

Prevention of repeat burglary

EVIDENCE BRIEF

NZ Police provide a range of measures to prevent repeat burglary as nearly one-quarter of households burgled in New Zealand are burgled more than once. International evidence shows that these measures are effective at reducing crime when targeted at the households at greatest risk of revictimisation.

OVERVIEW

- Households that are burgled are often burgled again in the weeks after the initial crime. In New Zealand, about 23% of households who are burgled in any given year will be burgled more than once.
- The international evidence shows that the risk of repeat victimisation can be reduced by improving locks on doors and windows, installing security lighting, and removing foliage that can provide a screen for burglars.
- The strongest evidence is for a combination of CCTV, security chains, window and door locks.
- There is also strong evidence for a combination of external and internal lights, window and door locks.
- The evidence on burglar alarms is inconclusive.
- Prevention is more likely to be successful if targeted at households at greater risk of repeat victimisation.
- Prevention is more likely to be successful if it considers the modus operandi of the original burglary, rather than providing one-size-fits-all solutions.

EVIDENCE BRIEF SUMMARY

Evidence rating:	Promising
Unit cost:	Widely varies due to broad range of responses
Effect size (number needed to treat):	International evidence finds that one burglary can be prevented for every 20-25 homes (depending on risk level) that are provided with intensive, situational burglary prevention support
Current spend:	Unknown, at discretion of local districts
Unmet demand:	Unknown

DO TARGETED BURGLARY MEASURES REDUCE REVICTIMISATION?

International evidence

There is one meta-analysis about repeat victimisation interventions. This study concluded that targeted efforts to reduce repeat burglary are effective.ⁱ This conclusion is repeated by several other reviews.ⁱⁱ

The international evidence finds that for every 25 homes provided with a repeat burglary intervention, we could expect one fewer to be burgled again than if no intervention were provided. For higher risk homes, the number needed to treat to prevent a burglary is lower.

For example, among a group of homes with a 60% chance of being burgled again, the meta-analysis result suggests that one fewer home would be burgled for every 20 given the intervention.ⁱⁱⁱ

It is important to note that the effect size may be different in New Zealand. Internal research by New Zealand Police has found that New Zealand has lower rates of repeat victimisation than in other countries. This is consistent with international evidence that repeat burglary rates are different in different countries.^{iv}

New Zealand evidence

Repeat burglary prevention has been studied in New Zealand, but there has been limited focus on evaluating the effectiveness of repeat-burglary prevention initiatives.

As such, we have a range of detailed information about the prevalence of burglary and its effects on victims,^v but we are unable to conclude that any of the various tactics and interventions used to prevent repeat burglary

have been successful or unsuccessful in the New Zealand context.

For example, the now-defunct Target Hardening Programme was tested and evaluated in Auckland in 2002.^{vi} This study found that victims appreciated the support and felt less fearful and anxious after the installation of additional security. But for a range of technical reasons such as a limited sample size, this study was unable to determine whether or not the programme was successful at reducing repeat burglary.

At about the same time, four detailed case studies examined burglary reduction efforts in Manurewa, Rotorua, Lower Hutt and Sydenham.^{vii} These evaluations did not provide any direct evidence that victim-centred approaches were effective or ineffective.

WHEN IS REPEAT BURGLARY PREVENTION MOST EFFECTIVE?

Repeat burglary prevention is not a one-size-fits-all intervention with uniform effects. The international evidence shows that several factors make repeat burglary prevention efforts more or less effective.

Targeting

The first is the specificity of targeting.^{viii} Although repeat burglary victimisation is common, the risk of repeat victimisation varies greatly between households. Crime reduction efforts will have little effect where the risk of repeat victimisation is low.

For example, one study modelled burglary risk using the British crime victimisation survey, and found that the likelihood of repeat victimisation for property crime varies from a high of 37% for co-habiting young adults living in deprived areas, to a low of under 2% for elderly couples living in affluent areas^{ix}.

Customisation and tailoring

A second important factor is the degree of customisation or tailoring to the specific context.^x Each home and each burglary is different, and crime prevention efforts seem to be more effective where they take into account the details of the original burglary. This may partly reflect the finding in international research that repeat burglaries are often conducted by the same offender.^{xi}

For example, for a burglary in an apartment complex where the burglar entered via the service entry, the most appropriate measure may be to strengthen the lock on that entrance, or to place CCTV overlooking the exterior part of that entrance. In comparison, for a burglary in a residential address where the burglar forced

entry with a crowbar while shielded from view behind a shrub, the best approach may be to trim the shrub and improve external lighting.

Type of intervention

Multiple interventions are more effective.^{xii} For example, not just strengthening locks but also improving lighting and visibility at the same time.^{xiii} Research into Crime Prevention through Environmental Design (CPTED) suggests implementing a combination of interventions that increase.^{xiv}

- Surveillance – the ability of formal and informal users to monitor the environment
- Access control – denying access to potential targets and creating a high perception of risk to offenders when entering a space
- Territoriality – creating a sense of users' ownership
- Maintenance – allowing for the continued use of an area for its intended purpose.

UK research examining crime survey data has found that some combinations of home security devices are particularly effective, specifically a combination of:^{xv}

- CCTV, security chains, window and door locks, or
- External and internal lights, window and door locks.

Timing

Efforts to prevent repeat burglary are more likely to be effective where they are implemented swiftly following the initial burglary.^{xvi} This is because repeat burglaries often occur relatively soon after the initial burglary. In one study, a quarter of repeats happened within a week of the initial burglary, and half happened within a month.^{xvii} Clearly, prevention efforts that take even six weeks to implement will be too late to make a difference in many cases.

Finally, some kinds of prevention efforts do not appear to be supported by the evidence. They include:

- property marking, unless taken in a systematic way with extensive publicity^{xviii}
- covert cameras/trackers, unless repeat victimisation can be predicted with a high degree of accuracy^{xix}
- general advice and information provision on its own, because homeowners are often unwilling or unable (for financial reasons) to make the necessary changes^{xx}
- burglar alarms, with different studies producing inconsistent findings as to their effect.^{xxi}

HOW DOES REPEAT BURGLARY PREVENTION WORK?

Causal mechanism

Repeat burglary prevention operates through the mechanisms of situational crime prevention, which is underpinned by rational choice theory. Rational choice theory and situational crime prevention emphasise that offending is a choice that can be shaped by efforts to:

- increase the perceived effort:
- increase the perceived risks
- reduce the anticipated reward
- removing excuses.^{xxii}

The validity of rational choice theory in relationship to burglary is supported by qualitative research from overseas that provides insights into the decision-making process of burglars.^{xxiii}

In this research, burglars claimed to be particularly sensitive to the presence of alarms, dogs, CCTV, and especially signs that the house is occupied – in other words, features that increase the likelihood of them being observed and thus caught in the act.^{xxiv}

Burglars stated that the apparent strength of locks and windows is a lesser consideration but still relevant, particularly if other features of the property mean that they are unable to tackle these locks out of sight of onlookers.^{xxv}

CURRENT INVESTMENT IN NEW ZEALAND

Burglary is a widespread crime type in New Zealand. In June 2016, 28% of victimisations recorded by police were burglaries.^{xxvi}

Reduction of repeat victimisation of all kinds is a key part of NZ Police's strategic direction. NZ Police has developed an algorithm that automatically generates a score for every victim based on the number and seriousness of victimisations over the past 12 months.

Victims of burglary with the highest scores are assigned to a 'gold response', with medium and low scores attracting silver and bronze responses respectively. These three levels of response each contain a number of different potential actions, including simple information provision and advice, referral to neighbourhood support, and development of a detailed Victim Intervention Plan.

Level of unmet demand

There appears to be scope for increased investment in targeted prevention of repeat burglary, though it is not currently possible to quantify this in detail. A national survey of NZ homes in 2005 found that while about half had deadbolts or outdoor security lights installed, smaller proportions had safety latches on windows (31%), burglar alarms (25%), and security chains (27%) or bolts (22%) on doors.^{xxvii}

The survey also found that security measures were more common in areas such as Manurewa where burglary occurs more frequently, but in some cases, households do not have financial means to install more security.

These findings show that in general there is scope for increased target hardening in many houses.

More recently, the 2014 New Zealand Crime and Safety Survey found that only 74% of repeat burglary victims improved their household security.^{xxviii} The survey also found the most common form of household security improvement used was people checking their house when they were away. Smaller proportions improved conventional measures of household security like deadlocks (6.9%), window locks (6.2%), and burglar alarms (5%).

BROADER CONSIDERATIONS

Implementation problems

Reviews of repeat burglary prevention schemes note that implementation problems are common. In particular, programmes have had less success where they have:

- failed to recruit and suitably train committed staff^{xxxix}
- allowed communication gaps to develop between operational staff that have, for example, led to high-risk households being missed^{xxx}
- failed to persuade potential recipients as to the value of implementing security measures.^{xxxi}

It was common in many studies to find that relatively few of those victims eligible for support actually received it. Those interventions that achieved a higher degree of uptake, in terms of actual improvements in security, demonstrated a higher rate of success.^{xxxii}

This suggests that establishing effective communication with victims is an important part of any targeted support initiative to encourage them to strengthen locks, improve lighting or make other changes to reduce their risk of revictimisation. For some victims, persuasion to take action may be sufficient. For others, financial support for target hardening may be required.^{xxxiii}

Displacement and diffusion

One potential issue with situational crime prevention measures is the potential for displacement effects (offenders simply moving to alternative, less secure targets).

However, the available evidence suggests this is not common. A systematic review of the topic notes that none of the evaluations to test

possible displacement found that attempts to prevent repeat burglary resulted in displacement of burglary to other areas.^{xxxiv}

More generally, the research on displacement has shown that place-based crime prevention activities of all types, not just focussed on burglary, do not tend to result in crime displacement. In some cases they can even lead to a diffusion of benefits, with crime prevention effects extending beyond the area of intervention.^{xxxv}

Accuracy of prediction

As noted earlier, prevention of repeat burglary is more effective when targeted at those households most at risk. While we know that, for example, young households are more likely to be burgled, it is also important to note that our ability to predict repeat burglary is far from perfect.^{xxxvi}

As such, in any application of repeat burglary prevention it is unavoidable that many people will be wrongly identified as at risk of repeat burglary. Therefore, communication with these potential victims needs to be sensitive to avoid creating unnecessary fear.

Second, the limits of prediction can affect the cost-effectiveness of prevention efforts. Even though evidence suggests prevention efforts can be effective, they may not be cost-effective if the cost-per-household is too high. This is because less than 100% of households targeted as at risk of repeat victimisation would actually experience repeat burglary in the absence of the intervention.

EVIDENCE RATING AND RECOMMENDATIONS

Each evidence brief provides an evidence rating between Harmful and Strong.

Harmful	Robust evidence that intervention increases crime
Poor	Robust evidence that intervention tends to have no effect
Inconclusive	Conflicting evidence that intervention can reduce crime
Fair	Some evidence that intervention can reduce crime
Promising	Robust international <i>or</i> local evidence that intervention tends to reduce crime
Strong	Robust international <i>and</i> local evidence that intervention tends to reduce crime

According to the standard criteria for all evidence briefs¹, the appropriate evidence rating for repeat burglary prevention is Promising.

According to our standard interpretation, this means that:

- there is robust international or local evidence that interventions tend to reduce crime
- interventions may well reduce crime if implemented well
- further evaluation is desirable to confirm interventions are reducing crime, and to support fine-tuning of the investment design.

Further evaluation in New Zealand would be worthwhile because burglary patterns are known to vary across countries. There is some uncertainty as to how relevant these international findings are to New Zealand.

A positive evaluation of repeat burglary prevention in New Zealand would raise the investment rating to Strong.

Date completed: September 2016

Primary author: Telesia Siale

¹ Available at www.justice.govt.nz/justice-sector/what-works-to-reduce-crime/

FIND OUT MORE

Email

whatworks@justice.govt.nz

Go to the website

www.justice.govt.nz/justice-sector/what-works-to-reduce-crime/

Recommended reading

- ⁱ Grove, 2011
ⁱⁱ Weisel 2002, Hamilton-Smith and Kent 2005, Bernasco 2009, Eck and Guerette 2012, and the systematic reviews of Farrell and Pease 2007 and Grove et al 2012. The review conducted for the Ministry of Justice by Harvey (2005) was more equivocal, but this review appears to be an exception.
ⁱⁱⁱ Grove, 2011
^{iv} Chainey and da Silva 2016
^v Chetwin 2005
^{vi} Casey et al, 2004
^{vii} Chetwin 2005
^{viii} Farrell and Pease 2007, Bernasco 2009, Grove 2011
^{ix} Pease and Tseloni, 2014
^x Farrell and Pease 2007, Grove 2011
^{xi} Bernasco, 2009, Lammers et al 2015
^{xii} Hamilton-Smith and Kent 2005, Farrell and Pease 2007
^{xiii} Hamilton-Smith and Kent, 2005; Farrell and Pease, 2007
^{xiv} Marzbali et al 2016
^{xv} Tseloni and Thompson 2015
^{xvi} Hamilton-Smith and Kent 2005, Bernasco 2009
^{xvii} Robinson, 1998
^{xviii} Eck, 2002; Weisel, 2002; Harvey, 2005; Hamilton-Smith and Kent, 2005; Bernasco, 2009; Eck and Guerette, 2012

Bernasco, W. (2009). Burglary. In M. Tonry (ed). *The Oxford Handbook of Crime and Public Policy*. Oxford University Press.

Grove, L. (2011). Preventing repeat domestic burglary: a meta-evaluation of studies from Australia, the UK, and the United States. *Victims and Offenders*, 6(4).

Weisel, D. (2002). Burglary of single-family houses. *Problem-Oriented Guides for Police: Problem-Specific Guides Series*, 18.

CITATIONS

- ^{xix} Ibid
^{xx} Ibid
^{xxi} Tilley et al 2015
^{xxii} Guerette 2009
^{xxiii} For e.g., Wright and Logie, 1988; Wright et al, 1995; Hearnden and Magill, 2004; Cromwell and Olson, 2009
^{xxiv} Wright and Logie, 1988; Wright et al, 1995; Hearnden and Magill, 2004; Cromwell and Olson, 2009
^{xxv} Ibid
^{xxvi} <http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7409> OpenDocument, accessed 17 August 2016
^{xxvii} Triggs, 2005
^{xxviii} <http://www.justice.govt.nz/publications/global-publications/n/new-zealand-crime-and-safety-survey-2014>, accessed 2 February 2016
^{xxix} Grove, 2009; Grove et al, 2011
^{xxx} Ibid
^{xxxi} Ibid
^{xxxii} Grove et al, 2011
^{xxxiii} Triggs, 2005
^{xxxiv} Farrell and Pease, 2007
^{xxxv} Eck and Guerette, 2012; Bowers et al, 2011)
^{xxxvi} Reilly and Mayhew 2009

REFERENCES

- Barker, G. & Gray, A. (2005). *Victims of Burglary. Research on the Effectiveness of Police Practice in Reducing Residential Burglary*, 8. Wellington: Ministry of Justice.
- Bennett, T., Holloway, K. & Farrington, D. (2008). The effectiveness of neighbourhood watch. *Campbell Systematic Reviews*, 18.
- Bernasco, W. (2009). Burglary. In M. Tonry (ed). *The Oxford Handbook of Crime and Public Policy*. Oxford University Press.
- Bowers, K., Johnson, S., Guerette, R., Summers, L. & Poynton, S. (2011). Spatial displacement and diffusion of benefits among geographically focused policing initiatives. *Campbell Systematic Reviews*, 2011(3).
- Casey, C., Raj, B. & Jacka, S. (2004). *Evaluation of the Target Hardening Pilot Programme*. Wellington: Ministry of Justice.
- Chainey, S. & da Silva, B. (2016). Examining the extent of repeat and near repeat victimisation of domestic burglaries in Bolo Horizonte, Brazil. *Crime Science*, 5(1).
- Chetwin, A. (2005). Overview: research on the effectiveness of police practice in reducing residential burglary. *Research on the Effectiveness of Police Practice in Reducing Residential Burglary*, 10. Wellington: Ministry of Justice.
- Davis, R., Weisburd, D. & Taylor, B. (2008). Effects of second responder programs on repeat incidents of family abuse. *Campbell Systematic Reviews*, 2008(15).
- Eck, J. & Guerette, R. (2012). Place-based crime prevention. In B. Welsh & D. Farrington (eds). *The Oxford Handbook of Crime Prevention*. Oxford University Press.
- Eck, J. (2002). Preventing crime at places. In L. Sherman, D. Farrington, B. Welsh & D. MacKenzie. (eds). *Evidence-Based Crime Prevention*. London: Routledge.
- Farrell, G. & Pease, K. (1993). *Once bitten, twice bitten: repeat victimisation and its implications for crime prevention*. London: Home Office.
- Farrell, G. & Pease, K. (2007). Preventing repeat residential burglary. In B. Welsh & D. Farrington (eds). *Preventing Crime: What Works for Children, Offenders, Victims and Places*. Dordrecht, Netherlands: Springer.
- Farrell, G. (2005). Progress and prospects in the prevention of repeat victimisation. In N. Tilley (ed). *Handbook of Crime Prevention and Community Safety*. Cullompton, Devon: Willan.
- Forrester, D., Chatterton, M. & Pease, K. (1988). *The Kirkholt Burglary Prevention Project*, Rochdale. London: Home Office.
- Gottfredson, S. & Moriarty, L. (2006). Statistical risk assessment: old problems and new applications. *Crime and Delinquency*, 52.
- Grove, L. (2011). Preventing repeat domestic burglary: a meta-evaluation of studies from Australia, the UK, and the United States. *Victims and Offenders*, 6(4).
- Grove, L., Farrell, G., Farrington, D. & Johnson, S. (2012). *Preventing Repeat Victimization: A Systematic Review*. Stockholm: National Council for Crime Prevention.
- Guerette, R. (2009). The pull, push, and expansion of situational crime prevention evaluation: an appraisal of thirty-seven years of research. In J. Knutsson & Tilley, N. (eds). *Crime Prevention Studies*, vol. 24. Devon: Criminal Justice Press.
- Hamilton-Smith, N. & Kent, A. (2005). The prevention of domestic burglary. In N. Tilley (ed). *Handbook of Crime Prevention and Community Safety*. Cullompton: Willan.
- Harvey, S. (2005). *Literature review: police practice in reducing residential burglary. Research on the Effectiveness of Police Practice in Reducing Residential Burglary*, 10. Wellington: Ministry of Justice.
- Hearnden, I. & Magill, C. (2004). *Decision-Making by House Burglars: Offenders' Perspectives*. London: Home Office.
- Husain, S. (1990). *Neighbourhood Watch and Crime: An Assessment of Impact*. London: Police Foundation.
- Johnson, S., Bernasco, W., Bowers, K., Elffers, H., Ratcliffe, J., Rengert, G. & Townsley, M. (2007). Space-time patterns of risk: a cross national assessment of residential burglary victimization. *Journal of Quantitative Criminology*, 23.
- Lammers, M., Menting, B., Ruiter, S. & Bernasco, W. (2015). Biting once, twice: the influence of prior on subsequent crime location choice. *Criminology*, 53(3).
- Laycock, G. (2001). Hypothesis-based research: The repeat victimisation story. *Criminology and Criminal Justice*, 1.
- Lloyd, S., Farrell, G. & Pease, K. (1994). *Preventing repeated domestic violence: a demonstration project on Merseyside*. London: Home Office.
- Lum, C., Koper, C. & Telep, C. (2011). The evidence-based policing matrix. *Journal of Experimental Criminology*, 7(3).
- Marzbali, M., Abdullah, A., Ignatius, J. & Tilaki, M. (2016). Examining the effects of crime prevention through environmental design (CPTED) on residential burglary. *International Journal of Law, Crime and Justice*, article in press.
- Millbank, S., Riches, M. & Prior, B. (2000). *Reducing repeat victimisation of domestic violence: The NDV project*. Canberra: Australian Institute of Criminology.
- MOJ (2011). *Multiple Victimization in New Zealand: Findings from the 2009 New Zealand Crime and Safety Survey*. Wellington: Ministry of Justice.
- MOJ (unpublished). *Taking account of seriousness in reporting crime data. Crime and Justice Insights*. Wellington: Ministry of Justice.
- Pease, K. & Tseloni, A. (2014). *Using Modeling to Predict and Prevent Victimization*. Springer.
- Robinson, M. (1998). Burglary revictimization: the time period of heightened risk. *British Journal of Criminology*, 38.
- Sherman, L. & Eck, J. (2002). Policing for crime prevention. In L. Sherman, D. Farrington, B. Welsh & D. MacKenzie (eds). *Evidence-Based Crime Prevention*. New York: Routledge.
- Skogan, W. (1990). *Disorder and decline*. New York: Free Press.
- Telep, C. & Weisburd, D. (2011). *What is Known about the Effectiveness of Police Practices?* Open Society Institute.
- Tilley, N. (2008). Modern approaches to policing: community, problem-oriented and intelligence-led. In T. Newburn (ed). *The Handbook of Policing*. Cullompton: Willan.
- Tilley, N., Thompsons, R., Farrell, G., Grove, L. & Tseloni, A. (2015). Do burglar alarms increase burglary risk? A counter-intuitive finding and possible explanations. *Crime Prevention and Community Safety*, 17(1).
- Triggs, S. (2005a). Surveys of household burglary Part One (2002): Four Police Areas and national data compared. *Research on the Effectiveness of Police Practice in Reducing Residential Burglary*, 1. Wellington: Ministry of Justice.
- Triggs, S. (2005b). Surveys of household burglary Part Two: Four Police Areas compared between 2002 and 2004. *Research on the Effectiveness of Police Practice in Reducing Residential Burglary*, 1. Wellington: Ministry of Justice.
- Tseloni, A. & Thompson, R. (2015). Securing the premises. *Significance*, Feb 2015.

Weisburd, D. & Eck, J. (2004). What can police do to reduce crime, disorder and fear? *Annals of the American Academy of Political and Social Sciences*, 593.

Weisel, D. (2002). Burglary of single-family houses. *Problem-Oriented Guides for Police: Problem-Specific Guides Series*, 18.

Wright, R. & Logie, R. (1988). How young house burglars choose targets. *The Howard Journal*, 27(2).

Wright, R., Logie, R. & Decker, S. (1995). Criminal expertise and offender decision making: an experimental study of the target selection process in residential burglary. *Journal of Research in Crime and Delinquency*, 32.

SUMMARY OF EFFECT SIZES FROM META-ANALYSES

Meta-analysis	Treatment type	Reported average effect size on crime	Number of estimates meta-analysis based on	Assuming 50% untreated re-victimisation	
				Percentage point reduction in victimisation	Number needed to treat
Grove, 2011	Target hardening; Provision of alarms; Property marking; Neighbourhood watch	OR=1.230	22	5%	19
Grove et al, 2012	Target hardening; Security measures provided; Neighbourhood cocoon watch; Information for residents; Crime prevention packs; Publicity; Graded response system	OR=1.206	31	5%	21

* Statistically significant at a 95% threshold

OR=Odds ratio

d=Cohen's d or variant (standardised mean difference)

Φ=phi coefficient (variant of correlation coefficient)

NA=Not applicable (no positive impact from treatment)

NS: Not significant

NR: Significance not reported

RRR: Relative risk