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# What Works to Reduce Crime?: A Summary of the Evidence

Crime and Justice



social  
research

# **What Works to Reduce Crime?: A Summary of the Evidence**

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## **EXECUTIVE SUMMARY**

### **RESEARCH AIMS AND OVERVIEW**

This evidence review was undertaken to support strategic thinking on what works to reduce crime in relation to the following three key strategies:

1. Targeting the underlying causes of crime so that the urge or need to offend is reduced;
2. Deterring potential offenders by ensuring that the cost of offending is greater than the benefits.
3. Increasing the difficulty of offending by reducing opportunities to commit crime.

The aim of the review was to examine the research evidence on reducing crime in relation to both the underlying causes of crime (that may originate in the early life course) and the immediate antecedents of a criminal event. This is in recognition of the need to address both factors in order to reduce crime effectively and to highlight key messages for the Building Safer Communities programme. More broadly, it aimed to identify whether the Scottish Government should consider additional or alternative measures to tackling crime. It did not consider strategies to reduce the risk of recidivism (or re-offending) however, as this is the focus of a separate published review of the literature on Reducing Reoffending<sup>1</sup>. Figure 1 on page 8 provides a summary of the four key strategies for reducing crime in diagrammatic form.

It is important to note that the review does not purport to provide a comprehensive and definitive account of the evidence on what works to reduce crime, but rather constitutes a collation of the material which could be identified and accessed within a relatively short space of time. It is hoped that the work will provide a foundation upon which new and existing research evidence may be added as it becomes available or is identified in the future.

### **PART ONE: ADDRESSING THE UNDERLYING CAUSES OF CRIME**

A considerable body of research posits that offending is the result of a natural predisposition which has its roots in biology (associated with genetic, hormonal or neurological factors). However, research has also shown that the impact of biological factors becomes less salient once environmental and social factors are taken into account. These societal/environmental factors which shape behaviour are the mainstay of the paper's focus.

The review highlighted the importance of parenting as being a crucial factor in the development of self-control. Lack of self-control is associated with a higher propensity towards offending behaviour and a range of other negative life outcomes (in terms of education, employment and relationships). Continued investment in early-years parenting programmes is therefore crucial in the promotion of self-control as well as in improving life chances more generally. Evidence also suggests that offending behaviour is linked to the experience of abuse and neglect, which underlines the importance of a child protection system which identifies and addresses this as early as possible.

While tackling parental/family issues is highlighted as crucial, it is only one part of the answer, with research which suggests that the wider social context within which the family resides is also important. Indeed, evidence from the Edinburgh study of Youth transitions and crime found that living in disorganised and deprived neighbourhoods could lessen the impact of good parenting<sup>2</sup>.

The importance of the school environment is highlighted as crucial in addressing the causes of offending and in ensuring a range of positive outcomes for young people. It is also important in providing a diversionary role from offending activity (and reducing available time to engage

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<sup>1</sup> See <http://www.scotland.gov.uk/Resource/0038/00385880.pdf>

<sup>2</sup> Smith, D (2004) Parenting and Delinquency at Ages 12 to 15. Edinburgh: University of Edinburgh

in criminal activity). Indeed evidence from Samson and Laub and the Edinburgh Study of Youth Transitions and Crime suggests that attachment to school is a key protective factor and that school exclusion may lead to a negative pattern of offending.

There are examples of school-based interventions that have been effective in reducing the risk of offending. A review of these found that the most effective strategies in encouraging positive behaviour involved the clear enforcement of boundaries around acceptable and unacceptable behaviours. These entailed adherence to an agreed framework for managing discipline by clearly setting out, clarifying and reinforcing school rules and expectations (e.g. through the use of campaigns, ceremonies or similar techniques). In addition, cognitive-behavioural approaches have been highlighted as being effective in reducing crime. Of wider policy interest perhaps is the use of nurture groups to promote positive behaviours, evidence from which suggests a range of positive outcomes in terms of the social, emotional, behavioural and educational functioning of children.

Although early life experiences are highlighted as important in shaping an individual's life chances and their likelihood of becoming involved in offending, there is recognition that key factors in adulthood may affect outcomes. Strong societal attachments in the form of stable employment and good familial relationships (especially marital) are identified as key factors in promoting law abidance. Despite the importance of employment being highlighted, there is a dearth of robust evidence on the impact that employment interventions may have in reducing re-offending. However, research does suggest that offenders and those who are at risk of offending may require assistance with other issues such as education or motivation in order to help them move towards employment and that programmes should provide appropriate support. One key policy implication is that criminal justice sanctions should (wherever possible) minimize the impact on employment prospects and familial relations.

There is a strong body of research which links offending to drug and alcohol misuse and tackling this is already a key Scottish Government priority. However, the causes of misuse may be rooted within low levels of self-control. It is therefore argued that measures to improve levels of self-control via more consistent and effective parenting interventions could help reduce offending. Figure 2 on page 9 provides a summary diagram of the key issues in relation to addressing the underlying causes of crime.

## **PART TWO: DETERRING OFFENDING BY ENSURING THE COSTS OUTWEIGH THE BENEFITS**

This section explored the effectiveness of sanctions imposed by the criminal justice system on deterring potential offenders as well as methods of informal social control. More informal social control refers to the generation and reinforcement of strong cultural norms that encourage compliance. In addition, it reviewed the existing evidence looking at the relationship between the severity, certainty and celerity (swiftness) of formal criminal justice sanctions and their impact on crime rates.

In relation to increased certainty of punishment, research suggests that this is effective in reducing crime. However, there is less robust evidence in terms of the relationship between the severity of punishment and crime rates, and limited available evidence on the celerity of punishment. Evidence suggests that increasing police numbers may be effective in reducing crime, particularly in relation to property-related crime. However further evidence is required to establish a causal link between the two. The effectiveness of increased police numbers is also dependent on how they are deployed and targeted, with evidence to suggest that increasing patrols in crime hotspots has been shown to be associated with a reduction in crime. A community policing approach is also associated with a decrease in crime but it is difficult to establish exactly which aspects of this make it effective (due to the many different elements involved). Overall, substantial evidence indicates that the way in which police officers are

deployed has the greatest impact on preventing serious crime, for example through directed patrols, proactive arrests and problem solving at high crime hot spots.

Also important is the degree to which the criminal justice system and its institutions are *perceived* as legitimate. This was strongly correlated with compliance with the law (even when personal morality was controlled for). It is also linked with greater confidence and satisfaction with the justice system and greater co-operation in interactions with it. Building and maintaining public trust in the criminal justice system and its agencies is therefore considered crucial.

Restorative justice approaches which attempt to deter potential offenders by highlighting the social costs of crime and the impact upon the victim and wider society provides potential, with some evidence to suggest that this approach is effective. However, there is a lack of robust research on this topic.

In terms of the link between signs of disorder and crime as per the 'broken windows' thesis, collective efficacy (or the extent to which a community is cohesive and able to work together to achieve goals), it is argued is a more important underlying factor. Indeed, the degree of collective efficacy within a community was identified as a more powerful predictor of violence, burglary and robbery than were signs of social and physical disorder. Research suggests that some communities are able to deploy an informal guardianship role, but there is a lack of clarity as to whether social policy has a role in this. It is suggested that the Glasgow Community Health and Wellbeing Research and Learning Programme (GoWell), in which investment has been made in the physical infra-structure of communities, may allow exploration of the impact of regeneration on crime rates. An assets-based approach to collective efficacy may render positive results, by involving communities themselves in the design and implementation of initiatives to reduce crime. However, there is currently a lack of evidence in terms of the effectiveness of this approach. Furthermore, it should be recognised that concentrated disadvantage was the factor most strongly associated with disorder and crime. Figure 3 on page 10 provides a summary diagram of the key issues in relation to deterrence and ensuring that the costs of offending outweigh the benefits.

### **PART THREE: REDUCING THE OPPORTUNITIES FOR OFFENDING**

The third section explored situational crime prevention activities which are sometimes considered as 'fall-back' or 'last-resort' strategies for reducing crime for those for whom the first two strategies are ineffective. This refers to measures which are intended to make it more difficult for people to offend. Central to this is the modification of the physical environment to ensure that opportunities for crime are reduced. Also considered are strategies which include restricting the movement and activities of those who are at risk of offending as well as imposing societal restrictions (i.e. stricter controls re access to weapons), as well as diversionary activities with potential offenders at peak risk of offending. Figure 4 (page 11) provides a summary of the key issues related to reducing the opportunities for re-offending.

Situational crime prevention approaches are effective in reducing crime. Evidence suggests that environmental changes including improving street lighting, introducing exact fare requirements on public transport and avoiding overcrowding in public venues can be effective both in reducing acquisitive crime and violent crime. It is also suggested that interventions accompanied by widespread publicity are even more effective by deterring potential offenders (even before the introduction of the initiative).

Research finds that situational crime prevention activities which improve the local environment may lead to an increase in community and civic pride and therefore improve collective efficacy. Although also highlighted within the literature is the potential for harm via the erection of physical barriers that segment communities, rather than helping to bring them together.



There has been increasing emphasis in recent years on the potential for removing opportunities for crime via the design of the built environment. Urban planning initiatives such as 'Secure by Design' (which promotes good practice in planning to ensure that crime prevention is taken into account right from the outset) have been shown to be effective in reducing crime. This is achieved via adherence to a number of key principles at the planning stage aimed to reduce crime, disorder and fear of crime, including the maximisation of natural surveillance, informal social control and minimum numbers of access points and standards of physical security. Sharing good practice and awareness raising regarding measures to improve the built environment and reduce crime could further increase the effectiveness of this approach.

Additional approaches include the restriction of access to weapons, drugs and alcohol. In terms of weapons, evidence on the restriction of access to knives (the most commonly used weapon in Scotland) suggests that broad strategies to restrict access to knives through the application of a range of approaches are associated with a reduction in knife injuries. A strong body of evidence suggests that restrictions on the availability of alcohol, including minimum pricing, ensuring a minimum age of purchase is adhered to, reducing the number and density of premises where alcohol is sold and restricting days and hours of sale, are all associated with a reduction in crime.

In terms of the impact of diversionary recreational activities, while there was no evidence to suggest that there is a *causal* relationship between participation and a reduction in crime, many large scale diversionary projects have demonstrated some success in reducing offending. Indeed, the difficulty is in disentangling the impact that other social processes and interventions may also have had on crime rates. However, diversionary activities are beneficial in helping engage young people in positive activities which may lead to the provision of greater social support, positive role models and other protective factors. Overall though, the importance of tackling the underlying problems which drive young people towards offending behaviour is highlighted as a key priority in the effort to reduce crime.

**Figure 1: What works to reduce crime? Key messages from the four strategies**

Addressing the underlying causes of crime	Deterring offenders by ensuring the cost of offending is greater than the benefits	Reducing the opportunities for offending	Intervention with offenders to reduce the risk of re-offending*
<ul style="list-style-type: none"> <li>• Quality of care of children and young people (and protection from abuse and neglect) as well as effective parenting and the development of self control</li> <li>• Wider social context - strong, non-deprived and supportive communities</li> <li>• Positive school environment and the role of school-based interventions</li> <li>• Strong societal attachments i.e. via good familial relationships and stable employment</li> <li>• Tackling drug and alcohol misuse.</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing the certainty of punishment (less robust evidence re the severity and celerity/swiftness of punishment)</li> <li>• Increased police numbers - particularly when deployed and targeted effectively</li> <li>• Community policing approach overall</li> <li>• Perceived legitimacy of the criminal justice system and its institutions and building and maintaining public trust</li> <li>• Restorative justice offers potential (but more research required)</li> <li>• Collective efficacy and role of community in deploying informal guardianship role</li> </ul>	<ul style="list-style-type: none"> <li>• Situational crime prevention (environmental changes such as improving street lighting, introducing exact fare requirements on public transport etc)</li> <li>• Removing opportunities for crime via design of the built environment (i.e. via maximisation of natural surveillance etc.)</li> <li>• Restriction of access to weapons, drugs and alcohol.</li> <li>• Diversionary recreational activities (i.e. via cashback for communities and positive futures)</li> </ul>	<ul style="list-style-type: none"> <li>• Interventions to enhance pro-social networks, enhance family ties, find employment and increase self-efficacy and motivation</li> <li>• One-size fits all interventions do not work, as desistance is a highly individualised (and gendered) process</li> <li>• Rehabilitation programmes which are rooted in cognitive-behavioural approaches and provide supportive and interpersonally skilled supervision</li> <li>• Supervision accompanied by support to address criminogenic needs (i.e. tackling substance misuse)</li> </ul>

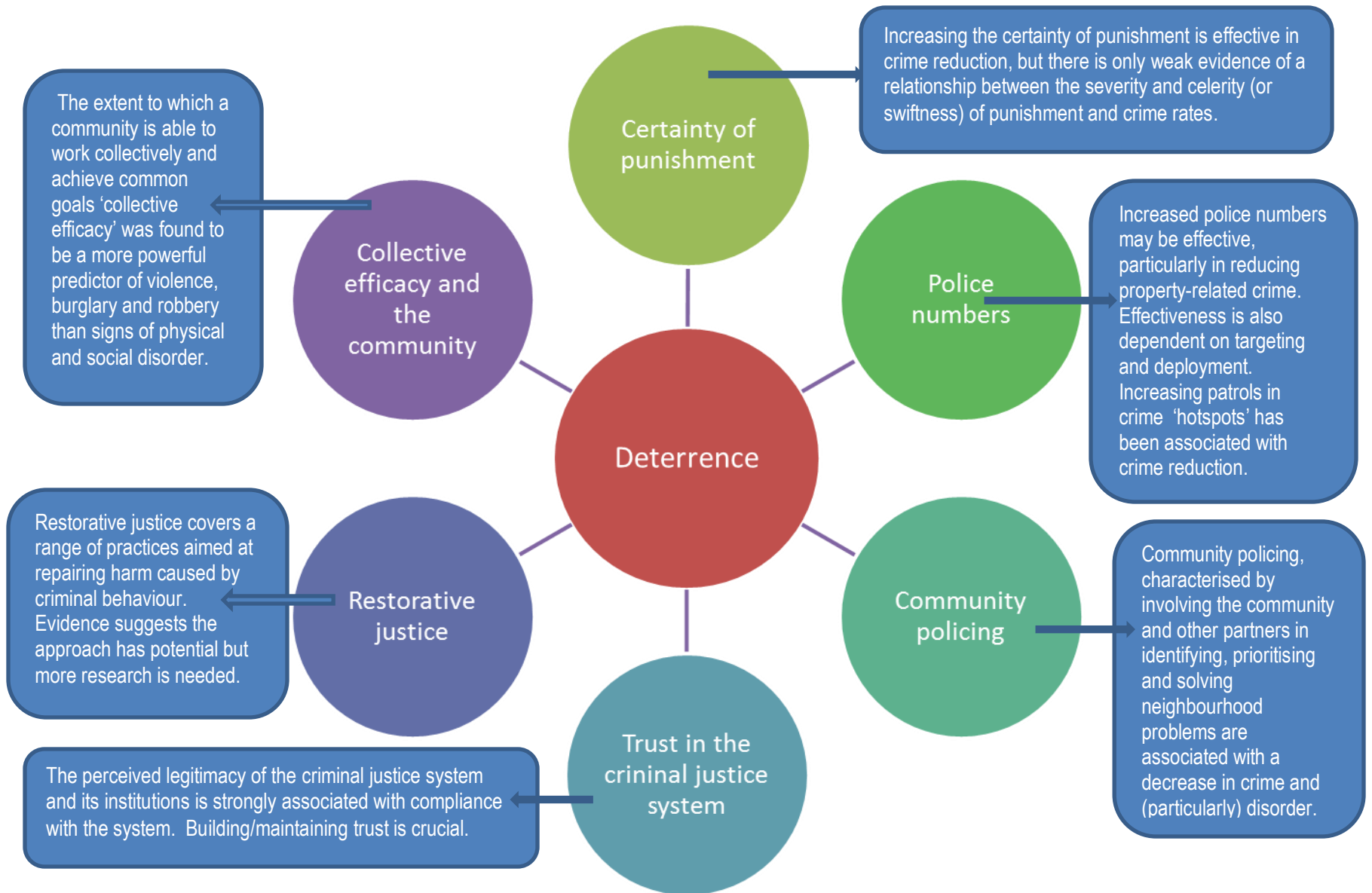
The stimulus for this review was the development of a logic model, which set out four key strategies for reducing crime, summarised above.

\*The review did not consider strategies to reduce the risk of recidivism however, as this is the focus of a separate published review of the literature on reducing re-offending.

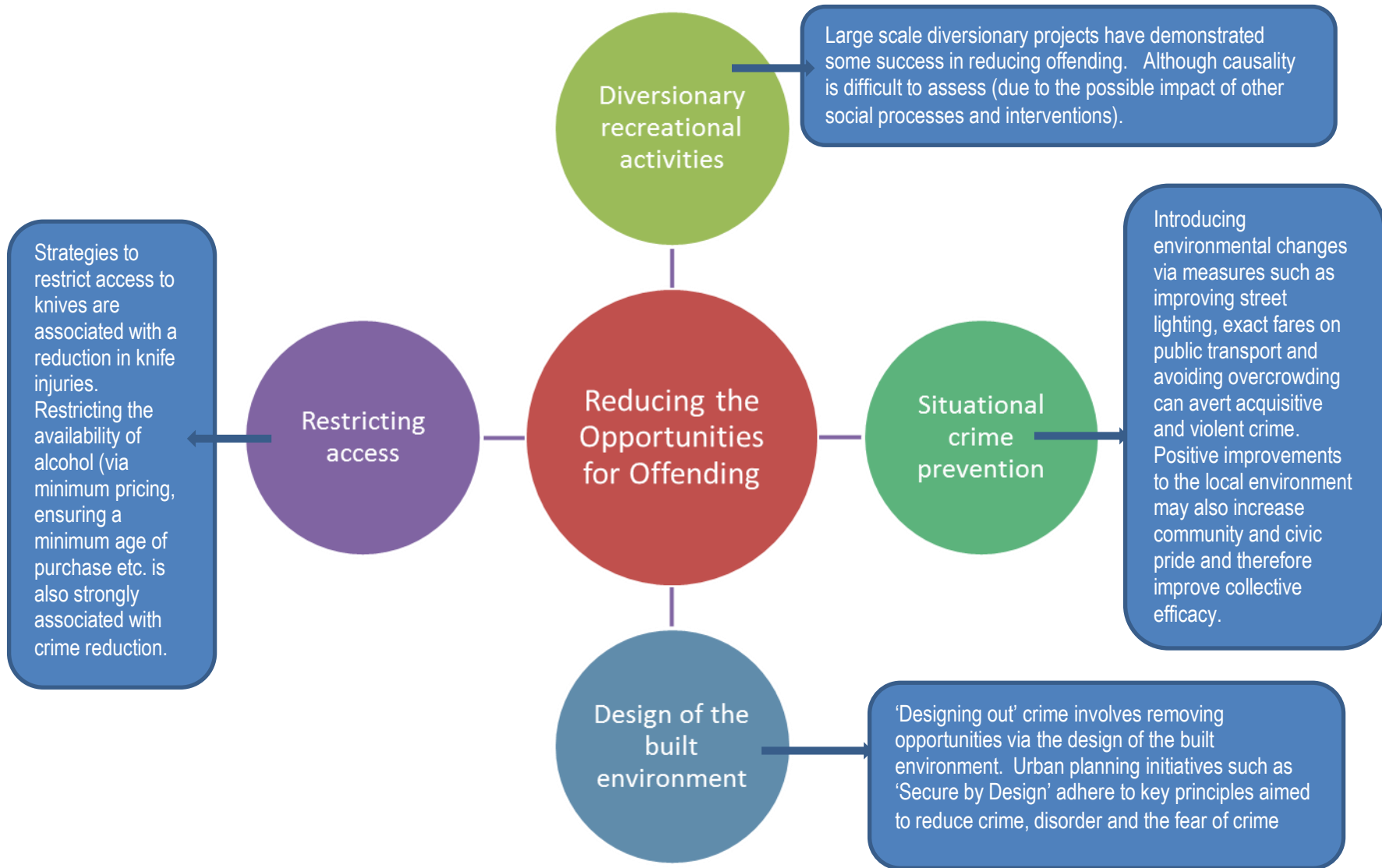
**Figure 2: Addressing the underlying causes of crime – summary**



**Figure 3: Deterrence – ensuring the costs of offending outweigh the benefits – summary**



**Figure 4: Reducing the opportunities for offending - summary**



## INTRODUCTION

This paper has been prepared to support strategic thinking about how best to achieve National Outcome 9 of the Scottish Government's National Performance Framework: *We live our lives safe from crime, disorder and danger*, and in particular to support the Building Safer Communities programme. The precursor for this review of evidence was a logic model that aimed to set out all the possible pathways for reducing crime. This model was developed in collaboration with policy colleagues in Justice and Safer Communities Directorates, a cross-office reference group of relevant policy colleagues, analysts within Justice and experts in crime and justice working in the academic sector and set out four broad strategies for reducing crime:

1. Addressing the underlying causes of crime so that the urge or need to offend is reduced;
2. Detering those who do have the urge to offend by ensuring that the costs of offending outweigh the benefits;
3. Reducing the opportunities for crime so that those who have the urge and whose behaviour has not been moderated by deterrence strategies simply find it difficult to offend;
4. Intervening with those who have already offended to reduce the risk of recidivism.

This approach recognises that offending is a function of both distal factors – underlying factors that can have their origin early in the life course - and proximal factors – the immediate precursors of a criminal event. Any approach to reducing crime therefore has to address both. There is also a parallel here with Brantingham and Faust's<sup>3</sup> typology of crime prevention which distinguishes between: primary prevention which involves working with the general population to address potentially criminogenic factors before the onset of a problem; secondary prevention which involves working with people or places identified as 'at risk'; and tertiary prevention which is directed towards existing offenders and focused on preventing recidivism. In moving across our four strategies, the focus of intervention will therefore tend to shift from a wider to a narrower target population.

The logic model also set out all of the potential approaches that could be adopted within each of the first three of these strategies. It did not consider how to reduce the risk of recidivism since this is the focus of a separate published review of the literature on Reducing Reoffending<sup>4</sup>.

The aim of this review was to test the evidence about each of these approaches or pathways with a view to identifying which are likely to be the most effective in reducing crime. The aim was not to set out the pathways that are currently being pursued, but rather to provide a form of option appraisal about how we *might* tackle crime. The logic model and this review does not therefore say anything about current government strategy and policy. The objective was to identify some key messages for the Building Safer Communities programme and to inform an assessment of whether the Scottish Government needs to be doing more, or something different to tackle crime.

It is also worth highlighting that this paper does not claim to provide a comprehensive account of all of the evidence relevant to the model. It is simply an initial attempt to pull together the material that could be identified and accessed in the space of limited timescales. There are therefore gaps in the evidence - pathways that could not be tested against the evidence in the time that was available (such as restricting access to drugs in Part Three) and there will undoubtedly be other relevant evidence that was not identified at the time of the review. It is

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<sup>3</sup> Brantingham, PL & Faust, L (1976) 'A conceptual model of crime prevention', *Crime and Delinquency*, 22:284 – 96.

<sup>4</sup> See <http://www.scotland.gov.uk/Resource/0038/00385880.pdf>

hoped that this paper will remain a work in progress and represent a framework on which to hang new and existing evidence as it becomes available or is identified in the future.

## PART ONE: ADDRESSING THE UNDERLYING CAUSES OF CRIME

### Biological and chemical factors

There is a growing body of evidence that suggests that predisposition to offend can be a natural biological function associated with genetic, hormonal or neurological factors. A psychological theory of crime was, for example, developed in the 1960s by Hans Eysenck<sup>5</sup> who suggested that individual differences in the functioning of the cortical and autonomic nervous systems (as a result of genetic inheritance) could account for an 'antisocial' personality. He argued that there were three main dimensions of personality: extraversion; neuroticism; and psychoticism and that those at the extreme of these continuum were most likely to be offenders. There are also a number of studies on the effect of hormones, such as testosterone and cortisol; neurological deficits; neurochemical imbalances (e.g. reduced levels of serotonin and higher levels of dopamine).<sup>6</sup> However, the evidence suggests that the impact of biological factors diminishes as young people are exposed to environmental factors that shape behaviour. For example, genetic research that has focused on studies of identical twins (some reared together, others reared apart), found that heritability accounted for about 41% of childhood conduct disorder, but by adulthood accounts for only 28% of adult antisocial personality disorder.<sup>7</sup> The effect of biological factors is therefore highly likely to be mediated by other situational or environmental conditions – many of which are explored in this paper.

Recently there has been a growing interest in the role that lead exposure has on crime rates. The negative impact of lead exposure on physical and cognitive development has been well established in the medical and neuroscientific literature. Research has linked early years lead exposure to behavioural problems such as aggressive behaviour, impulsivity and attention deficit and hyperactivity disorder (ADHD), all of which have been identified as risk factors for offending behaviour. Marcus et al<sup>8</sup> conducted a meta-analysis of 19 studies examining the association between environmental lead exposure and conduct problems in children and adolescents. Conduct problems were broadly defined and included aggressive and violent behaviour and delinquent, antisocial and criminal behaviour. Despite methodological variations between the studies, the researchers found that the results were remarkably consistent. They also found that the strength of the association between lead and conduct problems was not significantly affected by controlling for potentially confounding variables such as home environment and social class.

A recent article on the American political news website Mother Jones drew attention to the body of evidence which supports the theory that patterns in childhood exposure to lead are linked to the decline and fall of crime rates in the US and elsewhere<sup>9</sup>. It cites various studies which have found that the rise and fall of environmental lead levels is followed by a strikingly similar rise and fall in violent crime, but roughly 20 years later, suggesting a link between childhood exposure to lead and later violent offending. Nevin<sup>10</sup> (2007), for example, found

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<sup>5</sup> Hans Eysenck (1998) *Dimensions of Personality*

<sup>6</sup> See also [European report on preventing violence and knife crime among young people \(WHO 2010\)](#) p31

<sup>7</sup> Grove, Eckert, Heston, Bouchard, Segal and Lykken, 1990, Heritability of substance abuse and antisocial behavior: A study of monozygotic twins reared apart. *Biological Psychiatry*, Volume 27, Issue 12, 15 June 1990, Pages 1293-1304. More recent research by Caspi et al<sup>7</sup> found evidence of a 'criminal gene' (Monoamine Oxidase A -MAOA) which could be 'switched on' within maltreated children and cause an increase in aggression and antisocial behaviour in adolescence. However, children who had the gene and were subject to good, caring child rearing practices were far less likely to develop antisocial behaviour.

<sup>8</sup> Marcus, D., Fulton, J., Clarke, E. (2010). Lead and Conduct Problems: A Meta-Analysis. *Journal of Clinical Child and Adolescent Psychology*, 39(2), 234-241.

<sup>9</sup> <http://www.motherjones.com/environment/2013/01/lead-crime-link-gasoline>

<sup>10</sup> Nevin, R. (2007) Understanding international crime trends: The legacy of preschool lead exposure. *Environmental Research* 104:315-336.



associations between patterns of preschool lead exposure with crime rates around the world, in: the USA, Canada, Britain, France, Australia, Finland, Italy, New Zealand and West Germany (as was). Replicating the pattern found by Nevin at the national level, Reyes (2007) compared US state level emissions data with crime rates. Although she found only weak evidence to support a relationship between lead and murder rates and no evidence to support a link between lead and property crime, she did find a significant association between childhood lead exposure and violent crime. Similarly, Stretesky and Lynch<sup>11</sup> looked at the relationship between air lead levels and crime rates at the county level in the US. Again, they found a link between lead and crime rates, but unlike Reyes, they found that the effect applied to both property crime and violent crime. Stretesky and Lynch also found that there was an interaction effect between lead exposure and deprivation: the association between air lead levels and crime rates was strongest in counties with higher levels of resource deprivation. They speculate that this is likely to be because people in deprived areas are less likely to receive adequate screening and treatment for lead exposure and poisoning. People living in poorer areas are also more likely to live in older and un-renovated housing, and to live near industrial plants where lead is handled.

Individual-level studies also support the association between lead and crime. For example, Wright et al.<sup>12</sup> carried out a prospective study examining the relationship between prenatal and postnatal blood lead concentrations and later arrests in early adulthood. Between 1979 and 1984 the researchers recruited pregnant women from four prenatal clinics into the Cincinnati Lead Study. The women recruited came from areas of Cincinnati with a high concentration of older, lead-contaminated housing. Prenatal blood lead concentrations were measured, and then childhood blood lead concentrations were measured regularly until the children were six and a half years old. The arrest records of 250 of the 376 children originally recruited were then examined for the period from when they turned 18 until the end of 2005. The researchers found that pre- and postnatal blood lead concentrations are associated with higher rates of total arrests and arrests for violent offences.

Overall, the link between early years lead exposure and cognitive and behavioural impairments which are predictors of later offending, such as impulsivity, aggressive behaviour and ADHD, is well supported by the evidence. The link is most clearly established in relation to violent crime, but there is less consensus on the relationship between lead and property crime. The magnitude of the effect of lead on crime rates is less easily established and the interaction between lead exposure and other variables, such as ethnicity, socioeconomic status, needs further research. None of the existing research goes as far as to claim that lead exposure is the main cause of violent crime, but it is argued that lead is a major explanatory factor for variation in crime rates.

## **Self-control and effective parenting**

Lack of self-control has long been identified in the criminological literature as being a key explanation of crime. It was central, for example, in Gottfredson and Hirschi's<sup>13</sup> general theory of crime. They explain that those who have low self-control have difficulty deferring gratification, lack diligence and tenacity, tend to be thrill-seeking and have difficulty taking a long-term perspective. They also argue that those who have low levels of self-control not only have a higher propensity to offend but are also likely to suffer other negative life outcomes such as substance misuse, failure to maintain relationships and hold down a steady job.

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<sup>11</sup> Stretesky, Paul B., & Michael J. Lynch (2004) *The relationship between lead and crime*. *Journal of Health and Social Behavior*, 45 (2): 214–29.

<sup>12</sup> Wright JP, Dietrich KN, Ris MD, Hornung RW, Wessel SD, et al. (2008) Association of Prenatal and Childhood Blood Lead Concentrations with Criminal Arrests in Early Adulthood. *PLoS Med* 5(5): e101. doi:10.1371/journal.pmed.0050101

<sup>13</sup> Gottfredson, M. & Hirschi, T (1990) *A General Theory of Crime*. Stanford University Press: Stanford, C.A.

Indeed, elsewhere Gottfredson and others<sup>14</sup> argue that conduct problems such as low-self control are so highly correlated to delinquent behaviour that they could be considered proxies for it.

There is clear evidence from longitudinal studies that low levels of self-control in childhood are correlated with offending in later life. The Edinburgh Study of Youth Transitions and Crime (a longitudinal study of 4,300 young people who started secondary school in Edinburgh in 1998) has found a relationship between lack of impulse control and delinquency at ages 12/13<sup>15</sup>. Another longer running longitudinal study (the Cambridge Study) has shown that serious disruptive behaviour in early life often leads to frequent and serious delinquency and crime that can endure well into adulthood. This study found that among the 23 'chronic' offenders in the sample who continued to offend into adulthood, most of them were rated as troublesome, restless and impulsive by teachers at primary school.<sup>16</sup> Furthermore, the Dunedin Study in New Zealand which followed a cohort of 1,000 children from birth well into adulthood has shown that the impact of childhood self-control extends beyond offending to have negative consequences for educational attainment, physical health, substance dependence and personal finances and those with low levels of self-control as children were also more likely to become unplanned teenage parents.<sup>17</sup> There is also sociological research that links low self-control to unemployment.<sup>18</sup> Dunedin study researchers have even demonstrated that 'Differences between children in self-control predicted their adult outcomes approximately as well as low intelligence and low social class origins'.<sup>19</sup> Promoting self-control in childhood therefore seems central not only to reducing offending but also to improving wider life-chances.

Gottfredson and Hirschi believe that the major cause of low self-control is ineffective child-rearing. A key role of parenting, they suggest, is to teach children to recognise and consider the long-term consequences of their behaviour and to reflect on the needs and feelings of others. The role of parents in maintaining antisocial behaviour (by giving it attention and by ignoring desirable behaviour) was first established by Patterson in 1982.<sup>20</sup> Since then, many US studies have noted that problem behaviour often starts early with the combination of temperamentally difficult toddlers and ineffective monitoring and discipline.<sup>21</sup> The evidence suggest that good parenting, particularly in the very early years, helps children to learn how to control impulsive, oppositional, and aggressive behaviour and this learned control reduces disruptive behaviour in the long-term.

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<sup>14</sup> Gottfredson, D., Wilson, D. and Najaka, S. (2002) 'School-based crime prevention' in Evidence-Based Crime Prevention. Sherman, L., Farrington, D., Welsh, B. and MacKenzie, D. (eds.) London: Routledge, pp 56-164.

<sup>15</sup> Smith, D, McVie S, Woodward R, Shute J, Flint J and McAra L (2001). Edinburgh Study of Youth Transitions and Crime: Key Findings at Ages 12 and 13. Edinburgh: Edinburgh University Press.

<sup>16</sup> Piquero, A.R., Farrington, D.P., & Blumstein, A. (2003). "The criminal career paradigm." In M. Tonry (ed.), *Crime and justice: A review of research*, volume 30. Chicago: University of Chicago Press.

<sup>17</sup> See, for example, Moffitt, T.E. 1993. "Life-course-persistent" and "adolescence-limited" antisocial behavior: A developmental taxonomy. *Psychological Review*, 100, 674-701 and Moffitt, T.E. et al (2011) 'A Gradient of Childhood self-control predicts health, wealth and public safety' in *Proceedings of the National Academy of Sciences*. January 2011.

<sup>18</sup> Caspi A, Wright BRE, Moffitt TE, Silva PA (1998) Early failure in the labor market: Childhood and adolescent predictors of unemployment in the transition to adulthood. *American Sociological Review* 63. pp 424-451.

<sup>19</sup> Moffitt, T.E. et al (2011) 'A Gradient of Childhood self-control predicts health, wealth and public safety' in *Proceedings of the National Academy of Sciences*. January 2011.

<sup>20</sup> Patterson, GR, 'Coercive Family Process'. Castalia, 1982

<sup>21</sup> MacQueen, S., Curran, J, Hutton, L and Whyte, B. *Support and Service for Parents: A Review of the Literature in Engaging and Supporting Parents*. Scottish Government:2007.

A 2010 Campbell Collaboration review of interventions aimed specifically at improving self-control in children under age 10<sup>22</sup> found that self-control interventions are effective at improving self-control as well as reducing delinquency and problem behaviours. The researchers conducted a meta-analysis of 34 studies, all of which had a randomised controlled evaluation design and took post-test measures of self-control and/or delinquency and problem behaviours. The vast majority of the studies included in the review were carried out in the United States (91%), and the samples were largely male (56%), white (68%) and from high-risk/low income populations (65%). The interventions were largely group-based and took place in schools. The types of intervention included: social skills development programmes; programmes designed to develop participants' cognitive coping strategies; immediate/delayed rewards interventions; video-based/role-playing programmes; and relaxation training.

The review concluded that overall, these programmes do serve both to improve children's/adolescents' self-control and to reduce delinquency and problem behaviour. The success of these programmes indicates that self-control is not a fixed attribute, but is something which can be worked on and improved in the early years, which in turn can lead to reductions in delinquent behaviour. However, the researchers were not able to identify which type of intervention, or aspects of the interventions were particularly effective, or to look at whether the positive outcomes persisted into late adolescence/early adulthood.

There have been many reviews of the literature on the impact of interventions aimed at improving the quality of parenting as a means of improving control over impulsive, oppositional and aggressive behaviour. Farrington and Welsh's<sup>23</sup> meta-analysis reviewed interventions delivered in a range of different forms (home visits; parent education plus day care; clinic-based training; school-based training; home/community-based training programmes and; those that used a combination of these). The review concluded that, based on the evidence from studies of only the highest quality methodologically, family-based prevention programmes were effective in preventing child behaviour problems, delinquency and other related problems. What is more, they also produced other beneficial outcomes such as improved life prospects. By comparison, Bernazzani and Tremblay's 2006 systematic review<sup>24</sup> of training programmes with parents of children under the age of 3 (at the start of the programme) found only 7 studies that met the criteria for inclusion and reported mixed results. Four studies reported no evidence of impact, two reported beneficial impacts and one reported beneficial effects with mainly beneficial effects with some very minor harmful effects.

However, the comprehensive 2008 Campbell Collaboration review<sup>25</sup> - found robust evidence of impact and drew some confident conclusions for policy. Studies were included in this review only if they had a randomized controlled design that provided before-and-after measures of child behaviour problems among experimental and control subjects. The focus was also limited only to interventions targeted at children under or around the age of 5 at the start of the intervention. Parent training was to be the main element of the intervention, though not necessarily the only element, and the intervention could be targeted at high risk groups or offer a universal provision. Parent training included, for example, training to strengthen competencies at monitoring and appropriately disciplining their children's behaviour and may also have included increasing parent's involvement in the school education of their child. The review focused on two general categories of interventions: those that centred around educating parents to improve their children's life chances, often beginning at birth and some in

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<sup>22</sup> Piquero, A.R., Jennings, W.G. and Farrington, D.P. (2010) Self-control Interventions for Children Under Age 10 for Improving Self-control and Delinquency and Problem Behaviours. *Campbell Systematic Reviews* 2010:2

<sup>23</sup> Farrington, D.P., & Welsh, B.C. (2003). Family-based prevention of offending: A meta-analysis. *Australian and New Zealand Journal of Criminology*, 36, 127-151

<sup>24</sup> Bernazzani, O., & Tremblay, R.E. (2006). "Early parent training." In B.C. Welsh & D.P. Farrington (eds.), *Preventing crime: What works for children, offenders, victims, and places*. Dordrecht. Springer

<sup>25</sup> Alex R. Piquero, David P. Farrington, Brandon C. Welsh, Richard Tremblay, Wesley G. Jennings. *Effects of Early Family/Parent Training Programs on Antisocial Behavior & Delinquency'* *Campbell Systematic Reviews* 2008:113.

the later stages of pregnancy; and those that combined parent training with day-care for the child. In total, 55 studies were included, most of which were conducted in the US.

The findings from the studies were combined using meta-analysis. In the most cases the outcome measure was the parent's response to a checklist of questions about the child's behaviour. The findings suggested that, on average, the interventions were having a small to moderate impact on behavioural problems and that there were no statistically significant differences in outcomes across type of programme. However, the authors point out that it was difficult to identify which particular features of the interventions were responsible for the positive effect when they involved a number of elements.

The authors concluded that early family/parent training is an effective intervention for reducing behaviour problems among young children and that these effects appear robust across various weighting procedures, context, time period and outcome measure. Additional descriptive evidence indicated that early family/parent training was also effective in reducing delinquency and crime in later adolescence and adulthood. Overall, the findings lend support for the continued use of early family/parent training to prevent behaviour problems such as antisocial behaviour and delinquency. The reviewers conclude 'early family/parent training should continue to be used to prevent child behaviour problems such as conduct problems, antisocial behaviour, and delinquency among young persons in the first five years of life. Such programs appear to have few negative effects and some clear benefits for its subjects'. They go on to say that their findings offer further support for a number of large scale programmes implemented in Western nations to improve parenting skills.

A randomised controlled trial of a parenting intervention in the UK adds further evidence of impact and offers more insight into the focus and nature of these types of interventions.<sup>26</sup> The trial was carried out in England between 1995 and 1999. Eligible children were aged 3 to 8 years and referred for aggressive and antisocial behaviour to their local NHS multidisciplinary child and adolescent mental health service. Most lived in deprived circumstances and were at high risk of later juvenile delinquency and social exclusion. The trial randomly allocated participants to intervention or control (in this case being retained in the waiting list). There was no evidence that groups differed in any important respects. The parents of six to eight children were seen as a group for two hours each week over 13-16 weeks (the children did not take part). The programme covered play, praise and rewards, limit setting, and handling misbehaviour. In each session, parents were shown videotaped scenes of parents and children together, which depict "right" and "wrong" ways of handling children. Parents discussed their own child's behaviour and were supported while they practised alternative ways of managing it. Each week tasks were set for parents to practise at home and telephone calls made to encourage progress. Mothers were interviewed on entry to the trial and after completion of the intervention (or waiting list period) five to seven months later and their accounts of their child's behaviour were used as the primary outcome measure. However, the validity of these accounts were tested by randomly selecting 20 cases to be directly observed in a structured play task. This confirmed that the mother's accounts of their child's behaviour was a reliable outcome measure.

The results revealed that children of parents allocated to parenting groups demonstrated a large reduction in antisocial behaviour, while the behaviour of those in the control group did not improve. After the intervention, parents were giving their children far more praise to encourage desirable behaviour and more effective commands to obtain compliance. The study concluded that these type of parenting programmes show promise as a cost effective way to reduce the personal and economic burden of antisocial behaviour.

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<sup>26</sup> Scott, S. et al, 2002. 'Multicentre controlled trial of parenting groups for child antisocial behaviour in clinical practice'. *British Medical Journal*, 323. pp194-6.

Further examples of parenting programmes that have been implemented and evaluated in the UK are provided in MacQueen et al's review.<sup>27</sup> They cite a review of the evidence on parent training that concludes that effective responses are likely to be staged and varied across the life course with: parent training and telephone support for parents of under 8s; parent training with support for social skills and problem-solving for parents of 8-12 year olds; and family therapy for parents of adolescents. Commentators also argue that, because children exhibiting early-life behaviour problems become increasingly resistant to change over the life course, it is important to begin intervention as early in the life course as possible.<sup>28</sup>

## **The role of the school and wider community in setting behavioural boundaries**

Longitudinal research on offending has identified not only that parental attitudes and parenting style are associated with offending but also that features of the wider social community are important. Lack of discipline and disorganisation in school; community disorganisation and physical deterioration/neglect and; attitudes among peers that condone problem behaviour have also been shown to be associated with offending.<sup>29</sup> The theory that the community is a source of informal social control largely developed out of work by Shaw and McKay who explored the relationship between delinquency and urban neighbourhoods in Chicago from the 1900s to 1950s. Their work suggested that male juvenile delinquency was a result of the disruption of community social order which is maintained by institutions such as the family, church and school as well as community centres and organised clubs.

There is some evidence that attachment to religious institutions can help reduce the risk of offending. In a review of literature for the Youth Justice Board for England and Wales<sup>30</sup>, researchers from the University of Oxford reported that a number of studies, mainly from the USA, suggest that religion or religiosity may act as a protective factor. Religion can, they explain, act as a regulatory mechanism through the promotion of pro-social moral values and normative beliefs.

In terms of policy intervention, promoting the role of the school in setting appropriate boundaries is perhaps the most practical route to reducing delinquency and crime. When we consider the proportion of time young people spend in school, especially during a period in their lives in which they are most disposed to offending (the mid to late teenage years), the role of the school in shaping attitudes and behaviours seems obvious. In their report on the role that education can play in the prevention of offending, Holden and Lloyd<sup>31</sup> note that schools can provide social conditioning in a variety of levels, all of which play a core protective role. Not only does school have an obvious role in providing qualifications that will enhance employment prospects but it also enhances 'soft skills', such as the ability to communicate with others effectively, and it helps establish and reinforce behavioural norms. This will include strict adherence to attendance and punctuality, behavioural standards and respect for others.

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<sup>27</sup> MacQueen, S., Curran, J, Hutton, L and Whyte, B. (2007) *Support and Service for Parents: A Review of the Literature in Engaging and Supporting Parents*. Edinburgh: Scottish Government.

<sup>28</sup> See Tremblay, R.E. (2000). The development of aggressive behavior during childhood: What have we learned in the past century? *International Journal of Behavioral Development*, 24, 129-141.

<sup>29</sup> Fraser, A. et al. (2010) *Youth Violence in Scotland: Literature Review*. Edinburgh: Scottish Government.

<sup>30</sup> Sutherland, A., Merrington, S., Jones, S., Baker, K. and Roberts, C. (2005) *Role of Risk and Protective Factors*. London: Youth Justice Board for England and Wales.

<sup>31</sup> Holden, T. and Lloyd, R. (2004). The role of education in enhancing life chances and preventing offending. Home Office Development and Practice Report 19, Home Office, London.

Gottfredson et al<sup>32</sup> review a range of school-based interventions designed to prevent many of the precursors of delinquent behaviour (including school-drop out and truancy as well as problem-behaviour). They examined a total of 178 studies that measured the impact of these interventions on either criminal behaviour, substance misuse or other forms of antisocial behaviour. Overall the authors conclude that several strategies are effective in reducing problem behaviours and that among the most effective strategies are those designed to set and enforce clear boundaries on behaviour. These involved building school capacity to manage discipline by establishing, clarifying and consistently enforcing school rules or policies and establishing norms or expectations for behaviour by using, for example, campaigns, ceremonies or similar techniques.

Another way in which the community can provide a source of informal social control is by appointing mentors as role models. Mentoring programmes typically involve non-professional volunteers spending time with young people and acting as role models in a supportive, non-judgemental manner. Welsh and Hoshi<sup>33</sup> reviewed six mentoring programmes, all of which were implemented in the USA and measured outcomes related to offending. Treatment lasted from 12 weeks to 4 years and the length of follow-up was from immediate to 6 months. The methodological robustness of the evaluation was high, with 4 using randomised controlled experimental designs. While only two of the evaluations measured direct crime outcomes, the other programmes were included in the review because they measured disruptive and aggressive behaviour and antisocial acts - research has revealed that there is considerable continuity between these behaviours and offending.

The findings revealed that the effects on crime were mixed - while one study found desirable effects on crime overall (this was the programme that lasted 4 years), the other evaluation found desirable effects on crime for those with prior offences but undesirable effects for those who had no prior criminal activity.<sup>34</sup> Among the studies that measured impact on disruptive and aggressive behaviour: one study revealed that the intervention had no impact; one that there was a positive impact on substance use, antisocial behaviour and academic performance 6 months after the intervention ended; one that there was an improvement in parent-rated behaviour but not teacher-rated behaviour; and one that there was a reduction in truancy and behavioural problems (but the small sample size and short follow-up period limited the strength of the findings from this evaluation). The authors therefore concluded that no clear assessment could be made of the crime prevention effectiveness of community-based mentoring.

## Empathy and compassion

The ability to see things from the other's point of view and having the emotional capacity to feel for the other person is also referred to as 'emotional intelligence'. For research on the relationship between emotional intelligence and offending see Aleixo and Norris.<sup>35</sup>

Losel et al<sup>36</sup> discuss the effectiveness of interventions to improve emotional intelligence and explain how one approach to reducing the risk of offending among young people is to provide social skills training. This training is frequently based on cognitive- behavioural concepts of

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<sup>32</sup> Gottfredson, D., Wilson, D. and Najaka, S. (2002) 'School-based crime prevention' in Evidence-Based Crime Prevention. Sherman, L., Farrington, D., Welsh, B. and MacKenzie, D. (eds.) London: Routledge, pp 56-164.

<sup>33</sup> Welsh, B. And Hoshi, A. (2006) 'Communities and Crime Prevention' in: Shermann, L. et al (Eds) *Evidence Based Crime Prevention*. Routledge.

<sup>34</sup> One possible explanation for this was that the young people with no prior criminality had formed friendships with those who had through their involvement in the mentoring programme.

<sup>35</sup> Aleixo, P.A. & Norris, C.E. (2000) Personality and moral reasoning in young offenders, *Personality and Individual Differences*, 28(3):609-623.

<sup>36</sup> Losel, F. and Beelmann, A. (2007). 'Child Social Skills Training' in Welsh, B. and Farrington, D. (Eds) *Preventing Crime: What Works for Children, Offenders, Victims and Places*, Springer: New York.

social learning and problem solving and tends to include sessions designed to teach social perception, identification of emotions, perspective taking and empathy, evaluating consequences, self-control and interpersonal problem-solving. This can be focused either on those identified as being at risk of offending or on general populations.

While various reviews have suggested that social skills training is a promising approach to the prevention of antisocial behaviour and crime, Losel et al conducted their own review of these type of interventions. They focused only on studies that: examined programmes designed to reduce antisocial behaviour in children and young people (up to the age of 18) and had a randomised design. Their review included published and unpublished studies written in English and German. It did not include evaluations of interventions targeted on young people who were already known offenders – the focus was instead on preventative interventions (although it examined some universal interventions most were focused in young people who were already exhibiting antisocial behaviour). In total 55 evaluations met the criteria, which together yielded 89 treatment-control group comparisons involving over 9,000 subjects. Most of these were published in the 80's and 90's in the US, two-thirds measured impact only up to 2 months after intervention. Most of the programmes that were reviewed were relatively short (with almost half lasting no more than 2 months). The typical format was group training carried out in a school setting.

In nearly half of the studies, impact was measured on the basis of aggressive behaviour and in most cases was assessed by teacher or behavioural expert. Nearly half of the studies revealed a positive impact, 40% showed no impact and 10% suggested there had been a negative impact. Results were combined in a meta-analysis and the overall the effect<sup>37</sup> was rated as being positive and significant. Although the overall effect size was rated as 'small', the authors argue that, given the short duration of the interventions and the typical group-based setting, even this small impact meant that these interventions were likely to be cost-effective.

When the authors compared the impact of different types of interventions, they found that cognitive-behavioural programmes were most successful and were the only type to have sustained a significant impact three months or more after the intervention ended. (Raynor<sup>38</sup> also shows how programmes that have a cognitive-behavioural basis have been shown to be particularly effective in reducing reoffending.) Losel et al also found that programmes targeted on young people who had already developed some behavioural problems had the largest effect and those that were applied universally had non-significant effects. The authors suggest that this is because few of those subject to universal programmes would have gone on to exhibit serious problematic behaviour (and hence significant differences between the control and treatment groups were never likely to have been generated). They therefore suggest that targeted provision is likely to be most cost-effective.

The effectiveness of cognitive-behavioural techniques in reducing the risk of offending was also demonstrated in a review of school-based interventions by Gottfredson et al.<sup>39</sup> These interventions were designed to prevent many of the precursors of delinquent behaviour including school-drop out, truancy and antisocial/aggressive behaviour. Of the nine types of intervention reviewed in this study, those that focused on cognitive-behavioural training were among the most rigorously evaluated and provided effect sizes that were among the highest of those reviewed. They demonstrated clear positive effects on school attendance and persistence and aggressive/antisocial behaviour and some studies also demonstrated reductions in criminal behaviour.

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<sup>37</sup> Calculated using Cohen's *d* coefficient.

<sup>38</sup> Raynor, P. (2004) 'Rehabilitative and reintegrative approaches' in: A. E. Bottoms, S. Rex and G. Robinson (Eds) *Alternatives to Prison: Options for an Insecure Society*, Cullompton:Willan

<sup>39</sup> Gottfredson, D., Wilson, D. and Najaka, S. (2002) 'School-based crime prevention' in Evidence-Based Crime Prevention. Sherman, L., Farrington, D., Welsh, B. and MacKenzie, D. (eds.) London: Routledge, pp 56-164.

## The impact of trauma

There is evidence that offending is related to the experience of abuse and neglect. A Scottish Children's Reporter Administration (SCRA) study of children and young people referred to the Children's Reporter for offending in Glasgow<sup>40</sup> found that among the 15 young people who had 20 or more offence referrals: one third had been initially referred in relation to physical abuse by parents or carers and in eight cases background reports disclosed the existence of domestic abuse. Parental alcohol or drug misuse was also apparent in the majority of cases. Batchelor's 2005 study<sup>41</sup> of 21 young women imprisoned for violent offending also showed that two-fifths of them had been sexually abused. The same proportion described witnessing regular incidents of serious physical violence between their parents (most of which were attributed to parental alcohol misuse).

There is also some evidence from the Edinburgh Study of Youth Transitions and Crime on the relationship between self-reported involvement in violence/offending at age 15 and a range of vulnerabilities. Regression analysis revealed that violent offenders were (among other things) significantly more likely than non-violent youths to be engaged in self-harming and to have been a victim of crime by the age of 15. For girls, another significant variable was having experienced family crisis in the last year.<sup>42</sup>

While this underlines the importance of strong social relationships it also underlines the importance of a child protection system that identifies and addresses abuse and neglect as early as possible. However, even with the most effective child protection system, we have to accept that there are some forms of trauma that we cannot predict or avoid. Bereavement of a close relative or friend is an obvious example. Research on resilience to adversity by Mastern et al<sup>43</sup> provides some important clues to how we might better equip young people to deal with these types of trauma. According to this research, IQ, strong supportive family relationships and good relationships with someone outside the family are commonly cited as the most important protective factors. While IQ may not be amenable to change, the quality of care that a child receives is frequently cited as the most important protective factor. A child's belief in their own agency and self-efficacy, their belief in their own ability to do something about the situation, rather than perceiving themselves as a passive victim is also frequently cited as an important protective factor. This is linked to optimism and the ability to re-frame a situation so that the positives as well as the negatives can be seen. If children are able to master a difficult situation this will in turn have a positive effect on their self-esteem. A similar point is made in MacQueen et al<sup>44</sup> who explain that having the opportunity to take part and succeed in challenging tasks, can help promote self-esteem and self-efficacy, which in turn can help build resilience.

## Strong social relationships

Among the many factors that have been shown, in longitudinal studies, to be correlated with offending are: alienation, lack of social commitment and lack of neighbourhood/community attachment<sup>45</sup>. In the longest longitudinal study in criminology, Sampson and Laub's reanalysed

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<sup>40</sup> Gault, I (2003) 'Study on Youth Offending in Glasgow'. Stirling: SCRA.

<sup>41</sup> Batchelor, S (2005) 'Prove me the Bam!' Victimization and agency in the Lives of young women who commit violent offences. Unpublished doctoral thesis, University of Glasgow.

<sup>42</sup> McAra, L. and McVie, S. (2010) 'Youth Crime and Justice: Key Messages from the Edinburgh Study of Youth Transitions and Crime'. *Criminology and Criminal Justice*, 10:179.

<sup>43</sup> Mastern, A.S., Best, K., and Garmezy, N., (1990) Resilience and development: Contributions from the study of children who overcome adversity, *Development and Psychopathology*, 2(4):425-444.

<sup>44</sup> MacQueen, S., Curran, J, Hutton, L and Whyte, B. (2007) *Support and Service for Parents: A Review of the Literature in Engaging and Supporting Parents*. Edinburgh: Scottish Government.

<sup>45</sup> Fraser, A. et al. (2010) *Youth Violence in Scotland: Literature Review*. Edinburgh: Scottish Government.



an archive of data from an already influential prospective study of juvenile and adult criminal behaviour. The dataset contained a sample of 500 male juvenile delinquents and a comparison sample of 500 non-delinquent juveniles that had been matched, case by case, on the basis of race/ethnicity, IQ and household income. Extensive data had been collected on the samples at ages 14, 25 and 32 during the 1940s, 50s and 60s. As well as reanalysing the existing data set, Sampson and Laub used criminal records to track the sample and interviewed 52 men selected to represent different patterns of criminal behaviour. With a 50 year window on the lives of these men, Sampson and Laub's key argument is that crime is more likely to occur when an individual's bond to society is weak. They found that the strongest and most consistent effects on both official and self-reported delinquency in childhood and adolescence can be explained by lack of informal family, school and peer social controls. Three family factors stood out as strongly predictive of delinquency: low levels of parental supervision; the combination of erratic, threatening and harsh discipline; and weak parental attachment. In addition, school attachment had large negative associations with delinquency independent of family process. Peer influences were weaker. In adulthood, the stronger the ties to work and family (particularly marital attachments), the less an individual was likely to be involved in crime and deviance. This held true for those who had displayed previous delinquency as well as those who had not. Sampson and Laub suggest that involvement in institutions such as marriage and work introduce important incentives to conformity – they represented investments that the men did not want to risk losing.

What is particularly striking about Sampson and Laub's findings is that structural background factors such as family poverty had little direct effect on delinquency but were instead mediated by informal social controls. Another important finding, for our purposes, is that while there was a strong relationship between early antisocial tendencies (such as violent temperament) and delinquency and offending in later life, the most powerful explanation of delinquency in adolescence is informal social control. This means that even those predisposed to offending in their early years can avoid or desist from offending given the right social circumstances. While there is no denying the central importance of parenting in the early years, there are nonetheless, what Sampson and Laub call, 'turning points' in adulthood – experiences and circumstances that can redirect criminal trajectories in either a positive or negative direction.

Consistent with findings from the Edinburgh Study of Youth Transitions and Crime, Sampson and Laub argue that trajectories of desistance cannot therefore be predicted using information collected during childhood – "While childhood prognoses are reasonably accurate in terms of predicting levels of crime between individuals up to their 20s, they do not yield distinct groupings that are valid prospectively over the life course"<sup>46</sup>. What happens during the adult life course also matters and those who were interviewed described the major turning points in their adult lives as including: marriage/partners; the military; reform school; work; and neighbourhood change. What appeared to be important about these changes was that they involved new situations that: helped draw a line under the past and provided the opportunity for identity transformation; provided supervision and monitoring as well as new opportunities for social support and growth; and provided structured routine activities.

While Sampson and Laub do not believe that early life experiences set in place a trajectory from which individual cannot deviate they do, nonetheless, recognise that delinquency in early life is very likely to undermine the social bonds that would enhance the ability to avoid offending. They refer to early delinquency as setting the scene for 'cumulative disadvantage'. Imprisonment as a juvenile will, for example, have a negative impact of future job prospects.

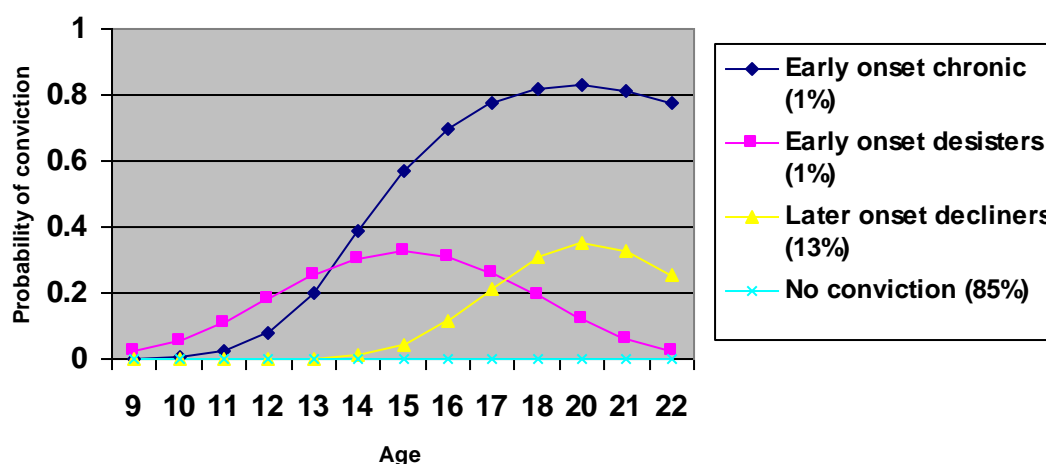
Sampson and Laub's argument that school attachment can serve as an important 'turning point' in the lives of young people resonates with findings from the Edinburgh Study of Youth

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<sup>46</sup> Sampson, R.J. and Laub, J.H. (2004) 'A General Age-Graded Theory of Crime: Lessons Learned and the Future of Life-Course Criminology' in: D. Farrington (ed.) *Advances in Criminological Theory (Vol. 14): Integrated Developmental and Life Course Theories of Offending*. Piscataway, NJ: Transaction Publishing.

Transitions and Crime. Analysis of the trajectories of criminal convictions among the young people in the Edinburgh Study of Youth Transitions and Crime reveals that while offending tends to decline after the age of 20, during the teenage years there were 3 distinct groups of offenders: a 'desister group' who also began attracting convictions around the age of 9/10 but whose probability of conviction stabilised between age 14-16 before declining and stopping completely by about age 20; a 'later onset' group who attracted their first conviction around the age of 15/16 and peaked at around age 20 and; a 'chronic group' who began attracting convictions around the age of 9/10 and whose probability of conviction rose steeply in the early to mid teenage years and remained high until their early 20s. (At the peak age of conviction, the probability of conviction for this group was also significantly higher than for the other groups.) The conviction trajectories for these groups is shown in Figure 1 below.

**FIGURE 5: Trajectories of criminal convictions among the ESYTC cohort**



Comparing the characteristics of the first two groups who began attracting convictions at the same age but who went on to have very different patterns of convictions thereafter, the only significant differences between these groups at age 12 appeared to be that the chronic group were more likely to be male and more likely to live in the 25% most deprived areas in Edinburgh. This suggests then that it is very difficult to predict, by age 12, which males from these areas (or indeed other areas) will become persistent offenders. While it was not possible to predict, at age 12, which young people would become desisters and which would become chronic offenders, important differences begin to emerge between the ages of 13 and 15 – the chronic group show a significant deterioration in key aspects of schooling and agency contact which is not mirrored in the desister group. The chronic group experienced a statistically significant increase in truancy and a large and statistically significant increase in school exclusion. Over this same period, the chronic group also reported significantly increased rates of adversarial police contact. Importantly these differences between the chronic and desister groups were not accounted for by differences in self-reported serious offending. Findings from the ESYTC therefore suggest that reduced commitment to and increased exclusion from school, as well as increased adversarial contact with the police, might have a part to play in driving up convictions in the mid to late teenage years. While it is possible that police contact and convictions may have increased the risk of school exclusion, the data tend to show that school exclusion preceded the increased police contact and convictions. The role of the school in bonding young people to society and to its prevailing moral code therefore seems to have been demonstrated in the Scottish research literature.

### Problematic drug misuse

In its most obvious form, drug use contributes to crime through the offences of the supply and possession of drugs. In 2012-13, there were 34,688 drug-related offences recorded by

Scottish police forces<sup>47</sup>. The majority of these (29,150) were for possession. Drug use also has a role to play in other forms of offending. In 2011/12, 21% of individuals seeking treatment or advice from drug services in Scotland claimed that they had committed crime to fund their drug use<sup>48</sup>. We also know that 39% of respondents to the 2013 Prisoner Survey reported being under the influence of drugs at the time of their offence, and 35% stated their drug use was a problem for them on the outside<sup>49</sup>. One-sixth of prisoners (16%) reported that they committed their offence to get money for drugs. Of 83 persons accused in homicide cases in Scotland in 2011-12, 5% (4) were known to be on drugs and 2% (2) were both drunk and on drugs<sup>50</sup>. In the same year, 16% (10) of the 61 homicide victims in solved cases were reported to have been killed in a drug related homicide, i.e. a homicide motivated by the need to obtain drugs (or money for drugs), homicide of a supplier or consumer of drugs in order to steal proceeds of drug trade or homicide as a consequence of rivalry within the trade/between users or dealers. Finally, analysis of the Home Office Youth Lifestyles Survey shows that using drugs is a key predictor of serious or persistent offending in young people aged 12 to 17<sup>51</sup>.

However, the relationship between drug use and offending is complex and the notion that drug use causes offending may not be wholly accurate. A Home Office study<sup>52</sup> that explored the risk factors associated with drug taking in young people revealed that these are very similar to those associated with offending. These include: involvement in serious anti-social behaviour; weak parental attitudes towards bad behaviour; being in trouble at school (including truancy and exclusion); having friends who get into trouble; being impulsive; and lacking empathy. It is possible then that offending and drug use simply have the same antecedents and are symptoms of the same set of conditions. In their 'general theory of crime', Gottfredson & Hirschi<sup>53</sup> argue that drug misuse is not the cause of crime but is simply a symptom of low levels of self-control. They state – "In our view, the relationship between drug use and delinquency are both manifestations of an underlying tendency to pursue short-term, immediate pleasure"<sup>54</sup>.

The authors of the Home Office study suggested that, to promote resilience to drug use, policy intervention should focus (among other things) on early intervention with truants and on strengthening parenting skills. There is therefore a parallel here with interventions that have already been highlighted to as effective for reducing the risk of crime.

A thorough review of the evidence on the effectiveness of different methods of treating drug addiction was published by the Scottish Government in August 2010 to help inform Scotland's revised drug strategy (which marks a shift to a 'recovery' model of intervention). This review<sup>55</sup>

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<sup>47</sup> Scottish Government (2013) Statistical Bulletin Crime and Justice Series: Recorded Crime in Scotland, 2012-13.

<http://www.scotland.gov.uk/Publications/2013/06/9697/4>

<sup>48</sup> ISD Scotland (2013), Scottish Drug Misuse Database: Overview of individuals assessed in 2011/12.

<http://www.isdscotland.org/Health-Topics/Drugs-and-Alcohol-Misuse/Publications/index.asp?ID=663>

<sup>49</sup> Scottish Prison Service (2013) *Prisoner Survey 2013*.

<http://www.sps.gov.uk/Publications/Publication-5345.aspx>

<sup>50</sup> Scottish Government (2013) Statistical Bulletin Crime and Justice Series: Homicide in Scotland, 2012-13.

<http://www.scotland.gov.uk/Publications/2013/10/6416>

<sup>51</sup> Flood-Page, C, Campbell, S, Harrington, V and Miller, J. (2000). Youth Crime: Findings from the 1998/99 Youth Lifestyle Survey. Home Office Research Study 209. London: Home Office.

<sup>52</sup> Dillon, L., Chivite-Matthews, N., Grewal, I., Brown, R., Webster, S., Weddell, E., Brown, G. and Smith, N. (2007) Risk, protective factors and resilience to drug use: identifying resilient young people and learning from their experiences. Home Office Online Report 04/07. London: Home Office.

<http://rds.homeoffice.gov.uk/rds/pdfs07/rdsolr0407.pdf>

<sup>53</sup> Gottfredson, M. & Hirschi, T (1990) *A General Theory of Crime*. Stanford, C.A: Stanford University Press.

<sup>54</sup> Page 93

<sup>55</sup> Best, D. et al. (2010) *Research for Recovery: A Review of the Drugs Evidence Base*. Edinburgh: Scottish Government. <http://www.scotland.gov.uk/Publications/2010/08/18112230/0>

included an assessment of the findings from the international literature about what we know about 'recovery' in the addictions field generally and an evidence-based appraisal of 'what works' in this area as well as a more focused overview of the international literature on drug treatment effectiveness.

The review found that there is a considerable history of cohort studies assessing the short, medium and in some cases the long-term outcomes of a range of mechanisms of delivery of drug treatment which consistently show significant improvements across a range of indicators, including health, offending, risk-taking, substance use and social functioning. Differences in effectiveness between types of treatment (such as community detoxification, methadone maintenance and residential rehabilitation) have been less consistently reported in the evidence base but do suggest the following:

- There is a consistent evidence base supporting opiate replacement therapy in maintenance settings, but this requires not only prescribing but adequate psychosocial support and links to 'wraparound' care.
- Scottish outcome research has shown that while methadone maintenance leads to improved outcomes in a range of domains, it is associated with low rates of sustained abstinence.
- Continuity of care is a critical component of effective treatment systems, and there is a strong supportive evidence base around linkage to 12-step and other community 'aftercare' supports.
- There is an ongoing issue with psychosocial interventions - while there is a strong evidence base from trials, there is little evidence that these are routinely translated into everyday clinical practice.

The review also found that, while structured treatment has a key role to play, it is only part of the support that most people will need. Ongoing support in the community is essential for the recovery journey. The best predictor of the likelihood of sustained recovery from addiction generally is the extent of 'recovery capital' or the personal and psychological resources a person has, the social supports that are available to them and the basic foundations of life quality, i.e. a safe place to live, meaningful activities and a role in their community (however this is defined). Barriers to recovery include psychological problems (mental illnesses and the absence of strengths, such as self-esteem and self-efficacy), significant physical morbidities (including blood borne viruses), social isolation and ongoing chaotic substance use. The review therefore highlighted the role of communities as both a setting for recovery to occur and a foundation for supportive relationships and opportunities for vocational and personal growth, as well as a developmental platform for recovery.

## **Problematic alcohol misuse**

While a direct causal relationship between alcohol and offending (including anti social behaviour) is often difficult to establish, the association is clear. Even a limited amount of alcohol impairs cognitive skills, meaning that people may misread social cues, make bad judgements about risk, or respond inappropriately in social situations. In particular, they are more likely to respond aggressively when they believe they are being provoked. According to the World Health Organisation, alcohol and violence are linked in a number of ways, with a strong association between alcohol consumption and an individual's risk of becoming a perpetrator or victim of violence<sup>56</sup>. The following key facts further demonstrate the link between alcohol and offending:

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<sup>56</sup> World Health Organisation Factsheet (2008)

[http://www.who.int/violence\\_injury\\_prevention/violence/world\\_report/factsheets/ft\\_violencealcohol.pdf](http://www.who.int/violence_injury_prevention/violence/world_report/factsheets/ft_violencealcohol.pdf)

- According to the 2013 Prison Survey, 45% of Scottish prisoners say they were drunk at the time of the offence<sup>57</sup>, including two-thirds (68%) of young offenders<sup>58</sup>
- An audit of Scottish Emergency Departments suggested that at least 70% of assaults presenting to these departments may be alcohol-related<sup>59</sup>. This equates to a minimum of 77 alcohol-related assaults presenting to Scottish emergency departments every day.
- Analysis by Strathclyde Police shows that of the 5,000 prisoners processed by one Glasgow police station in 2006-7, over 60% were under the influence of alcohol and/or drugs. Of those detained for violence, two-thirds were under the influence of alcohol<sup>60</sup>.
- Over two-thirds (71%) of those accused of homicide (and whose drug status was known) in 2012-13 were either drunk or drunk and under the influence of drugs at the time of the alleged offence<sup>61</sup>.
- In 59% of violent crime in 2012/13, victims said the offender was under the influence of alcohol<sup>62</sup>

There is also evidence to suggest that the role of alcohol in offending is increasing. Repeated surveys of new admissions to Glenochil and Polmont young offenders institutions have shown that the proportions of respondents who stated that alcohol had contributed to their offending rose from 58% in 1996 to 80% in 2007. In contrast, the proportion that blamed illegal drugs fell from 40% in 1996 to 30% in 2007.<sup>63</sup>

However, as with drugs, the link between alcohol and crime is complex. Research commissioned by the Scottish Government on troublesome youth groups, gangs and knife carrying in Scotland reveals that young people involved in violence believe that drinking alcohol is a precipitator of violence. However, the agencies involved in tackling violence believed that while fighting was associated with alcohol consumption and / or drug taking, these were not seen as causal factors.<sup>64</sup> Again, it may be that the association exists only among those already predisposed to violence.

NHS Health Scotland developed a set of logic models that outlined the mostly likely pathways to achieve low levels of excessive and irresponsible drinking, and the potential long term benefits to be accrued from a reduction in consumption<sup>65</sup>. Based on known associations between consumption and crime, a reduction in violence, offences and anti-social behaviour is one of the key predicted long-term outcomes in the model. These models helped to inform the Scottish Government's alcohol strategy 'Changing Scotland's relationship with alcohol: A Framework for Action'.<sup>66</sup>, which explicitly recognises the potential criminal justice benefits from reducing consumption.

<sup>57</sup> Scottish Prison Service (2013) Prisoner Survey 2013

<http://www.sps.gov.uk/Publications/Publication-5345.aspx>

<sup>58</sup> Scottish Prison Service (2011) Prisoner Survey 2013– Young Offenders

<http://www.sps.gov.uk/Publications/Publication-5353.aspx>

<sup>59</sup> *Harmful Drinking Two: Alcohol and Assaults*, (2006) NHS Quality Improvement Scotland.

<sup>60</sup> Unpublished data supplied by Strathclyde Police.

<sup>61</sup> Scottish Government (2013) Homicide in Scotland 2012/13.

<http://www.scotland.gov.uk/Publications/2013/10/6416/3>

<sup>62</sup> Scottish Government (2014) Scottish Crime and Justice Survey 2012/13: Main findings

<http://www.scotland.gov.uk/Resource/0044/00447271.pdf>

<sup>63</sup> McKinlay, W., Forsyth, AJM, and Khan, F (2009) *Alcohol and Violence among Young Male Offenders in Scotland*. Edinburgh: Scottish Prison Service.

<sup>64</sup> Bannister, J, Pickering, J, Batchelor, S, Burman, M, Kintrea, K and McVie, S. (2010) *Troublesome Youth Groups, gangs and Knife Carrying in Scotland*, Scottish Government.

<sup>65</sup> NHS Health Scotland – Outcomes Framework: Alcohol

[http://www.healthscotland.com/OFHI/alcohol/logicmodels/lm\\_01.html](http://www.healthscotland.com/OFHI/alcohol/logicmodels/lm_01.html)

<sup>66</sup> Scottish Government (2009) Changing Scotland's Relationship with Alcohol: A framework for action  
<http://www.scotland.gov.uk/Publications/2009/03/04144703/0>

A detailed evaluation programme – Monitoring and Evaluating Scotland’s Alcohol Strategy (MESAS)<sup>67</sup> – is in place to consider the extent to which the actions set out in the alcohol strategy met intended outcomes. MESAS is led by NHS Health Scotland and includes both commissioned and in-house research and analysis. The aim of the evaluation is to provide more than just a final verdict on the effectiveness of the strategy but to track the implementation progress, reach and outcomes of the key actions. In addition, the Alcohol and Offenders Criminal Justice Research Programme led by NHS Health Scotland is of particular relevance. There were 3 strands to this programme: a needs assessment of alcohol problems in prisoners and recommendations for service improvement; a scoping study looking at interventions in place in local areas for offenders with alcohol problems in community justice settings and; an evaluation of the feasibility and effectiveness of the delivery of alcohol brief interventions in the community justice setting.<sup>68</sup>

## Employment opportunities

A review of the evidence<sup>69</sup> (largely from studies undertaken in the US) reveals that those who commit crime tend to be those who are in low paying jobs or not in work. It also shows that the communities in which crime, particularly violent crime, is heavily concentrated tend to be those with high unemployment rates. However, analysis of the relationship between crime and employment rates suggests that the relationship is not straightforward. A review of the evidence by Justice Analytical Services<sup>70</sup> found stronger evidence of a link between crime and inequality than it did between crime and unemployment. Overall, a rise in inequality often corresponds to a rise in crime. One theory that explains the link is that higher inequality implies a larger differential between the expected payoffs from legal and illegal activities. Another (and one that helps to explain the link with violent crime) is that those living in areas of high inequality may have lower expectations about their chances of improving their social or economic status, and thus have a lower perceived opportunity cost of engaging in criminal activity.

Other commentators<sup>71</sup> argue that the relationship between employment and offending is spurious and that the mediating variable is individual social control, which includes commitment and responsibility. One of the most important UK studies of criminal behaviours is David Farrington’s longitudinal study of males who experienced their teenage years in 1960’s London. The study tracked the cohort (of over 400 subjects) well into adulthood and found that although property crime was committed more frequently during periods of unemployment, this held true only for those who were already predisposed to crime (as measured by earlier self-reported offending and moral values). In other words, unemployment did not lead to crime among those who were not already predisposed to it<sup>72</sup>. Sampson and Laub<sup>73</sup> however believe that lack of employment can also explain the late onset of criminal behaviour among those whose early life experiences had previously disposed them to be law-abiding. They suggest that employment, particularly stable employment, is a key factor in promoting desistance from crime and also that lack of it can trigger late onset offending.

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<sup>67</sup> NHS Health Scotland - Monitoring and Evaluating Scotland’s Alcohol Strategy: MESAS  
<http://www.healthscotland.com/scotlands-health/evaluation/planning/mesas.aspx>

<sup>68</sup> For up-dates see: <http://www.healthscotland.com/topics/health/alcohol/offenders.aspx>

<sup>69</sup> From 'Labor markets and crime risk factors' Shawn D Bushway and Peter Reuter in 'Evidence-Based crime Prevention' edited by Lawrence W Sherman et al. Routledge, 2006.

<sup>70</sup> For more detail on this analysis, see: *Crime and Macroeconomic Performance in Scotland*. Scottish Government. Nov 2010. <http://www.scotland.gov.uk/Topics/Statistics/Browse/Crime-Justice/CrimEco>

<sup>71</sup> See for example Sampson, RJ and Laub JH (1993) 'Crime in the Making: Pathways and Turning Points through Life' Cambridge MA: Harvard University Press and Gottfredson, Michael and Hirschi, Travis (1990) 'A General Theory of Crime' Stanford, CA: Stanford University Press.

<sup>72</sup> Farrington, D.P., Gallagher, B., Morley, L., St. Ledger, R.J. and West, D.J. (1986) 'Unemployment, school leaving and crime' *British Journal of Criminology*, 26:335-56.

<sup>73</sup> Sampson, R.J. and Laub, J.H. (1993) *Crime in the Making: Pathways and Turning Points through Life*. Cambridge MA: Harvard University Press.

Securing steady, satisfying employment may act as a positive turning point for young adults previously engaged in delinquency because employment provides access to social networks and a conventional lifestyle<sup>74</sup>, provide a structured daily routine, a sense of stability and life satisfaction, and social control that may be otherwise lacking in young adults' lives.

While it does seem clear that among those predisposed to crime, the risk of their offending increases during periods of unemployment, there is some debate about whether it is an underlying cause of offending (as opposed to a contributory factor). That said, Sampson and Laub's evidence about 'turning points' highlights the importance of stable employment as an incentive to conform to the prevailing social norms.

Two reviews of the effectiveness of interventions designed to improve the employment prospects of those at risk of offending were identified (though most of the interventions that have been reviewed have focused on convicted offenders). One of the difficulties of assessing the impact of these type of employment interventions is that the proportion of participants who drop out of the intervention can be very high. (In one evaluation, for example, only 18% of those assigned to the programme actually completed it)<sup>75</sup>. Lower rates of offending among those who *complete* employment programmes may therefore be more to do with the characteristics of those to persevere than with the programme itself. Even so, findings from the reviews suggest, on balance, that there is no robust evidence of the impact of employment interventions on offending.

One of the reviews was a Campbell Collaboration review by Visher, Winterfield and Coogeshall<sup>76</sup>. This identified only eight studies (all from the United States) that reviewed non-custodial employment programmes for convicted offenders and the majority of these were more than 10 years old. From these they concluded that "none of the interventions had a significant effect on the likelihood that participants would be rearrested". They go on to suggest that employment programmes may only be effective for motivated individuals and that standard employment programmes are unlikely to change motivation. Ex-offenders, they argue, typically have other needs that may preclude immediate employment, including limited education and learning difficulties, substance misuse, mental illness, and a lack of affordable or stable housing.

Similarly, Bushway and Reuter in their assessment of employment interventions with ex-offenders in the United States conclude that no programme (in-prison training, or transitional assistance) or pre-trial diversion has consistently shown itself capable of decreasing recidivism through employment focussed intervention<sup>77</sup>.

Bushway and Reuter also go on to consider the impact of employment interventions that focus on 'at-risk' youth - defined as high school dropouts, those from poor households or poor communities. The programmes took three main forms: (a) subsidised employment, (b) short-term training programmes and (c) intensive residential programmes providing vocational and life skills training. However, few of the evaluations measured change in criminal behaviour (crime control was regarded as a secondary outcome of the programmes). While they found that subsidised work interventions for at-risk youths did increase employment prospects during the period of the intervention, they concluded that they did not increase long term employment

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<sup>74</sup> Bushway, S.D. (2003). "Re-entry and Prison Work Programs". Prepared for the Urban Institute Reentry Roundtable on Employment Dimensions of Re-entry, May 19-20, 2003.

[http://www.urban.org/UploadedPDF/410853\\_bushway.pdf](http://www.urban.org/UploadedPDF/410853_bushway.pdf)

<sup>75</sup> Lattimore, P. K., Witte, A. D., & Baker, J. R. (1990). Experimental assessment of the effect of vocational training on youthful property offenders. *Evaluation Review*, 14(2), 115-133.

<sup>76</sup> Visher, CA, Winterfield, L & Coggeshall, MB (2006) *Systematic Review of Non-custodial Employment Programs: impact on recidivism rates of ex-offenders*. Campbell Collaboration.

<sup>77</sup> Bushway, S., & Reuter, P. (2002). Labor markets and crime risk factors. In L. Sherman, D. Farrington, B. Welsh, & D. MacKenzie (Eds.), *Evidence-based crime prevention*. New York, NY: Routledge Press.

prospects nor did they appear to be supportive of non-criminal behaviour. Short term training programmes were also found to have no long term impact on employment outcomes.

The most rigorously evaluated programme of residential training that Bushway and Reuter found was the federally funded Job Corps which enrolled 60,000 youth at an estimated cost of \$1.3 billion. Over 80% of those enrolled on the programme were high school drop-outs. Two major evaluations were carried out, one in 1982 and another in 2000. The 2000 evaluation was the more robust evaluation and examined outcomes 20 months after the intervention. It found that, compared to the control group, the Job Corps participants were only 3% more likely to be working and that their weekly wages were 8% higher<sup>78</sup>. Nevertheless, even with these smaller differences in employment outcomes, the evaluation found that Job Corps participants were 17% less likely to be arrested than the control group. They also highlight that the residential component was a key feature in that it provided those who were drawn from 'debilitating environments' with a structure that could facilitate the necessary commitment. It should also be noted that the primary focus of this intervention was on attaining academic and vocational credentials and so the reduction in offending could have been as much a result of educational gains as employment gains. This therefore seems consistent with Visser et al.'s conclusion that other needs have to be met before employment programmes can be effective – this includes addressing motivational and educational issues. Based on their review, Bushway and Reuter state that programmes aimed at moving people out of crime and into employment must provide social and educational supports (as well as reduce the attraction of crime and treat substance misuse) if they are to be effective.

## Education

Education equips people with the skills and qualifications that improve access to legitimate opportunities to satisfy needs. Longitudinal research on offending has identified that offending is correlated with (among other things) low intelligence and low school attainment (beginning at primary school)<sup>79</sup>.

There are many ways in which schools can seek to improve educational attainment. This is not the place to review these general approaches. However Gottfredson et al's<sup>80</sup> review of school-based interventions focused only on those designed to prevent the precursors of delinquent behaviour. The most common approach examined in the review focused on changing classroom instructional and management practices to enhance classroom climate or improve educational processes. Although the review did not describe these approaches in detail, the authors noted that this broad strategy had already been shown to have positive impacts on academic attainment. In terms of their impact on crime, substance misuse and school engagement, they conclude the evidence suggests that they are 'promising' interventions. However the results are more mixed where these strategies are not combined with some focus on self-control or social competency skills. This therefore suggests that, while there is a relationship between offending and educational attainment, this relationship could be mediated by other underlying factors such as low self-control.

One relevant approach (that combines some focus on social skills) is Glasgow City Council's use of nurture groups. Nurture groups are targeted on young children who do not have the necessary emotional maturity to cope with the exacting demands of school life. Typically, a

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<sup>78</sup> It should be noted that, because of the demands of the programme, Job Corps participants were less likely to be working during their participation than non-participants. As a result it took the participants some time to catch-up to non-participants who may have been working during the entire comparison period.

<sup>79</sup> Fraser, A. et al. (2010) *Youth Violence in Scotland: Literature Review*. Edinburgh: Scottish Government.

<sup>80</sup> Gottfredson, D., Wilson, D. and Najaka, S. (2002) 'School-based crime prevention' in L. Sherman, D. Farrington, B. Welsh and D. MacKenzie (eds.) *Evidence-Based Crime Prevention*. London: Routledge, pp 56-164



nurture group is a room in the mainstream school that contains different areas reflecting home and school. Within this comfortable and secure environment the adults respond to the children's developmental needs and help equip them with the basic skills they need to function in the normal classroom.

The evidence on nurture groups is discussed in a Scottish Executive report that explores the links between mental health and behaviour in schools<sup>81</sup>. The authors of this report explain that a body of research evidence is developing about the effectiveness of nurture groups, most of which has come from small-scale case studies. However, a larger project undertaken by Cooper, Arnold and Boyd<sup>82</sup> showed that teachers were almost unanimously positive, both with respect to children's educational progress within the nurture group and in terms of the impact of the nurture group on the life of the school as a whole (by, for example, encouraging the development of more nurturing attitudes and practices throughout the school). The majority of parents felt that behaviour, educational progress and enjoyment of school had all increased. The authors conclude:

*The evidence from this study suggests that such a holistic approach has the potential to produce positive outcomes across a wide range of variables, including social, emotional and behavioural and educational functioning of children; parents' attitudes towards their own children and the school; and the positive functioning of whole schools.*

O'Connor and Colwell<sup>83</sup> assessed children entering and leaving a nurture group. The study showed that while the short term effects are quite clear, with children's emotional and behavioural difficulties reduced to a level enabling them to participate in the mainstream classroom, over the longer term some still required a degree of nurturing in the normal classroom. Finally, a large-scale, controlled study of nurture groups across 32 schools in the City of Glasgow also reports quantitative gains in academic achievement when the progress of pupils in nurture groups is compared with that of matched children in mainstream classes<sup>84</sup>.

## CONCLUSIONS

A recurring theme in this section has been the importance of parenting. It has been identified as having a key role in the development of self-control (low levels of which have long been identified as a factor in offending); reducing the risk of and building resilience to trauma (which again has been linked to offending); building strong social bonds and setting appropriate boundaries on behaviour. The fact that low self-control has been linked to a range of negative life outcomes underlines the importance of addressing this if we are to improve wider life chances. Furthermore there is some robust evidence that investment in parenting programmes is effective in promoting self-control and that we should continue to invest in these programmes.

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<sup>81</sup> Shucksmith, J., Philip, K., Spratt, J. and Watson, C. (2005) *Investigating the links between mental health and behaviour in schools*. Edinburgh: Scottish Executive.

<sup>82</sup> Cooper, P., Arnold, R. and Boyd, E. 2001. The effectiveness of nurture groups. Preliminary findings. *British Journal of Special Education*, 28(4): 160-166.

<sup>83</sup> O'Connor, T. and Colwell, J. 2002. The effectiveness and rationale of the 'nurture group' approach to helping children with emotional and behavioural difficulties remain within mainstream. *British Journal of Special Education*, 29(2): 96-100.

<sup>84</sup> Reynolds, S., MacKay, T. and Kearney, M.. (2009) Nurture groups: a large-scale, controlled study of effects on development and academic attainment. *British Journal of Special Education*, 36(4): 204-212.

Given the link between serious disruptive behaviour in early life and delinquency and offending in adulthood, and the evidence that parenting programmes can positively impact on this behaviour, support for parents in addressing behavioural problems in the early years of a child's life appears to be one of the most effective pathways to reducing crime. Furthermore, the evidence that serious disruptive behaviour in early life also has negative consequences for education, employment and relationships suggests the benefits would be felt across a range of national outcomes. However, there is some evidence from the Edinburgh Study of Youth Transitions and Crime<sup>85</sup> that the effect of good parenting was weakened where families were living in more deprived and disorganized neighbourhoods. Tackling parenting in isolation will not therefore be the 'magic bullet' and other pathways to reducing crime will also be important.

As well as highlighting the role of parenting, the evidence base has also highlighted the important role that schools have to play in helping to address the underlying causes of offending. Schools are likely to have a key role in a range of pathways - the most obvious of which is in ensuring high levels of literacy and numeracy, but others are: setting appropriate boundaries on behaviour; promoting an inclusive wider society; and broadening horizons and recognising potential. Schooling will also play a diversionary/ incapacitating role - expressed bluntly, whilst in education, potential offenders have less free time to engage in criminal activity.

Gottfredson et al show that school-based interventions designed to prevent the precursors of delinquent behaviour have more promising results when combined with some focus on self-control and social competency training. Indeed a number of authors have highlighted that cognitive-behavioural approaches are successful in reducing crime. While there are many school-based interventions, one approach that has been highlighted above is the use of nurture groups. The growing body of research on this will be of interest to colleagues in Justice, Education and Health and there may be a focus for some cross-government collaboration to evaluate and promote some of the many interventions that being used in schools to promote positive behaviours. There is also some evidence, from Sampson and Laub's work and from the Edinburgh Study of Youth Transitions and Crime, that attachment to school is an important protective factor and that school exclusion risks propelling young people into more engrained offending.

Sampson and Laub's work on 'turning points' is also particularly useful in reminding us that, although early life experiences do 'set the scene' for prospects in adulthood, there are key factors in adulthood that can redirect life trajectories. Bonds to society in the form of stable employment and good family relationships (particularly marital attachments) seem to represent important incentives to remaining law-abiding. This is consistent with the evidence cited in Section Two that social ties, or the lack of them, affect the deterrent impact of criminal justice policies. While stable employment has been identified as an important turning point, unfortunately, there is no robust evidence of the impact of employment interventions on offending. The evidence seems to suggest that existing offenders and those at risk of offending tend to have other needs to be met before employment programmes can be effective – this includes addressing motivational and educational issues. Programmes designed to improve employment prospects must therefore provide other social and educational supports if they are to be effective. While there may be a limit to what social policy can do to help generate social bonds such as employment, a key implication for justice is that our response to offending (in the form of criminal justice sanctions) should do as little as possible to undermine prospects for stable employment and family relationships.

While there is a growing body of evidence that biological factors matter, and that some people are born with a higher propensity to offend, the evidence that the impact of these factors diminishes as people grow up suggests that social factors can over-ride these. Social policy is by no means rendered irrelevant and, for those born with a biological predisposition to offend, quality of parenting, early socialisation, schooling and social bonds are even more important.

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<sup>85</sup> Smith, D. (2004) *Parenting and Delinquency at Ages 12 to 15*. Edinburgh: University of Edinburgh.

Finally, while there is a wealth of evidence that links offending both to drug and alcohol misuse, for some the underlying causes of offending and this may be the same and stem from low levels of self-control. Addressing drug and alcohol misuse is already a key priority for the Scottish Government. A focus on improving self-control through effective parenting is likely to make a valuable contribution to these efforts.

## **PART TWO: DETERRING OFFENDING BY ENSURING THE COSTS OUTWEIGH THE BENEFITS**

While the most obvious approach to deterring potential offenders is to rely on the criminal justice system to impose formal sanctions on behaviour, this review also explores whether it is possible to draw on informal methods of social control. Generating and sustaining strong cultural norms that encourage compliance relies on a number of approaches. One approach is to encourage the potential offenders to recognise that his or her behaviour not only generates costs to him or herself but also that there are wider costs that have to be borne by the victim and by wider society. This is an approach that is central to restorative justice. A second approach is to foster a moral or ethical obligation or commitment to the rule of law. Research has suggested that people are more likely to obey laws if they have an underlying trust in the judicial process. Perceived legitimacy exists when the policed regard the authorities as having earned an entitlement to command, creating in themselves an obligation to obey. A third approach which is explored here is to encourage communities to exercise informal guardianship of their own public spaces. While vigilante movements represent the most extreme form of informal guardianship, a more subtle approach is to promote a local culture in which communities have sufficient pride and sense of responsibility to report crime and collaborate with the police and formal agencies in tackling it. The last informal method of social control that is explored is to rely on public condemnation and social stigma of criminal behaviour as a means of deterring potential offenders. This recognises that the shame associated with attracting moral opprobrium from family, friends and the local community can have a powerful effect in moderating behaviour.

This section also reviews the evidence on the relationship between the severity, certainty and celerity (swiftness) of formal criminal justice sanctions and crime rates.

### **INFORMAL METHODS OF SOCIAL CONTROL**

#### **Recognising the impact of behaviour**

In their theory of delinquency, Matza and Sykes<sup>86</sup> suggest that people justify their behaviour and participation in a crime internally using 'techniques of neutralisation', such as denying that any real injury was caused by their actions. The evidence on the impact of interventions designed to promote empathy and compassion has already been reviewed in Section One – Addressing the underlying causes of offending. This suggested that interventions designed to promote emotional intelligence, particularly those that draw on cognitive-behavioural theory, have been effective in reducing anti-social and offending behaviour. There is, however, less evidence of the effectiveness of simply confronting offenders with the impact of their behaviour. Comparing the evidence on restorative justice with that on cognitive-behavioural therapy suggests that to impact the decision-making process requires more intense forms of intervention grounded in techniques of social psychology.

Ensuring that offenders understand the impact of their behaviour on the victims of their crime is the central objective of restorative justice approaches. Restorative justice is a broad term that covers a range of practices which share the aim of repairing the harms (including material and psychological) caused by criminal behaviour<sup>87</sup>. The core values of restorative justice include: respect, accountability, consensual participation and decision-making, and the inclusion and empowerment of all relevant parties. This process of a restorative conference is thought to make it more difficult for offenders to neutralise their behaviour. Face to face

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<sup>86</sup> Matza, D. and Sykes, G.M. (1964) Techniques of neutralisation: a theory of delinquency. *American Sociological Review* 22(6):664 – 70.

<sup>87</sup> Hoyle, C and Young, R. 2002 "Restorative Justice: assessing the prospects and pitfalls. In *The Handbook of Criminal Justice Process*. M. McConville and G. Wilson (eds), 525 – 48. Oxford: Oxford University Press.

contact with the victim, together with increased awareness of the harm their actions caused, is thought to challenge denials and justifications. Others have suggested that the process of restorative conferencing also provides a remedial opportunity for moral development in young offenders who may hitherto have had limited exposure to morally formative experiences<sup>88</sup>. The offender's apology and the victim's forgiveness are generally regarded as essential parts of the process of emotional healing and the key to the successful outcomes of satisfaction and reducing recidivism<sup>89</sup>.

Although restorative justice aims to shame offenders by confronting them with the impact of his or her actions, the requirement that they make reparation provides the means of forgiveness. Shame in restorative justice is therefore 're-integrative' and thought to bring about better outcomes. All of the above suggests that the restorative justice process may have a differential impact on a young person's self-concept (that is, the construct of identity, self-esteem, self-efficacy and personal agency) than traditional criminal justice approaches.

New Zealand was the first country to place family group restorative justice on a statutory basis with the introduction of a new youth justice system in 1989. This focused on family group conferences made up of the young person who committed the offence, members of his or her family, the victim(s) or their representative, a support person for the victim(s), a representative of the police, and the mediator or manager of the process. There are three principal components to this process:

- ascertaining whether or not the young person admits the offence;
- sharing information among all the parties at the conference about, for example, the nature of the offence, the effects of the offence on the victims, the reasons for the offending, and any prior offending by the young person;
- deciding the outcome or recommendation<sup>90</sup>.

The New Zealand model was adapted in New South Wales and then later introduced to the UK by the Thames Valley Police.

Previous studies suggest that while restorative conferences can lead to a large drop in post-intervention offending rates in severe offences of youth violence, this was not the case for those convicted for less severe offences such as shoplifting or property offending<sup>91</sup>. A review of 'restorative justice' was conducted in the UK in 2007<sup>92</sup>. This review reported mixed results on rates of re-offending with significant decreases in reoffending against control groups in some studies, no significant difference in other studies, and some evidence of increased re-offending in two small ethnic minority samples in Australia and the US. Since then, a further evaluation report has been published on this issue in the UK<sup>93</sup>. This reports a significant decrease in the frequency of reconviction over the following two years (when all three restorative justice schemes are considered together), with the likelihood of reconviction over the next two years tending towards the positive direction, although not statistically significant. A recent Cochrane Collaboration review of restorative justice conferencing was undertaken by

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<sup>88</sup> Barton, C.K.B. (2003) *Restorative Justice: the Empowerment Model*. Sydney: Hawkins Press.

<sup>89</sup> Retzinger, S.M. (1996) Strategy for community conferences: emotions and social bonds. In *Restorative Justice: International Perspectives*. Monsey NY: Special Protections Commentary.

<sup>90</sup> Morris, A. and Maxwell, G. (1998) "Restorative Justice in New Zealand: Family Group Conferences as a Case Study." *Western Criminology Review* 1 (1). [Online]. Available: <http://wcr.sonoma.edu/v1n1/morris.html>.

<sup>91</sup> Sherman, L. et al. (2000) *Recidivism patterns in the Canberra Reintegrative Shaming Experiment*. Canberra Centre for Restorative Justice: ANU.

<sup>92</sup> Sherman, L. W. and Strang, H. (2007) *Restorative Justice: The Evidence*. London: The Smith Institute

<sup>93</sup> Shapland, J. et al. (2008) *Does Restorative Justice Affect Reconviction? The Fourth Report from the Evaluation of Three Schemes*. London: Ministry of Justice.

the Queen's University, Belfast<sup>94</sup>. Four randomised controlled trials were included in the review, which concluded that there was no difference in reoffending rates between those who took part in restorative justice conferences and those in normal court proceedings. There was also no robust evidence to suggest that restorative justice conferences have an impact on young offenders' sense of remorse and recognition of their own wrongdoing, although there was some indication that victims benefit from them more than they do from court proceedings. Overall, the quality of the available evidence was judged to be low, so the review concluded that further research is needed.

## Moral/ethical commitment to the rule of law

Tyler argues that people are more likely to comply with social rules when they believe that the authorities responsible for those rules are legitimate<sup>95</sup>. Tyler and others<sup>96</sup> argue that social regulation and the encouragement of voluntary civic behaviour are difficult when authorities can rely only on their ability to reward and/or punish citizens. The alternative to such strategies is to focus on approaches based on appeals to internal values. Two key aspects are trust and legitimacy: the public must trust the criminal justice system to be fair and effective if they are to comply with it, and they must also accept that the police, courts and other criminal justice institutions have the legitimate right to exercise authority over the public. Research suggests that using fair decision-making procedures ('procedural justice') is central to the development and maintenance of supportive internal values. Those authorities that use fair decision-making procedures are viewed as more legitimate, and people are more willing to comply with their decisions. Research has suggested that there are four key factors that contribute to judgements about fairness: participation (the extent to which people are allowed to express their views about how a problem should be resolved); perceptions of the neutrality of the authority; perceptions of the trustworthiness of the authority (which can be a function of following professional rules of conduct); and being treated with dignity and respect.

This concept of procedural justice has been applied to the criminal justice system. On the basis of various surveys of the public, Tyler has demonstrated that public perceptions of the fairness of the justice system in the United States are more significant in shaping its legitimacy than perceptions of its effectiveness. Whilst certain people may disagree with some of these laws, they nevertheless obey them because they think complying with the authority that enacted them is the right thing to do. Tyler's main focus has been on the interactions between officials and the public, and the ways that the behaviour of officials builds or erodes institutional legitimacy. The police are the most visible agent of social control and the most high-profile institution in a justice system that is empowered to define right and wrong behaviour.

Hough et al<sup>97</sup> demonstrate how procedural justice theory has been tested in the UK. The National Policing Improvement Agency (NPIA) fielded core questions on public trust and police legitimacy in a representative sample survey of England and Wales. The survey tested what relationships exist between measures of public trust in the police, measures of perceived legitimacy, and people's self-reported compliance with the law and cooperation with the police.

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<sup>94</sup> Livingstone, N et al (2013) Restorative Justice Conferencing for Reducing Recidivism in Young Offenders (Aged 7 to 21). Cochrane Database of Systematic Reviews 2013, Issue 2. Art. No.: CD008898. DOI: 10.1002/14651858.CD008898.pub2.  
<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008898.pub2/abstract;jsessionid=AAB1E2F4E9C26B28D1D0264F0A2AA951.d03t01>

<sup>95</sup> Tyler, T. R. (1990) *Why People Obey the Law*. New Haven, CT: Yale University Press; Tyler, T. R. (1997) "Citizen discontent with legal procedures: a social science perspective on civil procedure reform" *Law and Society Review* 28:809 – 31

<sup>96</sup> Green, D.P. and Shapiro, I. (1994) *Pathologies of Rational Choice Theory*. New Haven, CT: Yale University Press.

<sup>97</sup> Hough, M., Jackson, J., Bradford, B., Myhill, A. and Quinton, P. (2010) 'Procedural Justice, Trust, and Institutional Legitimacy', *Policing- A Journal of Policy and Practice*, 4(3).

The data demonstrate that trust in the police was an extremely powerful predictor of perceived legitimacy and that perceived legitimacy was, in turn, a powerful predictor of compliance with the law (even when controlling for personal morality). Whilst trust in police effectiveness is also an important predictor of people's sense of the risk of sanction, the perceived risk of sanction is not the most significant factor in compliance with the law. This suggests that formal methods of deterrence are not the quickest routes to securing compliance. The ways in which the police wield their authority in part generates their perceived legitimacy, and if they treat people unfairly, legitimacy suffers and people become cynical about human nature and legal systems of justice. This then leads them to view certain laws and social norms as not personally binding.

Tyler argues that normative compliance (which occurs when people feel a moral or ethical obligation or commitment to do so) is economically more viable and is more stable over time than instrumental compliance (which relies on deterring through sanction and punishment). The importance of protecting the rights of the policed (suspects and defendants) as well as promoting greater consumer satisfaction on the part of the 'law-abiding majority' is therefore crucial.

The theory of procedural justice is being further tested by exploring patterns in attitudes across the different legal system through the European Social Survey. The Euro-Justis project, a large European project with partners in seven EU member states, was conceived to develop a standardised set of survey indicators which could be used to assess criminal justice across Europe, including measuring confidence in the criminal justice system<sup>98</sup>. As part of this project, the researchers developed a 45 question module on trust in justice, administered as part of the European Social Survey (ESS) in 2010. The total sample was around 39,000 adults in 20 countries.

The results of the survey demonstrate the variation across Europe when it comes to trust in justice and belief in the legitimacy of justice institutions. Overall, Scandinavian countries were found to be most trusting of their police and courts, while former Communist countries in Eastern Europe tended to be less trusting.

In questions regarding police legitimacy, it was found that there was a relatively strong national-level correlation between the sense of obligation people feel to obey the police and their perceived moral alignment with the police; countries where there is a relatively strong sense that the police and citizens have shared moral values also have citizens with a relatively strong sense of duty to obey the police. Similarly, there was a clear correlation between belief in the fairness of the judiciary and trust in judicial competence.

In a report on the UK data (sample size 2,422)<sup>99</sup>, Hough et al. focus on the results regarding questions on buying stolen goods, what these data tell us about attitudes towards the police, and how these data support a model of pathways to compliance with the police. These pathways are:

- **Instrumental compliance:** when people's decisions about compliance with the law are based on self-interest. The researchers found that there is a small, but statistically significant impact on the buying of stolen goods if people believe that the police are effective, and thereby that the risk of getting caught is high.
- **Morality of the act:** complying with the law because it matches your moral principles. The ESS data show that people who think it is wrong to buy stolen goods also tend to

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<sup>98</sup> Hough, M. and Sato, M. (2011) Trust in justice: why it is important for criminal policy, and how it can be measured. Final report of the Euro-Justis project. Helsinki: HEUNI

<sup>99</sup> Jackson, J., Hough, M., Bradford, B., Hohl, K. and Kuha, J. (2012) Policing by consent: Understanding the dynamics of police power and legitimacy. ESS Country Specific Topline Results Series Issue 1 (UK).

<http://ssrn.com/abstract=2168702>

report not having bought stolen goods (which is likely to be because they haven't bought stolen goods, but could also be because of a reluctance to admit to doing things which they think are immoral).

- **Moral alignment with the police:** people are more likely to comply with the law if they feel aligned with the values of the police. People who believe that the police represent a moral exemplar also feel they have a corresponding role to act in accordance with the law.

The ESS data show that the latter two pathways to compliance with the police are stronger than instrumental compliance, supporting Tyler's argument that strengthening the public's alignment with the police and the law (normative compliance) is a more effective method of reducing crime than increasing people's perceptions of the effectiveness of the police and the likelihood of being sanctioned (instrumental compliance).

In terms of co-operation with the police and beliefs in procedural fairness, the ESS data show that people's experiences of contact with the police play a key role in shaping their views of procedural fairness. The survey asked people if they had been approached, stopped or contacted by the police in the past two years and how satisfied or dissatisfied they were with how they were treated. Both neutral contact (those who were 'neither satisfied nor dissatisfied' with their experience of police contact) and negative contact (those who were 'dissatisfied' or 'very dissatisfied') with the police correlated with lower levels of trust in police procedural fairness. Positive contact was positively correlated with trust in police procedural fairness, but did not significantly correlate with trust in police effectiveness. Moral alignment with the police is also strongly predicted by people's trust in the procedural fairness of the police, which suggests that people view the police as having a moral authority because they perceive the police to use their power and authority in ways which are appropriate and fair. Moreover, this association exists even when adjusting for wider forms of interpersonal and political trust; so even though people who are generally trusting of others are also likely to trust the police, there is something more specific about how people come to trust in the legitimacy and fairness of the police.

A recent Campbell review looked at evidence of the impact of police-led interventions designed to increase citizen perceptions of police legitimacy<sup>100</sup>. The review synthesised findings from 30 experimental and quasi-experimental studies (covering 41 independent evaluations) of any type of public police intervention explicitly aimed at improving perceptions of police legitimacy or which explicitly utilised principles of procedural justice. A range of interventions were covered, including problem-oriented policing strategies, restorative justice conferencing and alternatives to traditional police complaints procedures, but the most common intervention type was some form of community policing. Overall the review concluded that interventions designed to improve perceptions of police legitimacy do have a positive impact, but the type of intervention implemented is not as important as the fact that the intervention involves procedurally just dialogue between the police and citizens. As such, any policing strategy could theoretically be used as a vehicle for improving perceptions of police legitimacy, as long as it involves some element of procedurally just police-citizen interaction e.g. the police actively encouraging citizen participation, demonstrating neutrality in decision-making and showing dignity and respect to citizens.

A Scottish Government review of the evidence on public attitudes to the justice system looked at what those attitudes are, what drives them, and what works in terms of improving public attitudes<sup>101</sup>. The review set out to look at attitudes to both criminal and civil justice institutions, but found that there was insufficient evidence on attitudes to civil justice to draw any meaningful conclusions. One of the main findings of the review was that people's personal

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<sup>100</sup> Mazerolle, L., Bennett, S., Davis, J., Sargeant, E., Manning, M. (2013) Legitimacy in Policing: A Systematic Review. Campbell Systematic Reviews 2013:1 DOI: 10.4073/csr.2013.1

<sup>101</sup> Wilson, C (2012) *The Public and the Justice System: Attitudes, Drivers and Behaviour*. Scottish Government.



experience of the justice system is the key influence on their attitudes towards the system. The evidence supports Tyler's argument about the importance of procedural justice, as when people perceive the justice system to be fair this leads to greater confidence in and satisfaction with the system, and is also associated with people being more compliant with the law and cooperative in their interactions with the justice system.

## Community cohesion and informal guardianship

Evidence suggests that there is a link between 'community cohesion' or 'collective efficacy' and rates of crime within neighbourhoods. The theory is that communities with high collective efficacy are more effective at exercising control or guardianship over their own public spaces and that this in turn deters potential offenders by increasing their perceived risk of detection. The seminal research on collective efficacy is that of Sampson and Raudenbush. For their purposes, they define collective efficacy as 'linkages of cohesion and mutual trust with shared expectations for intervening in support of neighbourhood social control'<sup>102</sup>. In their empirical study in Chicago in 1995, they explored the relationship between visual signs of social and physical disorder, collective efficacy and predatory crime in neighbourhoods selected to provide a mix of race/ethnicity and socio-economic status.

One of their main motivations for the study was to test the 'Broken Windows' thesis; that visual signs of disorder (such as broken windows and graffiti) drive up serious crime by suggesting to potential offenders that residents are indifferent to what goes on in their neighbourhoods and are therefore unlikely to intervene or to call the police when they observe criminal events. (See section below on public condemnation of criminal behaviour.) However, Sampson and Raudenbush's conclusions are also relevant to an assessment of the impact of community cohesion on crime because they demonstrate that the higher the levels of collective efficacy within a community, the lower the rates of crime.

In their study, visual signs of social and physical disorder were systematically recorded through researcher observation in just under 200 neighbourhoods. Signs of social disorder included public drinking, groups hanging around, soliciting and fighting and signs of physical disorder included graffiti, empty beer bottles and drug paraphernalia. Collective efficacy was measured via a survey of 4000 households across the study neighbourhoods which included questions about willingness to intervene to prevent acts such as truancy, graffiti and fighting in front of one's house and perceived levels of trust and cohesion<sup>103</sup>. Predatory crime (violence, burglary and robbery) was measured by combining officially recorded crime data with data on victimisation in the previous 6 months (which were also collected via the neighbourhood survey).

In addition, the researchers collected a range of other socio-demographic data (primarily from census records) that were thought to be linked to disorder, crime and collective efficacy and therefore needed to be controlled for in their analysis. These data included a measure of residential stability (the assumption being that some stability was necessary to make residents feel they had a stake in tackling disorder and crime); the density of residential (as opposed to commercial) population; perceptions of disorder among residents (which could impact on a sense of whether it was worthy trying to affect improvements and hence on collective efficacy); and the extent of economic disadvantage within each neighbourhood (which would impose economic constraints on action).

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<sup>102</sup> Sampson, R.J. and Raudenbush, S.W. (1999) Systematic Social Observation of Public Spaces: A New Look at Disorder in Urban Neighbourhoods. *American Journal of Sociology*, 105: 603 – 51.

<sup>103</sup> Note that Sampson and Raudenbush argue that strong kinship ties are not a necessary prerequisite for cohesion within a community. Networks created by local and voluntary organisations are also able to foster collective efficacy. Indeed, they argue that strong kinship ties might actually interfere with public trust and the expectation of collective responsibility.

The analysis revealed firstly that concentrated disadvantage was the single most important predictor of both disorder and crime. However it also revealed that collective efficacy was a more powerful predictor of all three crimes (violence, burglary and robbery) than signs of social and physical disorder.

Before concluding that collective efficacy was (along with concentrated disadvantage) a powerful predictor of violence and burglary, Sampson and Raudenbush first had to test whether the direction of causality was running in the opposite direction– whether it was crime rates that were impacting on levels of collective efficacy. This could have been the case if, for example, crime was driving residents away from an area and reducing residential stability and if fear of crime was reducing interaction in public places. They tested this by controlling for homicide rates in the year preceding the fieldwork and found that the relationship between collective efficacy and current crime rates still held fast.

Sampson also tested the relationship between violence and collective efficacy in Stockholm, Sweden, which has a very different social structure and different levels of violence to Chicago.<sup>104</sup> Nevertheless, the evidence suggests that the same relationships held true - rates of violence are predicted by collective efficacy and, as in Chicago, collective efficacy is promoted by housing stability and undermined by concentrated disadvantage.

Conversely, the criminologist Sandra Walklate has argued that there is a link between areas with high levels of community cohesion and high crime rates<sup>105</sup> and that 'high crime areas can be experienced as highly ordered and safe places for the people who live there'<sup>106</sup> (Walklate, 2002: 84). Areas which may appear to those outside them as being unsafe, chaotic and lacking in community cohesion, may actually feature dense and complex social networks with substantial bonding social capital. One feature of dense, tightly-bound communities is that they can be insular and suspicious of outsiders. In areas characterised by high levels of unemployment, crime and social exclusion, individuals who live in the area may have strong extended family and friendship networks, but very few links to those outside the community, for example to people from different demographic groups or to public sector organisations (a lack of 'bridging' and 'linking' social capital). This can engender distrust of, and hostility towards, outsiders and 'the authorities'. In such communities there may also be a strong culture of 'not grassing'<sup>107</sup>, with those who have been identified as a 'grass' being criticised, socially excluded, or worse. As a result people may be reluctant to engage with local authorities, the police and other public sector organisations, which leads to crime going unreported and hinders the success of initiatives aimed at tackling ASB and crime.

Walklate conducted a two and a half year qualitative research project looking at the fear of crime in two neighbourhoods in Greater Manchester<sup>108</sup>. One of the communities was tightly-knit and cohesive, with close family and kinship ties and a strong local identity. In this community, she found that many residents expressed the view that you were safe from crime if you were a local, as people in the neighbourhood would not 'rob off their own'. The community was viewed as being 'self-policing', in the sense that people felt that people in the area would not victimise those in their own community, and that if they did that someone would 'sort it out'. On the other hand, it was also self-policing in that people are deterred from reporting crime to the police because of the very real threat of public shaming as a 'grass'.

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<sup>104</sup> Sampson, R.J. (2004) 'Networks and neighbourhoods: the implications of connectivity for thinking about crime in the modern city' in McCarthy, H., Miller, P. and Skidmore, P. (Eds) *Who governs in an interconnected world?* Demos: Network Logic [http://www.cihm.leeds.ac.uk/document\\_downloads/networklogic12sampson.pdf](http://www.cihm.leeds.ac.uk/document_downloads/networklogic12sampson.pdf)

<sup>105</sup> Walklate, S. in Mooney, G. and Neal, S. (eds.) (2009) *Community*. Open University Press.

<sup>106</sup> Walklate, S. (2002) 'Crime and Violence in a Northern British City', in D. Feenan (ed.) *Managing Responses to Violence*, pp. 79–98. Oxford: Oxford University Press.

<sup>107</sup> Yates, J. (2006) 'You Just Don't Grass': Youth, Crime and 'Grassing' in a Working Class Community, *Youth Justice* 2006: 6: 195-210.

<sup>108</sup> Walklate, S. (2000) 'Crime and community: fear or trust?' *British Journal of Sociology*, 49(4): 550-569.

In contrast, the other community studied in the research was marked by rapid social change and an influx of newcomers. Views on safety were markedly different in this neighbourhood, with older people regularly referring to high crime rates and a decline in neighbourliness and trust. Young people were more accepting of problems in the area.

So, Sampson and Raudenbush's research suggests, first and foremost, that social policy should seek to ameliorate concentrated disadvantage but that it should also seek to enhance the social conditions that foster the collective efficacy of residents and organisations as part of strong, resilient and supportive communities. The work of Walklate and others also suggests that in addition to community cohesion, communities also need to have trust in the police and the justice system, which requires building connections between those communities and the police and local authorities.

The traditional approach to improving community cohesion has been the physical rehabilitation of deprived areas but in recent decades we have seen a shift towards trying to empower community residents to take preventative action themselves for example to tackle crime. According to Hope<sup>109</sup>, part of the rationale for this approach is that transferring resources to local communities gives them a stake in conformity and relieves the frustration of blocked aspirations. Community empowerment is also thought to encourage residents to stay in an area and take more interest in and responsibility for their neighbourhood. In a similar way, Sampson<sup>110</sup> discusses the links between collective efficacy and community policing. He argues that by fostering greater civic involvement by residents in the social life of their neighbourhood, the police act as a catalyst to developing a sense of local ownership of public space and an increase in informal social control. He describes, for example, evidence from the Chicago Alternative Policing Strategy that demonstrated that 'beat meetings' between police and the community provided a means for civic involvement that has "been problematic in many poor communities". (The evidence in the effectiveness of community policing in reducing crime is discussed in more detail in the 'deterrence' section of this paper.)

While commentators have argued that we should be fostering collective efficacy, there is, as yet, no reliable evidence that encouraging communities to take action themselves to deter and prevent crime has actually been effective in reducing crime. Welsh and Hoshi<sup>111</sup> reviewed four programmes that were designed to mobilise communities to participate actively in planning and implementing crime prevention activities. Each of these programmes was carried out in the United States in high crime areas. Unfortunately, the methodological rating of the evaluations was low and only one measured impact beyond the immediate outcome. Results were also shown to be mixed. The authors therefore concluded that the effectiveness of mobilising the community to tackle crime is unknown. We would also argue that testing for a relationship between community mobilisation efforts and crime rates is not enough and that Sampson and Raudenbush's work suggests we should be testing for a more sophisticated interplay between community-driven crime prevention interventions, collective efficacy and crime rates- with collective efficacy being the pivotal variable. We should also be taking an interest in the many other pathways of fostering collective efficacy.

## Public condemnation of criminal behaviour

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<sup>109</sup> Hope, T. (1995) Community crime prevention. In M. Tonry and D.P. Farrington (eds), *Building a safer society: Strategic approaches to crime prevention: Vol 19. Crime and Justice: A Review of Research*. Chicago, IL: University of Chicago Press, 21-89.

<sup>110</sup> Sampson, RJ (2004) *Networks and Neighbourhoods: the implications of connectivity for thinking about crime in the modern city*, in McCarthy, H., Miller, P. and Skidmore, P. (Eds) *Who governs in an interconnected world? Demos: Network Logic*

<sup>111</sup> Welsh, B. And Hoshi, A. (2006) 'Communities and Crime Prevention' in: Shermann, L. et al (Eds) *Evidence Based Crime Prevention*. Routledge.

The role of parents and the wider community in setting appropriate boundaries on behaviour has already been discussed in Part One of this paper (which discussed addressing the underlying causes of offending). Ideally, this approach should socialise citizens into accepting the prevailing social order from an early age. However, for those who have not been effectively 'socialised', communities (as well as wider society- through the formal criminal justice system) still have a role in deterring them from offending by sending a clear message that this behaviour will not be tolerated.

Much of the relevant literature on the role of the community in deterring crime focuses on the way in which a community conveys visual signs to its residents and visitors about its attitude to towards crime. The theory is that a physical environment that has been neglected and allowed to run-down can have a role in breeding crime. According to the 'Broken Windows' thesis<sup>112</sup>, unchecked signs of disorder signal to potential offenders that residents are indifferent to what goes on in their neighbourhood and are therefore unlikely to intervene or to call the police when they observe criminal events. A further theory in the 'Broken Windows' thesis is that visual signs of disorder send the signal that an area is unsafe. Law abiding citizens therefore avoid the area and leave it even more vulnerable to more disorderly behaviour and serious crime. Some commentators<sup>113</sup> argue that not only do law-abiding citizens avoid the area but also that businesses and services leave the area and that this, in turn, undermines the social and economic conditions that sustain law-abiding communities. This thesis was very influential in American policing policy in the 1990s and led, for example, to New York's 'zero tolerance' approach.

There is evidence from Sampson and Raudenbush's testing of this thesis (discussed above) that, after controlling for other characteristics of neighbourhoods, there does seem to be a relationship between observed social and physical disorder and robbery (but not with violence or burglary). Sampson and Raudenbush conclude that areas with greater cues of disorder appear to be more attractive targets for robbery offenders. However collective efficacy appears to be a more powerful predictor of rates, not only of robbery, but also violence and burglary than signs of physical or social disorder. This is not to say, however, that signs of disorder are irrelevant to understanding these types of crimes. Disorder may be important for understanding residential stability patterns, investment by businesses, and overall neighbourhood viability which will in turn have an impact on efforts at building collective response and hence an indirect effect on crime. In other words, eradicating disorder may indirectly reduce crime by stabilizing neighbourhoods.

Whatever the causal mechanism, there are a number of research studies that have shown that removing visual signs of disorder have had an impact on crime. Sloan-Howitt and Kelling<sup>114</sup> show how a clean up programme, that was undertaken to remove graffiti from all train cars and stations on the New York subway system, significantly reduced the incidence of new graffiti. Carr and Spring<sup>115</sup> also found similar improvements in Victoria, Australia following a programme promoting the rapid repair of vandalised train equipment. Interestingly, they also found that crimes reported against the person declined by 42%.

## FORMAL METHODS OF SOCIAL CONTROL

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<sup>112</sup> Kelling G.L. and Coles C. M. (1996) *Fixing Broken Windows: Restoring order and reducing crime in our communities*. New York. Free Press; and Wilson J. Q and Kelling G. L. (1982) 'Broken Windows: The Police and Neighbourhood Safety' *Atlantic Monthly*, March 1, 1982:29-38.

<sup>113</sup> Hope, T. (1995) Community crime prevention. In M. Tonry and D.P. Farrington (eds), *Building a safer society: Strategic approaches to crime prevention: Vol 19. Crime and Justice: A Review of Research*. Chicago, IL: University of Chicago Press, 21-89.

<sup>114</sup> Sloan-Howitt, M and Kelling, G.L. (1990) Subway Graffiti in New York City: "Getting Up" vs "Meaning it and cleaning it". *Security Journal* 1: 131 – 6.

<sup>115</sup> Carr, K. and Spring, G. (1993) Public Transport Safety: a community right and a community responsibility. In Clarke, R.V. (ed.) *Crime Prevention Studies. Vol. 1*. Monsey, NY: Criminal Justice Press

## The severity and certainty of punishment

A comprehensive review of deterrence research was commissioned by the Home Office in the late 1990s. The review<sup>116</sup> examined studies that tested the statistical relationships between changes in the certainty or severity of punishment and crime rates. Most notable of these studies are Farrington, Langan and Wikstrom<sup>117</sup>, and Langan and Farrington<sup>118</sup> which examine crime and punishment trends in England and the U.S. in the 80s and 90s. This research, confirming earlier deterrence studies, finds substantial negative correlations between the likelihood of conviction (a certainty measure) and crime rates. The evidence on the severity measure was, however, weaker. Any negative correlations between sentence severity and crime rates generally were not sufficient to achieve statistical significance. The Farrington, Langan and Wikstrom study compared the English and American (as well as Swedish) trend data. Given that the U.S. penalty levels were substantially higher than English levels during the periods studied, the absence of a finding in that study of strong correlations particularly undermines the notion that severity of punishment has a marginal deterrent impact.

By way of caution, the authors of the Home Office review remind us that changes in criminal justice policies can have no deterrent effect unless they alter potential offenders' beliefs about sanction risks. Thus even where crime rates are statistically associated with changes in the severity of punishment, this would not establish a deterrent effect unless there were also evidence that potential offenders were aware of those changes. The review therefore goes on to examine the considerable body of recent literature on 'perceptual' deterrence. This literature examines the link between potential offenders' beliefs concerning likelihood or severity of punishment, and their reported decisions or expectations of offending. However, these studies largely focus on certainty variables, such as perceived likelihood of prosecution, and do not shed much light on questions of severity effects. The report concluded that the studies reviewed did not provide a basis for inferring that increasing the severity of sentences generally is capable of enhancing deterrent effects.

A more recent review by Michael Tonry<sup>119</sup> argued that there is evidence that changes in enforcement and sanctions can effect some kinds of behaviour (e.g. tax evasion and driving offences) but that there is little credible evidence that they affect all types of crimes. Tonry cites research conducted from the mid 1970s to the late 1980s that examined the deterrent effect of new laws that prescribed mandatory minimum sentences for certain crimes. This research suggests that either there was no measurable deterrent effect or that there were short-term effects that quickly subsided. He also discusses the 'tough on crime' initiatives that were implemented in America during the 1990s, including the 'zero tolerance' policy in New York City and the 'Three strikes and you're out' law in California. While it was claimed they were associated with a dramatic reduction in crime, there were no robust studies that demonstrated this. Tonry argues that downward trends in crime began before the initiatives were announced and that neither the timing nor the rate of decline were any different in New York than in other states. While econometric reviews of the research have tended to reach more positive conclusions about the deterrent impact sentences, these have been criticised for their failure to take account of the social context of offending – the notion, for example, that the deterrent impact of criminal sanctions will depend, among other things, on the potential

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<sup>116</sup> Von Hirsh, A., Bottoms, A.E., Burnley, E. and Wikstrom, P. (1999) 'Criminal Deterrence and Sentence Severity: An Analysis of Recent Research'. Oxford: Hart.

<sup>117</sup> Farrington, D.P., Langan, P.A., and Wikstrom, P-O. (1994). "Changes in Crime and Punishment in America, England and Sweden between the 1980s and the 1990s", *Studies in Crime Prevention* 3: 104-131.

<sup>118</sup> Langan, P.A., and Farrington, D.P. (1998). *Crime and Justice in the United States and England and Wales, 1981-96*. Washington, D.C.: Bureau of Justice Statistics.

<sup>119</sup> Tonry, M. (ed.) Learning from the Limitation of Deterrence Research' in *Crime and Justice: A Review of the Research*, Vol 37. Chicago:University of Chicago Press.

offender's own assessment of the likelihood of receiving the sanction and his/her ability to achieve the goal legitimately, and informal social controls.

The Home Office review<sup>120</sup> of these perceptual studies, and of a few available studies of actual offending behaviour, also provide additional confirmation for the hypothesis that social ties, or the lack of them, affect the deterrent impact of the criminal-justice policies -- with persons having strong social ties (i.e., strong links to families, local communities, etc.) being the more readily deterred by prospects of being apprehended.

## Increasing the risk of detection

One of the most obvious ways of increasing the certainty of punishment is to increase the likelihood of detection. The evidence on how policing practice can impact on detection is therefore discussed next.

Sherman and Eck<sup>121</sup> describe how the deterrent effect of having a police agency has been demonstrated by studies that examine changes in crime rates before, during and after police strikes. The evidence from these studies consistently shows that crime rates increase markedly during strikes. Whether adding more officers to an existing police force has any impact on crime is, however, less clear. In a review of the evidence exploring the relationship between police numbers and crime rates, Bradford<sup>122</sup> posits that until the 1990s, there was a lack of clarity in terms of the impact that increasing police numbers had on crime reduction. However, consideration of recent, more robust evidence found a degree of consistency in their findings, namely that while reduced property crime is associated with increased numbers of police officers (it is estimated that a 10% increase in police numbers would result in an approximate 3% reduction in property crime - the elasticity rate of property crime being -0.3), the link between police numbers and violent crime is weaker. Bradford concludes that there is relatively strong evidence to suggest that there is a relationship between increased police numbers and reduced crime, particularly in terms of property-related crime. However, given that his review was not systematic, Bradford urges a degree of caution in generalising from the results. It is also suggested that more evidence is required before a causal link between higher police numbers and lower crime can be established.

Unless studies can demonstrate how extra police officers are being deployed to tackle crime, the absence of a causal mechanism makes it difficult to interpret any statistical associations between police numbers and rates of crime. Studies that examine the impact of deploying more police officers to specific activities have far more potential to inform policy.

Studies that have examined the impact of increasing local patrols in crime hotspots have shown that this is associated with reductions in crime. Sherman and Eck<sup>123</sup> review 11 studies and conclude that the more precisely patrol presence is concentrated at the 'hot spots' and 'hot times' of criminal activity, the less crime there will be in those places and times. The study which applied the most scientific rigour (an experimental design) was Sherman and Weisburd's analysis of hotspot patrolling in Minneapolis in the late 1980's. In this study the police department reorganised its entire patrol to test a pattern of directed patrols at randomly selected crime hot spots during peak times. These extra patrols were resourced by reducing patrols in low crime areas. Both the hotspot and non-hotspot areas were subjected to over 7,000 randomly selected hours of observation by researchers over the course of a year. Sherman and Weisburd's analysis revealed that, while crime-related calls for service

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<sup>120</sup> Von Hirsh, A., Bottoms, A.E., Burnley, E. and Wikstrom, P. (1999) 'Criminal Deterrence and Sentence Severity: An Analysis of Recent Research'. Oxford: Hart.

<sup>121</sup> Sherman, L.W. and Eck, J.E. (2006) 'Policing for crime prevention' in L.W. Sherman et al. (eds) *Evidence-Based Crime Prevention*. London: Routledge

<sup>122</sup> Bradford, B (2011) 'Police Numbers and Crime Rates: a rapid evidence review' Academia.edu: [http://www.academia.edu/796325/Police\\_numbers\\_and\\_crime\\_rates\\_-\\_a\\_rapid\\_evidence\\_review](http://www.academia.edu/796325/Police_numbers_and_crime_rates_-_a_rapid_evidence_review)

<sup>123</sup> From 'Policing for crime prevention' Lawrence W Sherman and John E. Eck in 'Evidence-Based Crime Prevention' edited by Lawrence W Sherman et al. Routledge, 2006.

increased in both groups, the increase in the areas that received no extra patrols was up to three times as great.

Braga et al.'s review of the effects of hotspot policing on crime<sup>124</sup> also concluded that hot spot interventions are an effective crime prevention strategy. The review included 19 US studies (of 25 interventions), 10 of which were randomised control trials and 9 quasi-experimental studies. The interventions included problem-oriented policing, increased patrol strategies and drug enforcement operations. Twenty of the 25 interventions reported substantial crime control benefits in the target areas, and a meta-analysis of reported outcome measures found that the crime reduction effects in intervention areas compared to control areas was small but statistically significant. The interventions had a positive impact on violent crime, public order offences, drug offences and, to a lesser extent, property crime. The researchers also found that diffusion of crime control benefits was more likely to be a side effect of hot spot policing interventions than crime displacement. Only 3 of the studies reported substantial displacement of crime into areas surrounding the treatment area, whereas 8 studies suggested possible diffusion effects. In terms of the type of intervention, the meta-analysis indicated that problem-oriented policing interventions were approximately twice as effective as those which simply increased police patrols in the target area, although this should be interpreted with caution as there were a relatively small number of studies of each type of intervention reviewed.

Similar evidence from the UK is provided in a Home Office evaluation of a police initiative in Humberside that was established in 2000<sup>125</sup>. Its aim was to tackle personal robbery and alcohol-related disorder through community engagement and high visibility patrols. Two types of foot patrols were provided: targeted patrols in hotspot areas during 'hot times'; and general patrols across the entire city. This was delivered by an additional 14 police officers providing, in total, an extra 24,000 hours of high visibility patrols. The evaluation found that after a year there was a 16% reduction in recorded personal robbery in the hotspot area, compared with a 5% increase across Humberside (the police force area) and a 15% increase across the UK generally. The fact that there was also a drop (albeit a lesser drop) in personal robbery in an adjacent area that did not attract additional patrols, was explained by benefit diffusions.

A 2012 Campbell Collaboration review looked at the effectiveness of "pulling levers" focused deterrence strategies in reducing crime<sup>126</sup>. Pulling levers approaches usually involve selecting a specific crime problem, e.g. gang homicide or street drug dealing, and conducting research to identify key offenders or groups of offenders. An interagency group is formed, including the police, probation and parole officers etc, in order to undertake an enforcement operation targeted at the key offenders, using every available "lever" to sanction offenders. Offenders are communicated with directly, for example at mass "call-ins", where they are told why they are under scrutiny, what enforcement action will be taken if they continue to offend, as well as confronting them with moral voices from within their communities, such as crime victims, to attempt to get offenders to face the impact of their behaviour on others. As well as enforcement, multi-agency co-ordination is used to help direct offenders to appropriate services, such as employment services or treatment for substance misuse.

Ten U.S. studies using non-randomised quasi-experimental designs were included in the review. No randomised experimental studies were identified by the researchers. Nine of the ten studies reported significant reductions in violent crime, including a 63% reduction in youth homicides in Boston and a 44% reduction in gun assault incidents in Lowell. Three of the ten studies also looked at possible crime displacement and diffusion effects, and two of these

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<sup>124</sup> Braga, A., Papachristos, A. and Hureau, D. Hot spots policing effects on crime. *Campbell Systematic Reviews* 2012: 8.

<sup>125</sup> Jones, B. and Tilley, N. (2004) *The Impact of High Visibility Patrols on Personal Robbery*. London: Home Office.

<sup>126</sup> Braga, A.A. and Weisburd, D.L. (2012) *The Effects of "Pulling Levers" Focused Deterrence Strategies on Crime*. *Campbell Systematic Reviews*, 2012: 6.

<http://www.campbellcollaboration.org/lib/project/96/>

reported statistically significant reductions in drug offences or violent crimes (depending on the nature of the intervention) in areas adjacent to those where the interventions took place.

Despite the lack of randomised experimental evaluations of pulling levers interventions, the review concluded that the available evidence is very positive, but that caution should be taken with regard to the effect sizes reported, as the evidence suggests that less rigorous research designs are associated with stronger reported effects. The researchers highlight that this sort of targeted approach appears to alter offenders' perceptions of the risk of being caught and sanctioned. The review also highlights the benefits of multi-agency working between the police and other criminal justice agencies, not only to increase the risk of detection through increased police presence, but also in redirecting offenders away from crime through the provision of social services and employment opportunities etc. They also suggest that pulling levers approaches increase collective efficacy in the communities they are implemented in, by engaging with community members to address offender behaviour at call-ins, for example. However, because of the nature of the evaluations reviewed, the researchers were unable to fully unpack the way these focussed deterrence approaches work and robustly evaluate the extent to which different aspects of the interventions contributed to the overall effectiveness of the programmes. Because of the multi-dimensional nature of these interventions, it would be beneficial for future work to tease apart the different strands in order to assess how the interventions work, and whether there are some elements which are more effective than others.

There is also evidence about the impact of community policing, a key feature of which is the involvement of community and other partners in identifying, prioritizing and solving neighbourhood problems. A review of evidence on the impact of community policing that was commissioned by Justice ASD and undertaken by Mackenzie and Henry<sup>127</sup> shows that community policing has been associated with a reduction in both crime and disorder, although there is stronger evidence for its effectiveness in reducing disorder than crime. Evaluations of particular community policing programmes have tended to find reductions in crime (usually measured by victimisation surveys) in some, but not all, of the areas studied. The positive results in relation to the reduction of disorder have been suggested to be related to two strands of the community policing approach in particular: foot patrol and problem solving. However, as the authors note, there are several features of the concept and practice of community policing which render an evaluation of the effectiveness of this model of policing difficult; one of which is that there is no consistent definition of what community policing entails.

Overall, substantial evidence indicates that the way in which police officers are deployed has the greatest impact on preventing serious crime, for example through directed patrols, proactive arrests and problem solving at high crime hot spots.

## **Celerity of punishment**

While the link between certainty and severity of punishment has been reasonably well explored in the research literature, the link between celerity (swiftness) of punishment and offending has not. Only two studies could be identified to help test this pathway of the model and neither provide convincing evidence that increasing the celerity of punishment will help to reduce crime.

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<sup>127</sup> MacKenzie, S. and Henry, A. (2009) Community Policing: A review of the Evidence. Edinburgh: Scottish Government.



The first is a study by Bouffard and Bouffard<sup>128</sup> that examined data from several thousand 'driving under the influence' cases processed in a specialized court in the United States over the course of 6½ years. They examined the relationship between reductions in driving under the influence rates and changes in the certainty, severity and swiftness of case processing over time. The results suggest that swiftness, though often overlooked, *may* be an important component of effective deterrence.

A further study was based on a survey of undergraduates at the University of Arizona. The researchers used a drunk driving scenario to explore perceptions of what would deter them from this form of offending. The research concluded that variation in sanction certainty and severity would impact on offending behaviour but that, although there was some evidence of a positive effect of celerity, it was not statistically significant<sup>129</sup>.

## CONCLUSIONS

There is consistent<sup>130</sup> evidence that increasing the certainty of punishment is effective in reducing crime but only weak evidence of a relationship between severity of punishment and crime rates. There is very little evidence on the celerity of punishment. Neither of the two studies that were identified for this review provided robust evidence of impact. In terms of increasing the certainty of punishment, limited but relatively strong evidence suggests that there is an effect of increased police officers on reduced crime, particularly in terms of property related crime. However, further evidence is required to establish a direct causal link between the two. Increasing police numbers can be effective if greater resources are deployed and targeted appropriately. For example, increasing patrols in crime hotspots has been shown to be associated with a reduction in crime. While community policing has also been linked to a reduction in crime, the many elements involved in community policing make it difficult to identify exactly what it is about this approach that seems to work.

The evidence on the impact of formal criminal justice measures is far more developed than the evidence on informal approaches and much of this latter evidence is still tentative and developing. Nevertheless, in an era of reduced public spending, it is important that we try to understand how informal approaches that require less intensive investment might be able to complement our formal efforts to deter crime. Keeping abreast of the new evidence on this is therefore crucial.

The research on the impact of restorative justice is probably the best source of evidence on whether we can deter potential offenders by confronting them with the social costs of crime (and make it more difficult for them to 'neutralise' their behaviour). The evidence on the effectiveness of restorative justice in reducing crime/recidivism is mixed and there is a need for more high quality studies to be conducted. Nonetheless, there is some evidence to suggest that this approach is promising.

While the evidence on the impact of the criminal justice system suggests that increasing the certainty of punishment can have an impact on crime, Hough et al's work on procedural justice suggest that the perceived legitimacy of the criminal justice institutions is even more strongly correlated with willingness to comply with the law (even when controlling for personal morality). This suggests that formal methods of deterrence may not be quickest or the most

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<sup>128</sup> Bouffard, J. and Bouffard, L. A. (2009) "Deterrence in the Real World: Certainty, Severity and Swiftness in a DUI Court Context" Paper presented at the annual meeting of the ASC Annual Meeting, Philadelphia Marriott Downtown, Philadelphia, PA

<sup>129</sup> Nagin, D.S. and Pogarsky, G. (2000) Integrating Celerity, Impulsivity, and Extralegal Sanction Threats in to a Model of General Deterrence: Theory and Evidence. *Criminology*, 39(4): 865-892.

<sup>130</sup> The relevant publications are: Smith, D.J. (2005) *Crime and Punishment in Scotland, 1981-1999*, in M. Tonry and D. Farrington (eds) *Crime and Justice: A Review of Research* vol. 33: 83-122, University of Chicago Press and: *Cross-National Studies in Crime and Justice*, Farrington, D.P., Langan, P. A. & Tonry, M. (2004) Bureau of Justice Statistics in Washington.

economically viable method of securing compliance. The importance of building public trust in the agencies of the criminal justice system has to be emphasised, with the European Social Survey module and Campbell review adding further weight to the importance of due process and the principles of treating all those who come into contact with the criminal justice system with respect and dignity.

While there is some evidence of a link between signs of disorder and crime, collective efficacy seems to be a more important underlying factor. The links between collective efficacy and crime rates suggest that some communities are effective in exercising their own informal guardianship. Whether or not we can foster that sense of collective efficacy through social policy though is not clear. However, the traditional approach of investing in the physical infrastructure of communities has in recent decades, shifted towards also recognising the importance of community empowerment and fostering civic participation. The Glasgow Community Health and Wellbeing Research and Learning Programme (GoWell), is a 10 year programme investigating the impact of investment in housing and neighbourhood regeneration in Glasgow on the health and wellbeing of individuals, families and communities. It is anticipated that this programme may be able to provide analysis of changes in the incidence and geography of crime in these communities and shed light on the impact that regeneration has had on crime and antisocial behaviour.

Another approach is to try to foster collective efficacy and empower communities by involving them in the design and implementation of various crime prevention initiatives. This is consistent with the salutogenic approach that has been adopted in many health improvement initiatives. However, there is, as yet, no reliable evidence that this approach has been effective in reducing crime.

## PART THREE: REDUCING THE OPPORTUNITIES FOR OFFENDING

### Introduction

Our third broad strategy for reducing crime is, in a sense, a 'fall-back' or last resort. It is to reduce the opportunities for crime so that those, for whom the first two strategies have been ineffective, simply find it more difficult to offend. A key approach is to seek to reduce opportunities for crime through some modification or manipulation of the physical environment. It is an approach that has been heavily influenced by the rational choice perspective articulated by Clarke<sup>131</sup>. This perspective assumes that the offender makes reasoned decisions about his/her actions by weighing up his/her needs for such things as money, status, sex, and excitement, with the opportunities presented by a particular focus or target. However, this section also considers broader approaches that extend beyond the 'situation' and includes restricting the movement/ activities of those at risk of offending; imposing wider restrictions on society as a whole (such as controls on access to weapons); and occupying potential offenders with recreational diversions at times when they are most at risk of offending.

### Situational crime prevention

Situational crime prevention strategies are based on the 'routine activities' theory of crime – that is, that crime occurs where there is a clustering of a motivated offender, the opportunity to offend and the absence of a guardian<sup>132</sup>. It is assumed that rationality applies not only to acquisitive crime but also to violent offending. While there are some (such as Trasler<sup>133</sup>) who argue that opportunity-reducing prevention is effective only with 'instrumental' offences (such as property or robbery) but not with 'expressive' offences that are not subject to rational calculus (such as homicide), the empirical literature on the subject (albeit limited) suggests that situational crime prevention can be effective in reducing some violent crimes<sup>134</sup>. It has also been argued that situational prevention is most effective with casual, uncommitted offenders and least effective with persistent or chronic offenders<sup>135</sup>.

There are a range of situational crime prevention strategies that can be used to reduce the opportunities for crime. These include:

- Increasing formal surveillance using electronic alarms, CCTV, private security patrols or neighbourhood watch;
- Increasing natural surveillance by removing obstacles to line of sight or improving street lighting;
- Increasing access or exit controls;
- Concealing or removing targets (such as lightweight, high value goods that tend to be easy to steal: jewellery; cash; iPods; mobile phones);

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<sup>131</sup> Clarke, R (1995) "Situational Crime Prevention". In M. Tonry and D.P. Farrington (eds.) *Building a Safer Society: strategic approaches to crime prevention, crime and justice*, Vol. 19:91-150. Chicago: University of Chicago Press.

<sup>132</sup> Felson, M. and Clarke, R.V. (1998), 'Opportunity makes the thief: practical theory for crime prevention', *Police Research Series, Paper 98*. London: Home Office.

<sup>133</sup> Trasler, G. (1993). Conscience, opportunity, rational choice, and crime. In R. V. Clarke & M. Felson (eds.), *Routine activity and rational choice. Advances in Criminological Theory*, vol. 5. New Brunswick, NJ: Transaction Publishers.

<sup>134</sup> Eck, J. E. (2006) "Preventing crime at places". In L.W. Sherman et al. (eds) *Evidence-Based Crime Prevention*. London: Routledge.

<sup>135</sup> Trasler, G. (1986) "Situational Crime Control and Rational Choice: a critique". In *Situational Crime Prevention: From Theory into Practice*. K. Heal and G. Laycock (eds.) London: HMSO.

Trasler, G. (1993). Conscience, opportunity, rational choice, and crime. In R. V. Clarke & M. Felson (eds.), *Routine activity and rational choice. Advances in Criminological Theory*, vol. 5. New Brunswick, NJ: Transaction Publishers.

- Erecting or strengthening physical barriers such as window locks, double-pane glass, which is both more difficult and noisier to break, and deadbolt locks on doors<sup>136</sup>;
- Restricting access to the tools of crime (such as spray paints);
- Reducing provocation.

Most crime prevention initiatives combine and evaluate more than one strategy at a time. For this reason, there is little evidence about the separate impact of each of these strategies. This section therefore begins with the evidence from initiatives that combine a range of approaches before moving on to the more limited evidence on the impact of individual approaches.

## Kirkholt burglary-reduction project

An early initiative that has been evaluated is the Kirkholt burglary-reduction project that ran between 1987 and 1990<sup>137</sup>. There were two phases to this project. Phase One ran for the first year and involved: removal of prepayment fuel meters (prior to the intervention, 49% of burglaries in Kirkholt involved theft of meter cash) and introduction of exit payment (as a means of preventing swift exit); improved household security; a community support team (the primary role of which was to visit the victims of burglary on the estate, offer support, and put them in touch with appropriate agencies) and a 'cocoon' neighbourhood watch (where close groupings of dwellings share information and support each other). Phase Two introduced three new elements in the second and third years: probation group work programme (which involved offenders engaging in community work such as cleaning up public spaces); a credit union for people living on the estate; and a project for schools to provide recreational activities as a means of preventing vandalism or petty crime. Kirkholt estate was chosen due to its reputation for high crime (the rate of recorded residential burglary was more than double the national rate) and because it had well-defined boundaries.

Two studies looked at the effect of this project on repeat-burglary. The main evaluation<sup>138</sup> design was a pre and post comparison repeated for each year of the project. The results of the first phase showed that burglary in the area fell from 316 in 1986 to 147 in 1987. That meant they fell to 40% of the pre-initiative level within five months of the start of the programme. As the second phase was introduced, residential burglaries continued to decrease. The annual number of residential burglaries fell from the pre-year to the first post-year by 38%, by 67% in the second year and by 72% in the final year. Given that the incidence of burglary had been reduced, the researchers concluded that the Kirkholt initiative resulted in a substantial reduction in burglaries over the three years of the project.

## Secure by Design (SBD)

Another crime prevention initiative that combines a number of strategies and which has been well evaluated in Secure by Design. Secure by Design (SBD) forms part of a commitment to designing out crime set out in the UK government's crime prevention strategy: *Cutting Crime: A New Partnership 2008-2011* (Home Office, 2007). SBD is essentially about promoting good practice in urban planning to ensure that designers, architects, planners and builders consider crime prevention measures during the design stage of any proposals. The key principles that are built into the planning to help reduce crime, disorder and fear of crime are:

<sup>136</sup> In the UK, reports intimated that 61 per cent of recorded burglaries involved forced entry through doors and windows (37 per cent were forced open, 24 per cent were smashed). However, 22 per cent involved no forced entry, where locks and windows were left open. Budd, T. (1999) *Burglary of Domestic Dwellings: Findings from the British Crime Survey*, Home Office Statistical Bulletin: Home Office. 4/99, London, 60.

<sup>137</sup> Forrester, D., Frenz, S., O'Connor, M. & Pease, K. (1990) Housing Community and Crime: the Kirkholt Burglary Prevention Project: Phase II. *Crime Prevention Unit Paper 23*. London: Home Office.

<sup>138</sup> Bennet, T. (2006) Situational Burglary and Housing Interventions. In *Reducing Crime: the effectiveness of criminal justice interventions*, in A. E. Perry, C. McDougall and D.P. Farrington (eds.) Chichester: Wiley.

- minimum standards of physical security;
- a minimum number of access points;
- maximum natural surveillance (such as windows overlooking gardens and clear sightlines with no high walls);
- good management and maintenance policies;
- and informal social control through a mix of dwellings.

There have been a number of evaluations of the SBD schemes that show they have been effective in reducing crime.

In a major evaluation of 25 SBD and 25 matched non-SBD estates, Armitage<sup>139</sup> found that for developments refurbished to the SBD standard, total crime fell by 55% relative to the pre-SBD period. The evaluation also involved a comparison of police-recorded crime rates in SBD initiative and non-SBD initiative estates after the initiative had been implemented. Recorded crimes were analysed for the period between each estate's completion and March 2000. The prevalence rate of total crime (the proportion of dwellings which were offended against at least once) was less in the SBD sample - 44% of dwellings were offended against once or more on non-SBD estates, compared with 37% on SBD estates. Furthermore, there were almost twice the number of burglary offences within the non-SBD sample. The additional cost of building a house to SBD standards at the construction stage has been estimated by Armitage at £440. On the basis that the average cost of burglary to the victim (at 1999 prices) was £2,300<sup>140</sup>, Armitage argues "the extra expenditure required to build or refurbish housing to SBD standards would appear to be a worthwhile investment"<sup>141</sup>. Furthermore, a survey of residents suggests that fear of crime was lower amongst those living on SBD estates.

In 2007, Armitage and Monchuk carried out a re-evaluation of the SBD areas evaluated in 2000. Their re-evaluation shows that SBD continued to reduce crime and the fear of crime – SBD developments sustained their crime reduction benefits and continued to experience less crime, fewer visual signs of disorder and less fear of crime amongst residents than their non-SBD comparisons<sup>142</sup>.

In Scotland, Teedon and Reid<sup>143</sup> conducted an evaluation of SBD in Glasgow. The results revealed that total housebreaking crime reduced by 61% following the introduction of SBD. This is compared to a reduction of just 17% in the comparison area. In this case, the total housebreaking figure was made up of the three categories: attempted housebreaking; housebreaking with intent; and theft by housebreaking. Even when 'attempts' were removed from the analysis, the reduction was still extremely positive (a 55% reduction).

## Household level measures

While the initiatives reviewed above were implemented at an area level, there is also evidence that measures introduced at individual household level can also be effective in preventing burglary. Budd's multivariate analysis of British Crime Survey data strongly suggests the

<sup>139</sup> Armitage, R. (2000) *An Evaluation of Secured by Design Housing within West Yorkshire – Briefing Note 7/00*. London: Home Office.

<sup>140</sup> Brand, S. and Price, R. (2000), *The Economic and Social Costs of Crime*, Home Office Research Study Number 217, Home Office, London.

<sup>141</sup> Armitage, R. (2000) *An Evaluation of Secured by Design Housing within West Yorkshire – Briefing Note 7/00*. London: Home Office.

<sup>142</sup> Armitage, R & Monchuk, L (2009) "1999 to 2009: Re-evaluating Secured by Design Ten Years On". In: *Proceedings of iDOC'09 'What's Up Doc' International Design Out Crime Conference*. Design Out Crime Research Centre, Perth, Western Australia.

<sup>143</sup> Teedon, P., and Reid, T. (2009) *Evaluation of SBD – Glasgow Housing Association - Architectural Liaison Officer's Conference*, Nottingham, January 2009

effectiveness of security measures such as deadlocks and window locks or grilles<sup>144</sup>. Knight and Pascoe reviewed both British and international studies of the available evidence and reached the same conclusion<sup>145</sup>. More recently, findings from a study of burglary in the UK, USA and the Netherlands found security measures in the home to be one of four variables affecting victimisation rates across all three countries<sup>146</sup>. The other three variables identified were age of occupant, lone parent household status, and urbanization.

## Vandalism

The crime category of 'vandalism etc.' covers a number of more detailed crimes such as reckless conduct (with and without firearms) and accounts for almost half (48%) of the fall in total recorded crime in Scotland between 2006-07 and 2012-13. A guide produced by the Home Office suggest that projects to engage young people in diversionary activities are effective in reducing vandalism/criminal damage combined with 'target hardening' measures (i.e. via improving natural surveillance opportunities) as well as work with young people in schools to raise awareness of the impact and consequences of vandalism. It is also suggested that attempts to reduce this type of offence benefits particularly from a partnership approach, in terms of engaging the various agencies who are affected including local people and businesses<sup>147</sup>. Misuse of alcohol was also highlighted as an exacerbating factor in increasing the risk of vandalism and consequently tackling this as a root cause is also considered key<sup>148</sup>.

## Vehicle crime

Internationally, vehicle crime has fallen substantially over the past twenty years and this has been a major factor in the overall decline in crime rates. Tseloni et al. (2010) examined aggregate crime rates across 26 countries from 1988 to 2004 and found that over this period there was a mean 77.1% reduction in theft from cars and a 16.8% drop in theft of cars, and that these crime types fell by roughly the same rate across countries. In Scotland, since 1992 theft from/of a vehicle has fallen from 22% to 4% of all crime. Between 2011-12 and 2012-13 alone there was 20% drop in vehicle crime<sup>149</sup>.

Advances in technology and vehicle security, such as engine immobilisers and central locking, have made cars much more difficult to steal, and to steal from. In 1998 the EU made application of the device in all new cars mandatory. Engine immobiliser technology works by blocking a vehicle's electrical circuits when the key is not in the ignition, thus preventing hot-wiring (a technique commonly used by car thieves prior to the introduction of the device). In a Netherlands based study van Ours and Vollaard found the introduction of the engine immobiliser to have reduced the overall rate of car theft by half between 1995-2008 (taking into account the displacement of theft to older cars without the device)<sup>150</sup>. It is also argued that because vehicle crime has served as a common 'debut' crime, particularly for young men,

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<sup>144</sup> Budd, T. (1999) *Burglary of Domestic Dwellings: Findings from the British Crime Survey*, Home Office Statistical Bulletin 4/99. London: Home Office. Also, Budd, T. (2001) *Burglary: Practise Messages from the British Crime Survey. Briefing Paper 5/01*, London: Home Office.

<sup>145</sup> Knight, B. and Pascoe, T. (2000), *Burglaries Reduced By Cost Effective Target Hardening*, Garston, Watford: DETR, Building Research Establishment.

<sup>146</sup> Tseloni, A., Wittebrood, K., Farrell, G. and Pease, K. (2004), "Burglary victimization in England and Wales, the United States and the Netherlands: a cross-national comparative test of routine activities and lifestyle theories", *The British Journal of Criminology*, 44(1):66-91

<sup>147</sup> Home Office (2006) *Tackling Vandalism and other Criminal Damage Guide*

<sup>148</sup> Home Office (2006) *Tackling Youth Vandalism*

<sup>149</sup> <http://www.scotland.gov.uk/Publications/2013/06/9697/6#table1>

<sup>150</sup> Van Ours, J and Vollaard, B. (2013) *The Engine Immobiliser: a non-starter for car thieves* Department of Economics, CentER, TILEC, Tilburg University <http://arno.uvt.nl/show.cgi?fid=128404>

that making vehicle crime more difficult has had a knock-on effect on crime rates overall as fewer young people will be drawn into a criminal career<sup>151</sup>.

## Business crime

Two studies have examined the effectiveness of situational crime prevention measures in reducing crime against small businesses. The first initiative aimed at reducing small business crime in Liverpool and sought to reduce repeat burglaries against small businesses in deprived neighbourhoods<sup>152</sup>. The measures used included burglar alarms, CCTV, roller shutters, window locks and detection devices as well as advice on managing affairs such as keeping limited amounts of money, not disclosing information to strangers and being careful with keys. Comparisons were made between the intervention areas and other non-residential areas using police recorded crime data. The evaluation found that, with the exception of robbery, the number of businesses experiencing crime reduced in both areas during the evaluation period. The reductions were largest for burglary, attempted burglary, shoplifting, fraud and forgery. However, the reduction in the prevalence of burglary was greater in the intervention areas – 59% reduction compared with a only 7% reduction in the non-intervention areas.

The second study was of a three year project in two areas of Leicester<sup>153</sup>. Measures were introduced to businesses that were thought to be at high risk of victimisation. Measures included temporary silent alarms with direct lines to the police, cover CCTV, forensic traps designed to obtain footwear marks and a hidden movement detector that triggered an audible alarm. The findings based on the analysis of two victimisation surveys showed that both the incidence and prevalence of most crime categories investigated fell from the first pre-implementation survey and a second survey two years later. The incidence of burglary fell by 41% and the prevalence by 36%. The findings of the surveys also show that repeat-burglary victimisation fell over the same period by 6%. The findings from the police-recorded crime data analysis for the areas covered by the scheme also show an overall reduction of non-domestic burglary. Although data for the county and the rest of England and Wales showed a general decline in non-domestic burglary, this decline was not as great as that experienced in the scheme areas. The authors conclude that crime affecting businesses decreased substantially in the target areas. However, the authors caution that the evidence is not clear that the work of the initiative played a significant part in this reduction.

There is also evidence that measures to tackle credit card and other frauds can be extremely effective. The exact measures and checks applied will vary depending on whether the purchase is being made face to face, by telephone or via the internet. Three evaluations have examined attempts to prevent credit card fraud at the point of sales, and suggest that reductions in magnitude of 82 – 90% have been achieved<sup>154</sup>.

## Increasing formal surveillance

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<sup>151</sup> Van Dijk et al. (2012) *The International Crime Drop: New Directions in Research*. London: Palgrave Macmillan.

<sup>152</sup> Bowers, K.J. (2001) Small business crime: the evaluation of a crime prevention initiative. *Crime Prevention and Community Safety: an international journal*, 7:23 – 42.

<sup>153</sup> Tilley, N. and Hopkins, M. (1998) *Business as Usual: an evaluation of the small business and crime initiative*. *Policy Research Series Paper 95*. London: Home Office.

<sup>154</sup> Masuda, B. (1993). Credit Card Fraud Prevention: A Successful Retail Strategy. In R.V. Clarke (ed.) *Crime Prevention Studies*. Vol. 1. Monsey, NY: Criminal Justice Press, pp 121–134, and Masuda, B. (1996). "An Alternative Approach to the Credit Card Fraud Problem." *Security Journal* 7(1):15-21.

A review of the evidence on the effectiveness of public space CCTV in reducing crime was conducted and published by the Scottish Government in 2009<sup>155</sup>. This review found that very little evaluative research into the effectiveness of CCTV had been conducted since 2000. A Campbell review of the effectiveness of CCTV<sup>156</sup> found that the available evidence shows that CCTV has a “modest but significant” impact on crime, and that it is most effective at reducing crime in car parks. The review included 44 studies which, at a minimum, involved pre-and post- measures of crime in experimental and control areas, but as there have been no RCTs conducted on the effectiveness of CCTV the researchers identified a need for more robust studies with longer follow-up periods. The available evidence provided minimal evidence to suggest that CCTV effectively deters crime, and in cases where crime does appear to be deterred, this effect is generally short-lived. Evidence consistently shows that CCTV may be more effective in deterring crime in smaller and less complex areas than large city centres. The opinions of convicted offenders largely suggest that cameras are not perceived as a threat, particularly in situations fuelled with alcohol. There is some evidence of a diffusion of benefits in terms of crime reduction to surrounding areas following CCTV installation but, like deterrence, these effects appear to diminish with time. By comparison, the evidence on whether or not CCTV simply displaces crime to neighbouring areas (the ‘displacement’ effect) remains inconclusive though there is some evidence to suggest that crime displacement may occur on a small scale, within the local (CCTV targeted) area itself.

There is also evidence that CCTV may be more effective in terms of increased crime detection than it is in terms of deterrence, particularly in the case of violent crime. The use of CCTV is therefore also relevant (perhaps more relevant) to the branch of our reducing crime model that focuses on deterring potential offenders by increasing the risk of prosecution by improving the availability and quality of evidence.

## Increasing natural surveillance

One of the most common methods of increasing natural surveillance and one which has been evaluated separately is improved street lighting. Although improved street lighting may be implemented for a range of reasons, other than crime prevention, it can be used to reduce the opportunity and increase the perceived risk for offenders. This is supported by theories that emphasise natural, informal surveillance as key to crime prevention. Jacobs<sup>157</sup>, for example, highlighted the role of good visibility, combined with natural surveillance (for example, a window overlooking a path or road) as a deterrent to crime.

A separate meta-analysis by Welsh and Farrington<sup>158</sup> of 13 improved street lighting evaluations found that they were effective in reducing crime. They found that crime was 21% lower in the experimental areas than in the control areas. Welsh and Farrington concluded, overall, that the results of their systematic review indicate that improved street lighting significantly reduces crime<sup>159</sup>. However, there was some evidence that it is more effective in reducing property crimes (burglary, vehicle crimes and theft) than violent crimes (including robbery and assault).

Among the studies reviewed by Welsh and Farrington were five that were carried out in the UK. These were carried out in a variety of settings, including a parking garage and a market, as well as residential neighbourhoods. Three evaluations specified the degree of improvement

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<sup>155</sup> <http://www.scotland.gov.uk/Publications/2009/12/03151641/0>

<sup>156</sup> Welsh, B.P., Farrington, D.C. (2008) Effects of closed circuit television surveillance on crime. Campbell Systematic Reviews 2008:17

<sup>157</sup> Jacobs, J. (1961) *The Death and Life of Great American Cities*. New York: Random House.

<sup>158</sup> Welsh, B.P. & Farrington, D.P. (2006) CCTV and Street Lighting: Comparative Effects on Crime. In A. E. Perry, C. McDougall, D. P. Farrington (eds.) *Reducing Crime: the effectiveness of Criminal Justice Interventions*. Chichester: Wiley

<sup>159</sup> Welsh, B.P. & Farrington, D.P. (2008) *Effects of improved street lighting on crime*, Campbell Systematic Review 2008: 13.



to lighting: by five times in Stoke on Trent and by two times in Bristol and Dudley. The outcome measure was based on police recorded crime for three studies and on victim surveys in the other two cases (Stoke on Trent and Dudley). Uniquely, as well as using self-reports of victimisation of young people and measures of fear of crime, the Dudley project also evaluated the impact of the improved street lighting using self-reported delinquency surveys of young people<sup>160</sup>. The results of this survey revealed that young people thought that crime had decreased in the area with improved street lighting and also reported that their own fear of crime had decreased. Results of the meta-analysis of the five British studies confirm that improved street lighting had caused a decrease in crime in the experimental areas and that there had been a diffusion of benefits. According to Welsh and Farrington, there were 38% fewer crimes in the experimental areas compared to the control areas. Although the evidence suggests that the extent of impact is dependent on the characteristics of situation and on other concurrent situational interventions, the review did not identify what were those optimal circumstances<sup>161</sup>. However, the authors did suggest that improved street lighting may be more effective in stable, homogenous communities than in unstable, heterogeneous communities.

Welsh and Farrington also suggest that the introduction of street lighting may reflect a new or recovered sense of community pride<sup>162</sup>. It has been suggested, elsewhere, that investment in improving the management and maintenance of a neighbourhood can be an important means of strengthening community confidence, cohesion and, in turn, informal social control<sup>163</sup>. In the Dudley evaluation referred to above, there was some evidence of an increased sense of collective efficacy following improvements in street lighting. The local tenants had complained to the local authorities about the poor lighting. The local authority improved the lighting and the tenants reported that they thought the quality of their life had improved<sup>164</sup>. This prompted the tenants association to obtain a £10million grant for a programme of neighbourhood improvements from the Department of the Environment. A similar chain of events was noted in the evaluation of street lighting in Stoke on Trent. Although Welsh and Farrington say that they cannot be certain that the causal ordering occurred in all other street lighting evaluations, they argue that, at least in some studies, improved street lighting increased community pride and collective efficacy and this increased collective efficacy had a role in addressing and reducing crime. This interpretation seems consistent with the discussion in Section Two about the link between collective efficacy and reduced crime.

Finally, on the subject of natural surveillance, a number of studies (e.g. Newman<sup>165</sup> and Poyner and Webb<sup>166</sup>) have found that busier streets with some pedestrian movement have experienced reduced levels of recorded crime.

## Access and exit controls

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<sup>160</sup> Painter, K. and Farrington, D.P. (2001) Evaluating Situational Crime Prevention Using A Young People's Survey. *British Journal of Criminology* 41:266 – 284.

<sup>161</sup> Welsh, B.P. & DP Farrington (2006) CCTV and Street Lighting: Comparative Effects on Crime. In A.E. Perry, C. McDougall and D.P. Farrington (eds.) *Reducing Crime: the effectiveness of Criminal Justice Interventions*. Chichester: Wiley.

<sup>162</sup> Welsh, B.P. and Farrington, D.P. (2009) *Making Public Places Safer*. Oxford: Oxford University Press, :89.

<sup>163</sup> Kelling, G.L. & Coles, C.M. (1996) *Fixing Broken Windows: Restoring Order and Reducing Crime in our communities*, New York: Simon & Schuster. Skogan, W.G. (1990) *Disorder and Decline: Crime and the Spiral of Decay in America*. Berkley and Los Angeles: University of California Press. Sampson, R.J. (1997) *Neighborhoods and violent crime: a multilevel study of collective efficacy*. *Science* 277:918-224

<sup>164</sup> Painter, K. and Farrington, D.P. (2001) Evaluating Situational Crime Prevention Using A Young People's Survey. *British Journal of Criminology* 41:266 – 284.

<sup>165</sup> Newman, O. (1996) *Creating Defensible Space*. Washington DC: US Department of Housing and Urban Development.

<sup>166</sup> Poyner, B and B Webb 1991 *Crime Free Housing*. London: Butterworths.

Access control focuses on reducing opportunities for crime by denying access to potential targets and creating a heightened perception of risk in offenders. Access control can include:

- informal/natural (e.g. limiting the number of access and exit points);
- formal/organised (e.g. security personnel); and
- mechanical (e.g. locks and bolts).

A number of studies, notably by Newman<sup>167</sup> and Poyner and Webb<sup>168</sup> suggest an association between design features and levels of crime particularly features that allowed unrestricted pedestrian movement through residential complexes. Research suggest that areas with unregulated access have more crime than areas with street layouts with more restricted access.

Welsh and Farrington examined five evaluations of defensible space that included street barriers or street closures – four were in the USA and one was in the UK. These initiatives were focused on general crime reduction in the USA (for example to prevent offenders from driving away from a robbery) and in the UK to prevent kerb-crawling<sup>169</sup>. They concluded, based on the evaluations, that there is fairly strong and consistent evidence that street barriers or street closures are effective in preventing crime in inner-city neighbourhoods. However, there are differing opinions on how this mechanism works. Cornish and Clarke argue that the physical barrier acts to deflect offenders away from crime targets, whilst others suggest that the improvement is due to increased surveillance due to people feeling safer and being out and about.

In London, two attempts to reduce street-level prostitution used road closures, rerouting and an increased police presence. After road closures (and an increase in policing prior to the road closures) in Finsbury Park, soliciting and kerb-crawling virtually disappeared with little recorded displacement and reported crime fell by 50 %<sup>170</sup>. In Streatham a similar project reported a decline in traffic flows along major thoroughfares, a reduction in arrests of kerb-crawlers (although there may be several explanations of this) and residents reported a decline in prostitution at street level<sup>171</sup>.

Eklom<sup>172</sup> reports on an alley-gating project in Birmingham where 80% of burglaries were committed using access from rear alleys. After erecting 62 alley-gates, steel palisade fencing, the distribution of 400 ultraviolet property-marking kits and stickers and a local newsletter, a 53% decline in burglaries was reported. However, given the number of interventions applied in this example, it is impossible to identify the separate impact of restricting access through alley-gating.

Another form of access control is the use of security guards and place managers (e.g. bus conductors, receptionists). Welsh and Farrington found five evaluations of security guards – two from the USA and one from Canada, the Netherlands and the UK. The UK study was a multi-measure project with security guards at a car park in Basingstoke supplemented by other

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<sup>167</sup> Newman, O 1996 *Creating Defensible Space*. Washington DC: US Department of Housing and Urban Development

<sup>168</sup> Poyner, B and B Webb 1991 *Crime Free Housing*. London: Butterworths.

<sup>169</sup> Similar initiatives to restrict pedestrian access have been carried out in the UK and the USA. However, Eck in his analysis of the evaluations conducted notes that the evaluations were poorly designed. See Eck, J. (2006) Prevention at place. In *Evidence-Based Evidence Based Crime Prevention*, Sherman, L. et al (eds) London: Routledge.

<sup>170</sup> Mathews, R. (1992) Developing more effective strategies for curbing prostitution. . In R.V. Clarke (ed.) *Situational Crime Prevention: Successful Case Studies*. Albany, NY: Harrow and Heston.

<sup>171</sup> Mathews, R (1993) *Kerb crawling, prostitution and multi-agency policing*. Crime Prevention Unit Series Paper No.46. London: Home Office.

<sup>172</sup> Eklom, P. (2002) 'From the Source to the Mainstream is Uphill: The Challenge of Transferring Knowledge of Crime Prevention Through Replication, Innovation and Anticipation.' In: N. Tilley (ed.) *Analysis for Crime Prevention, Crime Prevention Studies* 13:131-203. Devon, UK: Willan Publishing

interventions: erecting a fence around most of the site; pruning trees to ensure natural surveillance; and building a public footpath on one side. The project was evaluated by the Home Office as being highly effective. The US studies involved the 'Guardian Angels' - a non-profit, volunteer organization of unarmed citizen crime patrollers with chapters in a number of cities. The studies assessed the 'Guardian Angels' as having uncertain or mixed results<sup>173</sup>.

Welsh and Farrington also looked at place managers. They found only two evaluations, both in the UK, that met the criteria for inclusion in their systematic review. They describe a study from 1988 of a concierge scheme in South Kilburn. The concierge performed three functions: acting as a receptionist; providing general assistance to residents; and maintaining block security by controlling access through the main entrance. The evaluation found that, compared to neighbouring residential high-rise housing blocks on the estate, the experimental site showed a number of benefits over a one year follow up period including fewer repairs to communal areas and lifts due to a reduction in vandalism. The second evaluation was of a multi-level parking garage which had severe problems of thefts of and from parked vehicles. The intervention involved the presence of parking attendants as place managers. Two years after the project police-reported vehicle crimes were down by half in both the experimental and control area. There was therefore no discernible impact. Poyner<sup>174</sup> argues that parking lot strategies may curb the theft of vehicles but not theft from vehicles. Furthermore, Welsh and Farrington<sup>175</sup> note that there is limited information on the deployment of parking attendants.

In conclusion, Welsh and Farrington comment that the low number of high quality evaluations make it difficult to say whether or not security guards and place managers are effective. Furthermore, the multi-measure approaches applied making it difficult to isolate the impact of specific crime prevention techniques<sup>176</sup>.

Overall, the evidence on access control is mixed. Street closures and barriers do appear to be effective in preventing crime. Similarly, automatic gates and locked cash boxes that staff cannot open or access have shown significant reductions in fare-dodging and attempted robberies. However, the evidence of other forms of access control using security personnel, door staff or caretakers is unclear.

With regard to exit controls, new automatic gates have been shown to reduce fare evasion on public transport and reportedly increase ticket sales by 10% in comparison with control stations without gates<sup>177</sup>. New gates at transit stations in New York have led to a reduction in arrests<sup>178</sup>.

Alley-gating is an approach to situational crime prevention which involves installing lockable gates at the end of alleyways running behind houses to prevent access for potential offenders. In Liverpool, for example, over 3000 gates were installed over a period of six years. Bowers et al. evaluated the impact of the scheme from implementation in 1999 until 2002<sup>179</sup>, comparing

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<sup>173</sup> Welsh, B. and Farrington, D.P. (2009) *Making Public Places Safer*. Oxford: Oxford University Press.

<sup>174</sup> Poyner, B. (1991) Situational Crime Prevention in two parking lot facilities. *Security Journal*, 2: 96 – 101.

<sup>175</sup> Welsh, B. and Farrington, D.P. (2009) *Making Public Places Safer*. Oxford: Oxford University Press.

<sup>176</sup> Welsh, B. and Farrington, D.P. (2009) *Making Public Places Safer*. Oxford: Oxford University Press.

<sup>177</sup> Clarke, R.V. (1993) Fare evasion and automatic ticket collection in the London Underground. In *Situational Crime Prevention: Successful Case Studies*. R.V Clarke (ed.), Albany, NY: Harrow and Heston

<sup>178</sup> Weidner, R.R. (1997) Target hardening at a New York City subway station. Decreased fare evasion – at what price? In: R.V Clarke (ed.), *Situational Crime Prevention: Successful Case Studies*. Albany, NY: Harrow and Heston.

<sup>179</sup> Bowers, K., Johnson, S.D., Hirschfield, A.F.G. (2004) Closing Off Opportunities for Crime: An Evaluation of Alley-Gating. *European Journal on Criminal Policy and Research*, 10(4): 285-308.

crime figures for the gated area with a suitable comparison area for periods pre- during and post- implementation of the gates. The researchers also looked at crime rates in buffer zones adjacent to the gated area in order to check for any displacement effects. The results demonstrated a 37 per cent reduction in crime in the gated area, once general changes in crime rates in the surrounding area had been taken into account. There was also a diffusion of benefits to surrounding areas. The evaluation concluded that for every £1 spent on alley-gating £1.86 had been saved.

There is evidence to suggest that the benefit of situational crime prevention measures may not be sustained over time, unless initiatives are maintained and managed closely. The success of alley-gating, for example, depends on residents using their keys and keeping gates locked, as well as the gates being maintained and not vandalised. Armitage and Smithson conducted a survey with residents in the gated area and a comparison area with no gating, in order to assess the continuing impact of the alley gates (up to 2006), and to explore residents' perceptions of crime and safety in their local area<sup>180</sup>. Residents living in gated areas consistently reported experiencing less crime and ASB, and feeling safer in and around their homes than those in non-gated areas. When asked about their perceptions of the alley gates, 92% of residents felt they had made their street safer, and 83% felt that the gates had helped improve the image of the street. A physical survey of residents' properties found that gates were locked in 99% of cases and there was only evidence of damage to the gates in 3% of cases. Overall, reductions in crime and ASB appear to have been maintained over time, and the findings also indicate that there were further benefits in terms of improving and maintaining the tidiness and appearance of the streets.

## Concealing or removing targets

Efforts to conceal or remove targets include off-street parking, gender neutral phone directories, pre-paid phone-cards (which mean money does not have to be stored in telephone booths) and removable car stereos. The best documented examples of successful target removal involve various cash reduction measures to reduce the potential threat of robbery. Two evaluations of attacks on bus drivers provide evidence that these measures are effective. A number of US cities removed accessible cash with the introduction of exact fares and prohibited bus drivers from giving change. Chaiken, Lawless and Stevenson<sup>181</sup> reported a 90% reduction in bus driver robberies in New York following these changes. The Stanford Research Institute<sup>182</sup> reported similar findings in its review of the effect of exact fare systems in 18 other cities. Time lock cash boxes at betting shops in Australia reduced robberies considerably compared with the control group<sup>183</sup>. Clarke and Goldstein<sup>184</sup> found that theft of household appliances installed by builders in new houses was significantly reduced when these items were not fitted until new owners were in residence. There was also found to be no evidence of displacement.

## Erecting or strengthening physical barriers

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<sup>180</sup> Armitage, R. and Smithson, H. (2007) Alley-gating revisited: the sustainability of residents' satisfaction? *Internet Journal of Criminology*.

<sup>181</sup> Chaiken, J.M., Lawless, M.W. and Stevenson, K.A. (1992). "Exact Fares on Buses." In: R.V Clarke (ed.), *Situational Crime Prevention: Successful Case Studies*. Albany, NY: Harrow and Heston

<sup>182</sup> The Stanford Research Institute (1970) *Reduction of robbery and assault of bus drivers*. Vol. 3 Technological and operational methods. Stanford, CA: Stanford Research Institute.

<sup>183</sup> Ekblom, P.A. (1987) *Preventing robberies at sub-post offices: an evaluation of a security initiative*. London: Home Office.

<sup>184</sup> Clarke, R. & Goldstein, H. (2002) "Reducing theft at construction sites: lessons from a problem-oriented project". In N. Tilley (ed.) *Analysis for Crime Prevention* Vol 13, pp 89 – 130. Devon: Wilan Publishing.

As a real and symbolic barrier to crime, protective screens around drivers on buses have been shown to significantly reduce assaults on drivers<sup>185</sup>. Ekblom found that after the installation of bullet-proof barriers to protect post office clerks, robberies were 65% lower in those post-offices than in sub-post offices not fitted with screens<sup>186</sup>.

However, commentators have also note that excessive use of target hardening tactics can create a “fortress mentality” whereby residents withdraw behind physical barriers and the self-policing capacity of the built environment is damaged, effectively working against SBD strategies that rely on surveillance, territoriality and image<sup>187</sup>.

## Restricting access to the tools of crime

Ekblom and Tilley<sup>188</sup> suggest that removing resources for crime can be an important mechanism in crime prevention. They present a list of seven resources that offenders may utilise to commit crime ranging from personality traits and skills to tools or ‘crime facilitators’. They note that some offences cannot be committed without tools (for example, graffiti without spray paint) and some ‘tools’ make offences easier to commit (for example, a jacket with a hood for street robbery, baggy clothes or clothes with lots of pockets for shop lifting, ladders for housebreaking). However, robust evaluations of initiatives to restrict access to tools of crime are not available.

## Reducing provocation

Crowding has been shown to be related to levels of urban crime. Studies of bars and pubs show how their design and management plays an important role in generating violence or preventing it. For example, violence increases with size of venue, and where the clientele is dominated by young men, who do not know each other and cannot manoeuvre without jostling. Macintyre and Homel found that nightclub violence was reduced by floor plans that regulated traffic flow and minimized unnecessary jostling<sup>189</sup>.

Research also consistently points to a relationship between the presence of bars and prevalence of crime in the surrounding area. Homel and Clarke<sup>190</sup> suggest that the behaviour of bartenders and bouncers may contribute to violence in these places. Evidence from the USA and Australia, summarised by Eck<sup>191</sup>, suggest that changing the management of drinking places (from staff training and changes in legal liability of bartenders) is a promising method for prevention of drinking-related offences.

In other contexts, segregating rivals supporters at sports events and avoiding congestion on the streets after events, helps to manage and reduce the risk of violence<sup>192</sup>. There is also

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<sup>185</sup> Poyner, B. and Warne, C. (1986) *Violence to staff: a basis for assessment and prevention*. London: Tavistock.

<sup>186</sup> Ekblom, P.A. (1987) *Preventing robberies at sub-post offices: an evaluation of a security initiative*. London: Home Office. Clarke, R.V. and McGrath, G. (1990) Cash reduction and robbery prevention in Australian betting shops, *Security Journal* 1:160 – 3.

<sup>187</sup> Schneider, R. H. and Kitchen, T. (2007) *Crime Prevention and the Built Environment*. London: Routledge.

<sup>188</sup> Ekblom, P.A. & Tilley, N. (2000) Going Prepared: criminology, situational crime prevention and the resourceful offender. *The British Journal of Criminology* 40:376 -98.

<sup>189</sup> McIntyre, S. & Homel, R (1997) “Danger on the Dance Floor: A study in interior design, crowding and aggression” In *Policing for Prevention: Reducing Crime, Public Intoxication and Injury Crime Prevention Studies*, Volume 7, R Homel (ed): 92 – 113

<sup>190</sup> Homel, R. & Clark, J. (1994). The prediction and prevention of violence in pubs and clubs. *Crime Prevention Studies*, 3:1–46.

<sup>191</sup> Eck, J. (2006) “Preventing crime at places”. In L. Sherman et al. (eds.) *Evidence Based Crime Prevention*, London: Routledge.

<sup>192</sup> Bjor, J., Knutsson, J. and Kuhlhorn, E. (1992) The celebration of Midsummer Eve in Sweden: A study in the art of preventing collective disorder. *Security Journal* 3(3): 169 – 174.

evidence (from the UK) that simply widening aisles at an open-air market can significantly reduce in robberies<sup>193</sup>.

## Factors associated with the effectiveness of situational crime prevention

Before moving on from the evidence on situational crime prevention, it is worth briefly summarising which factors the literature suggests are associated with success.

Poyner<sup>194</sup> carried out a large evaluation of 122 crime prevention projects. Studies were selected if they were available in English, accessible at the time of review and reported on outcome effectiveness. Each study was given a numerical score depending on whether there was good evidence of a positive effect, some evidence of an effect, no evidence of an effect or whether the evidence showed that crime actually increased (a negative effect). There were a number of studies that showed that situational crime prevention was effective in reducing crime and a number that were inconclusive. Evaluations of access control, place managers (e.g. bus conductors, receptionists), target removal and physical barriers were generally positive. However, evaluations of steering-column locks, security campaigns, security surveys, preventative police patrol, CCTV, street lighting and property marking were generally negative or inconclusive.

An evaluation<sup>195</sup> of 21 projects included in the Home Office Reducing Burglary Initiative sought to determine whether there was an association between the intensity of the programme and changes in burglary rates before and after the schemes were implemented. The interventions across the 21 projects ranged from location specific crime prevention (use of locks), publicity campaigns, youth diversion schemes and property marking. The study was based on pre- and post measures of burglary rates that were compared for different levels of intensity of the schemes. The outcomes for the scheme areas were also compared with the same outcomes measures for the police force area as a whole. The researchers made a distinction between input and output intensity. Inputs are described as including purchasing equipment (e.g. window locks), project staffing and training. Outputs included, for example, the number of locks installed or hours worked by offenders under supervision. It was found that output intensity (the amount of crime prevention implemented, for example, by installing locks) was correlated with burglary reduction across the 21 projects. However, there was no correlation between input intensity (the amount of money spent on the schemes) and outcome in terms of burglary reduction. The same evaluation identified the most successful SBDs tended to be those that implemented location specific situational crime prevention measures, such as target hardening (e.g. fitting locks or alley-gates) to individual properties. In addition, the successful SBDs included stakeholder interventions (e.g. residents' associations, accredited tenants' schemes) that often involved some form of stand alone publicity campaign; and, those SBDs that publicised the interventions via newspaper articles and/or radio interviews.<sup>196</sup> This suggests that publicity of crime prevention scheme is an important factor in the success of an intervention that includes a location-specific preventative measures.

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<sup>193</sup> Poyner, B. and Webb, B. (1992) Reducing theft from shopping bags in city centre markets. In R.V. Clarke (ed.) *Situational Crime Prevention: Successful Case Studies*. Albany, NY: Harrow and Heston.

<sup>194</sup> Poyner, B. (1993) What works in crime prevention: an overview of evaluations. In R.V. Clarke (ed.) *Crime Prevention Studies vol. 1* New York: Criminal Justice Press.

<sup>195</sup> Bowers, K.J., Shane, D., Johnson, S.D. and Hirschfield, A.F.G. (2004). The measurement of crime prevention intensity and its impact on levels of crime. *British Journal of Criminology*, 44(3):419 – 40.

<sup>196</sup> Hirschfield, A. (2004) *The impact of Reducing Burglary Initiatives in the north of England*. Home Office On-line Report 40/04

Laycock<sup>197</sup> summarises the results of an evaluation of a property marking scheme in South Wales conducted in 1984 and concludes not only that this form of target-hardening is effective in preventing burglary, but also that publicity can be a key factor in its success. The programme used three methods to achieve a reduction in burglary: publicity at the launch; door to door visits by police or special constables; and free property marking equipment and door or window stickers. In addition, the chief constable sent a letter to all residents informing them of the launch. In the 12 months before the launch 128 burglaries were reported to the police. In the 12 months after the launch 74 burglaries were reported (a 40% drop). Laycock also noted that the number of burglaries in the second 12 month period, after the launch, reduced further to 66 reported burglaries. The reductions in both the first and second year were higher than expected and this was attributed (at least in part) to the initial and continuing publicity surrounding the programme.

Research evaluating the use of police decoy vehicles in Stockton also suggested that the drop in vehicle crime was due to the publicity surrounding the initiative<sup>198</sup>. In a large scale study of 21 domestic burglary prevention projects, approximately half of the schemes evaluated set up local stand-alone publicity campaigns and these were found to be the most successful in terms of burglary reductions. Furthermore, the study found evidence of a significant reduction in burglary in the three months that immediately preceded implementation as a consequence of pre-implementation publicity<sup>199</sup>. A number of studies<sup>200</sup> note that news of a crime prevention initiative was found (based on interviews with offenders) to change the perceptions offenders had of the risk and effort required and that they adjust their behaviour accordingly.

## Displacement and Diffusion of Benefits

Criticisms of situational crime preventative interventions argue that they “displace” crime to other times and places. Spatial displacement is the form of displacement most commonly recognised, however another five possible forms of displacement have been identified. The six forms of displacement are:

- Spatial (offenders switch from targets in one location to targets in another location)
- Temporal (offenders change the time at which they commit crimes)
- Target (offenders change from one type of target to another)
- Tactical (offenders switch from one form of crime to another)
- Offender (new offenders replace old offenders who have been removed from crime or have desisted from crime)
- Offence (offenders switch from one crime type to another).

Research evaluations show that crime displacement is never total or 1:1 (in other words, it is not the case that for every crime prevented in the intervention area, another one crime was displaced to another area). In an early review on displacement by Hesselings<sup>201</sup> 55 studies of situational prevention programmes were examined. In 22 of the studies there was no evidence of displacement (and in six of these there was evidence of a diffusion of benefits), while in 33

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<sup>197</sup> Laycock, G. (1985) *Property Marking: a deterrent to domestic burglary? Crime Prevention Unit Paper 3*, London: Home Office.

Laycock, G. (1997), “Operation Identification, or the power of publicity?” In R. Clarke (ed.) *Situational Crime Prevention: Successful Case Studies 2<sup>nd</sup> ed.* New York. Harrow and Heston.

<sup>198</sup> Sallybanks, J. (2000) ‘Assessing the police use of decoy vehicles’ *Police Research Series 137*: London: Home Office

<sup>199</sup> Bowers, K. & Johnson, S. (2003) *Reducing Burglary Initiative: the Role of Publicity in Crime Prevention*. Home Office Research Study 272. London: Home Office

<sup>200</sup> See for example, Forrester, D., Frenz, S., O’Connor, M. & Pease, K. (1990) *Housing Community and Crime: the Kirkholt Burglary Prevention Project: Phase II. Crime Prevention Unit Paper 23*. London: Home Office.

<sup>201</sup> Hesselings, R. (1994). Displacement: A review of the empirical literature. In R.V. Clarke (Ed.), *Crime Prevention Studies*, Vol. 3. Monsey, NY: Criminal Justice Press.

there was some displacement but the evidence suggested that it was usually very limited. Rather, there is a diffusion of benefits as reductions of crime (or other improvements) are achieved in areas that are close to the crime prevention intervention, even though those areas were not actually targeted by the intervention itself. A review of 102 evaluations of situational crime prevention projects found that displacement was observed in 26% of the projects reviewed. However, where spatial displacement did occur it tended to be less than the treatment effect, suggesting that the intervention was still beneficial<sup>202</sup>.

## APPROACHES THAT EXTEND BEYOND THE 'SITUATION'

### Restrictions on access to weapons

Evidence suggests that weapons (particularly knives) are used in a high proportion of violent crimes in Scotland. The Scottish Crime and Justice Survey 2012/13<sup>203</sup> estimates that weapons were used in 23% of all violent crimes. The most common type of weapon used was a knife – used in 41% of violent crimes. This was followed by a bottle (in 24% of violent crimes), sticks/clubs/hitting implement (in 24%), bricks/stones and screwdrivers/other stabbing implements (in 18%) and pistol/rifle or a shot gun (in 1% of violent crimes). Recent research evidence has therefore tended to focus on the issues of knife carrying and knife crime<sup>204</sup>.

The evidence also highlights the extent of knife carrying among young people in Scotland. Self-report data collected from the Edinburgh Study of Youth Transitions and Crime in the late 1990's and early 2000s revealed that 38% of 12 to 17 year olds (both male and female) report having carried a weapon at some point.<sup>205</sup> Amongst those who reported carrying a knife or some other kind of weapon between the age of 12 and 17, only a small proportion were persistent offenders<sup>206</sup>. The majority of young people who claim to have carried a weapon report that they do so as a means of self-defence<sup>207</sup>. The use of non-bladed weapons, such as bottles, bricks and bats, is as common as the use of knives<sup>208</sup>.

A range of different approaches have been adopted to reduce knife carrying, notably: police 'stop and search' initiatives; knife amnesties; education and awareness-raising; and mandatory minimum prison sentences.

### ***Stop and Search***

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<sup>202</sup> Bowers, K., Johnson, S., Guerette, R.T., Summers, L., Poynton, S. (2011) Spatial displacement and diffusion of benefits among geographically focused policing initiatives. *Campbell Systematic Reviews* 2011.3 DOI: 10.4073/csr.2011.3

<sup>203</sup> The Scottish Crime and Justice Survey is a large scale continuous survey measuring people's experience and perceptions of crime in Scotland, based on 16,000 face-to-face interviews conducted annually with adults (aged 16 or over) living in private households in Scotland.

<sup>204</sup> See Eades, C. (2006). *Young People and Knife Carrying: What to Do?* London: Centre for Crime and Justice Studies, King's College London. McVie, S. (2010) *Gang Membership and Knife Carrying: Findings from the Edinburgh Study of Youth Transitions and Crime - Research Findings* Edinburgh: The Scottish Government. Bannister, J. et al. (2010) *Gangs and Knife Carrying in Scotland*. The Scottish Government.

<sup>205</sup> McVie, S. (2010) *Gang Membership and Knife Carrying: Findings from the Edinburgh Study of Youth Transitions and Crime - Research Findings* Edinburgh: The Scottish Government. Bannister, J. et al. (2010) *Gangs and Knife Carrying in Scotland*. Edinburgh: The Scottish Government

<sup>206</sup> McVie, S. (2010) *Gang Membership and Knife Carrying: Findings from the Edinburgh Study of Youth Transitions and Crime - Research Findings* Edinburgh: The Scottish Government.

<sup>207</sup> McVie, S. (2010) *Gang Membership and Knife Carrying: Findings from the Edinburgh Study of Youth Transitions and Crime - Research Findings* The Scottish Government. Bannister 2010 *Gangs and Knife Carrying in Scotland*. The Scottish Government. Fraser A, Burman M, Batchelor S, with S McVie 2010 *Understanding Youth Violence: A literature review*.

<sup>208</sup> Fraser A, Burman M, Batchelor S, with S McVie 2010 *Understanding Youth Violence: A literature review*.



Research with knife carriers suggests that the risk of being the subject of a police ‘stop and search’ was reported to be a strong factor in the decision not to carry a weapon among some young people, while other interviewees reported the limited impact or that they simply switched the type of weapon that they carried<sup>209</sup>. The researchers note that interviewees who were almost 16 or older, were more aware, compared to younger interviewees, of the risks of being caught with a knife (police stop and searches and of the risk of a prison sentence) and as a result deterred from carrying a knife<sup>210</sup>.

An intensive police ‘stop and search’ campaign was a feature of the Strathclyde Police initiative ‘Operation Blade’. A review of this initiative examined the effect on accident and emergency attendances and found a reduction in the number of serious stabbings for ten months during and after the intervention<sup>211</sup>. However, the increased use of ‘stop and search’ was part of a wider programme of measures that included a knife amnesty (see below), increased police presence, training for bar stewards, and education/ awareness sessions in schools<sup>212</sup>. It is therefore difficult to distinguish the effectiveness of the separate elements of this initiative.

### **Amnesties**

Knife amnesties are defined periods during which individuals are encouraged to surrender knives to the police without being prosecuted for handling an offensive weapon. Although national and local knife amnesties have been implemented in England and Scotland, the evidence of impact is complex. As discussed above, the review of “Operation Blade” found that a knife amnesty was among a range of strategies that together were found to be associated with a reduction in serious stabbings<sup>213</sup>. However, Eades and his colleagues, in their review of knife crime policy in England, specifically make the point that even if amnesties succeed in removing some knives, the volume of knives available in households, shops and other sources means that a replacement is easily acquired<sup>214</sup>. They compare knife to gun amnesties that remove weapons that are significantly more controlled (e.g. with the requirement to obtain a licence and register guns).

### **Education campaigns**

Education and awareness-raising campaigns targeting young people and children have been carried out both in England and Scotland. The ‘No Knives Better Lives’ initiative, was introduced in 2009 and has been rolled out to Local Authorities across Scotland on an opt-in basis<sup>215</sup>. As with English campaigns, there is no robust evidence yet on the effectiveness of these campaigns in reducing knife carrying and knife crime<sup>216</sup>. However, there is on-going evaluation of No Knives Better Lives. In recognition that delivery of No Knives Better Lives

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<sup>209</sup> Bannister, J., Pickering, J., Batchelor, S., Burman, M., Kintrea, K. and McVie, S. (2010) *Troublesome Youth Groups, Gangs and Knife Carrying in Scotland* Edinburgh: The Scottish Government.

<sup>210</sup> Bannister, J., Pickering, J., Batchelor, S., Burman, M., Kintrea, K. and McVie, S. (2010) *Troublesome Youth Groups, Gangs and Knife Carrying in Scotland* Edinburgh: The Scottish Government. para 6:19.

<sup>211</sup> Bleetman, A, Perry, C, Crawford, R and Swann, I (1997) “Effect of Strathclyde police initiative ‘Operation Blade’ on accident and emergency attendances due to assault” *Journal of Accident Emergency Medicine*, 14; 153 – 156.

<sup>212</sup> Bleetman, A, Perry, C, Crawford, R and Swann, I (1997) “Effect of Strathclyde police initiative ‘Operation Blade’ on accident and emergency attendances due to assault” *Journal of Accident Emergency Medicine*, 14; 153 – 156.

<sup>213</sup> Bleetman, A, Perry, C, Crawford, R and Swann, I (1997) “Effect of Strathclyde police initiative ‘Operation Blade’ on accident and emergency attendances due to assault” *Journal of Accident Emergency Medicine*, 14; 153 – 156.

<sup>214</sup> Eades, C., Grimshaw, R., Silvestri, A. and Solomon, E. (2007). *Knife Crime: A Review of Evidence and Policy*. London: Centre for Crime and Justice Studies, King’s College London.

<sup>215</sup> “No Knives, Better Lives” sponsored by the Community Safety Unit, The Scottish Government.

<sup>216</sup> Eades, C., Grimshaw, R., Silvestri, A. and Solomon, E. (2007). *Knife Crime: A Review of Evidence and Policy*. London: Centre for Crime and Justice Studies, King’s College London.

(NKBL) is set up differently to meet the needs of the local area, the NKBL delivery team in Youth Link Scotland have conducted small-scale evaluations of specific aspects of the programme including peer education to raise awareness of the risks of knife carrying. In addition, the SCCJR recently conducted a review of the evidence on the effectiveness of knife crime interventions which highlighted that education based interventions offer most promise in terms of tackling knife crime<sup>217</sup>.

### **Mandatory minimum sentences**

Concerns over perceived levels of knife carrying and knife crime have been central to calls for mandatory minimum sentences for knife carrying and in England, the maximum sentence for carrying a knife in public without lawful reason was increased from two to four years under the *Violent Reduction Act 2006*. Similarly, in Scotland the introduction of the Criminal Justice (Scotland) Bill 2013, an amendment to the Criminal Justice (Scotland) Act 1995, intends to increase the maximum sentence for unlawful possession of a knife from four to five years. While the use of mandatory minimum sentences is more relevant to the section of the model that deals with deterrence, given that it has been used as part of a strategy for reducing knife carrying, it also deserves a mention here.

The evidence on the likely impact of mandatory minimum sentences is mixed. In England and Wales, the introduction in 2004 of the mandatory minimum sentence for possession of a firearm was not associated with anticipated reductions in firearm offences rates<sup>218</sup>. In the U.S., mandatory sentences have proven ineffective in reducing serious crime or petty theft rates<sup>219</sup>. There have been no large-scale evaluations of mandatory sentencing for knife carrying in the UK. However, findings from the monitoring of the Tackling Knives Action Programme (TKAP) activities introduced in England and Wales in June 2008, which included tougher sentences for carrying a knife, show some reductions in certain crimes. This included a reduction in recorded homicides, and “all violence” and robbery offences in the target age group (19 years and under)<sup>220</sup>. However, as with the assessment of knife amnesties above, because the introduction of tougher sentences was part of a wider package of measures it is not possible to assess the extent to which mandatory sentences have been responsible for these reported reductions. The lack of statistically robust comparison areas also means these results should be interpreted with caution. It is however encouraging that the risk of attracting a prison sentence, if caught carrying or using a knife, was cited as a key reason for not carrying a knife among young people interviewed in Bannister et al’s study<sup>221</sup>. (Those who were interviewed were in or associated with a youth ‘gang’ and either carried, or had carried, a knife.)

Commentators cite a number of reasons why mandatory minimum sentences for knife carrying are may have limited impact on the weapon use. As has already been argued in the section on deterring crime and as the Halliday report, *Making Punishments Work: A Review of the Sentencing Framework for England & Wales*, noted ‘It is the prospect of getting caught that has deterrence value, rather than alterations to the ‘going rate’ for severity of sentences’<sup>222</sup>. Given its concealed nature, knife carrying is difficult to detect without concerted police effort (like ‘stop and search’). Tougher sentences and mandatory minima are therefore unlikely to

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<sup>217</sup> SCCJR (2013) Knife Crime Interventions: ‘what works?’ [http://www.sccjr.ac.uk/wp-content/uploads/2014/01/SCCJR\\_Report\\_No\\_04.2013\\_Knife\\_Crime\\_Interventions.pdf](http://www.sccjr.ac.uk/wp-content/uploads/2014/01/SCCJR_Report_No_04.2013_Knife_Crime_Interventions.pdf)

<sup>218</sup> Eades, C. (2006). *Young People and Knife Carrying: What to Do?* London: Centre for Crime and Justice Studies, King’s College London.

<sup>219</sup> Stolzenberg, L. and D’Alessio, S.J. (1997). “Three Strikes and You’re Out”: The Impact of California’s New Mandatory Sentencing Law on Serious Crime Rates. *Crime and Delinquency*, 43(4), 457-469.

<sup>220</sup> Ward, L. and Diamond, A. (2009). *Tackling Knives Action Programme (TKAP) Phase 1: Overview of Key Trends From a Monitoring Programme*, London: Home Office.

<sup>221</sup> Bannister, J Pickering J, Batchelor S, Burman M, Kintrea K, McVie S, 2010 *Troublesome Youth Groups, Gangs and Knife Carrying in Scotland* The Scottish Government.

<sup>222</sup> Halliday, J., French, C. and Goodwin, C. (2001). *Making Punishments Work: Report of a Review of the Sentencing Framework for England and Wales*, London: Home Office, pp .8-9.

produce deterrent effects unless accompanied by a perception that the risk of detection is high. Increased sentences, and specifically mandatory minima also rely on the assumption that offenders are rational and calculating individuals who weigh the associated costs and benefits before deciding to offend. However, Bannister et al's research has found that many young people, who either carried knives or had previously done so, were either unclear or incorrect as to the precise legal consequences of knife carrying/using<sup>223</sup>. Finally, researchers have also noted that even if mandatory minima can have a deterrent effect on some individuals, there is a high likelihood of displacement to alternative types of weapons that are not covered by mandatory sentencing<sup>224</sup>.

## Restrictions on access to alcohol

The link between alcohol and drug use and crime has already been established in the section of the paper that explored underlying causes of offending. This section considers the evidence on the impact of changes in the physical and economic availability of alcohol on crime rates and finds that there is very strong evidence that regulating the availability of alcohol can reduce the harm caused.

Evidence suggests that there is a strong link between the affordability of alcohol and consumption. The Policy Memorandum that accompanied the Alcohol Etc. (Scotland) Bill in November 2009<sup>225</sup> and Business and Regulatory Impact Assessment (BRIA) for the Alcohol (Minimum Pricing) (Scotland) Bill<sup>226</sup> states that there is strong evidence from numerous studies conducted in European countries, the United States of America, Canada, New Zealand and elsewhere, that levels of alcohol consumption in the population are closely linked to the retail price of alcohol. As alcohol becomes more affordable, consumption increases and so does alcohol-related harm. As the relative price increases, consumption goes down. Comprehensive research by the University of Sheffield that has been carried out for both the UK Government and the Scottish Government<sup>227</sup> also suggests the introduction of Minimum Unit Pricing (MUP) for alcohol will reduce health harm, lead to a fall in crime and lead to considerable financial savings in the criminal justice system.

A European Union report<sup>228</sup> that explores the evidence of the effectiveness of a range of policy interventions to reduce alcohol harm also concluded that raising and implementing a minimum age of purchase for alcohol, and reducing the availability of alcohol through restrictions on the number and density of outlets and the days and hours of sale all reduce alcohol related harm. More specifically, some of the findings were that:

- There is evidence that if opening hours for the sale of alcohol are extended then more violent harm results;
- A review of 132 studies published between 1960 and 1999 found very strong evidence that changes in minimum drinking age laws can have substantial effects on youth drinking and alcohol-related harm (particularly road traffic accidents), often for well after young people reached the legal drinking age; and

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<sup>223</sup> Bannister, J Pickering J, Batchelor S, Burman M, Kintrea K, McVie S, 2010 *Troublesome Youth Groups, Gangs and Knife Carrying in Scotland* The Scottish Government

<sup>224</sup> Bannister, J Pickering J, Batchelor S, Burman M, Kintrea K, McVie S, 2010 *Troublesome Youth Groups, Gangs and Knife Carrying in Scotland* The Scottish Government. Also Tata, C. (2010). [Written Evidence to Scottish Parliamentary Justice Committee Criminal Justice and Licensing Bill Amendments](#). 16 March 2010.

<sup>225</sup> <http://www.scottish.parliament.uk/s3/bills/34-AlcoholEtc/b34s3-introd-pm.pdf>.

<sup>226</sup> Scottish Government (2009) Changing Scotland's Relationship with Alcohol: A Framework for Action. <http://www.scotland.gov.uk/Resource/0039/00395549.pdf>

<sup>227</sup> SCHARR, University of Sheffield (2009) Model-based appraisal of alcohol minimum pricing and off-licensed trade discount bans in Scotland. <http://www.scotland.gov.uk/Publications/2009/09/24131201>

<sup>228</sup> Anderson, P & Baumberg, B (2006) Alcohol in Europe: A Public Health Perspective – A report for the European Commission. Institute of Alcohol Studies. [http://ec.europa.eu/health-eu/news\\_alcoholineurope\\_en.htm](http://ec.europa.eu/health-eu/news_alcoholineurope_en.htm)

- Alcohol outlet density is, in general, positively associated with alcohol consumption and alcohol-related problems: the higher the density, the higher consumption and problems will likely be.

A World Health Organisation synthesis of the evidence on the effectiveness of interventions in alcohol control reaches the same conclusions<sup>229</sup> - “There is substantial evidence showing that an increase in alcohol prices reduces consumption and the level of alcohol-related problems...In addition, stricter controls on the availability of alcohol, especially via a minimum legal purchasing age, government monopoly of retail sales, restrictions on sales times and regulations of the number of distribution outlets are effective interventions. Given the broad reach of all these measures, and the relatively low expense of implementing them, they all are highly cost-effective.” It goes on to compare the effectiveness of these approaches to tackling alcohol misuse with approaches that focus on education and advertising and concludes “Various educational approaches have been developed to reduce alcohol consumption. Although they are growing in popularity, there is little evidence of their effectiveness. Similarly, current research findings only show limited effects both on advertising and advertising bans”.

An evaluation of the 2005 Licensing Act (which came into full force in 2009) was undertaken as part of the MESAS programme<sup>230</sup>. The evaluation identified examples of good practice among the license trade but also areas where enforcement measures could be improved. The report set out a series of recommendations for local and national partners.

## Diversionsary recreational opportunities

Another approach to restricting the ability of people to offend is to occupy their time constructively by providing recreational opportunities. Through programmes such as Cashback for Communities and Positive Futures, government has been investing in a range of positive recreational opportunities, focused principally on young people and taking a number of forms: spanning sports, physical activities, arts and culture. Recreational opportunities are thought to positively impact on offending levels by reducing boredom in young people and decreasing the amount of time available for unstructured and unsupervised leisure time. Evidence has shown that young people who spend more time ‘hanging out’ or who have ‘nothing to do’ are more likely to be involved in offending behaviour<sup>231</sup>. Other studies<sup>232</sup> have shown activities with low structure or little adult supervision to be a predictor of deviant behaviour.

<sup>229</sup> [http://www.euro.who.int/\\_data/assets/pdf\\_file/0020/74702/E82969.pdf](http://www.euro.who.int/_data/assets/pdf_file/0020/74702/E82969.pdf)

WHO Regional Office for Europe’s Health Evidence Network. *What are the most effective and cost-effective interventions in alcohol control?* World Health Organisation, Europe. Feb 2004.

<sup>230</sup> McGregor, A, Sharp, C, Mabelis, J, Corbett, J (2012) An evaluation of the implementation of and compliance with, the objectives of the licensing Scotland Act (2005)

[http://www.healthscotland.com/uploads/documents/19199-RE024FinalReportTestPurchasing\(Jul12\)0910FAM.pdf](http://www.healthscotland.com/uploads/documents/19199-RE024FinalReportTestPurchasing(Jul12)0910FAM.pdf)

<sup>231</sup> Flood-Page, C., Campbell, S., Harrington, V. and Miller, J. (2000) *Youth Crime: Findings from the 1998/99 Youth Lifestyles Survey, Home Office Research Study 209*, London: Home Office [online]. Available: <http://www.homeoffice.gov.uk/rds/pdfs/hors209.pdf> [1st October, 2010].

Audit Commission (2009) *Tired of hanging around: Using sport and leisure activities to prevent antisocial behaviour by young people*, London: Audit Commission.

<sup>232</sup> Robson, K. and Feinstein, L. (2007) *Leisure contexts in adolescence and their associations with adult outcomes: A more complete picture*, London: Centre for Research on the Wider Benefits of Learning.

Mahoney, J., Stattin, H. and Lord, H. (2004) ‘Unstructured Youth Recreation Centre participation and Anti-Social Behavior Development: Selection Influences and the Moderating Role of Anti-Social Peers’, *International Journal of Behavioural Development*, 28: 553-560.

Caldwell, L., & Darling, N. (1999) ‘Leisure context, parental control and resistance to peer pressure as predictors of adolescent partying and substance use’, *Journal of Leisure Research*, 31(1).

While there is some evidence to support the positive outcomes of recreational activities, the evidence is not entirely straightforward. In an evaluation of youth diversionary projects funded by Glasgow Housing Association (GHA), several benefits to communities were identified by residents and stakeholders, including: reductions in reports of crime and antisocial behaviour; reductions in fire-setting; less gang activity; and increased accessibility of parks and open spaces for residents to use. In addition, participants (young people) reported a healthier lifestyle and reductions in drinking alcohol, though findings on their involvement in crime and antisocial behaviour were mixed<sup>233</sup>. However, the research did not look at whether these benefits were sustained over time, or whether any identified reductions in crime and ASB were greater than in other areas where diversionary schemes were not operating. Smith and Waddington<sup>234</sup> and Crabbe<sup>235</sup> argue that it is unrealistic to assume that providing recreational opportunities will prevent young people from simultaneously committing crime. However, although there is a lack of systematic evidence of a *causal* relationship between participation in recreational activities and a reduction in offending, many large scale diversionary projects have demonstrated some success in reducing offending through the reduction of crime figures (i.e. Splash, Splash Extra, Positive Activities for Young People, Midnight Basketball). Overall though, it was not possible to account for the impact that other social processes and interventions may have had on crime rates. Indeed, several studies<sup>236</sup> have concluded that there is a lack of credible empirical evidence on the impact of recreational activities on offending due to the short term funding associated to projects, the complexity of defining and measuring outcomes and a lack of understanding about the varied causes of criminality. As demonstrated by Crabbe et al<sup>237</sup> in their evaluation of Positive Futures, recreational activities alone do not reduce offending. Rather, it is the personal and social outcomes that support such change that should be the focus of projects. It is suggested that recreational activities may be beneficial as they can successfully be used as a 'hook' upon which to layer a developmental approach which combines social support, positive role models and other protective factors.

## CONCLUSIONS

There is sufficient evidence to support situational crime prevention approaches. The evidence suggests that making even simple changes to the environment can be effective in reducing crime (for example, improving street lighting, introducing exact fare requirements on public transport, reducing overcrowding in public venues and using time-locked cash boxes). Not only can we expect these approaches to impact on acquisitive crime but efforts to reduce overcrowding in public venues and surrounding areas suggest that manipulating the characteristics of the environment can also impact on violent crime. The evidence also

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<sup>233</sup> Go Well Briefing Paper 9: Evaluation of GHA's Youth Diversionary Programme (2010):

[http://www.gowellonline.com/index.php?option=com\\_content&task=view&id=146&Itemid=227](http://www.gowellonline.com/index.php?option=com_content&task=view&id=146&Itemid=227)

<sup>234</sup> Smith, A. and Waddington, I. (2004) 'Using 'sport in the community schemes' to tackle crime and drug use among young people: some policy issues and problems', *European Physical Education Review*, 10(3).

<sup>235</sup> Crabbe, T. (2000) 'A Sporting Chance? Using Sport to Tackle Drug Use and Crime', *Drugs: Education, Prevention and Policy*, 7(4).

<sup>236</sup> Coalter, F. (1989) *Sport and Anti-Social Behaviour. A Literature Review*. Edinburgh: Scottish Sports Council; Robins, D. (1990) *Sport as prevention: The role of sport in crime prevention programmes aimed at young people*, Centre for Criminological Research, University of Oxford. Cited in Smith, A. and Waddington, I. (2004) 'Using 'sport in the community schemes' to tackle crime and drug use among young people: some policy issues and problems', *European Physical Education Review*, 10(3); Coalter F., Allison M and Taylor J. (2000) *The role of sport in regenerating deprived areas*, Edinburgh: The Scottish Executive; Long, J., Welch, M., Bramham, P., Butterfield, H. and Lloyd, E. (2002) *Count Me In*, London: Department for Culture Media and Sport; Ruiz, J. (2004) *A Literature Review of the Evidence Base for Culture, the Arts and Sport Policy*, Edinburgh: Scottish Executive.

<sup>237</sup> Crabbe, T. (2006a) *Knowing the score: Positive futures case study research: Final report*. Swindon: Crime Concern; Crabbe, T. (2006b) *Going the distance: Impact, journeys and distance travelled: Third interim positive futures case study research report*, Manchester: Substance.

suggests that concerns about the potential displacement effect are largely unfounded and that there is even evidence of a diffusion of benefits in some cases. Furthermore, the crime preventative potential (it seems) can be further enhanced where the intervention is accompanied by widespread publicity. Where this publicity can be disseminated to potential offenders it can impact on crime rates even before an intervention is implemented.

The potential that structural improvements might make to increasing community pride and collective efficacy should not be overlooked. This has been discussed elsewhere in this paper but it is useful to be reminded that situational crime prevention might affect changes in crime through a less direct route and that responding to community requests for intervention can have benefits that extend beyond those generated by, for example, the installation of a CCTV camera or an additional street light. The effect that situation crime prevention is likely to have on community cohesion should be a factor in the decision to invest in this type of intervention but we should also be mindful of concerns expressed in the literature about the potential negative impact of erecting physical barriers that segment communities rather than draw them together.

There is already an emphasis on 'designing out' crime through urban planning in the Secure by Design scheme and this has been shown to be effective. The findings from the evaluations of Secure by Design, street lighting and access and exit controls suggests that the evidence presented above has important implications for architects and planners (both urban and transport). The findings are therefore relevant to National Outcome 10 from the Scottish Government's National Performance Framework: *We live in well-designed and sustainable places where we are able to access the amenities and services we need.* Our definition of 'well-designed' should extend to seeking to minimise the opportunities for crime and there is clearly scope for joint working between justice and colleagues working to improve the built environment. There may also be a role for government to work with businesses to ensure that they are aware of measures that have been proven to help reduce crime and to help them to share good practice across organisations.

Other relevant approaches mentioned in this section of the model include restricting access to weapons and to drugs and alcohol. Given that by far the most common weapon used in Scotland is a knife, the relevant evidence has tended to focus on restricting access to these. Although it is difficult to differentiate between the impact of various strategies, broad strategies that focus on restricting access to knives and apply a range of approaches have been found to be associated with reductions in knife injuries. There is very strong evidence that regulating the availability of alcohol can reduce the harm caused. Policies that focus on increasing the price of alcohol, raising and implementing a minimum age of purchase, restricting the number and density of outlets and the restricting days and hours of sale have all been shown to be effective.

Finally, despite reviewing a broad range of material, it was not possible to find any documented robust evidence of a causal relationship between participation in diversionary recreational activities and a reduction in crime. This is largely because of the difficulty in controlling out the impact of other social processes and interventions to which participants are exposed. However, it has been suggested that although recreational activities alone may not reduce offending, they are beneficial in helping engage young people in positive activities which may lead to the provision of greater social support, positive role models and other protective factors. Overall however, the evidence strongly suggests that the key to having a sustained impact on crime is to address the underlying problems which drive young people to offend.

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