are situated in close proximity to an original target, and that get victimised soon after the original target. Previous (near) victimisation has been shown to be the best predictor of future victimisation, for many crime types and in a variety of contexts.

THEORY: RV and NRV is believed to happen for two main reasons. These are known as the *boost* and *flag* accounts. The boost explanation relates to repeat offenders who return to a victim once learning it is suitable (either in terms of low risk or high reward). Hence, an initial incident 'boosts' the likelihood of re-victimisation. In contrast, the flag explanation is concerned with the target. The characteristics that contribute to the target's risk of victimisation (sometimes referred to as risk factors) are assumed to be constant over time and appeal to many offenders. These targets therefore 'flag' their own suitability to multiple offenders.

METHOD: The first step in reducing victimisation involves establishing the impact that RV and NRV has on local crime levels. The preferred way of analysing RV is to establish a set assessment period (usually twelve months), then identify initial victimisation of each unique target and determine whether the target was re-victimised in the assessment period following that initial victimisation.

We advise using the free Near Repeat Calculator to measure near repeats (see Resources section on this topic for information on where to download the NR calculator). This tool identifies if there is a statistically significant NRV (and RV) problem, and within which space and time metric (e.g., within two days and 100m).

Reducing RV and NRV relies on the disruption of offenders' perceptions and activities. Once the extent of the problem is established through analysis, particular areas or targets need to be better protected so that their risk of victimisation is reduced following an initial incident. The profile of the targets, or the identification of a particular area can help to focus attention on the target characteristics that are encouraging victimisation.

APPLICATION: Knowledge relating to reducing RV and NRV has been widely applied in many industrialised countries. The case study section on this topic documents an example of where the Trafford Borough of Greater Manchester Police systematically integrated such principles into their burglary dwelling reduction activities.

First, they created 'risk maps' which captured the heightened risk of victimisation of burglary dwelling following an initial incident. They then used these maps to focus crime prevention activities at key times and places that were highlighted. This included performing security audits at burgled properties to reduce the likelihood of re-victimisation, and Police Community Support Officers verbally delivering crime prevention messages to residents in areas identified as being at a greater risk of NRV. Post-activity analysis of crime data showed that burglaries had reduced by 27% in the first year of following this approach. This was a continuation of an already decreasing trend in burglary dwellings in Trafford.

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Repeat victimisation: PURPOSE & THEORY (2 of 5)

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PURPOSE: Repeat and near-repeat victimisation analysis has been gaining prominance in an operational context for over a decade. Its purpose is to identify those people, properties and places that are at a disproportionate risk of victimisation. Pure *repeat victims* are targets that are victimised multiple times (e.g., a domestic violence victim or a school that is burgled three times in one year). *Near-repeat victims* are targets that are situated in close proximity to an original target, and that get victimised soon after the original target. Previous (near) victimisation has been shown to be the best predictor of future victimisation, for many crime types and in a variety of contexts.

THEORY: Repeat and near-repeat victimisation is believed to happen for two main reasons. These are known as the *boost* and *flag* accounts.

The *boost* account states that an initial incident 'boosts' the future likelihood of victimisation. This is because offenders are known to minimise the effort they go to when searching for targets. If they have already encountered a suitable target, they are more likely to return to it once an initial crime has been committed. For example, a house that has been burgled may be burgled again to target replaced goods, or the house may be revictimised simply because it is now familiar to the offender (hence making it easier to access). The boost explanation thus relates to repeat offenders.

The *flag* account relates to the characteristics of the target. These characteristics may make the target particularly attractive in respect of what rewards the offender expects to gain from the crime, or they may make the target particularly vulnerable by reducing the risk involved or the effort needed to commit the crime. The characteristics that contribute to the target's risk of victimisation (sometimes referred to as risk factors) are assumed to be constant over time and appeal to many offenders. These targets therefore 'flag' their own suitability to multiple offenders.

The two explanations for repeat victimisation are not incompatible but suggest different mechanisms at play. In practice, it is likely that both theories are relevant. For instance, the flag characteristics of a vehicle may initially attract an offender because it is seen as an easier target (e.g., because it is an attractive prospect with easy escape routes), with the risk of future vehicle theft in the area being boosted following an initial incident.

A final theoretical consideration is that of the offender as an optimal forager. This is a concept which likens offenders to foraging animals. As a forager, an animal makes a trade-off between the energy value of the food that is immediately available and the effort that will be expended in reaching a better food source. The better food has to be good enough to offset the energy required to travel and attain it. The quality of the food in over-grazed areas diminishes until it re-grows. This is similar to a repeatedly burgled property, where the value of the items taken from this property declines until these items have been replaced. Once an area has been grazed out (i.e. skimmed of the best theft opportunities), the forager moves on. This foraging behaviour is consistent with the findings from interviews conducted with offenders about how they select their targets.

Extensive research evidence has been amassed to support these theories and the knowledge generated from such studies is being incorporated into policing strategies and tactics to better protect victims and reduce crime.

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Repeat victimisation: METHOD (3 of 5)

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IDENTIFYING THE EXTENT OF THE PROBLEM: The first part of any prediction of repeat victimisation (RV) involves establishing the impact that RV and near-repeat victimisation (NRV) has on local crime levels.

There a number of ways you can measure the level of RV. The simplest is to use one year of recorded crime data and identify those victims that appear more than once. This can be done for repeat locations by identifying coincident x and y geographic coordinates, the same address (in its textual form e.g. 5 Acacia Avenue) or a combination of the two. Identifying (human) victims involves determining multiple occurences of a unique reference number which is recorded against the victim on the crime recording system.

This simple method is though biased, as initial victimisation occuring earlier in the year has a greater chance of being re-victimised within the data timeframe. The preferred way of analysing repeat victimisation is to establish a set assessment period (usually twelve months), then identify initial victimisation of each unique target and determine whether the target was re-victimised in the assessment period following that initial victimisation.

For example, if there were two years of data you could set the first year as the initial victimisation period and the second year as the assessment period (see Figure 1).
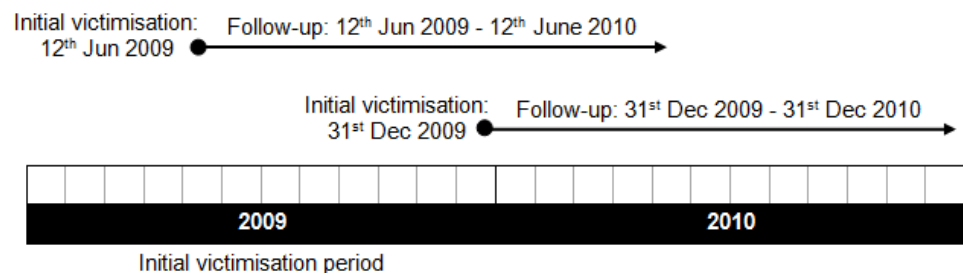

Figure 1 – rolling period methodology

We advise using the free Near Repeat Calculator to measure near repeats (see Resources section on this topic for information on where to download the NR calculator). This tool identifies if there is a statistically significant NRV (and RV) problem, and within which space and time metric (e.g., within two days and 100m). The NR Calculator also allows you to extract the results and map those crime events that were NRVs as a consequence of an 'originator' crime.

FORMULATING A RESPONSE: Reducing RV and NRV relies on the disruption of offenders' perceptions and activities. Once the extent of the problem is established through analysis, particular areas or targets need to be better protected so that their risk of victimisation is reduced following an initial incident. The profile of the targets, or the identification of a particular area can help to focus attention on the target characteristics that are encouraging victimisation.

Research suggests that RV and NRV are often committed by repeat offenders. It is likely that these offenders are known to the police, even if their current activities are unknown. This knowledge can direct attention to offenders known to be active in the area, or with a specific modus operandi. Forensic analysis can be prioritised for RV or NRV to see if this identifies a known offender. Members of the community can be asked to be vigilent for suspicious persons.

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Repeat victimisation: CASE STUDY (4 of 5)

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APPLICATION: Knowledge relating to reducing repeat victimisation (RV) and near-repeat victimisation (NRV) have been widely applied in many industrialised countries. Here we provide one example of where the Trafford Borough of Greater Manchester Police systematically integrated these principles into their burglary dwelling reduction activities.

The first step in the analytical process was to produce weekly 'risk maps' which captured the heightened risk of victimisation of burglary dwelling following an initial incident. This focused on the space and time patterns in burglary.

Police and partner agencies then used the risk maps to focus crime prevention activities at key places and times that were highlighted.
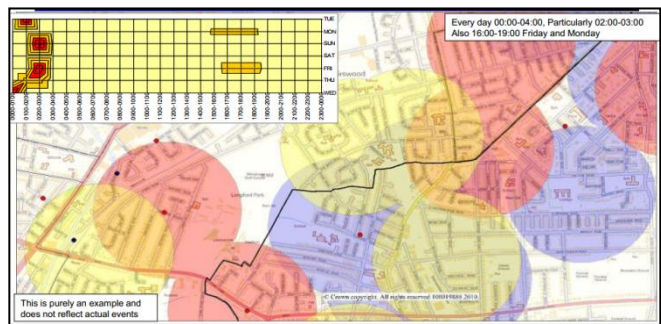

Figure 2 – 'Risk maps' produced of RV and NRV

To minimise the risk of RV a crime prevention officer visited the burgled property within 12-24 hours to perform a security audit. The main aim of this was to identify vulnerable features about the property and initiate immediate action to address these (e.g., improving locks, fitting timer switches to lighting). These situational responses were undertaken to send a signal to the offender that the house is occupied and it is riskier to break. This is believed to deter future victimisation.

Other crime prevention activities included tasking Police Community Support Officers (PCSOs) to deliver door-to-door messages to residents in areas identified as being at a greater risk of NRV. These were done verbally where possible and swiftly (preferably within 24 hours) after an initial incident. Crucially, this message had three components to it; informing, reassuring and advising residents. The aim here was to minimise the heightened risk of NRV by providing relevant information that resonated with residents. This was believed to be more likely to empower residents to respond by taking some responsibility themselves to minimise their future risk by applying practical crime prevention measures.

In the first four months of using this approach to reducing burglary dwelling in Trafford approximately 45% of messages were delivered verbally. When there was no answer PCSOs either returned later or asked a neighbour to pass on the message. It was believed that the frequent presence of uniformed police officers in the area acted as an extra deterrent to offenders operating in the area.

RESULTS: Neighbourhood policing team Inspectors welcomed the focused (and intelligence-led) approach to responding to burglary dwelling incidents in their area. Post-activity analysis of crime data showed that burglaries had reduced by 27% in the first year of following this approach. It should though be noted that this was a continuation of an already decreasing trend in burglary dwelling. An additional benefit seems to be that the levels of public confidence in Trafford have improved greatly since the adoption of this crime reduction strategy (see Resources section on this topic for further details on these activities and results).

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Repeat victimisation: RESOURCES (5 of 5)

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GENERAL RESOURCES:

- Near repeat calculator – downloadable from http://www.temple.edu/cj/misc/nr/
- Training course on predictive mapping delivered by the Jill Dando Institute – details at http://www.ucl.ac.uk/jdi/short-courses/ and on twitter #predictivepolicing
- The Trafford Experiment: http://www.ucl.ac.uk/scs/research-consultancy/geographical-analysis/GMPTraffordExpmnt
- The International Crime and Intelligence Analysis Conference, 2011: Disrupting the optimal forager: predictive risk mapping and domestic burglary reduction in Trafford, Greater Manchester – http://www.ucl.ac.uk/jdi/events/int-CIA-conf/Abstracts/ICIAC11_Stream5
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