Children, risk and crime: the On Track Youth Lifestyles Surveys

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The On Track Programme

In 1998 the Home Office announced the Crime Reduction Programme. The programme was intended to develop and implement an integrated approach to reducing crime and making communities safer. On Track was established as part of the Crime Reduction Programme in 1999. In April 2001 the On Track programme was transferred from the Home Office to the Children and Young People’s Unit (CYPU) and incorporated into the Children’s Fund.

On Track is an evidence-based preventative programme targeted at 4-12 year olds and their families in 24 high deprivation, high crime areas within England and Wales. It aims to reduce children’s risk of offending and involvement in anti-social behaviour by targeting early interventions at the risk factors known to be associated with antisocial behaviour and crime. An integral part of the programme is its multi-tier evaluation, which draws on the findings of national and regional evaluation teams.

The On Track Youth Lifestyles Surveys

The On Track Youth Lifestyles Surveys were undertaken as part of the National Evaluation of On Track. The surveys collected self-report data around the four domains of: family, schools, community and individual/peer factors from over 30,000 primary and secondary school pupils who were likely to come from On Track areas.

The surveys allowed for the collection of baseline data about risk factors, protective factors and self-reported involvement in problem behaviours from children living in On Track areas. By undertaking repeat surveys, it will be possible to identify changes in the pattern of self reported problem behaviour, which will contribute to an assessment of the impact of the On Track programme. Whilst not nationally representative the findings will be of interest to policy makers and practitioners who have responsibility for developing and delivering interventions for children and young people who are most likely to offend.

Chris Kershaw
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We are indebted to all the schools involved in these surveys for their advice and support in respect of its implementation. In addition we are particularly grateful to those children who took part in the survey for their enthusiastic participation. Our thanks are also extended to the On Track co-ordinators for their work in facilitating the implementation of the survey. Finally, we would like to thank the staff from our own National Evaluation team who were involved in the design, implementation and analysis of the surveys and especially our statistical consultant Sarah Beinart who provided invaluable support in respect of our risk factor analysis.

On Track was originally established by the Home Office in 1999 as part of its Crime Reduction Programme (CRP). In April 2001 the On Track programme was transferred from the Home Office to the Children and Young People’s Unit (CYPU) and incorporated into the Children’s Fund. Until June 2002 the management of the evaluation remained with the Research, Development and Statistics Directorate of the Home Office. However, we would like to thank CYPU for its support and the contribution it has made to this publication.
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Executive summary

Introduction

The On Track Youth Lifestyles Surveys were undertaken as part of the National Evaluation of the On Track multiple intervention programme. This programme, targeted at 4 to 12 year olds and their families in 24 high deprivation/high crime areas within England and Wales, aims to reduce children’s risk of offending and involvement in anti-social behaviour as well as enhancing those pro-social factors that counteract the impact of risk. The surveys, collected self-report data from over 30,000 young people in 29 secondary, six middle and 95 primary schools in England and Wales relating to their experiences of family, schools, neighbourhoods, and friendship groups, together with details of their involvement in a range of problem behaviours. The age of respondent children in secondary schools ranged from ten to 16, with over 90 per cent being aged between 12 and 15. The ages of the primary school children ranged from seven to 11 with the majority being aged between nine and 11 (77%). All schools surveyed had pupils from neighbourhoods currently participating in the On Track programme. Therefore, the results are relevant for a section of the population living in areas with high levels of disadvantage and high levels of crime and are not representative of all schools in England and Wales.

The Secondary School Survey was based on a previously validated survey instrument used by the “Communities That Care” (CTC) project (2002). The Primary School Survey has been developed by the University of Sheffield team. Both surveys are constructed around a theoretical model of ‘risk and protection’ that is supported in the literature. A high level of validity and reliability was established for the 12 risk factors and six protective factors identified in the On Track analysis.

The findings of the On Track Youth Lifestyles Surveys support the overall objectives of the On Track Programme, whilst at the same time raising important questions about the relationship between context and risk. The evidence presented in this report has provided further validation for the hypothesis that risk factors are significantly related to problem behaviour and that multiple interventions with young people and their families are likely to impact positively in reducing risk and the likelihood of offending.
Problem behaviour

From the responses to the Secondary School Survey, nine main types of problem behaviour were identified. These fell into two broad categories: (a) substance use, which includes use of alcohol, tobacco, and drugs; (b) anti-social and offending behaviour, which includes stealing, receiving stolen property, attacking someone, carrying a knife to school, and vandalism. In addition to these eight, a ninth problem behaviour was indicated by young people’s self reports of truancy. However, exclusion from school was not identified in this analysis as a problem behaviour because, unlike truancy, it represents an action taken toward the child rather than behaviour of the child in its own right.

Substance use

- Alcohol use was common amongst all groups (61% overall) except children of Pakistani background (3%).
- Smoking was more common among girls (19%) than boys (12%).
- Drug use was significantly higher among older children (24% of year 10/11) and children of Mixed Black/White background (21%).

Anti-social and offending behaviours

- Self reports of stealing in the last 12 months dramatically increased with age (19% in year seven compared with 34% in year 10/11). Thirty-nine per cent of the Mixed Black/White group reported stealing in the last 12 months compared to twelve per cent of the Asian group. The percentage of ‘looked after’ children (42%) reporting stealing was nearly double that reported by those living with two birth parents (23%). There was only a small difference in the proportion of boys (29%) reporting stealing compared with girls (25%).
- Self reports pointed to less likelihood of receiving stolen property than stealing which may indicate lesser involvement in more generalised criminal activity.

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1 The ethnicity groupings used in the Secondary School Survey were taken from the 2001 Census.
- Fourteen per cent of this sample reported attacking someone with the intention of hurting them in the last 12 months. Boys (19%) were more than twice as likely as girls (8%) to say that they had attacked someone in the last 12 months. Reports of attacking someone increased with age. There were also differences between ethnic groups: e.g. ten per cent and 13 per cent of Indian and Pakistani children respectively reported an attack on another person compared to 18 per cent of Bangladeshi children. A high proportion of ‘looked after’ children reported attacking someone (21%).

- There were considerable differences between boys’ (15%) and girls’ (4%) self reports of carrying a knife. The percentage of children carrying a knife to school almost doubles between year seven (6%) and year ten/eleven (12%). A much higher proportion of ‘looked after’ children (21%) reported carrying a knife to school than children in other family types.

- Girls (32%) were as likely to commit acts of vandalism as boys (33%). Vandalism increased considerably with age (from 20% of children in year seven to 40% in year 10/11). Forty per cent of the Mixed Black/White group reported having vandalised property, double that reported by the Asian group.

**Exclusion from school and truancy**

Boys (17%) were twice as likely as girls (8%) to have been excluded from secondary school during the last 12 months. This difference was even more pronounced at primary school (boys 12%, girls 1%). Differences in school exclusion by ethnicity were also pronounced with nearly double the proportion of Black (20%) and Mixed Black/White (20%) compared to White children (12%) reporting exclusion from secondary school. Within the White group, White Irish reported the highest level overall for the different ethnic groups (26%). There were also very high reports by ‘looked after’ children (32%) of exclusion from their secondary schools.

Although some overlap between truancy and school exclusion certainly exists, reports of truancy overwhelmingly exceeded reports of school exclusion, suggesting that only a small proportion of truants are displaying behaviour serious enough to lead to their exclusion from school. There was very little difference between secondary school girls (16%) and boys (18%) reporting truancy during the last four weeks, although differences between girls (4%) and boys (12%) were much more marked at primary school. At
secondary school a much higher proportion of children from the Mixed Black/White group (23%) had truanted in the last four weeks than children from other ethnic groups. Although only 13 per cent of the Asian group reported truanting, within this group truancy among Bangladeshi children reached 22 per cent. These figures are likely to be underestimates as a proportion of truants and excluded children will not have been in school at the time of this survey.

**The extent of problem behaviour**

To identify the extent of young people’s involvement in problem behaviour combinations of nine problem behaviours were considered: alcohol use, smoking, substance abuse, stealing, receiving stolen property, attacking somebody, carrying a knife, vandalism and truancy from school.

Eighty-one per cent of secondary school children reported involvement in three or fewer problem behaviours. However, higher proportions of children of Mixed Black/White and White background reported combinations of four or more problem behaviours than did children from other ethnicities. Age was a key factor in the level of problem behaviour with those reporting between four and nine problem behaviours increasing from ten per cent in year seven to 30 per cent in year ten/eleven.

**Problem behaviour and offending**

A general measure of offending (based on responses to the questions on stealing, receiving stolen property, attacking someone, carrying a knife to school and vandalism) together with sub-measures of property crime, attacking someone and vandalism were constructed from responses to the questionnaire. Responses on these measures were compared with self reports of being found guilty of a crime.

Overall, 52 per cent of secondary school children reported involvement in offending. There was little difference between boys and girls, with 55 per cent of boys and 49 per cent of girls admitting they had committed an offence in the last twelve months. The most frequent types of self-reported offending were vandalism (32%) and stealing (27%). Gender distributions for vandalism were almost identical and fairly similar for stealing. Boys (26%) were more likely to admit to receiving stolen property than girls (16%). Boys were more likely to commit the less commonly reported types of crime. Thus, 19 per cent of boys had
attacked someone in the last 12 months compared with eight per cent of girls and 15 per cent of boys had carried a knife to school in the last 12 months but only four per cent of girls had done the same. Similarly, boys (17%) were twice as likely to have been found guilty of a crime or formally cautioned than girls (8%).

**Bullying and victimisation**

A victimisation risk factor was constructed based upon: a) responses to five survey questions on being a victim of bullying (Arora and Thompson, 1987); and, b) four different questions which asked about having been a victim of crime in the previous 12 months.

Thirteen per cent of secondary school pupils reported being bullied in the last week. Of those who had been bullied, 34 per cent were girls and 66 per cent boys (9% of all girls and 17% of all boys). However, bullying in the secondary schools decreased from 17 per cent of year seven pupils to nine per cent of year ten/eleven pupils.

Some groups of children were much more likely to experience bullying than other groups. For instance, Black children (18%), ‘looked after’ children (30%), children who had been excluded from school (21%) and victims of crime (19%) were all far more likely to report bullying compared with the 13 per cent overall level.

Children reporting problem behaviour were also more likely to report being bullied than those who reported no behaviour problems. Those who reported truancy (19%), stealing (17%), receiving stolen goods (19%) and substance misuse (19%) all reported higher levels of being bullied than the 13 per cent overall figure. Twenty-four per cent of children who admitted attacking someone reported being victims of bullying, as did 26 per cent of children who admitted carrying a knife in the last twelve months.

Reports of being a victim of crime by boys and girls show very little difference between them. As with bullying the likelihood of being a victim of crime decreases as children progress through school: from 64 per cent of year seven children to 56 per cent of year ten/eleven pupils. Some ethnic groups are much more likely to experience being a victim of crime than others are. For instance, 61 per cent of Mixed Black/White background children reported being victims of a crime during the last 12 months compared with 47 per cent of Pakistani children.
Levels of risk protection

The Secondary School Survey was designed to explore the risk and protective factors that impact upon the behaviour of young people, making them more or less likely to be involved in offending behaviour. There is little consensus about the range and relative importance of risk and protective factors, nor about how they should be measured or assessed. However, the most rigorously tested approach to measuring risk and protection in both the UK and the US is the Communities that Care model and this made it a natural choice to use as the basis for the On Track Youth Lifestyles Survey in secondary schools. Modifications made to the questionnaire and subsequent statistical testing of the reliability and validity of the risk and protective factors resulted in the identification of 12 risk and six protective factors. Risk and protection were calculated as ‘high’ ‘moderate’ or ‘low’ depending on the distribution of responses on those questions comprising the relevant risk or protective factor. In general, all negative scores indicated ‘no risk’; moderate risk was indicated by less than half of the items in each risk factor being scored; high risk was indicated by more than half of the items being scored positive.² Risk and protective factors are usually discussed within a framework of ‘domains’ that reflect the four main areas of children’s experience: family, school, community, and individual/peers. This framework is used to describe responses from the secondary school pupils.

Family domain

Levels of family protection factors are generally high. However, the highest levels of risk within the family relate to family conflict, where 25 per cent of all secondary school pupils were assessed as high risk. Family conflict also shows the biggest difference between boys (23%) and girls (28%). For both boys and girls, parental supervision and discipline becomes more relaxed over the school years as parents are reported to be more accepting of problem behaviour. Family attachment also decreases with school years, as does positive relationship with parents.

There are important differences in levels of risk between ethnic groups: levels of risk on parental supervision are highest for children of Black Other ethnicity (18% high risk) and Mixed White/Black Caribbean (16% high risk), and lowest for children of Pakistani (4% high risk) and Black African (9% high risk).

² See Appendix 3 for a detailed description of how this rating scale was derived.
School domain

Over half the secondary school children surveyed (58%) presented some risk on lack of commitment to school. Boys (20% high risk) demonstrate less commitment to school (and therefore more risk) than girls (15% high risk). Commitment to school decreases with age: 13 per cent of year seven pupils present high risk on this factor rising to 20 per cent in year ten/eleven. Black African children report lowest levels of risk on school commitment (6% with high risk) followed by Pakistani children (8% high risk). Highest risks are present among children of Black Other (21%), White Irish (20%) and White (19%) ethnicity.

Levels of protection on all three protection factors were relatively high, at between 62 per cent and 76 per cent of children having high protection. Pupils reporting positive feelings about school decrease from 72 per cent high positive in year seven to 58 per cent high positive in year ten/eleven. Reports of school expectations of behaviour fall from 84 per cent high protection in year seven to 70 per cent in year ten/eleven. The decrease in all school protective factors over the school years is striking and worthy of closer investigation by schools.

Community domain

Most secondary school children are quite positive about their neighbourhoods, with just 18 per cent being assessed as high risk on neighbourhood attachment. Boys and girls reported similar levels of risk and protection. Half of the children indicated some community disorganisation and neglect, with 27 per cent reporting high risk. Three-quarters of the children reported that drugs were moderately or easily available, with 30 per cent at high risk on the availability of drugs. Risk on availability of drugs increases over the school years from 13 per cent high risk in year seven to 52 per cent high risk in year ten/eleven, by which age few children (9%) display no risk. Mixed White/Black Caribbean children present highest levels of risk on availability of drugs (44% high risk) followed by White/Black African (38%) and Black Caribbean (37%).

Individual/peer domain

A high proportion of respondents in secondary school (76%) reported having friends who are involved in problem behaviour, 38 per cent at the high risk level. Sixty-six per cent of respondents indicated that they held conflictual attitudes towards others, with 14 per cent at the level of high risk.
The majority of children (58%) present some attitudes condoning problem behaviour, 21 per cent at the level of high risk. There is no difference between boys and girls on attitudes condoning problem behaviour. Children become more accepting of problem behaviour as they get older: 41 per cent have moderate or high risk in year seven rising to 74 per cent in year ten/eleven.

Risk, protection and offending behaviours

Logistic regression techniques were used to measure which factors were having the most impact on problem behaviours. The relative contribution of each variable is presented in the form of Odds Ratios. The detailed analysis of the contribution of risk and protection factors to different types of offending reveals that offending is not a homogenous activity. Protective factors have not emerged from the analysis as making a significant contribution to less offending: their development and measurement is still very much in its infancy, and it may be that the operationalisation of these concepts in this survey, or the cut off points used in this analysis need to be reviewed. The analysis has confirmed the importance of risk factors, highlighting that different risk factors come into play for different types of offending. The key results that can inform a preventive strategy are:

- The most commonly reported types of offending by secondary school pupils in this survey are vandalism, stealing, and receiving stolen property admitted by 32 per cent, 27 per cent and 21 per cent of respondents respectively. The biggest contributory factors to all of these offences are (i) high risk on friends’ involvement in problem behaviour and (ii) high risk on holding conflictual attitudes. High risk on these factors at least doubles and sometimes quadruples the odds of being involved in those common offences. Both of these risk factors need further study to understand the mechanisms via which they link to offending by large numbers of children.

- Although risk factors in the family domain do feature in the logistic regression models as contributing to the likelihood of children offending, their contribution is generally lower than the risk factors in other domains, suggesting that the risk domains of community and particularly individual/peer are more important for addressing criminality amongst secondary school pupils.

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3 A change in odds should not be interpreted as a change in the relative risk. See Appendix 4.
- Very few children who admit some kind of offending do not also have friends who offend. There is thus a very strong social component to much offending by children that is often not recognised in traditional crime prevention and reduction programmes and the answer may be to work with friendship groups rather than individuals.

- Community disorganisation and neglect had the third highest overall levels of risk (27% assessed as high risk) and makes a contribution to several types of offending independently of other community risk factors. This factor is not part of the remit for preventive programmes such as On Track, which focus on work with individual children and families. This finding supports arguments for the remit of such programmes to be extended to include the fabric of the neighbourhoods.

- Offending related to motor vehicles is an activity that particularly appeals to boys, and although admitted by less than 10 per cent of respondents, being a boy is the most important contributory factor to theft of a car and theft from a car. Being male is also a contributory factor in attacking someone, admitted by 14 per cent of respondents, where it more than doubles the odds. There is an even more significant contribution to carrying a knife to school, an activity reported by just ten per cent of respondents and where boys had odds of almost five times the girls of admitting this. These are areas where gender specific work with boys may be useful.
The On Track Youth Lifestyles Surveys

The On Track Youth Lifestyles Surveys were commissioned by the Home Office as part of the National Evaluation of the On Track programme. The latter is a multiple intervention initiative targeted at 4 to 12 year olds and their families in 24 high deprivation/high crime areas within England and Wales and aimed at reducing the risk of offending and anti-social behaviour and the enhancement of pro-social protective factors.

Surveys of primary and secondary school pupils from the On Track areas were included in the design of the evaluation for two reasons. First, an initial survey would collect baseline data about risk factors, protective factors and self-reported involvement in problem behaviours from children living in the On Track areas. Second, by undertaking repeat surveys, it will be possible to identify changes in the pattern of self-reported problem behaviour, thus contributing to an assessment of the impact of the multi-intervention strategies taking place in On Track areas.

The On Track surveys have obtained self report data from over 30,000 young people in both primary and secondary schools relating to their experiences of family, schools, neighbourhoods, and friendship groups, together with details of their involvement in problem behaviours ranging from truancy to crime to drug and alcohol use. The age of respondent children in secondary schools ranged from ten to sixteen, with over 90 per cent being aged between 12 and 15. The ages of the primary school children ranged from seven to eleven with the majority being aged between nine and eleven (77%).

The growing literature on ‘risk and protective factors’ suggests that these factors are highly significant in influencing the life course trajectories of young people in relation to anti-social and/or offending behaviour. The On Track surveys have collected extensive data on risk and protective factors which has also allowed us to look at the kind of risks as well as the nature of protective factors experienced by young people in their daily lives and how these operate and combine to influence offending and non-offending pathways.

The construction of these surveys has drawn upon a model of risk and protection initially developed by the Communities That Care (CTC) programme in the United States and later adapted by the Communities That Care UK initiative funded by the Joseph Rowntree
Foundation. The On Track surveys build upon this important work but have also made adaptations to the original Secondary School Survey as well as designing an entirely new Primary School Survey (see Chapter 2).

The use of self-report techniques with young people in survey work has a well-established history. A number of recent surveys with young people have included these methods. As well as the Communities that Care (2002) Youth at Risk? survey, other surveys of this kind have included The Youth Justice Board’s ‘Youth Survey’ (2001) and the Edinburgh Study of Youth Transitions and Crime (Smith et al. 2001). As with these surveys, extensive validation and quality assurance procedures have been undertaken to ensure, as far as is possible, the integrity of the data collected.

The On Track surveys are unique in that they have not collected data from a nationally representative sample but have focused instead upon young people aged between seven and sixteen growing up in some of the most deprived parts of the country.

**Structure of the report**

Chapter 2 of this report outlines the methodology of the On Track Youth Lifestyle Surveys in the context of the broader goals of the On Track National Evaluation, and introduces the sample of young people completing the surveys. In Chapter 3 the report explores young people’s self reports of problem behaviour and includes an analysis of offending. Chapter 4 describes findings in respect of young people’s experiences of being the victims of bullying and crime. Chapter 5 presents data on the levels of risk and protection among children taking part in the survey and Chapter 6 considers the relationship between ‘risk’, ‘protection’ and offending. Finally, Chapter 7 draws together conclusions from the survey findings.
2. The School Survey Methodology

Aims of the surveys

The On Track Youth Lifestyles Surveys had three aims:

- to access children’s self reports of problem behaviour;

- to measure levels of risk and protection within the sample population; and

- to provide a base-line for comparison with repeat surveys of the On Track school population.

Design and implementation

The surveys were designed to access children living in the 24 On Track areas of England and Wales. Primary schools were selected which were located in these areas of the country, whilst secondary schools (some of which lay outside On Track areas) were selected on the basis that a significant number of pupils from On Track areas were attending these schools.

The Secondary School Survey

The Secondary School Survey was based on a previously validated survey instrument used in the "Communities That Care" project (CTC, 2002). The CTC UK survey is itself based upon a survey developed in the United States (Hawkins et al. 1992). Our own study amended the original CTC survey to focus upon offending behaviour and risk factors with reference to school age children living in deprived high crime communities in Britain. In both the Secondary and Primary School Surveys questions about bullying in school were included and these were taken from the ‘Life in School’ checklist (Arora, 1992).

The Primary School Survey

The Primary School Survey has been developed by the University of Sheffield and is based upon the same theoretical model as the Secondary School Survey. Development work was undertaken in the field followed by detailed piloting of the survey prior to implementation of
the main survey. The design team was also concerned to ensure good ethical practice in its work with children and the pilot study included procedures to monitor both consent and the appropriateness of questions for the age group involved. In addition, the suitability of the questionnaire for children with English as an additional language and for those with special educational needs was monitored to inform our arrangements for translations of the questionnaire and classroom support.

**Response rates**
The surveys took place between May and July 2001 and Quality Assurance procedures were adopted to monitor the implementation of both the Secondary and Primary School Surveys (Appendix 1). Response rates were excellent, both in terms of the number of schools who agreed to the request to conduct the survey, and in terms of the number of pupils within the schools who completed the questionnaire (Table 2.1) There is no reason to believe that the respondents did not reasonably represent On Track children.

<table>
<thead>
<tr>
<th>School response rate</th>
<th></th>
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</thead>
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<tr>
<td>Secondary schools (74%)</td>
<td>29 schools out of 39</td>
</tr>
<tr>
<td>Middle schools (100%)</td>
<td>6 schools out of 6</td>
</tr>
<tr>
<td>Primary schools (79%)</td>
<td>95 schools out of 120</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valid responses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary pupils</td>
<td>18,184</td>
</tr>
<tr>
<td>Primary pupils</td>
<td>13,365</td>
</tr>
</tbody>
</table>

Participation within schools for the Secondary Survey ranged from 72 per cent to 91 per cent, with an overall rate of 83 per cent of all the possible pupils completing the survey. Participation within schools for the Primary Survey ranged from 43 per cent to 97 per cent, with an overall response rate of 83 per cent of possible pupils completing the survey. Seventy-three of the 95 primary schools (77%) included years three and four in the survey and one school included year four but not year three. Missing responses in respect of individual questions were generally very low. There is no evidence from our validation procedures to suggest that schools with lower participation rates had different characteristics from those with higher participation rates, nor that lower participation rates affected the representativeness of the sample within these schools.
Characteristics of the secondary and primary school samples

Sample selection
All schools surveyed had pupils from neighbourhoods currently participating in the On Track government initiative for the reduction of problem behaviour among children. Important criteria for neighbourhood participation in the On Track initiative were high levels of disadvantage and high levels of crime. Therefore, the results are relevant for a specific section of the population and are not representative of all schools in England and Wales. For this reason the results of the survey, unlike the CTC (2002) ‘Youth at Risk?’ survey, or the Youth Justice Board ‘Youth Survey 2001’, (MORI, 2001; 2002) cannot be generalised as a national cohort study. On the other hand, comparisons between the findings of these national cohort studies and the On Track surveys are particularly interesting because they highlight differences between the national picture and that pertaining to some of the most deprived parts of England and Wales.

Age and gender
The age of respondent secondary school children ranged from eleven to sixteen. However, the majority were aged between eleven and fifteen. The inclusion of year eleven pupils in the survey was optional for the secondary schools taking part because of the exam period, and none included the full year. In light of the small numbers of year eleven pupils involved in the survey these are combined for the purposes of our analysis with year ten. No significant variations between responses by year ten and year eleven pupils were identified. Similar age distributions were found between boys and girls.

The ages of the primary school children ranged from seven to eleven, with the majority being aged between nine and eleven (77%). Again, there were very similar age distributions in the primary school sample of boys and girls. The participating primary schools were required to include all of their years five and six pupils, but chose whether or not to include years three and four.

In this report we have used school year rather than age as a more useful analysing variable. Figure 2.1 shows the distribution of our secondary and primary school samples across school years by gender. As there were only a few year eleven children who responded to the survey, year eleven was combined with year ten for analysis
Table 2.2 shows that most (73%) secondary school children describe themselves as White, either White UK/European or White Irish. This percentage is smaller than reported in other, similar studies. In the Youth Survey 2001 there were 89 per cent White, whereas Youth at Risk? had 89 per cent White, and Youth Transitions and Crime had 94 per cent. The On Track Survey was carried out in areas of high deprivation, which may account for a higher proportion of other ethnic groups. Similarly, most (64%) primary school children describe themselves as White. In both cases the next largest ethnic groups were Black Caribbean/African/Other and Pakistani. Gender distributions across all ethnicities in both surveys were broadly similar.

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5 The ethnicity groupings used in the Secondary School Survey were taken from the 2001 Census.
Table 2.2: Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Secondary</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
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</tr>
<tr>
<td>White (UK or European)</td>
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<td>Mixed (White + Black African)</td>
<td>0.5</td>
<td>86</td>
</tr>
<tr>
<td>Mixed (White + Asian)</td>
<td>1</td>
<td>180</td>
</tr>
<tr>
<td>Missing or other</td>
<td>6</td>
<td>1,042</td>
</tr>
<tr>
<td>Total</td>
<td>18,184</td>
<td>13,365</td>
</tr>
</tbody>
</table>

* Any other Black background

**Family structure**

Secondary and primary school children were asked about the people they lived with. The family structures of primary school children responding to this question were very similar to those of the secondary sample (Figure 2.2). Seventy-five per cent of secondary school respondents and 74 per cent primary school respondents lived in a two parent family, composed of either both parents or parent and a stepparent/partner (compared with 73% reported in the Youth at Risk? study and 74% reported in Social Trends 32 – Office of National Statistics, 2002). Just over one fifth of the secondary school sample and also 21 per cent of the primary school sample lived with a lone parent. Whilst this is higher than the figure of 15 per cent reported in the Youth at Risk? study it is less than the 26 per cent of families with dependent children in Great Britain that were headed by a lone parent reported in Social Trends 32. The remaining family structures identified were: child living with a relative (grandparent, aunt/uncle – secondary n=141); child spending time between two households (parents separated – secondary n=339); and, ‘looked after’ children (foster parents/care home – secondary n=149). It is important to raise a note of caution regarding both primary and secondary school children’s reports on those people living with them in their household. Our piloting work did reveal some confusion around
this question and this was confirmed in a small number of cases by the returned surveys as well. Our reported figures probably underestimate the number of children in some family types, e.g. ‘looked after’ children.

**Figure 2.2: Family structure**

<table>
<thead>
<tr>
<th></th>
<th>Secondary</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looked-after children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 parent family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living in 2 households</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 parent family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living with relatives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Children, risk and crime: the On Track Youth Lifestyles Surveys
3. Young people’s self reports of problem behaviour

Introduction

From the responses to the Secondary School Survey, nine main types of problem behaviour were identified (a brief explanation is given in Appendix 2). These fell into two broad categories. The first category is constituted by behaviours that may be defined as substance use and are characterised in particular by the effects of the behaviour upon the child himself or herself. These behaviours include use of alcohol, tobacco, and drugs. A second category of problem behaviours is characterised by more general anti-social impacts and includes stealing, receiving stolen property, attacking someone, carrying a knife to school, and vandalism. In addition, we have looked at young people’s self reports of truancy and exclusion from school. Although truancy may be seen as problem behaviour we have argued that exclusion from school is more questionable because it represents an action taken toward the child rather than behaviour of the child in its own right.

Following this initial analysis we grouped the above nine problem behaviours together (with the exception of exclusion from school) to consider the extent of problem behaviour within our secondary school sample.

Finally, we constructed a general measure of offending (based on responses to the questions on stealing, receiving stolen property, attacking someone, carrying a knife to school and vandalism) together with sub-measures of property crime, attacking someone and vandalism (see Appendix 2). Responses on these measures were compared with self reports of being found guilty of a crime. The behaviours themselves were not weighted and it may reasonably be argued that some of these behaviours are more serious than others. However, the degree of seriousness within each type of problem behaviour will vary and the significance attached by children to the behaviours may also be affected by the extent to which they assume responsibility for their actions. Therefore, we have tried to avoid making a value judgement in respect of this question, focusing instead upon the prevalence of a selection of behaviours and the extent to which young people report combinations of these behaviours.
Substance Use

This section looks at the distribution of substance use (alcohol, smoking and drugs) across our secondary school sample (Table 3.1).

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Alcohol</td>
<td>4,437</td>
<td>60%</td>
<td>4,768</td>
</tr>
<tr>
<td>Smoking</td>
<td>968</td>
<td>12%</td>
<td>1,599</td>
</tr>
<tr>
<td>Drugs</td>
<td>938</td>
<td>14%</td>
<td>824</td>
</tr>
</tbody>
</table>

**Alcohol**

A large proportion of pupils reported drinking alcohol in the last four weeks (61%). Within group differences were interesting. For instance, only a marginal difference was found between boys (60%) and girls (61%) which suggests that if there were ever boundaries between boys and girls in respect of alcohol use they are now breaking down. By contrast, very large differences were found for alcohol use by different ethnic groups. Thus 69 per cent of Whites reported drinking alcohol within the previous four weeks. Asian children by contrast were far less likely to have drunk alcohol (15%) with the Black group (41%) falling in between. Differences within the Asian group were also noteworthy. For instance, 32 per cent of Indians but only three per cent of Pakistani respondents reported that they had drunk alcohol in the previous four weeks. As one might expect, there were important age differences, with 75 per cent of year ten/eleven children reporting drinking alcohol in the previous four weeks, compared to 47 per cent of year seven children.

**Smoking**

Levels of smoking were far lower than those reported for drinking alcohol. Many more girls (19%) than boys (12%) reported smoking. This was the only problem behaviour where girls reported much higher levels than boys. Only seven per cent of children in the first year of secondary school reported that they smoked. This figure increased dramatically to 20 per cent by year nine and was still rising by year ten/eleven (24%). As with other problem behaviours, there were significant sub-group differences. Thus, although the Asian group tended to report much lower levels of smoking than their peers, Bangladeshi children were more likely to report that they smoked (14%) compared to children of Indian background (6%).
**Drug use**
There was very little difference between boys (14%) and girls (12%) in respect of reported drug use, which in itself is interesting. There were very large differences, however in drug use by age, although even at the start of secondary school six per cent of children were reporting that they had taken drugs during the previous four weeks. By year ten/eleven the figure reporting current drug use had risen to 24 per cent.

When broken down by ethnicity much more significant differences were found with 21 per cent of the mixed Black/White group reporting drug use compared to only 3 per cent of the Black African group.

**Anti-social and offending behaviours**

This section identifies the frequency of self reports of various anti-social and offending behaviours (stealing, receiving, violence (attacking someone), carrying a knife and vandalism) (Table 3.2).

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th></th>
<th>Girls</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Stealing</td>
<td>2,330</td>
<td>29%</td>
<td>1,981</td>
<td>25%</td>
<td>4,311</td>
<td>27%</td>
</tr>
<tr>
<td>Receiving</td>
<td>2,048</td>
<td>26%</td>
<td>1,396</td>
<td>16%</td>
<td>3,444</td>
<td>21%</td>
</tr>
<tr>
<td>Attacked someone</td>
<td>1,537</td>
<td>19%</td>
<td>716</td>
<td>8%</td>
<td>2,253</td>
<td>14%</td>
</tr>
<tr>
<td>Carried a knife</td>
<td>1,199</td>
<td>15%</td>
<td>361</td>
<td>4%</td>
<td>1,560</td>
<td>10%</td>
</tr>
<tr>
<td>Vandalised property</td>
<td>2,646</td>
<td>33%</td>
<td>2,680</td>
<td>32%</td>
<td>5,326</td>
<td>32%</td>
</tr>
<tr>
<td>Official caution, warning or court conviction</td>
<td>1,365</td>
<td>17%</td>
<td>647</td>
<td>8%</td>
<td>2,012</td>
<td>12%</td>
</tr>
</tbody>
</table>

**Stealing**
A higher proportion of secondary school boys (29%) than girls (25%) reported that in the last 12 months they had stolen or tried to steal something. As with other offending behaviours there was a pronounced trend towards increased involvement with age. When asked about stealing, 19 per cent of year seven children said that they had stolen or tried to steal something of value. This figure rose to 34 per cent for year ten/eleven children.
months compared to 12 per cent of the Asian group. Further breakdown of the latter group however, reveals that only nine per cent of children of Pakistani background report stealing. The percentage of ‘looked after’ children (42%) reporting stealing was nearly double that reported by those living with two birth parents (23%).

Receiving
Very similar patterns were reported for receiving stolen property as for stealing, although in all cases children’s self reports pointed to less likelihood of receiving than stealing which may indicate lesser involvement in more generalised criminal activity. The only exception was the Asian group who reported two percentage points more receiving than stealing.

Attacked someone
Perhaps not surprisingly boys were more than twice as likely as girls to say that they had attacked someone in the last 12 months with the intention of seriously hurting them. There were also notable differences between ethnic groups in this respect with those belonging to the Mixed Black/White group (20%) being most likely to have attacked someone and those belonging to the Asian group least likely (12%). However, within that group differences did occur with ten per cent and 13 per cent of Indian and Pakistani children respectively reporting an attack on another person compared to 18 per cent of Bangladeshi children. Overall, the self reports indicated an increase in violence (attacking someone) with age. A higher proportion of ‘looked after’ children reported attacking someone (21% compared with 12% for the lowest group – those living with two birth parents).

Carried a knife to school
As with physical attacks, there were considerable differences between boy’s (15%) and girl’s (4%) self reports of carrying a knife as well as a similar trend in terms of age. The percentage of children carrying a knife to school almost doubles between year seven (6%) and year ten/eleven (12%). It would appear that as children get older the potential for violent conflict increases. Differences between ethnic groups were not particularly marked. More ‘looked after’ children (21%) reported carrying a knife to school than children in other family types (only 7% of children living with two birth parents reported this).
Vandalism

Self reports revealed that girls (32%) were as likely to commit acts of vandalism as boys (33%). However, striking differences did appear in respect of age and ethnicity. One in five year seven pupils admitted to having vandalised property. By year ten/eleven this had increased to four out of every ten children. Forty per cent of the Mixed Black/White group reported having vandalised property; double that reported by the Asian group. Interestingly, however, this is one problem behaviour where little difference is found within the Asian group.

Truancy and exclusion from school

Truancy and exclusion from school are both aspects of a child’s experience around which there has been increasing concern among policy makers and in the media. That there is a relationship between problems in school and later offending is something that is clearly recognised in the criminological literature (Berridge et al. 2001; Flood-Page et al. (2000); Graham, 1988; Graham and Bowling, 1995), yet there remains uncertainty about the precise nature of these relationships. Berridge et al. (2001) found that of their sample of 263 young people excluded from school 178 had committed crimes at some time in their life but of these 104 were permanently excluded prior to committing their first offence. However, in assessing the relationship between exclusion from school and future offending it is important to exercise caution. Exclusion from school, unlike truancy, is not itself a behaviour of the child but rather a response by the school to what it perceives as problem behaviour and therefore it may be misleading to draw conclusions about the relationship between exclusion and offending without at the same time considering the role and the actions of the school. Research in this area needs to focus upon comparison between children excluded from different schools with similar catchment areas.

It should be recognised that the figures for truancy and school exclusion that follow are likely to be underestimates in so far as a proportion of truants and children excluded from school will not have been in school at the time of this survey. However, our follow up work in schools suggests that we did access a very large proportion of those on the roll of each school at the time of the survey (see Chapter 2).
Children’s self reports indicated that boys (17%) are twice as likely to have been excluded from secondary school than girls (8%) during the previous twelve months. Figure 3.1 shows that within each secondary school year boys are approximately twice as likely as girls to have been excluded.

**Figure 3.1: Excluded permanently/temporarily in the last 12 months – secondary school children**

In primary school four per cent of year three pupils had been sent home for being naughty, rising to ten per cent of year six pupils. The gender imbalance at primary school was even more striking with 12 per cent of boys and only one per cent of girls saying they had been sent home from school for being naughty. These proportions are very similar in each year of primary school (Figure 3.2).

---

6 The question did not ask children to specify either ‘fixed term’ or ‘permanent’ exclusion. However, it is most likely that the great majority of those indicating exclusion from school are referring to ‘fixed term’. The evidence from previous studies suggests that only a small proportion of permanently excluded children are transferred into an alternative mainstream school. The educational needs of most permanently excluded children are catered for in Pupil Referral Units and other forms of alternative provision (Parsons, 1999).
Around 81 per cent of permanent exclusions in 2001/2002 were of pupils attending secondary schools, compared with 15 per cent occurring in primary schools (the remainder being excluded from special schools). This represents around 24 in every 10,000 secondary school pupils and three in every 10,000 primary school pupils. An estimated 82 per cent of permanent exclusions in 2001/2002 were of boys (DfES 2003).

Nationally, fixed term exclusions have been estimated to be about eight times more numerous than permanent exclusions (Parsons, 1999). This suggests that the number of exclusions being reported by children in On Track areas is significantly higher than the national average. This is clearly a matter of concern but this unusual distribution is consistent with existing evidence on the distribution of exclusions. For instance, Parsons (1999) has drawn attention to the significant variation in rates of school exclusion between different local education authorities (LEAs) such that they are ten times higher in some LEAs than in others. In 1995/96 the permanent exclusion rate for Inner London authorities at secondary level was equivalent to one in every 130 pupils. Parsons has also shown how, in addition to school effectiveness variables, the impact of social factors, particularly the number of Black households, home ownership and unemployment, play a considerable role in the determination of exclusion rates in schools and LEAs.

A disproportionately large number of Black children in our sample reported exclusion from secondary school compared to White children. Nearly double the proportion of Black (20%) and mixed Black/White (20%) children compared to White (12%) reported exclusion. Figures from the Department for Education and Skills (DfES) show that nationally 41 in every 10,000 Black Caribbean children were excluded from school in 2001/2002 compared with an overall average of 24 in every 10,000.
When we extracted the White Irish group from the larger White group we found that 26 per cent of the former reported having been excluded from secondary school. By far the greatest rate of exclusion from secondary school (32%) however, was reported by ‘looked after’ children.

Secondary school boys (18%) were only slightly more likely than girls (16%) to have played truant within the four-week period prior to the survey. The difference between boys and girls was much more marked at primary school where 12 per cent of boys had ‘taken time off school without the teacher or another adult knowing’ whereas only four per cent of girls said the same. Of interest is that the number of primary school children taking time off school actually decreased over time (the opposite trend to that in the secondary school). Thus, in year three, 11 per cent of children reported taking time off school but in year six those reporting truancy fell to eight per cent. The wording of the question suggests that this truancy is not parent-condoned but it is possible that respondents have misunderstood the question. Previous research would certainly support the view that there are higher levels of parent sanctioned truancy in the early primary school years (Olweus, 1993).

Secondary school children from the Mixed Black/White group were most likely (23%) to have played truant in the last four weeks. Although children from the Asian group were the least likely (13%) to have truanted, within this group Bangladeshi children (22%) were reporting truancy almost at the level of the highest group.

Self reports of truancy over the last 12 months in all cases but one (i.e. the Black ethnic group) indicate that levels of truancy exceed those of school exclusion. In other words there may be overlap between these groups but not all children who are truanting from school are displaying behaviour serious enough to lead to their temporary or permanent exclusion from school.

The extent of problem behaviour

In looking at the extent of problem behaviour we have combined those behaviours described above and in addition included truancy from school. Exclusion from school has been omitted on the grounds already argued that it does not constitute a behaviour but rather a response to behaviour that is deemed by others to be unacceptable. Thus the nine problem behaviours considered in this analysis are: alcohol use; smoking; drug use; stealing; receiving stolen property; attacking somebody; carrying a knife to school; vandalism, and truancy from school.
As one might expect within the overall population, this analysis revealed a distribution that was skewed towards three or less problem behaviours (Table 3.3).

### Table 3.3: Number of problem behaviours

<table>
<thead>
<tr>
<th>Number of problem behaviours</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>None</td>
<td>2,656</td>
<td>30%</td>
<td>2,903</td>
</tr>
<tr>
<td>One</td>
<td>2,007</td>
<td>23%</td>
<td>2,178</td>
</tr>
<tr>
<td>2-3</td>
<td>2,306</td>
<td>26%</td>
<td>2,293</td>
</tr>
<tr>
<td>4-6</td>
<td>1,395</td>
<td>16%</td>
<td>1,317</td>
</tr>
<tr>
<td>7-9</td>
<td>445</td>
<td>5%</td>
<td>249</td>
</tr>
<tr>
<td>Total N</td>
<td>8,809</td>
<td></td>
<td>8,940</td>
</tr>
</tbody>
</table>

Gender differences were not particularly significant except at the seven to nine problem behaviour level (boys 5% and girls 3%). Looked at by ethnicity, children of Mixed Black/White and White background reported much greater combinations of problem behaviour, with the Asian group reporting comparatively at much lower levels (Table 3.4).

### Table 3.4: Frequency of problem behaviours by ethnicity

<table>
<thead>
<tr>
<th>Number of problem behaviours</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Mixed Black/White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>None</td>
<td>3,215</td>
<td>24%</td>
<td>513</td>
<td>44%</td>
<td>1,269</td>
</tr>
<tr>
<td>One</td>
<td>3,307</td>
<td>25%</td>
<td>245</td>
<td>21%</td>
<td>394</td>
</tr>
<tr>
<td>2-3</td>
<td>3,814</td>
<td>29%</td>
<td>227</td>
<td>20%</td>
<td>287</td>
</tr>
<tr>
<td>4-6</td>
<td>2,291</td>
<td>17%</td>
<td>132</td>
<td>11%</td>
<td>127</td>
</tr>
<tr>
<td>7-9</td>
<td>548</td>
<td>4%</td>
<td>40</td>
<td>4%</td>
<td>48</td>
</tr>
<tr>
<td>Total N</td>
<td>13,175</td>
<td>1,157</td>
<td>2,125</td>
<td>417</td>
<td>16,874</td>
</tr>
</tbody>
</table>

Age was clearly a key factor in the level of problem behaviour (Table 3.5) with those reporting between four and nine problem behaviours increasing from ten per cent in year seven to 30 per cent in year ten/eleven.
The proportion of ‘looked after’ children (15%) reporting seven to nine problem behaviours was twice as high as children in any other family type.

### Problem Behaviour and Offending

Building upon the work of Graham and Bowling (1995), problem behaviours reported in the survey were aggregated to form an overall measure of offending. Sub-components of this measure (property crime, violence (attacking someone), and vandalism) were identified for purposes of comparison along with reports of receiving an official caution, warning or court conviction. The composition of these measures is described in Appendix 2.

Secondary school boys reported greater prevalence of offending than girls (Table 3.6). Boys were twice as likely as girls to report receiving an official caution, warning or court conviction.

### Table 3.5: Frequency of problem behaviours by school year

<table>
<thead>
<tr>
<th>No. of problem behaviours</th>
<th>Year 7 N</th>
<th>Year 8 N</th>
<th>Year 9 N</th>
<th>Years10/11 N</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>2,093</td>
<td>1,665</td>
<td>1,051</td>
<td>695</td>
<td>5,504</td>
</tr>
<tr>
<td>One</td>
<td>1,160</td>
<td>1,173</td>
<td>962</td>
<td>879</td>
<td>4,174</td>
</tr>
<tr>
<td>2-3</td>
<td>890</td>
<td>1,222</td>
<td>1,320</td>
<td>1,145</td>
<td>4,577</td>
</tr>
<tr>
<td>4-6</td>
<td>389</td>
<td>641</td>
<td>817</td>
<td>689</td>
<td>2,536</td>
</tr>
<tr>
<td>7-9</td>
<td>65</td>
<td>146</td>
<td>216</td>
<td>271</td>
<td>698</td>
</tr>
<tr>
<td>Total N</td>
<td>4,597</td>
<td>4,847</td>
<td>4,366</td>
<td>3,679</td>
<td>17,489</td>
</tr>
</tbody>
</table>

### Table 3.6: Proportion of boys and girls reporting offending

<table>
<thead>
<tr>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Offending</td>
<td>4,450</td>
<td>3,973</td>
</tr>
<tr>
<td>55%</td>
<td>49%</td>
<td>52%</td>
</tr>
<tr>
<td>Property crime</td>
<td>3,204</td>
<td>2,561</td>
</tr>
<tr>
<td>40%</td>
<td>32%</td>
<td>36%</td>
</tr>
<tr>
<td>Attacking someone</td>
<td>1,537</td>
<td>716</td>
</tr>
<tr>
<td>19%</td>
<td>8%</td>
<td>14%</td>
</tr>
<tr>
<td>Vandalism</td>
<td>2,646</td>
<td>2,680</td>
</tr>
<tr>
<td>33%</td>
<td>32%</td>
<td>32%</td>
</tr>
<tr>
<td>Official caution, warning or court conviction</td>
<td>1,365</td>
<td>647</td>
</tr>
<tr>
<td>17%</td>
<td>8%</td>
<td>12%</td>
</tr>
</tbody>
</table>
The trend towards increased prevalence of offending with age was predictable but there is some evidence of this trend slowing down after year nine (Table 3.7).

<table>
<thead>
<tr>
<th>Table 3.7: Proportion of children offending by school year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 7</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Offending</td>
</tr>
<tr>
<td>Property crime</td>
</tr>
<tr>
<td>Attacking someone</td>
</tr>
<tr>
<td>Vandalism</td>
</tr>
<tr>
<td>Official caution, warning or court conviction</td>
</tr>
</tbody>
</table>

Mixed background Black/White children report higher levels of offending across all the measures identified here. Only six per cent of Asian children reported receiving an official caution, warning or court conviction in the last 12 months compared to fourteen per cent of White children and they report significantly less offending behaviour on all measures (Table 3.8).

<table>
<thead>
<tr>
<th>Table 3.8: Proportion of children offending by ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Offending</td>
</tr>
<tr>
<td>Property crime</td>
</tr>
<tr>
<td>Attacking someone</td>
</tr>
<tr>
<td>Vandalism</td>
</tr>
<tr>
<td>Official caution, warning, or court conviction</td>
</tr>
</tbody>
</table>
Summary

This chapter looked at young people’s self reports of problem behaviour. An overall measure of offending was constructed and comparisons made with different offence types: property crime, violence (attacking someone) and vandalism.

Problem behaviour

- Substance use: alcohol use was common amongst all groups (61% overall) except children of Pakistani background (3%). Smoking was more common among girls (19%) than boys (12%). Drug use was significantly higher among older children (24% of year 10/11) and children of Mixed Black/White background (21%).

- Anti-social and offending behaviour: more boys were involved in anti-social behaviour than girls. Anti-social and offending behaviour increases with age. The number of reported problem behaviours increased with age.

- Most children reported three or fewer problem behaviours

- There was little difference between boys and girls, except at the seven to nine problem behaviour level (although the numbers involved here were fairly small - boys 5% and girls 3%). Thirty per cent of year ten to eleven children reported between four and nine problem behaviours compared with ten per cent of year seven children. The proportion of ‘looked after’ children (15%) reporting seven to nine problem behaviours was twice as high as children in any other family type.

Exclusion from school and truancy

- Boys (17%) were twice as likely as girls (8%) to have been excluded from secondary school during the last 12 months (compared with primary boys 12%, primary girls 1%).

- Nearly double the number of Black (20%) and Mixed Black/White (20%) compared to White children (12%) reported exclusion from secondary school. However, with the White group, White Irish reported the highest level overall for the different ethnic groups (26%).
• Thirty-two per cent of ‘looked after’ children reported exclusion from secondary school.

• Girls (16%) were just as likely as boys (18%) to report truancy at the secondary level. Although high levels of truancy were reported by primary school pupils (11% taking time off in year 3) boys (12%) were more likely to truant than girls (4%).

• By ethnicity the highest levels of truancy from secondary school were among the Mixed Black/White group (23%) and Bangladeshi children (22%)

**Offending**

• Overall 52 per cent of secondary school children reported offending.

• Gender: greater prevalence of offending was reported by boys (55%) than by girls (49%) but boys (17%) were twice as likely to be found guilty of a crime than girls (8%).
4. Victimisation: early indications from the On Track youth lifestyles surveys

Introduction

One of the aims of the On Track Youth Lifestyles Surveys was to test theories about bullying and victimisation. A victimisation factor was compiled for the On Track survey comprising two elements; one addressing being a victim of bullying and the other being a victim of crime. Five core items on bullying by other pupils were taken from the Life in School Checklist (Arora and Thomson, 1987) and the On Track team developed another four items which asked about having been a victim of crime in the previous 12 months.

Victims of Bullying

The five items based on the Arora and Thompson (1987) Life in School Checklist asked about experiences of being a victim of bullying within the last week. Pupils were asked whether ‘during the last week, another pupil tried to: (a) kick me; (b) demand money; (c) hurt me; (d) break something of mine; (e) hit me’. These types of behaviour are not mutually exclusive. Moreover, it is possible for more than one type of bullying to take place at one time. However, the aim of the scale is to move away from the assumptions which researchers, teachers and other adults might have about what constitutes bullying which are not necessarily grounded in children’s own experiences. Arora (1992) argues that the word ‘bullied’, is emotive and unreliable and that the definition and identification of verbal bullying, in particular, is problematic in that there is wide variation in children’s understanding of what constitutes verbal aggression.

Many authors have suggested that frequency is the key indicator of bullying (Arora 1992; Olweus 1993; Rigby 1997). Arora recommends using ‘more than once’, to differentiate bullying to over 60 per cent accuracy. Any of the ‘more than once’ values for any of the five items indicated bullying. A composite variable, therefore, was developed as a count of one to five items, with five items indicating a high level of bullying and one item indicating the lowest level.
Who are the Victims of Bullies?

From a sample size of 18,184, 13 per cent of secondary school pupils answered ‘more than once’ to at least one statement with one per cent answering ‘more than once’ to all five statements (Table 4.1).

By statement: eight per cent were hit; eight per cent were kicked; seven per cent reported being hurt in some way; three per cent reported that another pupil tried to break something of theirs; and, three per cent had money demanded by another pupil.

<table>
<thead>
<tr>
<th>Table 4.1: Bullied more than once. Breakdown by items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of statements ticked</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>1 item</td>
</tr>
<tr>
<td>2 items</td>
</tr>
<tr>
<td>3 items</td>
</tr>
<tr>
<td>4 items</td>
</tr>
<tr>
<td>5 items</td>
</tr>
</tbody>
</table>

Some groups of children are much more likely to experience bullying than other groups. For instance Black children (18%), ‘looked after children’ (30%), children who had been excluded from school (21%) and victims of crime (19%) all reported being bullied above the 13 per cent overall level. Children reporting problem behaviours were also more likely to report being bullied than those who reported no problem behaviours. The overall level of being bullied (13%) was exceeded by those reporting truancy (19%), stealing (17%), receiving stolen goods (19%) and substance misuse (19%). Twenty-four per cent of children who admitted attacking someone reported being victims of bullying as did 26 per cent of children who admitted carrying a knife in the last 12 months.

Gender

Only nine per cent of girls reported bullying compared with 17 per cent of boys. Of those who were bullied 34 per cent were girls and 66 per cent boys.
**Age**

Examining bullying by school year, the proportion indicating that they are being bullied decreases as school year increases. In secondary schools, 17 per cent of year seven pupils report that they have been bullied, while this reduces to nine per cent for year ten/eleven pupils. This decline with age in bullying in schools is well documented in the literature. Olweus (1993) reports a Norwegian study of 14,000 pupils aged eight to seventeen which showed a steep decline in bullying through primary schools for both boys and girls, with a continuing but less steep, decline for boys after age 13. Whitney and Smith (1993) have found similar evidence of a decline in bullying with age in the UK.

**Ethnicity**

Tables 4.2 and 4.3 shows that Black children are the most likely to be bullied and are slightly over-represented in the population, but most Black children reporting bullying only ticked one statement. The distribution of responses became more evenly distributed among different ethnic groups as the number of statements ticked increased. Some caution needs to be noted in interpreting comparisons between the mixed Black/White group and others because of the relatively small numbers in the Black/White group who responded to this particular question.

<table>
<thead>
<tr>
<th>Table 4.2: Distribution of victims of bullying among ethnic groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White</strong></td>
</tr>
<tr>
<td>Total sample distribution (bullied and not bullied)</td>
</tr>
<tr>
<td>Distribution of bullied children</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4.3: Percentage of bullied children as proportion of each ethnic group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White</strong></td>
</tr>
<tr>
<td>Bullied and 2-3 statements ticked</td>
</tr>
<tr>
<td>Bullied and 4-5 statements ticked</td>
</tr>
</tbody>
</table>
Family structure

Table 4.4 shows that 30 per cent of ‘looked after’ children (2% of the total sample of bullied children) were bullied together with 19 per cent of children living between two households. Children living with two birth parents were bullied least, although the results for this latter group were not dissimilar to those for the remaining sub-groups.

<table>
<thead>
<tr>
<th>Table 4.4: Distribution of bullying by family structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>One parent</td>
</tr>
<tr>
<td>% Bullied children within each group</td>
</tr>
</tbody>
</table>

Victims of Crime

Four questions in the Secondary School Survey specifically referred to issues of criminal victimisation of children as discrete from bullying.

- Over the past year has anyone stolen anything of yours that you had left somewhere? (Q51a)
- Over the past year have you had anything you were carrying stolen? (Q51b)
- Over the past year has someone attacked you and kicked or hit you or used a weapon against you? (Q51c)
- Over the past year have you been frightened by someone threatening or shouting at you? (Q51d)

Levels of victimisation overall were very high. Fifty-nine per cent of respondents said they had been a victim of crime in the last 12 months. This finding is similar to that of MORI (2002) which also showed that more than half of respondents had been the victim of a crime in the last year.

Gender, age and ethnicity

Figure 4.1 shows that the differences between genders in respect of being a victim of crime are not that great, except for violence where boys (26%) are almost twice as likely as girls (13%) to be victims of crime.
Victimisation shows a general decline with age (64% of year 7 children compared to 56% of year 10/11 pupils reporting victimisation).

Those belonging to certain ethnic groups are much more likely to experience being a victim of crime than are others (Table 4.5). For instance, 61 per cent of children from the Mixed White/Black group had been victims of crime in the last 12 months compared to 47 per cent of the Pakistani group.

### Table 4.5: Victims of crime by ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (12,612)</td>
<td>7,600</td>
<td>60%</td>
<td>610</td>
<td>59%</td>
<td>153</td>
<td>59%</td>
<td>380</td>
<td>54%</td>
<td>501</td>
<td>47%</td>
</tr>
<tr>
<td>Black (1,026)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pakistani (1,077)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Black/White (386)</td>
<td>235</td>
<td>61%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Problem behaviour and types of criminal victimisation**

The evidence from children’s self reports of being the victims of crime clearly indicates that those who are themselves involved in problem behaviour are more likely also to be the victims of crime.
Theft
Children who reported receiving stolen goods were the most likely to report being the victims of theft (26% compared with 13%). However, children involved in other types of problem behaviour also reported greater likelihood of being victims of theft from their person. Users of alcohol were more likely to have something stolen from their person than those not admitting to this behaviour (17% compared with 13%). Similarly, children who reported truanting from school and vandalism were more likely to be victims of theft (21% and 20% compared with 15% and 13%). Children admitting stealing or attacking others were likewise more likely to have something stolen from their person than those not reporting those behaviours (24% and 25% respectively compared with 14% in each case).

Physical attack
Thirty-nine per cent of children who admitted carrying a knife to school or attacking someone reported that they had been the victims of a physical attack compared with 22 per cent and 23 per cent respectively for those who did not report those behaviours. Twenty-eight per cent of children who reported stealing and 29 per cent of those reporting receiving stolen goods also reported being the victims of a physical attack compared with 17 per cent and 16 per cent respectively of those who did not report these behaviours. Those who reported stealing or receiving stolen goods also reported a greater likelihood of being attacked (28% and 29%) than those who did not report those behaviours (17% and 16%). Twenty-five per cent of children who reported being involved in vandalism reported also being physically attacked compared with 17 per cent who did not report vandalism. Twenty-four per cent of smokers, 22 per cent of alcohol users and 25 per cent of school truants reported being victims of a physical assault compared with 18 per cent, 15 per cent and 17 per cent respectively of those not reporting those behaviours.

Threatening behaviour
Children admitting stealing or receiving stolen goods were more likely to report being victims of threatening behaviour than those who did not (42% and 43% compared with 31% and 32%). Similarly, those admitting attacking someone or carrying a knife were more likely to have been threatened (43% in both cases compared with 32%). Thirty-seven per cent of those reporting use of alcohol and 40 per cent of vandals reported being threatened compared with 19 per cent and 30 per cent. Thirty-eight per cent of truants reported being threatened compared with 32 per cent of non-truants. Thirty-nine per cent of smokers reported being threatened compared with 32 per cent of non-smokers.
Summary

A victimisation risk factor was constructed based upon: a) responses to five survey questions on being a victim of bullying (Arora and Thompson, 1987); and, b) four items which asked about having been a victim of crime in the previous 12 months.

Thirteen per cent of pupils reported being bullied in the last week. While 17 per cent of year seven pupils in the secondary schools reported being bullied this figure decreased to nine per cent of year ten pupils.

Some groups of children were much more likely to experience bullying than other groups. For instance, Black children, ‘looked after’ children, children who had been excluded from school and victims of crime were all far more likely to report being bullied than other groups.

Children reporting problem behaviour were also more likely to report being bullied than those who reported no behaviour problems were. Those who reported truancy, stealing, receiving stolen goods and substance misuse were all more likely to be victims of bullying. Children who themselves admitted attacking someone else (24%) and children who admitted carrying a knife in the last twelve months (26%), in particular were more likely to report being bullied.

Similar numbers of boys and girls reported being victims of crime. As with bullying the likelihood of being a victim of crime decreases as children progress through school: from 64 per cent of year seven children to 56 per cent of year ten/eleven pupils. Some ethnic groups are much more likely to experience being a victim of crime than others are. For instance, 61 per cent of children of Mixed White/Black background had been victims of crime in the last 12 months compared to 47 per cent of Pakistani children.
Children, risk and crime: the On Track Youth Lifestyles Surveys
5. Levels of risk and protection

The On Track Survey model of risk and protection

The literature on ‘risk’ and its association with future criminal and anti-social behaviours is extensive (Catalano and Hawkins, 1992; Farrington, 1992; 2000; Farrington et al. 1996, Rutter et al. 1998). A recent meta-analysis of this risk factor literature undertaken for the Youth Justice Board (2001) has concluded that there is strong evidence in support of up to 20 risk factors that may have a significant effect upon future offending behaviour for children. It is also widely argued that there is no simple causal link between specific factors and offending behaviour but that there is more likely to be a complex interaction of multiple factors at work. Despite this impressive evidence, there remains a lack of consistency in the literature in respect of specific combinations of factors that might be operating. Appendix 3 presents the risk factors identified in four very influential studies in this field, which highlight this lack of agreement. Just three factors are found to be common across all of these studies and even they are worded somewhat differently. These common factors are: low academic achievement; poor parental supervision; and a family history of anti-social behaviour. As Farrington (2000) reports: ‘the main challenges for the [risk factor prevention] paradigm are to determine which risk factors are causes…’ and discusses the need to establish ‘globally replicable risk factors’. Yet, this search is hampered by the fact that very little research has been undertaken to explore the significance and impact of different social and cultural contexts upon creation and operation of risk factors in individual circumstances.

The existence of protective factors, defined as pro-social mediating influences which operate to counteract the effects of risks, have also been hypothesised (Youth Justice Board, 2001). Once again, the literature reports little consensus about the identity of these factors, and even less is known about the ways in which they might operate as pro-social influences as distinct from anti-risk factors (i.e., as merely the opposite of risk factors). Their statistical relationship to problem behaviour is still under investigation. The On Track Secondary School Survey did provide some evidence for the operation of protective factors, though it is important to note that these latter results were limited and emphasise the generally under-theorised nature of protection in the research literature.

With the above caveats attached, the most rigorously tested approach to measuring risk and protection in both the UK and the US is the Communities That Care model. This prior validation together with the availability of comparable data from other studies (particularly
the UK ‘Youth at Risk Study? – CTC, 2001) made it a natural choice to use as the basis for
the On Track Youth Lifestyles Surveys in secondary schools. The two major differences in the
On Track survey were (i) the inclusion of a range of questions about victimisation of crime
and of bullying, and (ii) the exclusion of some of the very detailed questions about drug use.
Appendix 4 provides a description of the modifications that were made to the questionnaire
and the subsequent statistical testing of the reliability and validity of the risk and protective
factors. Our own factor analysis demonstrated substantial confirmation of the factors
identified in the UK CTC study, though there were also some differences which are indicated
in the appendix.

The results of our factor analysis produced an On Track model of risk and protection that
includes the factors presented in Table 5.1 below. These are grouped in terms of the four
domains of the child’s experience (family; school; community; and individual, peer and
friendship networks), which have been theorised by Catalano and Hawkins (1992) as
providing the context within which risk and protective factors operate and interact.

<table>
<thead>
<tr>
<th>Table 5.1: On Track risk and protective factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk factors</strong></td>
</tr>
<tr>
<td><strong>Family domain</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>School</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Community</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Individual/peers</strong></td>
</tr>
<tr>
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<td></td>
</tr>
</tbody>
</table>
Details of the survey questions included in each risk and protective factor and the way in which these variables were generated are presented in Appendix 2.

In this chapter we begin by presenting a general description of the levels of risk and protection amongst the children in the Secondary School Survey, looking at differences between characteristics of the children. We then go on to look at the relationships between those risk factors and the offending behaviours described in the previous chapter.

**Children’s experience, risk and protection**

Risk and protection were calculated as ‘high’, ‘moderate’, or ‘low’, depending on the distribution of responses on those questions comprising the relevant risk or protective factor. All negative scores indicated ‘no risk’; ‘moderate risk’ was indicated by less than half the items in each factor being scored; and ‘high risk’ was indicated by more than half of the items scored positively (see Appendix 4 for a full description of these categories).

**The family domain**

The factors included in the family domain relate to the nature of the young person’s experience of family life. They include the nature of parental supervision and discipline, the extent of family conflict and the closeness of family relationships, involvement of family members in criminal or problem behaviour and parents’ views about involvement in such behaviour. The overall levels of risk and protection on each of the factors in this domain are presented in Table 5.2 below:

<table>
<thead>
<tr>
<th>Table 5.2: Levels of risk and protection in the family domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
</tr>
<tr>
<td>Risk</td>
</tr>
<tr>
<td>Poor parental supervision and discipline</td>
</tr>
<tr>
<td>Family conflict</td>
</tr>
<tr>
<td>Sibling(s) involved in problem behaviour</td>
</tr>
<tr>
<td>Parental attitudes condoning problem behaviour</td>
</tr>
<tr>
<td>Protection</td>
</tr>
<tr>
<td>Positive relationship with parents</td>
</tr>
<tr>
<td>Family attachment</td>
</tr>
</tbody>
</table>
We can see from this Table that levels of protection in the family are generally high: 83 per cent of the secondary pupils give very positive responses to the questions included in the family attachment factor. Responses on positive relationship with parents are lower at 60 per cent and this might be expected from a sample of secondary school children striving for some independence from their parents.

The factor with the highest levels of risk is family conflict, with just over a quarter of the responses indicating high risk on this category. The other three risk factors in this domain had a relatively small number of children at high risk (6-11%).

The biggest difference between boys and girls relates to the risk factor of family conflict, with slightly more girls (28%) suggesting high risk than boys (23%). A similar difference is present for the protective factor of family attachment (86% of boys compared to 81% of girls giving high risk responses). The family conflict risk factor relates to the amount of argument the child feels there is within the family and girls were more likely than boys to report that people within the family insulted or yelled at each other and had arguments.

Family attachment decreases with age, from 90 per cent of year seven pupils (aged 11 to 12) giving responses suggesting high protection to 76 per cent of year ten/eleven (aged 14 to 15) pupils. This is perhaps not surprising as children become less dependent on their families over this time, and are more likely to be in disagreement with their parents. There is also a decrease in positive relationships with parents across school years, falling from 69 per cent with high protection in year seven to 51 per cent in year ten/eleven. Despite this, there is no corresponding increase in pupils reporting high risk on family conflict. This reflects the complexity of the relationships between risk and protection factors, where we see that the risk is quite constant although levels of protection have fallen.

Not surprisingly, parental supervision and discipline changes over the school years, with six per cent of year seven pupils giving answers to these questions that suggest relaxed discipline (and high risk) gradually increasing to 17 per cent of year ten/eleven pupils. There is a reported increase in sibling involvement in problem behaviour, from four per cent with high risk in year seven to ten per cent with high risk in year ten/eleven, which may partly reflect a longer time for this involvement to have occurred, but could also reflect a greater awareness of sibling activities as children become older. Similar reasoning may explain the increase in children reporting that their parents’ attitudes are condoning problem behaviour, from three per cent classed as high risk in year seven to ten per cent classed as high risk in year ten/eleven. Older children are likely to have a greater awareness of a wider range of views, as they become older.

7 All differences reported are statistically significant at p<0.001 using a Chi-square test.
There are cultural differences apparent in levels of risk and protection, and the extent to which these factors mean the same within different cultural contexts has yet to be assessed. Additionally, there are relatively small numbers in some of the ethnic groups, which may serve to exaggerate differences between the groups. For this reason it is important to approach these results with some caution. However, these results do point to differences between ethnic sub-groups that have frequently been hidden in other research. For instance, levels of parental supervision and discipline are most relaxed amongst children who report their ethnicity as Black Other, with 18 per cent of these children giving responses suggestive of high risk. Amongst another Black group, Black African, this figure is nine per cent - one of the lowest figures for high risk on this item. Amongst Black Caribbean children the figure is 12 per cent, very near the figure for the sample overall. Much research combines these groups into one category of ‘Black’, and in doing so important distinctions between the groups would have been missed. Similarly there are differences between White UK/European and White Irish children. There are also differences between the Bangladeshi, Indian and Pakistani children in their reports of levels of parental supervision and discipline, but here all groups are at or below the overall average, and range from four per cent amongst Pakistani children to 11 per cent amongst Bangladeshi children. Children of mixed race on the other hand all present levels of risk that are above the overall figures, ranging from 13 per cent for White/Asian children, to 16 per cent for White/Black Caribbean children.

Similar patterns emerge for other risk factors in the family domain, but when we examine the protective factor of family attachment there is less difference between the sub-groups in the broad ethnic categories. The Bangladeshi, Indian and Pakistani children report the highest levels of family attachment, at 82 per cent, 85 per cent and 91 per cent respectively being assessed as high protection. The White UK and White Irish groups are next with 84 per cent and 82 per cent respectively, followed by the mixed ethnicity groups with figures of between 80 per cent and 76 per cent. The groups that demonstrate lowest levels of family attachment are Black African with 73 per cent high protection, Black Caribbean with 73 per cent and Black Other with 74 per cent. Positive relationship with parents, however, shows wide variation between the groups and subgroups, ranging from 63 per cent of Pakistani children giving responses that suggest high levels of protection to 45 per cent of Bangladeshi children giving similar responses.

The overall picture of risk and protection in the family domain is complex, with important differences in levels of risk and protection related to gender, age and ethnicity. It is important to consider the ways in which different social and cultural contexts mediate these risk and protection factors and affect the impact they might have on behaviour. The relationship
between different risk factors within the family domain and between the risk and protection factors in this domain is also complex and certainly not one where risk increases as protection decreases. This analysis confirms that the two dimensions of risk and protection are separate and independent concepts, as are individual factors within the domain.

**The school domain**

The school domain relates primarily to whether the child presents a positive image of school in response to questions. Three protective factors and just one risk factor were identified from our analysis. Careful interpretation is needed to avoid confusion over double negatives.

<table>
<thead>
<tr>
<th>Table 5.3: Levels of risk and protection in the school domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
</tr>
<tr>
<td>Risk</td>
</tr>
<tr>
<td>Lack of commitment to school</td>
</tr>
<tr>
<td>Protection</td>
</tr>
<tr>
<td>Positive feelings about school</td>
</tr>
<tr>
<td>High school expectations of behaviour</td>
</tr>
</tbody>
</table>

The results show that although the biggest group of pupils has low risk (i.e. they have high commitment to school), the figure of 42 per cent actually represents a minority of pupils overall, suggesting there is much that could be done in the schools in the On Track areas. The proportion of children with high risk (i.e. little commitment to school) is relatively high, representing almost one in six of the children in the survey. The picture is somewhat better when looked at in terms of the protective factors.

The majority of children provide responses that suggest their schools have high expectations of behaviour - just three per cent of the respondents give responses that show low protection from this factor. Almost two thirds of the children in the survey reported very positive feelings about school. A similar proportion had opportunities for pro-social involvement in school. Boys demonstrate less commitment to school (and therefore more risk) than do girls: 20 per cent of boys gave responses indicative of high risk compared to 15 per cent of girls. Boys are also less likely to say that they have opportunities for pro-social involvement in school (60% boys and 64% girls were assessed as having high protection). Although boys are less likely to report positive feelings about school and
teachers (63% boys, 66% girls) there is little difference between boys and girls on whether they report that their school has high expectations of behaviour.

Commitment to school, unsurprisingly, decreases with age, from 13 per cent with little commitment (and therefore high risk) in year seven, to 20 per cent in year ten/eleven. There is also a decrease in the proportion of pupils reporting positive feelings about school and teachers (72% in year 7 to 58% in year 10/11); a decrease in reported opportunities for pro-social involvement (from 72% having high protection and more opportunities for involvement in year 7 to 52% in year 10/11); and a decrease in reported school expectations of behaviour (from 84% with high report in year 7 to 70% in year 10/11).

These lowering levels in protective factors across the school years are startling. In part they may reflect changes occurring within the schools’ curricula and increased pressures for academic achievement, but they do suggest that schools should be examining these changes more closely to see how high levels of protection can be maintained during this transition.

Again, there is substantial variation between different ethnic groups in terms of the school domain factors. The group reporting highest levels of commitment to school, and thus least risk, are the children who describe themselves as Black African (6% with high risk), and the group reporting the greatest levels of risk and least commitment to school are those recorded as Black Other (21% high risk). Black Caribbean children have levels of risk almost at the overall average (16% high risk). Bangladeshi, Indian and Pakistani children all have relatively low levels of risk (10%, 9% and 8% high risk respectively), and White UK and White Irish have very similar high levels with 19 per cent and 20 per cent respectively. Other factors in the school domain have a similar pattern.

The community domain

The community domain relates to the neighbourhood where the child lives and his/her views about it. Risk factors relate to the physical environment and availability of drugs, and to the child’s reports of attachment to that neighbourhood. The protective factor here is about having good relationships with adults in the community other than the child’s family. Overall responses to each of the factors in this domain are presented in table 5.4 below.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Proportion of sample with each level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>Low</td>
</tr>
<tr>
<td>Community disorganisation and neglect</td>
<td>50%</td>
</tr>
<tr>
<td>Lack of neighbourhood attachment</td>
<td>63%</td>
</tr>
<tr>
<td>Easy availability of drugs</td>
<td>24%</td>
</tr>
<tr>
<td>Protection</td>
<td></td>
</tr>
<tr>
<td>Positive relationships with adults</td>
<td>32%</td>
</tr>
</tbody>
</table>

- Most children are relatively positive in responses relating to attachment to their neighbourhood, with almost two thirds having little or no risk and thus high attachment.

- Just 18 per cent of the children gave responses that indicate lack of attachment sufficient to be classified as high risk. This is despite a quite negative picture of their neighbourhoods apparent from the other risk factors.

- One half of the children in the survey indicated some community disorganisation and neglect. This relates to abandoned buildings, fights and crime, and feeling unsafe after dark.

- Three-quarters of the children reported that drugs were moderately or very easily available.

- The protective factor in this domain has the lowest levels of protection of any of the six protective items included in this analysis. Less than half of the children are assessed as having high protection on the factor of positive relationships with adults. A further 20 per cent have moderate protection, leaving about one third of the children who gave responses that indicate low levels of community protection in their neighbourhood.

The responses from boys and girls are very similar on all of the factors in this domain. There is some slight difference across the school years, with 25 per cent of children in year seven reporting high risk on community disorganisation and neglect, rising to 29 per cent of year ten/eleven children. This perhaps reflects the way in which children learn more about their neighbourhood as they become older, as they explore further afield. At the same time there is a slight increase with age in high risk on neighbourhood attachment. The risk factor of availability of drugs shows substantial risks in all age...
groups, with increases over the school years. Surprisingly high proportions of children, even in year seven (age 11) report knowing where to obtain drugs in their neighbourhood: only four out of ten children in this school year gave responses that indicate low risk or no risk, with 45 per cent of that year being assessed as having moderate risk and 13 per cent as having high risk. Risk levels increase over the school years, so that by year ten/eleven (age 15) only 9 per cent of children are assessed as having no risk, and 52 per cent are assessed as having high risk. This is clearly an important issue for these areas of high crime and high deprivation.

There are differences between the ethnic groups in their reports of the community risk factors, but no clear pattern emerges. The factor with the widest variation is the risk factor of availability of drugs. The highest levels of risk are presented by the Mixed White and Black Caribbean group (44% high risk), followed by the Mixed White and Black African group (38% high risk) and Black Caribbean group (37%). Assuming that Black children are not more likely to exaggerate the availability of drugs in their neighbourhood, these results indicate that there is a real problem with drugs in the areas where many Black children live. However, knowledge of availability of drugs is not a good indicator of use of drugs, although it perhaps does point to the pressures children experience in dealing with drugs issues in their communities. Bangladeshi, Indian and Pakistani children all present below average levels of risk on availability of drugs, with 23 per cent, 23 per cent and 20 per cent respectively having high risk on this item. There is a similar pattern for community disorganisation and neglect, with mixed race and Black groups presenting some of the highest levels of risk and Asian groups presenting some of the lowest. Neighbourhood attachment has less variation between the groups, ranging from just 12 per cent of Pakistani children being assessed as high risk on this item to 23 per cent of White Irish children.

**The individual/peer domain**

The individual/peer domain contains four risk factors and no protective factors. It relates to questions about the child’s attitudes and his/her reports of their friends’ activities, and includes a measure of the extent to which they report being a victim of crime or bullying. Overall responses to each of the factors in this domain are presented in table 5.5 below.
The results present a picture of wide variation in children’s attitudes. The majority of children present some attitudes that are not pro-social. About a fifth of the children in the survey are assessed as having high risk in terms of their accepting attitudes toward problem behaviour and, although a high proportion of children are assessed as having some conflictual attitudes, a relatively low proportion (14%) fall into the high risk category. The majority of children (three-quarters of the sample) report having friends who are involved in problem behaviour, and a very high proportion (38%) are assessed at being of high risk on this factor, i.e. four in every ten children taking part in the survey.

Victimisation is not a factor in traditional pictures of risk and protection, but in view of the emerging evidence about links between victimisation and offending, questions about this were included in the survey (Ballintyne, S, 1999; Farrall, and Maltby, 2003; Lauritsen et al. 1991; Smith, and McVie, 2003). The results reveal that levels of recent victimisation amongst secondary school children are very high. Almost a fifth of the children in the survey report multiple victimisation at a level sufficient to be assessed as high risk. These results have been discussed in greater detail in Chapter 5.

There is no statistically significant difference between boys and girls in their attitudes towards problem behaviour. Not surprisingly, we find that children’s reported attitudes change with school year, and that they become more accepting of problem behaviours and present more individual conflictual attitudes as they get older. In year seven, 59 per cent of children are assessed as having no attitudes condoning problem behaviour, compared to only a quarter (26%) in year ten/eleven. In the high risk category, just nine per cent of year seven children presented attitudes condoning problem behaviour, but by year ten this figure had increased to 34 per cent, or one in every three children in that year. Individual conflictual attitudes increase across the school years too, but not to such a great extent. Ten per cent of year seven pupils are assessed as having high risk on this factor, compared with 18 per cent of year ten/elevens.

Table 5.5: Levels of risk and protection in the individual/peer domain

<table>
<thead>
<tr>
<th>Factor</th>
<th>Proportion of sample with each level</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>Risk</td>
<td>42%</td>
<td>37%</td>
</tr>
<tr>
<td>Attitudes condoning problem behaviour</td>
<td>34%</td>
<td>52%</td>
</tr>
<tr>
<td>Individual conflictual attitudes</td>
<td>24%</td>
<td>37%</td>
</tr>
<tr>
<td>Friends involved in problem behaviour</td>
<td>39%</td>
<td>43%</td>
</tr>
<tr>
<td>Victim of crime or bullying</td>
<td>39%</td>
<td>43%</td>
</tr>
</tbody>
</table>
The highest levels of risk on attitudes condoning problem behaviour are found amongst children of White Irish and Mixed White and Black Caribbean background (63%), closely followed by Black Other, Mixed White and Black African background and White UK groups (62%), and then Black Caribbean (56%). The lowest levels of risk on this factor are amongst the Pakistani, Bangladeshi, Indian and Black African groups, with 33 per cent, 37 per cent and 45 per cent and 41 per cent respectively. Levels of high risk range from 29 per cent amongst the mixed background White and Black African group to 6 per cent among the Pakistani children. A similar pattern is present in the individual conflictual behaviour risk.

Overall, 75 per cent of children reported some friends with involvement in problem behaviour. Boys were much more likely to have friends involved in a wide range of problem behaviours and thus be assessed as having high risk on this factor (43% of boys compared with 34% of girls). Levels of risk on this factor increase substantially over the school years, from 23 per cent with high risk in year seven to 52 per cent with high risk in year ten/eleven. There is a big increase between years seven and eight, and between years eight and nine, but not so great an increase between years nine and ten, as the chart below illustrates.

The ethnic group presenting greatest risk on having friends who are involved in problem behaviour is Mixed White and Black Caribbean children where 54 per cent were assessed as high risk. They are closely followed by Mixed White and Black African background (50% high risk), White Irish (47%) and White UK (41%). The lowest figures for high risk on
this factor are again amongst the children of Pakistani (21%), Bangladeshi (25%) and Indian (26%) ethnicity.

Summary

- Friends’ involvement in problem behaviour is the risk factor with the highest numbers of children assessed as high risk and the lowest numbers of children with no risk. Almost four in every ten children have high risk on this factor.

- The risk factor with the second highest levels of risk is easy availability of drugs in the neighbourhood, with just over three-quarters of the children having moderate to high risk on this item. This result may be particularly pertinent to On Track localities, areas of high deprivation and crime.

- A factor very relevant to projects working in areas of high deprivation is community disorganisation and neglect, which is about abandoned buildings, fights and crime, and feeling safe after dark. More than a quarter of respondents had high risk on this factor.

- Levels of protection reported by the children in this survey are generally very high, particularly in the family and school domain where they range from 83 per cent to 60 per cent of respondents having high protection. The exception is protection in the community domain, where only 48 per cent of children report high protection on positive relationships with adults in their neighbourhood.
6. Risk, protection and offending behaviours

Introduction

In this section we consider the extent to which risk and protective factors are correlated with offending behaviours. There are many statistically significant correlations between risk and protection factors and offending behaviours but by using multivariate logistic regression analysis\(^8\) it is possible to assess which factors are most important to different types of offending. The process of this analysis is described in Appendix 5.

Although the focus of the analysis was on the contribution of risk and protective factors to offending behaviours, a few additional variables were considered. These were: gender, school year, ethnicity, family composition, smoking, drinking, drug use and truancy. In the presentation of all results, only those odds ratios that make a statistically significant contribution to the regression model at $p<0.01$, and have a 95 per cent confidence interval of less than 30 per cent of the value of odds ratio have been included.

Overall offending

The first analysis looked at all types of offending, and compared those who reported being involved in at least one type of offence at least once in the last year, with those who reported they had not been involved in any type of offending: 52 per cent of the children in the survey admitted to some sort of offending. The analysis was also undertaken to look at multiple offending, and compared those who reported involvement in more than one type of offending with those who reported no offending or involvement in just one type. The results of these analyses are presented in Table 6.1 below.\(^9\)

---

\(^8\) Logistic regression is a technique that constructs statistical models from the data that calculate the odds of an individual in the offending group having each characteristic. The model takes account of interrelations between the variables included in the analysis and predicts the likelihood of someone with that characteristic being involved in offending behaviours, presenting them as an ‘Odds Ratio’ - the odds of having the characteristic. If the odds of an event are greater than one the event is more likely to happen than not; if the odds are less than one the event is less likely to happen than not.

\(^9\) Analysis of multiple offending was undertaken but was inconclusive because of the small number of children involved and is therefore not included in further detail in this report.
### Table 6.1: Odds ratios of factors related to offending in general

<table>
<thead>
<tr>
<th>Contributory variable</th>
<th>Any offending in last 12 months</th>
<th>More than one type of offending in last 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number with behaviour</td>
<td>8,583 *</td>
<td>4,423</td>
</tr>
<tr>
<td>Gender=male</td>
<td>1.4</td>
<td>1.8</td>
</tr>
<tr>
<td>School year=10/11</td>
<td>0.7</td>
<td>-</td>
</tr>
<tr>
<td>Family=single parent</td>
<td>-</td>
<td>1.5</td>
</tr>
<tr>
<td>Parental supervision risk high</td>
<td>1.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Sibling problem risk moderate</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Sibling problem risk high</td>
<td>-</td>
<td>1.9</td>
</tr>
<tr>
<td>Parental attitudes risk high</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Community neglect risk high</td>
<td>-</td>
<td>1.3</td>
</tr>
<tr>
<td>Availability of drugs risk high</td>
<td>1.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Attitudes condoning problem behaviour (high)</td>
<td>2.1</td>
<td>2.2</td>
</tr>
<tr>
<td>Friends’ involvement problems risk high</td>
<td>4.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Conflictual attitudes risk high</td>
<td>3.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Victimisation risk high</td>
<td>1.9</td>
<td>2.7</td>
</tr>
<tr>
<td>Is a current smoker</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Has consumed alcohol 1-2 times in last 4 weeks</td>
<td>1.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Has used drugs in last 4 weeks</td>
<td>2.4</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Notes:
* The logistical regression analysis requires that missing data in respect of each variable is omitted from the overall analysis.
Blank spaces indicate no reliable significant contribution of the factor.
For definitions of ‘high’ and ‘moderate’ risk see Appendix 2.

None of the protective factors contribute to the model at all. They neither reduce or increase the likelihood of offending. However, being in school year ten/eleven does come through in this analysis as reducing the likelihood of involvement in offending in the last year. This may represent an increasingly mature attitude on the part of young people growing out of involvement in minor types of offending, perhaps resulting from involvement in different and non-criminal sorts of activities, or a response to the additional academic pressures at school.

The linear regression model for offending generally shows the factors that contribute to an increased likelihood of any offending are:
The odds of boys being involved in any offending are half as much again. Moreover, boys have almost twice the odds of girls of being involved in more than one type of offending, suggesting that not only are girls less likely to be involved in offending but when they are they are more likely to desist.\textsuperscript{10}

Nine of the twelve risk factors contribute to likelihood of offending, and of multiple offending: parental supervision; sibling with problem behaviour; parental attitudes; community neglect; availability of drugs; attitudes condoning problem behaviour; friends involved in problem behaviour; conflictual attitudes; and victimisation.

Three other problem behaviours come through as contributing to offending: smoking, drinking, and particularly using drugs.

The risk domain that most strongly contributes to likelihood of offending and of multiple offending is individual/peer domain, with all four risk factors making an independent contribution. The strongest contributor is friends’ involvement in problem behaviour, with children who are assessed as having high risk on this factor having odds four times greater than those with low risk of being involved in some sort of offending, and almost six times the odds of reporting multiple types of offending. This suggests that the social aspects of offending are important to many children, and should not be underestimated in approaches to reduce offending.

Children who present high risk in respect of conflictual attitudes have odds more than three times greater than those with low risk of reporting involvement in offending, and more than four times greater in respect of more than one type of offending. Having high risk on attitudes condoning problem behaviours has more than double the odds of the individual being involved in offending generally and in multiple offending. Perhaps surprisingly, but nonetheless consistent with other work emerging in this area, high risk on victimisation is also a contributory factor. High risk on victimisation has double the odds of low risk of being involved in offending, and almost three times greater odds of involvement in multiple types of offending. This confirms the view that victims and offenders are not distinct and separate groups of individuals, but rather there is substantial overlap with many children being both offenders and victims. If we consider this factor in relation to the others in this domain, the results suggest a group of children with problematic attitudes who have friends involved in problem behaviour and are offending themselves. Proximity to an offending community and engagement in criminal activities would seem to place young people at greater risk of being a victim of those same activities.

\textsuperscript{10} A change in odds should not be interpreted as a change in the relative risk. See Appendix 4.
Drinking and smoking marginally increase the odds of a child’s likelihood of involvement in offending generally, but the recent use of drugs doubles the odds of involvement in crime (this does not include drugs offences, as these were not assessed in this analysis). High risk on availability of drugs in the neighbourhood more than doubles the odds of involvement in crime compared to those with low risk, but the recent use of those drugs has an additional and greater impact.

Property and violent offending compared

It is sometimes popularly assumed that property offending and violent offending are very different, and thus different factors will contribute to involvement in those offences. In this section we explore this proposition. Table 6.2 below, summarises these results.

We see from this table that there are just four factors that contribute to every type of offence, although the extent of contribution varies:

- Sibling involvement in problem behaviour increases the odds of all types of offence, but has the greatest impact on property offences and vandalism.

- Holding attitudes condoning problem behaviour also contributes to all types of offence, but here the highest contributions relate to vandalism and carrying a knife.

- High risk on victimisation makes a similar contribution to property offending, carrying a knife and attacking someone. The contribution to vandalism is marginal.

- Use of drugs in the last four weeks increases all offences, but is most important for property offending, which is in line with the theory that the use of drugs fuels an economic motive for offending.
Table 6.2: Odds ratios of factors related to property and violent offending

<table>
<thead>
<tr>
<th>Contributory variable</th>
<th>Type of offending behaviour in last 12 months</th>
<th>Any property offence</th>
<th>Vandalism</th>
<th>Carried a knife</th>
<th>Attacked someone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender=male</td>
<td></td>
<td>1.6</td>
<td>4.8</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Ethnicity=White</td>
<td></td>
<td></td>
<td>0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School year=8</td>
<td></td>
<td></td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School year=9</td>
<td></td>
<td></td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family=single parent</td>
<td></td>
<td></td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental supervision risk high</td>
<td></td>
<td></td>
<td>1.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sibling problem risk high</td>
<td></td>
<td>2.0</td>
<td>1.9</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Parental attitudes risk high</td>
<td></td>
<td></td>
<td>1.5</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Community neglect risk high</td>
<td></td>
<td></td>
<td>1.2</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>Availability of drugs risk high</td>
<td></td>
<td></td>
<td>1.6</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Attitudes condoning problem behaviour risk high</td>
<td></td>
<td></td>
<td>1.5</td>
<td>2.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Friends’ involvement problems risk high</td>
<td></td>
<td></td>
<td>4.0</td>
<td>3.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Conflictual attitudes risk high</td>
<td></td>
<td></td>
<td>3.1</td>
<td>2.8</td>
<td>4.6</td>
</tr>
<tr>
<td>Victimisation risk high</td>
<td></td>
<td></td>
<td>2.2</td>
<td>1.2</td>
<td>2.5</td>
</tr>
<tr>
<td>Is a current smoker</td>
<td></td>
<td></td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has used drugs in last 4 weeks</td>
<td></td>
<td></td>
<td>2.3</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Has played truant in last 4 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.6</td>
</tr>
<tr>
<td>Positive relationship with adults high protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Vandalism is the only offence where gender does not make a contribution, suggesting that this offence is equally likely to be carried out by boys and girls. Age seems to be more important, with children in year eight (age 12 to 13) having greater odds than those in year nine (age 13 to 14) of reporting involvement in this activity. The factor with the greatest contribution to involvement in vandalism is high risk by virtue of friends’ reported involvement in problem behaviours. This group has four times greater odds than those with low risk of reporting this activity. This suggests that vandalism may often be a social activity undertaken by groups of children, but also that it is something children are less likely to be involved with as they become older. High risk on availability of drugs also contributes particularly to this offence type which could reflect the nature of the neighbourhood.
The risk factor that makes the biggest contribution to attacking someone is holding personal attitudes that are conflictual, one of which is a belief that it is all right to beat people up if they start the fight. Those assessed as high risk on this item have odds more than four times greater than those with low risk of reporting that they have attacked someone in the last year.

Given the commonly held view that truancy is strongly related to involvement in all sorts of criminal activity it may appear surprising that our analysis reveals that it only makes an independent contribution in respect of attacking someone. As we shall see in the following sections on property offences, truancy does not make an independent contribution to any of these more common kinds of offending.

The least common kind of criminal activity is carrying a knife to school, reported by only ten per cent of the children in this survey. This is very definitely a male activity, with boys having odds almost five times greater than girls of reporting this type of behaviour. It is also the behaviour where victimisation has its highest contribution, suggesting some link between being a victim of bullying or crime and carrying a knife to school, maybe as a form of self-defence. Those who have recently used drugs, or are assessed as high risk because they do not hold pro-social attitudes also figure highly in the regression model for this behaviour. This is the only behaviour where links with friends involved in other problem behaviour is not a contributory factor, suggesting that carrying a knife is an individual rather than the social activity that some of the other types of offending appear to be. There is an anomalous item of data here though, in that being assessed as having high protection on positive relationships with adults in the community appears to increase the odds of carrying a knife to school, rather than decrease them as protective factors are meant to do. The question that this raises is twofold: could it be that some children have positive relationships with adults who do not hold pro-social attitudes, or are the questions used to measure this factor actually not a very good measure of the concept?

**Types of property offending compared**

If we look in detail at the factors that are related to different types of property offending, we see that here again there are substantial differences in the pattern emerging, suggesting that not all property offending can be treated, or prevented, in the same way. Table 6.3 summarises the results of this analysis.
Table 6.3:  Odds ratios of factors related to different types of property offending

<table>
<thead>
<tr>
<th>Contributory variable</th>
<th>Type of offending behaviour in last 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shoplifting</td>
</tr>
<tr>
<td>Number with behaviour</td>
<td>4,031</td>
</tr>
<tr>
<td>Gender=male</td>
<td>6.6</td>
</tr>
<tr>
<td>Ethnicity=White</td>
<td>0.5</td>
</tr>
<tr>
<td>Ethnicity=Indian</td>
<td></td>
</tr>
<tr>
<td>School year=9</td>
<td></td>
</tr>
<tr>
<td>School year=10/11</td>
<td></td>
</tr>
<tr>
<td>Family=single parent</td>
<td></td>
</tr>
<tr>
<td>Family=both parents</td>
<td>0.8</td>
</tr>
<tr>
<td>Parental supervision risk high</td>
<td>1.6</td>
</tr>
<tr>
<td>Family conflict risk high</td>
<td>1.5</td>
</tr>
<tr>
<td>Sibling problem risk high</td>
<td>1.6</td>
</tr>
<tr>
<td>Parental attitudes risk high</td>
<td>2.0</td>
</tr>
<tr>
<td>Community neglect risk high</td>
<td>1.8</td>
</tr>
<tr>
<td>Availability of drugs risk high</td>
<td></td>
</tr>
<tr>
<td>Pro-social attitudes risk high</td>
<td>1.4</td>
</tr>
<tr>
<td>Friends’ involvement problems risk high</td>
<td>4.2</td>
</tr>
<tr>
<td>Confictual attitudes risk high</td>
<td>2.6</td>
</tr>
<tr>
<td>Victimisation risk high</td>
<td>1.6</td>
</tr>
<tr>
<td>Is a current smoker</td>
<td>1.5</td>
</tr>
<tr>
<td>Has used drugs in last 4 weeks</td>
<td>2.0</td>
</tr>
<tr>
<td>Truanted in the last 4 weeks</td>
<td>2.0</td>
</tr>
<tr>
<td>Persistent or recent truant*</td>
<td></td>
</tr>
<tr>
<td>Binge drinking in last 4 weeks</td>
<td>1.4</td>
</tr>
</tbody>
</table>

* See Appendix 2 for definition of persistence used in this analysis.

The only factor that contributes to all types of property offending is drug use in the last four weeks, though the extent of the contribution varies between different offences. It has the greatest impact on theft of a car, theft from a car and mobile phone theft, and has less of an independent effect on the more widespread offences of shoplifting and receiving stolen goods. It is interesting that it contributes less to burglary than for other offences, as burglary is frequently linked to the funding of drug use. Although those recently using drugs have
almost twice the odds of being involved in burglary offending, it is not in the top three contributing items to that offence.

Shoplifting is the most commonly reported type of property offence in this survey, and as such is equally likely to be committed by girls and boys. Having both parents present in the home seems to contribute to a slight lessening of the odds of involvement in shoplifting, whereas the odds of involvement in this offence increase where parental supervision risk and family conflict risk are assessed as high. All of the risk factors in the individual/peer domain contribute to involvement in shoplifting, with friends’ involvement in problem behaviour making the most substantial contribution of all risk factors. Where children are assessed as having high risk on friends who are involved in problem behaviour they have odds four times greater than those with low risk on this item of being involved in shoplifting. This might suggest that shoplifting is a social offence, whereas the offences where this factor does not contribute (theft of a car, theft from a car, and mobile phone theft) are more likely to be individual offences. However, further research is needed to clarify this issue.

Theft of a car and theft from a car have similar contributory factors in their models. Both have a limited number of factors contributing to the model, with the biggest contributor being gender – boys have almost seven times greater odds than girls of reporting theft of a car, and have four times greater odds of being involved in theft from a car. Truancy within the last four weeks is also a contributory factor to these offences; with those who report recent truancy having twice the odds of being involved in them. However, in both cases the number of children involved in these offences is relatively small. Recent drug use also contributes to both offences. An interesting difference between the two offences is the inclusion of high risk on community disorganisation and neglect in the model for theft of a car, perhaps suggesting greater opportunity for such crimes in these localities.

Mobile phone theft also has few factors that substantially contribute to involvement. Boys have over three times the odds of reporting they have stolen a mobile phone than girls, but being White reduces the odds by a half. Individual and peer risk factors do not contribute to the model for mobile phone theft at all, though parental attitudes that condone problem behaviour do. Community neglect is also part of the equation, although not availability of drugs. However those who report recent drug use have greater odds of stealing mobile phones. This is also an offence where recent truancy is a contributing factor but the amount of mobile phone theft reported is much less than shoplifting and handling stolen property where truancy is not a factor.
Burglary is very much a minority offence, with just three per cent of the children in this survey reporting that they have broken into a house with the intention of stealing something. The small number might have led one to expect that few factors would be reliably and statistically important contributors to a model for this type of offence, but in fact several factors are relevant. All four of the risk factors in the individual/peer domain contribute to the model for this type of offence with high risk on friends’ involvement in problem behaviour, holding conflictual attitudes and victimisation all increasing the odds of involvement in burglary by around a factor of three. Other risk domains, overall, are not so consistently implicated, although single risk factors within domains, such as parental supervision and discipline, do make a contribution. The use of drugs and persistent truancy also play a part in burglary.

A substantial number of factors contribute to a model of explanation in respect of receiving stolen goods. Family issues make a contribution, but the contribution of friends is much greater. Where there is high risk on friends involved in problem behaviour the children have odds of reporting involvement in handling stolen goods that are more than three times greater than those with low risk, and holding conflictual attitudes has a similar impact.

It is interesting overall, that the more widespread offending behaviours are those where there is a substantial contribution of risk factors in the individual/peer domain, particularly of friends who are involved in problem behaviour, whereas the minority, and one might argue the more serious type of offending behaviour, have less of a contribution from these factors.

**Summary**

The detailed analysis of the contribution of risk and protection factors to different types of offending reveals that offending is not a homogenous activity. Protective factors have not emerged from the analysis as making a significant contribution to less offending: their development and measurement is still very much in its infancy, and it may be that the operationalisation of these concepts in this survey, or the cut off points used in this analysis need to be reviewed. The analysis has confirmed the importance of risk factors, highlighting that different risk factors come into play for different types of offending. The key results that can inform a preventive strategy are:

- The most commonly reported types of offending by children in this survey are vandalism, shoplifting, and handling stolen goods. The biggest contributory factors to all of these offences are (i) high risk on friends’ involvement in problem
behaviour and (ii) high risk on holding conflictual attitudes. High risk on these factors at least doubles and sometimes quadruples the odds of being involved in those common offences. Both of these risk factors need further study to understand the mechanisms via which they link to offending by large numbers of children.

- Although risk factors in the family domain do feature in the logistic regression models as contributing to the likelihood of children offending, their contribution is generally lower than the risk factors in other domains, suggesting that the risk domains of community and particularly individual/peer are more important for addressing criminality amongst secondary school pupils.

- Very few children who admit some kind of offending do not also have friends who offend. Thus, there may be a very strong social component to much offending by children that is often not recognised in traditional crime prevention and reduction programmes. If this is so, it may be beneficial to work with groups who are involved in offending rather than focusing on individuals.

- Easy availability of drugs is reported by high numbers of children, and is a contributory factor in the models for several types of offending, but the relationship with offending is not a simple one.

- Community disorganisation and neglect had the third highest overall levels of risk (27% assessed as high risk) and makes a significant contribution to several types of offending independently of other community risk factors. This factor is not part of the remit for preventive programmes such as On Track, which focus on work with individual children and families. This finding supports arguments for the remit of such programmes to be extended to include the fabric of the neighbourhoods.

- Offending related to motor vehicles is an activity that particularly appeals to boys, and although admitted by less than ten per cent of respondents, being a boy is the most important contributory factor to theft of a car and theft from a car. Being male is also a contributory factor in attacking someone, where it more than doubles the odds. There is an even more significant contribution to carrying a knife to school, an activity reported by just nine per cent of respondents and where boys had odds of almost five times the girls of admitting this. These are areas where gender specific work with boys may be useful.
Truancy does not appear as a significant factor in respect of offending behaviour in general, although there is evidence that it is uniquely related to reports of attacking someone. In respect of property offences, truancy does appear as a factor related to ‘theft of a car’, ‘theft from a car’, ‘mobile phone theft’ and ‘burglary’. However, for each of these offences truancy is neither the sole factor nor, indeed, the most significant. It is also the case that the number of children reporting involvement in these offences is relatively small, compared with other types of property crime (shoplifting and handling stolen property) and does not feature as a significant factor linked to property crime overall. However, it could be taken as an indicator of involvement in more serious offending and support existing evidence that although in some cases truancy might lead to offences being committed there is also a likelihood that it is more likely that offending behaviour will predate truancy from school (Graham, 1988), particularly in view of the evidence that truants rarely offend during school hours (Ekblom, 1979).
7. Discussion

Introduction

The aim of the On Track Youth Lifestyles Surveys was to provide data on risk and protective factors that young people experience in their lives and to consider their significance in relation to problem behaviours and offending. Extensive self-report data was therefore collected from over 30,000 young people in both primary and secondary schools relating to their experiences of family, schools, neighbourhoods and friendship groups, together with details of their involvement in problem behaviour. These children live and attend school in some of the most deprived and high crime communities in England and Wales. In this respect the On Track surveys are different from most comparable surveys of young people’s behaviour and views. The implication of this is that their findings should not be taken to be representative of the national picture for young people. One might expect to find a greater incidence of both problem behaviour and risk within On Track areas than in the country overall.

Different ethnic minorities were significantly represented in many of the On Track areas, and this provided an opportunity to undertake comparisons between the experiences and self-reports of children from different socio-cultural groupings. This dimension to the On Track study was particularly rich in providing insights into socio-cultural factors and their interaction in respect of risk, protection and problem behaviour. We also analysed the distribution of problem behaviours among children living in different family structures, school years and genders.

This chapter reviews findings from the On Track Youth Lifestyles Surveys in light of what we already know about the national picture from other surveys. The usefulness of the risk and protection model for identifying and intervening with children with problem behaviours, including offenders is considered. Finally, the policy implications of our analysis are discussed.

Findings of the On Track Youth Lifestyles Surveys

The findings reinforce existing evidence that offending and problem behaviour among school children is widespread and that a substantial proportion of children are actively engaged in property crime, violent crime, vandalism and alcohol or substance misuse. The picture presented for some children is that of a gradual onset of disaffected life. They
perceive their environment as significantly more depressed than other children living in the same area; they are aware of more of society’s problems, such as drug dealing and unfriendliness in the neighbourhood. They have poor relationships at home and conflictual attitudes at school. Their peer group is either tolerant of problem behaviour or actively involved, and their parents are distanced or uncaring in their attitudes. These children develop problem behaviour over the life of their secondary schooling and problem behaviour is not usually confined to a single area of the child’s life.

Differences with regard to the type and extent of problem behaviour reported in the survey were very apparent between girls and boys, between ethnic groups and between children belonging to different types of family structure. Asian children, for instance, reported significantly less problem behaviour than other groups and mixed background Black/White tended to report more than other groups. Similarly, ‘looked after’ children stood out as a group who might be considered particularly vulnerable because of the tendency to report higher levels of involvement in problem behaviour. These findings have an important bearing both upon an understanding of the concepts of risk and protection, highlighting, for instance, differences between the nature of community or family support networks and also upon development of intervention strategies (such as, focusing attention in work with the families of pre-teens on the gendered context of family risk factors).

Yet caution needs to be exercised in interpreting findings such as these. When the link between problem behaviour and such social markers as ethnic group and gender are incomplete it leaves open the stigmatising possibility of defining ethnic group, gender family structure, etc as a risk factor or protective factor in itself. When more detailed analysis is undertaken, within-group differences are found. For example, the signifier ‘Asian’ is a fairly crude label that can mask more than it reveals. Hence, detailed analysis revealed significant differences between Bangladeshi, Indian and Pakistani groups. Likewise, in detailed analysis the ‘White Irish’ group frequently came out very differently from the broader ‘White’ group. That is not to say, that ‘risk’ can be reduced to characteristics of these ‘sub-groups’ and it would be entirely wrong, for instance, to interpret our findings in respect of different ethnic groups as if ethnicity were a determinant of behaviour, or that being ‘looked after’ by the local authority was more likely to lead to a child’s involvement in crime. In each of these cases a complex range of factors is likely to be interacting. The important message here is that to fully understand the nature of problem behaviour in any given context it is necessary to be aware of the social and cultural variables that influence that behaviour and the construction of specific risks and protective factors within communities and other social settings. Risk factors are important social constructs that give meaning to behaviour as
well as describing behaviours. This is an area that requires further research and, in particular, qualitative research that can explore the ways in which such constructs are formed, internalised and modified.

**Offending and risk**

The On Track study elicited data on the attitudes of young people themselves towards offending and problem behaviours, data about potential risks in their everyday environment in school and community as well as attitudes and tolerance of problem behaviour in the people surrounding them, which may influence their own ideas on acceptable conduct.

Our research has shown that approximately half the children taking part (52%) admitted to some sort of offending. However, the linear regression model for offending suggests a group of young people who have some flirtation with crime in their early years at secondary school, but who then desist as they get older. It would therefore seem important that intervention projects targeting children at an early age in their involvement in crime and anti-social behaviour enhance the resistance qualities of individuals in this position, and do not reinforce any tendencies toward criminality.

Although the logistic regression models show that risk factors in the family domain do contribute to the likelihood of offending, this analysis points to them generally having less impact than do risk factors in other domains. The individual and peer group domain, by contrast, contains factors that tend to be much more significantly related to offending behaviour, with the strongest factor being friends’ involvement in problem behaviour. We have argued that this suggests that the social aspects of offending are likely to be important to many of these children. Traditionally crime reduction approaches to working with young people have been individually based. The research suggests possible benefits of an alternative intervention point at the group level. Nonetheless, for those children who display condoning attitudes toward problem behaviour, and particularly for those at high risk on conflictual attitudes, there is much scope for work with them on an individual basis. These differences between individual and social offences not only seem to have important implications for the types of interventions which are appropriate in each case, they also suggest that a generalised offending variable for use in assessing problem behaviour has only very limited value for intervention planning. A focus upon specific offences and the risk factors associated with them is likely to be of far greater usefulness.
The study has revealed some interesting results in respect of truancy and crime and emphasises the complex relationship between these variables. As Carlen et al. (1992) note, there is a persistent assumption in some parts of the literature that there is a causal relationship between truancy and crime. Yet, our own survey findings have not found evidence to support a strong causal relationship between truancy and crime. It did not feature as a factor in respect of our general measure of offending, nor in respect of our sub-measures of property offending and vandalism. There was some evidence that it might be a contributory factor in respect of certain offences within these categories (theft of a car, theft from a car, mobile phone theft and burglary) but the numbers of children reporting these offences was too small to have any impact upon the general category of property offending. The only problem behaviour where this factor featured in any significant way was in respect of attacking somebody.

There is evidence of a relationship between the absence of school protective factors and truancy for those young people who report offending. Those children who are offending and who have little commitment to school are more likely to be truanting. In other words, strategies aimed not simply at keeping children in school but rather also at promoting positive relationships within school may have a significant protective influence on those children who, on the basis of other risk factors, are more likely to become offenders. More research is needed in this area, but our findings are consistent with what is already known about the relationship between school attendance and problem behaviour from the literature on school effectiveness (Galloway, 1995; Kinder et al. 1999; Mortimore et al. 1988; Rutter et al. 1979, Solomon and Rogers, 2001).

**Protective factors**

Levels of protection reported by children in this survey do seem to be generally high, particularly in the family and school domains. There is some evidence, for instance, that a positive school climate tends to counteract certain risk factors and that in this case the protective factor is not simply the opposite of the risk factor. However, it is very clear that the much more work needs to be undertaken on the nature and operation of protective factors in relation to risk and offending behaviour. The theoretical framework within which protection is currently articulated is inadequate. Indeed apart from the largely speculative work of Hawkins the concept is under-theorised. In these circumstances it would be misleading to assume its credibility. The notion of protection must assume that factors are operating that compensate for the risk that is experienced. This does not necessarily mean that the amount or intensity of risk is reduced. If this were so, protective factors would merely
comprise the opposite of risk, i.e. the reduction of risk. However, we know little about how this relationship does or could operate in practice. Further theorisation of the concept of protection requires detailed qualitative work focused on the experiences and perspectives of young people and how these interplay with the decision-making and actions that constitute the negotiation of risk in their lives.

**Conclusion**

It remains the case that there are considerable difficulties encountered in establishing causal relationships between risk and offending. This raises particular problems for policy makers and practitioners in respect of accurately targeting interventions toward those most likely to offend and providing the right sort of interventions to take account of type of offence as well as reducing risk. At the theoretical level this has led to the hypothesising of multiple risk as the solution to the problem of how to account for the variance between factors. Thus, it is argued that the greater the number of high risk factors a child shows, the greater the likelihood is the risk of offending. The On Track survey does provide evidence in support of this contention.

Overall, the findings of the On Track Youth Lifestyles Surveys support the objectives of the On Track Programme. The evidence presented in this report has provided further validation for the hypothesis that risk factors are significantly related to problem behaviour and that multiple interventions with young people and their families are likely to impact positively in reducing risk and the likelihood of offending. At the same time the findings raise important questions about the relationship between context and risk. However, the findings have reinforced the On Track experimental approach toward both multiple intervention programmes and the testing of alternative approaches to targeted and universal interventions.
Appendix 1  Quality control

The Secondary School Survey quality audit

Introduction

The Secondary School Survey, conducted during the summer of 2001, involved approximately 21,000 children in years seven, eight, nine, ten and eleven attending 29 secondary schools and six middle schools.

A guidance package was provided for all schools taking part in the survey, comprising detailed instructions for head teachers, class teachers, special needs teachers and administrative staff, a list of frequently asked questions, and a model letter for parents. In addition, one member of the evaluation team was present in each school on the day of the survey in order to provide help for teachers implementing the survey, and to conduct a data quality audit. Two evaluators were in attendance in the case of schools operating on split sites.

Data quality

Non-participant pupils

The number of non-participating pupils was much smaller than had been anticipated. At 36 per cent of schools no pupils were withdrawn. In 65 per cent of schools where pupils had been withdrawn, less than ten pupils were involved. At a further 20 per cent of schools, school staff could not be precise about the numbers involved, but anticipated these to be small. The response rate for the survey, then, is unlikely to be significantly affected by the withdrawal of pupils on parental request.

Arrangements for non-participating pupils

The National Evaluation Team (NET) had recommended that alternative arrangements be made for non-participating pupils away from classrooms being used for the survey. Alternative arrangements were made in 40 per cent of the schools. However, in 50 per cent of schools, non-participant pupils remained in their normal classes throughout the duration of the survey. In a further ten per cent of schools, alternative arrangements were made for some non-participants, but others were allowed to remain within the normal classroom setting.
Members of the evaluation team observed a total of 302 classrooms during the course of the survey, and pupils were able to complete the survey in privacy in 82 per cent of classrooms, and in quiet in 78 per cent of classrooms. Furthermore, classrooms where pupils were unable to work in quiet and/or privacy were concentrated at a small number of schools.

Given the small numbers of pupils withdrawn from the survey, the fact that many non-participants had been withdrawn from the normal classroom setting, and that alternative, quiet activities had been provided for the majority of non-participants, it is unlikely that the data elicited by the survey will have been contaminated to any significant degree by disruptive non-participant pupils.

**Staggered surveys**
The NET recommended that schools arranged for all pupils taking part in the survey to complete their questionnaires at the same time. Thirty-five per cent of schools were unable to arrange this and instead adopted a staggered timetable for the survey. The NET believed that there was more potential for the contamination of data at schools where staggered arrangements were adopted, and schools were therefore advised both to ensure that completed and unused questionnaires were stored securely, and were not left in classrooms where they might have been seen by pupils who had yet to complete the survey, and to discourage pupils who had completed the survey from discussing it with others who had yet to do so.

Eighty-three per cent of those schools conducting staggered surveys had made arrangements for the secure storage of blank questionnaires, whilst 92 per cent of schools had also made arrangements for the secure storage of completed questionnaires. Staff in only eight per cent of schools suggested that data had been contaminated as a result of pupils who had completed the survey discussing this with those who were scheduled to complete the survey at a later date. There is little evidence to suggest that widespread data contamination has occurred as a result of the adoption of staggered arrangements.

**Arrangements for pupils with special needs**
Eighty-three per cent of schools had made some arrangements for those pupils who required a small level of support to complete the questionnaire. Strategies adopted by schools, included the use of Special Educational Needs (SEN)/support teachers/learning assistants (57 per cent of schools), reading out the questionnaire to
pupils (17 per cent of schools), and grouping pupils in need of extra support together (10 per cent of schools), with a number of schools adopting several methods to provide support for less able pupils. Such an approach clearly undermined the notion of confidentiality, however these strategies were adopted at a very small number of schools, and were therefore unlikely to have a significant effect on the quality of the data. By contrast, 14 per cent of schools had made no such arrangements for pupils requiring support.

Sixty-nine per cent of schools had made arrangements for pupils who required considerable support to complete the questionnaire, and again, a wide variety of strategies were evident. A number of schools again adopted several methods to provide support for pupils requiring considerable support.

Eight per cent of schools made no special arrangements for pupils requiring a significant level of support, whilst representatives from 17 per cent of schools suggested that it was not necessary for them to make such arrangements, as there were no pupils requiring this level of support. It was not known what arrangements had been made for pupils requiring a greater level of support at a further six per cent of schools.

**Pupils unable to complete the survey.**

Members of the evaluation team reported that pupils had sufficient time to complete the questionnaire at 64 per cent of schools, whilst at three per cent of schools (one school) it was not known whether pupils had adequate time to complete the survey or not. Some pupils did not have enough time to complete the survey at 25 per cent of schools, and at a further eight per cent of schools pupils were given extra time to finish.

Given that some pupils were unable to complete the survey within the allotted time at one third of schools, it is possible that the time less able pupils needed to complete the survey was underestimated. As a consequence of this, there is a possibility that some of the data gathered by the survey will be incomplete. In 44 per cent of those schools where pupils were unable to complete the survey in time there were pupils for whom English was a second language. This issue clearly needs to be addressed when the survey is repeated, if the voices of all children are to be heard.
Support for pupils

Members of the evaluation team noted that pupils had enough support to enable them to complete the survey at 77 per cent of schools, although at six per cent of schools it was not known whether pupils did or did not have sufficient support.

At 17 per cent of schools, pupils did not have enough support to enable them to complete the survey. At 83 per cent of schools where insufficient support was provided, pupils for whom English was a second language were disproportionately affected, and again, this issue needs to be addressed when the survey is repeated to ensure that all children have the opportunity to express their opinions.

Implementation issues

The quality audit sought to identify any difficulties experienced by schools in relation to implementation, with specific reference to

- Arrangements for the distribution of survey materials.
- Arrangements for follow-up surveys involving absentees.
- The implementation process.
- The information and practical assistance provide by evaluators on the day of the survey in order to facilitate the implementation process.

Arrangements for the distribution of survey materials

Ninety-four per cent of schools received the guidance materials at least five days in advance of the survey, and 86 per cent of schools also received copies of the questionnaire a minimum of five days before the day on which the survey was due to take place. Only a small minority of schools, then, experienced problems in relation to distribution of survey materials.

Arrangements for follow-up surveys involving absentees

Class lists were utilised in order to identify absentees at 86 per cent of schools but class lists were only being used as part of a follow up plan in 64 per cent of schools. The survey took place just before the end of the school year, however, and many schools were therefore not able to conduct follow up surveys. Furthermore, given the timing of the survey, the NET did not feel able to put undue pressure on schools to conduct follow up surveys.
The implementation process

Guidance for staff members
Class teachers were provided with copies of the guidance materials prior to the survey at 83 per cent of schools, and were briefed about the survey at 86 per cent of schools. Class teachers were, then, adequately prepared for the survey in the majority of schools. Some schools placed marginally less emphasis on preparing support staff for the survey, since support staff were briefed about the survey in 81 per cent of schools, and were provided with guidance in 67 per cent of schools.

Collection of survey materials
Completed questionnaires, unused questionnaires and the class participation sheets were taken to the school office after pupils had completed the survey at 92 per cent of schools, and at 78 per cent of schools staff were confident about the arrangements for the collection of the completed questionnaires. This suggests that the procedures for the implementation of the survey were fully understood in the majority of schools, and that staff had endeavoured to prevent data contamination.

Supply teachers
Sixty-one per cent of schools utilised between one and ten supply teachers on the day of the survey, whilst 25 per cent of schools had no supply teachers on the premises that day. At 14 per cent of schools it was not known whether supply teachers were or were not utilised on the day of the survey. The use of supply teachers did not appear to create any significant problems with respect to the implementation of the survey, since 73 per cent of those schools that used supply teachers on the day of the survey had been able to brief them, and at a further five per cent of schools supply teachers were not involved in implementing the survey. Twenty-three per cent of schools did not have the opportunity to brief the supply teachers present on the day of the survey.

Assistance provided by the evaluators
Members of the evaluation team were briefed to provide information and assistance to schools on the day of the survey. It was anticipated that the level of assistance requested by schools of the evaluators would give some indication as to how well schools had prepared for the survey, and how well staff understood the implementation process.
Members of staff at 50 per cent of schools raised questions about survey questions. The focus of these enquiries was extremely varied, however at 33 per cent of schools, enquiries concerned lifestyle questions.

Members of the evaluation team were asked to provide practical help to facilitate the survey at 25 per cent of schools. At 66 per cent of schools requesting assistance, evaluators provided support for pupils completing the questionnaire, and/or responded to pupil questions, whilst in a further 44 per cent of schools, members of the evaluation team were involved in the distribution/collection of questionnaires.

Other issues highlighted by the quality audit

Co-ordinator concerns
At 44 per cent of schools the teacher responsible for co-ordinating the survey expressed no concerns about either the survey itself, or the implementation process. Fifty-six per cent of co-ordinators did express misgivings however.

Seventy-five per cent of those co-ordinators expressing concerns spoke of administrative difficulties. Of this group 47 per cent expressed the view that the survey created too much work for school administrative staff, with a further 20 per cent suggesting that schools needed more time to prepare for the survey. Thirteen per cent of co-ordinators thought that the timing of the survey was inappropriate and a further 13 per cent stated that the identification of absentees was likely to be problematic.

Sixty-five per cent of co-ordinators expressed concerns about the survey itself. Of this group, 38 per cent believed that the questionnaire was too long and/or complex for pupils, whilst a further 23 per cent suggested that the language was inappropriate for the target population. Fifteen per cent of co-ordinators expressed the view that some of the questions were excessively intrusive and/or personal.

The issue of parental consent
69 per cent of schools utilised the model letter provided by the NET in order to gain parental consent for the survey, whilst a different approach was adopted in relation to this issue at 11 per cent of schools. Some schools, however, made no attempt to gain parental consent, and conducted the survey without this having first been obtained. This raises ethical questions that arguably need to be clarified before the survey is repeated. Parents raised
concerns about the survey at just six per cent of schools. To what extent this reflects the absence of parental knowledge about the survey is, however, impossible to gauge.

Learning points

- More time needs to be allocated for less able pupils to complete the survey.
- Schools need to be encouraged to provide additional help to pupils for whom English is a second language.
- More time needs to be allocated for schools to prepare for the survey.
- The survey needs to be timed to allow for follow up surveys to be arranged, in order for pupils absent on the day of the survey to participate.
- The issue of parental consent requires further clarification.

The Primary School Survey quality audit

Purpose

The purpose of the audit work was to ensure that the work being carried out in the primary schools being surveyed met the methodological and procedural standards agreed by the National Evaluation Team.

Sampling framework

Ninety-five primary and six middle schools in 22 of the 24 On Track areas took part in the survey. A quality audit sample comprising one school in each of eight regions of the country was selected. The country was divided into eight sampling segments based on two areas within each LET region. Two classes were observed in each primary school and one in the middle school visited.

Quality control framework

The quality framework is based around a comprehensive set of guidance documents developed by the NET for headteachers, teachers, administrative and support staff and the data processing company. Headteachers were sent a briefing paper outlining the process in

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11 The country was divided into eight sampling segments based on two areas within each LET region.
advance of the survey; teachers were asked to make suitable arrangements in the classroom and to take the lead role in implementing the survey in the classroom. The survey was read out to pupils and the survey administrator was responsible for the administrative arrangements in the school. In particular, it was requested that

- Headteachers brief teachers and support staff at least a day before the survey.
- Teachers read and familiarise themselves with the guidance material.
- Pupils should be sensitised to the idea of the survey through classroom discussion prior to implementation.
- Suitable arrangements are made for non-participating pupils to work separately in order to minimise disruption.
- The classroom is arranged to give pupils enough private space where they feel comfortable and reassured about privacy.
- Teachers should read out the pupil guidance in full to pupils just before reading out the survey.
- Teachers read out the questions with each response category, giving pupils enough time to answer.
- Teachers remain impartial throughout and refer to the guidance notes for clarification or advice on how to respond to pupils’ questions.

Quality control process

The quality framework was built around the following criteria to determine whether the conditions for the survey had been fully met and carried out according to the guidelines

- The school’s preparedness for the survey (based on a short interview with the headteacher).
- The quality of the classroom preparation/situation (interview/observance of the classroom situation with class teacher).
- The effectiveness of the implementation method (observance followed by interview with class teacher).
- Observance of the post-completion procedures (observance/discussion with survey administrator).
- Observance/comments from teachers.
- Exploratory work with pupils on key issues in the questionnaire (in pairs selected as far as practicable on ability, gender, ethnicity, SEN).
The evaluators were trained to carry out the audit and issued with instructions on the procedures to follow.

**School preparation**

In two of the schools, briefings had taken place only on the morning of the survey. One school had not made any preparations for dealing with non-participating pupils. In another school, support teachers were not briefed.

**Classroom organisation**

The number of classrooms that were organised properly (e.g. desks spaced apart or pupils well spaced out to give more privacy) was quite small.

**Implementation method**

The survey was implemented to the agreed method in over 50 per cent of the classes observed.

**Measures taken to support SEN pupils**

No serious problems were encountered.

**Issues or concerns raised by teachers**

Some teachers felt that the questionnaire was too long for the pupils’ age and ability (aged 7 to 8). The process was said to be ‘straightforward’ by the teachers with no concerns or issues being raised. The guidance was found to be helpful, but not all teachers read this in detail and some suggested that it would be useful to have guidance at the top of the questions in the teacher’s copy of the survey rather than at the bottom.
Classroom discipline

No disciplinary problems were reported in year three, four or five. There was only a minor incident due to ‘over-excitement’ on the part of one pupil in year six.

Survey completion time

The headteacher’s guideline specified that the full implementation of the survey (including set up time, implementation, briefing, completion and collection) should take between one hour and 1.5 hours. In practice the average across all schools was 42 minutes with years three and four taking on average 1 hour 29 minutes to complete the survey and years five and six taking 35 minutes.

Recommendations for improving quality

- Specify time of return of questionnaires and class participation summaries to be 48 hours after the date of survey.
- Where there is evidence that sealed envelopes have been tampered with, these should be discarded from the survey.
- The guidelines on the teacher’s copy of the questionnaire should be printed above the question rather than below it.
- Attach the class participation summary sheet to the teacher’s copy of the survey and ask that this be returned with the surveys.
- Bilingual support be available for pupils who speak English as an additional language.
- At least 48 hours before the survey, schools should be contacted to remind them of the survey and offer help; if the surveys have not been returned 48 hours after the survey date, the schools should be contacted.

Data cleaning procedures

In the secondary school dataset, there were 16,104 returned questionnaires of which, 41 (0.3%) were completely blank, these were removed leaving 16,063 questionnaires with data.
In one pilot On Track area, the survey was undertaken at a later date and as part of a Communities That Care (CTC) survey. The data from this survey was checked for compatibility and then added to the On Track Secondary School Survey. Differences between the two questionnaires were few as the On Track questionnaire was based on the same CTC questionnaire used in secondary schools in the area. The On Track secondary school questionnaire contained some questions not asked on the CTC survey and in these cases the data was recorded as missing. In other cases answers were recoded where appropriate.

The merged file contained 18,260 questionnaires with data. Further analysis revealed that the CTC file contained 76 respondents saying they were in year twelve at school. As the On Track Secondary School Survey is only concerned with pupils in years seven to eleven, these 76 respondents were deleted from the database, leaving 18,184 cases.

**Areas of conflict**

The age ranges for all years are given below, along with the number outside that range. Where there was a conflict between age and school year, for each of the cases identified as outside the school year range, the field’s age and school year was set to missing.

<table>
<thead>
<tr>
<th>Year</th>
<th>Range</th>
<th>Number outside range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year seven,</td>
<td>range 10 to 12,</td>
<td>39 cases outside range</td>
</tr>
<tr>
<td>Year eight,</td>
<td>range 11 to 13,</td>
<td>25 cases outside range</td>
</tr>
<tr>
<td>Year nine,</td>
<td>range 12 to 14,</td>
<td>17 cases outside range</td>
</tr>
<tr>
<td>Year ten,</td>
<td>range 13 to 15,</td>
<td>21 cases outside range</td>
</tr>
<tr>
<td>Year eleven,</td>
<td>range 14 to 16,</td>
<td>10 cases outside range</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>112 cases (0.6%)</td>
</tr>
</tbody>
</table>

In questions Q16a to Q16f of the secondary school survey, the child’s relationship with his/her mother/father is probed. One of the offered responses is: ‘Don’t see my mother/father’. Some respondents ticked this even if they answered earlier that they live with their mother and/or lived with their father. Where a respondent has replied: ‘Don’t see my mother/father’ to any part of Q16, his/her response to living with mother and/or living with father has been recoded to box ticked but conflict. A total of 222 responses had this conflict: for the ‘live with mother’ question, 70 cases (0.4%) were altered and for the ‘live with father’ question, 152 cases (0.8%) were altered.

In questions Q55a to Q55f, it is asked if brothers or sisters have/had offending behaviour. Because it does not ask the respondent if he/she sees or lives with a brother or sister, nor
does it differentiate between gender, a new variable, ‘siblings’ was calculated. If the respondent said he/she did not live with either brother(s) or sister(s) he/she was coded as not living with a sibling, if living with a brother and/or a sister he/she was coded as living with sibling(s). There was some conflict with 158 (0.9%) saying they lived with a sibling but did not have any brothers or sisters. These 158 were recoded to live with sibling(s) but conflict.

Filter question Q34 in the secondary school questionnaire asks: ‘Have you ever been excluded, that is expelled or suspended, from school?’ There were 1,755 missing responses (9.6%). Of these, 686 (3.8% of total responses) had answered at least part of the following questions, Q34a-Q34c. These 686 were recoded to ‘Assume yes’, since they had given information on their exclusion or suspension. There were 14,027 (76.8%) who said no to the filter question Q34. Of these, 819 (4.5% of total responses) had then answered at least part of the following questions Q34a-Q34c. These 819 were recoded to ‘No, yet answered’. All remaining ‘No’ answers (13,208) had Q41a-Q41b (asking about their exclusion/suspension) recoded as ‘Not applicable’.

Another filter question, Q38, asked: ‘Have you ever had more than a sip or two of an alcoholic drink?’ There were 1,503 missing responses (8.2%). Of these 880 (4.8% of total responses) had answered at least part of the following questions, Q38a-Q40a. These 880 were recoded to ‘Assume yes’. There were 4,891 (26.8%) who said no to the filter question Q38. Of these, 2,358 (12.9% of total responses) had then answered at least part of the following questions, Q38a-Q40a. These 2,358 were recoded to ‘No, yet answered’. All remaining ‘No’ answers, 2,533 (13.9%) had Q38a-Q40a recoded as ‘Not applicable’.

The filter question Q41, which asked: ‘Have you ever smoked a cigarette?’ had 1,424 missing responses (7.8%). Of these 412 (2.3% of total responses) had answered at least part of the following questions, Q41a-Q41b. These 412 were recoded to ‘Assume yes’.

Of the 9,653 (52.9%) who said no to the filter question Q34, 191 (1.0% of total responses) had then answered at least part of the following questions, Q41a-Q41b. These 191 were recoded to ‘No, yet answered’. All remaining ‘No’ (9,462) answers had Q41a-Q41b recoded as ‘Not applicable’.

For the filter question Q43, which asked: ‘Have you ever sniffed or taken any illegal drug?’ the CTC questionnaire had a question about Derbisol use. There is no illegal drug called Derbisol: this was put in as a check. Thirteen (0.1% of total respondents) CTC respondents answered that they used this ‘drug’; these have been coded as ‘Yes but Derbisol use’. To this filter question, there were 1,410 missing responses (7.7%). Of these, 612 (3.4% of total
responses) had answered at least one of the following questions Q44a-Q49. Four hundred and fifty (2.5% of total response) of these, were recoded to ‘Assume Yes’. The remaining 162 (0.9% of total responses) had answered ‘Never’ or ‘No’ to questions Q44a-Q49; these were recoded, as ‘Assume meant no’.

Seventy-eight per cent (14,250) said ‘no’ to the filter question Q43. 4,640 of ‘No’ answers (25.4% of total responses) had then answered at least part of the following questions Q44a-Q49. Of these 4,640, 561 (3.1% of all responses) had given all negative answers (‘Never’ or ‘No’) and were recoded as ‘No-negative answers’, perhaps indicating that they were true ‘No’ answers. The remaining 4,079 (22.3%) were recoded to ‘No, yet answered’. All remaining ‘No’ answers, 9,610 (52.5%) had Q44a-Q49 recoded as ‘Not applicable’. The 2,587 (14.2%) ‘Yes’ answers where checked. Twenty-two (0.1%) had given negative answers to all following questions (Q44a-Q49), ‘Never’ or ‘No’, perhaps indicating that they had never sniffed or taken any illegal drug. These 22 were recoded as ‘Yes-negative answers’.

Filter question Q52, asking: ‘Have you ever stolen or tried to steal anything?’ had 3,440 missing responses (18.8%). Of these ‘missing’ answers, 1,405 (7.7% of total responses) had answered positively to at least one of the following questions Q52a-Q52f. These 1,405 were recoded to ‘Assume yes’. The remaining five (less than 0.5% of total responses) had answered ‘Never’ to questions Q52a-Q52f; these were recoded, as ‘Missing assume no’.

No responses were given by 10,364 (56.8%) to the filter question Q52. Seven hundred and eighty (4.3% of total responses) then answered at least part of the following questions, Q52a-Q52f. Of these, 577 (3.2% of all responses) had given all negative answers (Never) and were recoded as ‘No-negative answers’, perhaps indicating that they were true ‘No’ answers. The remaining 203 (1.1%) were recoded to ‘No, yet answered’. All remaining ‘No’ answers, 9,584 (52.5%) had Q52a-Q52f recoded as ‘Not applicable’. The 4,456 (24.4%) ‘Yes’ answers were checked. Three hundred and fifty-four (1.9%) had given negative (Never) answers to all following questions Q52a-Q52f, perhaps indicating that they had never stolen. These 354 were recoded as ‘Yes-negative answers’.

Filter question Q54, asked: ‘Have you ever been arrested and taken to a police station?’ There were 1,400 missing responses (7.7%). Of these, 239 (1.3% of total responses) had answered at least one of the following questions, Q52a-Q52f. These 239 were recoded to ‘Assume yes’. Of the 14,769 (80.9%) who said no to the filter question, Q54, 2,236 (12.3% of total responses) had then answered at least part of the following questions Q54a-Q54c. Yet, 1,722 (9.4%) had missing for age when first arrested by police and ‘No’ to
ever found guilty of a crime/ever formally cautioned or given police warning. These 1,722 were recoded as ‘No, but age missing and ‘No’ to 54b and 54c’. The remaining 514 (2.8%) were recoded ‘No, yet answered’. All remaining ‘No’ answers, 12,533 (68.5%) had Q54a-Q54c recoded as ‘Not applicable’

**Cleaning the primary school dataset**

In the primary school dataset there were 13,365 cases, none of which were completely blank. Because of the age range of the children, the questions were kept simple and therefore the potential for possible conflict between questions was minimal. The only conflict identified was between age and school year. Where there is conflict between age and school year, for each of the cases identified as outside the school year range, the field’s age and school year have been set to missing

<table>
<thead>
<tr>
<th>Year</th>
<th>Range</th>
<th>Cases Outside Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year three,</td>
<td>range 6 to 8,</td>
<td>28 cases</td>
</tr>
<tr>
<td>Year four,</td>
<td>range 7 to 9,</td>
<td>16 cases</td>
</tr>
<tr>
<td>Year five,</td>
<td>range 8 to 10,</td>
<td>12 cases</td>
</tr>
<tr>
<td>Year six,</td>
<td>range 9 to 11,</td>
<td>3 cases</td>
</tr>
<tr>
<td>Year seven,</td>
<td>range 10 to 12,</td>
<td>2 cases</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>61 cases (0.5%)</td>
</tr>
</tbody>
</table>
Appendix 2  Definition of variables – Secondary School Survey

Family Structure

Children were not asked this question directly, but were given a list and asked to tick the people they lived with. The list comprised the following: mother, father, stepmother, stepfather, brother(s), sister(s), father’s girlfriend, mother’s boyfriend, grandparent(s) foster mother, foster father, other relatives (aunts, uncles, etc), living in Care Home, other people (not relatives). Responses were categorised into family structure as follows:

- **One parent**: One parent only ticked, with no step parent or foster parent or new partner.
- **Two parents**: Mother and father ticked and no partner/step parents/foster parents. One or more 'parent' may not be birth parent, but child has responded to mother/father. Rationale is that this indicates a stable long-term relationship that is equivalent in the perception of the child to parent.
- **Reconstituted 2 parent**: Mother or father ticked plus new partner, either step parent or mother’s boyfriend or father’s girlfriend.
- **Lives with relative**: Neither mother nor father ticked, but grandparent and/or other relative is ticked.
- **2 household**: Mother and father are ticked, together with father’s or mother’s partner. It was assumed the pupil spent time in two households because the parents were separated.
- **Looked after child**: Foster mother and/or foster father or living in Care Home are ticked.
- **Missing/confusion**: Where no response at all to the question, or the picture presented was too complex to categorise.
**Substance Use**

Alcohol Answers once or more to ‘How many times have you drunk alcohol in the last 4 weeks?’

Binge drinking Answers once or more to ‘In the last four weeks how many times have you had 5 or more alcoholic drinks in a row?’

Smoking Considers themselves to ‘smoke regularly’.

Drugs Answers more than Never to ‘How often, if at all, have you used the following drugs in the last four weeks?’ Cannabis; ecstasy, LSD or magic mushrooms; glue or solvents; cocaine, speed, or heroin.

**Anti-social and offending Behaviours**

Stealing Answers more than once to one or more of the following:
‘In the past year how many times have you

- shoplifted or stolen anything from a shop, supermarket or department store?
- stolen or tried to steal a car, van or motorbike?
- stolen or tried to steal anything from a car?
- stolen or tried to steal a mobile phone?
- stolen or tried to steal anything else?
- sneaked or broken into a house intending to steal something?’

Receiving Answers once or more to ‘In the past year how many times have you bought, sold or held on to something you knew had been stolen?’

Attacked Answers more than once to ‘In the past year, how many times have you attacked someone with the idea of seriously hurting them?’

Carried Answers more than once to ‘In the past year how many times have you carried a knife to school?’

Vandalised Answers more than once to ‘In the past year how many times have you vandalised somebody else’s property, or written or sprayed graffiti on walls, buses, train seats, etc?’

**School-Based Problem Behaviour**

Truant Answers one or more to ‘During the last four weeks how many whole days have you missed from school because you played truant or skived off school?’
Persistent truant: Answers more than 3 to ‘During the last four weeks how many whole days have you missed from school because you played truant or skived off school?’ AND answers more than a day here and there to ‘In the last year have you ever played truant from school (wagged, dodged, skived)?’

**Number of Problem Behaviours**

Number of problem behaviours

i. Has drunk alcohol in the last 4 weeks.

ii. Describes themselves as ‘smoking regularly’.

iii. Has used one or more drugs in the last 4 weeks.

iv. Has played truant in the last 4 weeks.

v. Has stolen or tried to steal something in the last year.

vi. Has bought sold or held on to something known to be stolen.

vii. Has vandalised property in the last year.

viii. Has attacked someone in the last year.

ix. Has carried a knife to school in the last year.

**Offending**

Property crime has one or more of the following 6 types of property offence

Shoplifting

Answers more than once to ‘In the past year how many times have you shoplifted or stolen anything from a shop, supermarket or department store?’

Handling stolen goods

Answers more than once to ‘In the past year how many times have you bought, sold or held on to something you knew had been stolen?’

Theft from car

Answers more than once to ‘In the past year how many times have you stolen or tried to steal anything from a car?’

Theft of car

Answers more than once to ‘In the past year how many times have you stolen or tried to steal a car, van or motorbike?’

Mobile phone theft

Answers more than once to ‘In the past year how many times have you stolen or tried to steal a mobile phone?’

Burglary

Answers more than once to ‘In the past year, how many times have you sneaked or broken into a house intending to steal something?’

Violence (attacking someone)

Answers more than once to ‘In the past year, how many times have you attacked someone with the idea of seriously hurting them?’

Vandalism

Answers more than once to ‘In the past year how many times have you vandalised somebody else’s property, or written or sprayed graffiti on walls, buses, train seats, etc?’
Offending
Found guilty of a crime

Victimisation
Victim of bullying
Victim of theft
Victim of threatening behaviour
Victim of physical attack
Victim of crime

Risk factors
Poor parental supervision and discipline

Children, risk and crime: the On Track Youth Lifestyles Surveys

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Family conflict High risk if answers ‘YES’ or ‘yes’ to two or three,
moderate risk if answers ‘YES’ or ‘yes’ to one of the following:
  ● ‘People in my family often insult or yell at each other.’
  ● ‘People in my family have serious arguments.’
  ● ‘We argue about the same things in my family over and over.’

Sibling(s) High risk if answers ‘yes’ to four or more,
involved in moderate risk if answers ‘yes’ to one, two or three, of the following:
  ‘Have any of your brothers or sisters…
behaviour
problem
   ● been regularly excluded or suspended from school?
   ● drunk alcohol regularly when they were under 18?
   ● smoked regularly when they were under 16?
   ● smoked cannabis?
   ● taken other illegal drugs?
   ● been found guilty of a crime by a court of law?’

Parental High risk if answers ‘YES’ or ‘yes’ to three or more,
attitudes moderate risk if answers ‘YES’ or ‘yes’ to one or two of the following:
condoning ‘How wrong do your parents feel it would be for you to…
problem
behaviours
   ● steal something worth more than £5?
   ● pick a fight with someone?
   ● draw graffiti on buildings without permission?
   ● drink alcohol regularly?
   ● smoke cigarettes?’

Lack of High risk if negative response to three or more,
commitment moderate risk if negative response to one or two of the following:
to school ‘How interesting are most school subjects to you?’
  ‘On the whole, how important is your school work going to be for your
  future life?’
  ‘Thinking back over the past year how often did you enjoy being in
  school?’
  ‘Thinking back over the past year how often did you hate being in
  school?’
  ‘Thinking back over the past year how often did you try to do your best
  in school?’

Community High risk if answers negatively to two or more,
disorganisation moderate risk if answers negatively to one of the following:
and neglect ‘There are lots of fights in my neighbourhood.’
  ‘There is a lot of crime and/or drug selling in my neighbourhood.’
  ‘There are lots of empty or abandoned buildings in my neighbourhood.’
  ‘How safe do you feel in your neighbourhood after dark?’
Lack of High risk if answers negatively to both, neighbourhood moderate risk if answers negatively to one of the following: attachment ‘If I had to move, I would miss the neighbourhood I now live in.’ ‘I’d like to get out of my neighbourhood.’

Easy High risk if answers easy or very easy to three or more, moderate risk if availability answers easy or very easy to one or two of the following: of drugs ‘If someone of your age wanted to get hold of the following things, how easy would it be?’
- Alcohol?
- Cigarettes?
- Cannabis?
- Ecstasy, LSD, Magic Mushrooms?
- Cocaine, Heroin?

Attitudes High risk if answers not wrong at all or a bit wrong to four or more, condoning moderate risk if answers not wrong or a bit wrong to one, two or three of problem the following: behaviour ‘How wrong do you think it is for someone your age to:
- Play truant without your parents knowing?
- Drink alcohol regularly?
- Smoke cigarettes?
- Smoke cannabis?
- Use LSD, cocaine, ecstasy or other illegal drugs?
- Take a knife to school?
- Steal something worth more than £5?
- Pick a fight with someone?
- Attack someone with the idea of seriously hurting them?
- Become pregnant or get someone pregnant?

Friends High risk if answers ‘yes’ to four or more, moderate risk if answers ‘yes’ to one, two or three of the following: ‘In the past year, have any of your best friends
- Been excluded or suspended from school?
- Regularly played truant?
- Tried alcohol without their parents knowing?
- Smoked cigarettes regularly?
- Smoked cannabis?
- Used LSD, cocaine, ecstasy or other illegal drugs?
- Sold or dealt illegal drugs?
- Carried a knife to school?
- Stolen or tried to steal a motor vehicle such as a car or motorbike?
- Stolen from a supermarket, shop or department store?
- Sneaked or broken into a house, intending to steal something?
- Been arrested and taken to a police station?

**Individual conflict attitudes**

High risk if answers ‘YES’ or ‘yes’ to four or more, moderate risk if answers yes to one, two or three of the following:

- ‘I do the opposite of what people tell me, just to make them mad.’
- ‘I like to see how much I can get away with.’
- ‘It is all right to beat people up if they start the fight.’
- ‘I think it’s OK to take something without asking if you can get away with it.’
- ‘I ignore rules that get in my way.’
- ‘I think it’s sometimes OK to cheat at school.’

**Victim of crime or bullying**

High risk if answers ‘yes’ to three or more, moderate risk if answers yes to one or two of the following:

‘During the last week another pupil:

- Tried to kick me.
- Demanded money from me.
- Tried to hurt me.
- Tried to break some thing of mine.
- Tried to hit me.’

‘Over the past year:

- Has anyone stolen anything of yours?
- Have you had anything you were carrying stolen?
- Has someone attacked you and kicked you?
- Have you been frightened by someone shouting at you or threatening you?’

**Protection factors**

Positive relationship with parents

Low protection if answers negatively to four or more, moderate protection if answers negatively to one, two or three of the following:

‘My parents give me lots of chances to do fun things with them.’
‘My parents ask me what I think before family decisions are made.’
‘If I had a personal problem, I could ask my mum or dad for help.’
‘How often do your parents tell you or show you that they are proud of you?’
‘How often do your parents notice when you are doing something well?’
Family attachment
Low protection if answers negatively to four or more, moderate protection if answers negatively to one, two or three of the following:
‘Do you feel very close to your mother?’
‘Do you enjoy spending time with your mother?’
‘Do you share your thoughts and feelings with your mother?’
‘Do you feel very close to your father?’
‘Do you enjoy spending time with your father?’
‘Do you share your thoughts and feelings with your father?’

Opportunities for pro-social involvement
Low protection if answers negatively to three or four, moderate protection if answers negatively to one or two of the following:
‘In my school, pupils have lots of chances to help decide things like class activities and rules.’
‘There are lots of chances for me to talk to a teacher, one-to-one.’
‘I have lots of chances to be part of class discussions or activities.’
‘There are lots of chances for pupils in my school to get involved in sports, clubs and other activities in break-time and after school.’

Positive feelings about school
Low protection if answers negatively to three or four, moderate protection if answers negatively to one or two of the following:
‘My teachers notice when I am doing something well and let me know.’
‘The school lets my parents know when I have done something well.’
‘I feel safe at my school.’
‘My teachers praise me when I work hard.’

High school expectations of behaviour
Low protection if answers negatively to three or more, moderate protection if answers negatively to one or two of the following:
‘My school has clear rules about what happens if I am late for school.’
‘My school has clear rules about what to do if I am absent from school.’
‘My school has clear rules about what I should do if I am bullied.’
‘My school deals with bullying well.’

Positive relationship with adults
Low protection if answers negatively to two or three, moderate protection if answers negatively to one of the following:
‘There are lots of adults in my neighbourhood (apart from my family) that I could talk to about something important.’
‘There are people in my neighbourhood (apart from my family) who are proud of me when I do something well.’
‘There are people in my neighbourhood (apart from my family) who encourage me to do my best.’
Appendix 3  
Validity and reliability of risk factors from the On Track Youth Lifestyle Survey

The On Track Youth Lifestyle Survey was designed to assess problem behaviour and risk across four domains of community, individual and peers, school and family, identified by Hawkins et al. (1992).

Content and validation of the Survey

The survey questions were adapted from The UK Communities That Care Survey. This was itself an adapted version of the US Communities That Care Youth Survey, which assessed risk and protective factors found to statistically predict drug use and delinquent behaviour in adolescents (Pollard et al. 1999; Hawkins et al. 1992). Items from the CTC US survey had already been subjected to intensive testing on face, content validity and extensive piloting. Validation results reported that only 0.5 per cent of children were inconsistent in their answers on offending behaviour (description see Pollard, 1999).

Changes

There were differences in focus of the UK study as well as cultural and age differences. The CTC US and UK survey differentiated substance misuse from general delinquency, and the US survey has questions on personality characteristics and a lesser focus on social problems of interest to the On Track study. We discarded many of the specific questions about gangs and weapons and focused on content relevant to the range of offending behaviour studied and the risk factors relevant to school age children living in 24 deprived high crime communities in Britain.

Hypothesis

Risk and protection

Previous studies and theory predicts a close association of risk factors with problem behaviour; there is less consensus on whether protective factors act as a ‘buffer’, that is form a barrier against risk or a ‘mediator’, i.e., the risk is able to penetrate, but its nature is
changed. The diagram shows protective factors in a mediation theory approach, and illustrates the general overview of risk theory, that if all domains of the child include risk, then there will be a strong association with problem behaviour.

**Figure A3.1 Derivation of appropriate risk factors for the Secondary School Survey**

We focused on four important studies defining risk factors which statistically predicted drug use and criminal or delinquent behaviour in young people: the Communities That Care Youth Survey (US) (description Pollard et al. 1999; Hawkins et al. 1992), The Communities that Care survey (UK) and The Cambridge Study in Delinquent Development (UK) (West 1982; Farrington 1994), a 20 year longitudinal study of offending behaviour. We identified 25 risk and protective factors from the US CTC study for criminal or delinquent behaviour as appropriate to family life in Britain. These risk factors were mapped to 17 factors discussed in the report by the CTC UK YLS survey. Nine risk factors from Farrington (1994a) provided a personal aspect to the family domain whilst relating to previous elements and a further 25 factors from Farrington’s (1994b) study provided links with all elements (See Table 1). Also included were specific questions about victimisation, and problem behaviour known to occur amongst British youth.
Comparison with the CTC approach – building the risk factors

One hundred and twenty-six risk and protective factor items and 43 problem behaviour items addressed by 58 survey questions were grouped under risk and protection factor headings similarly to the CTC (UK) study (2002) and to the CTC (US) (2000) approach.

Changes in the design of the risk approach: the CTC studies found high correlations between risk factors and problem behaviour, as well as drug misuse and high correlations between drug misuse and problem behaviour. However, their calculation of risk included some measurements of problem behaviour itself, notably truancy, being arrested and exclusion (CTC UK; CTC US) which could have been a confounding influence, since correlations with other problem behaviours are likely. The CTC studies also included ‘early indications of problem behaviour’ as a risk factor, which would have confounded their aggregation of risk. The integrity of the risk categories might be confused if items about problem behaviour were also included, so in the On Track survey items referring to problem behaviour were excluded from the risk factors and retained solely in the outcome variables.

Twenty risk or protection factors were matched but two factors were composed of single items. The CTC UK ‘bullying’ factor was not present in the US version. Because the On Track survey aimed to test theories about bullying and victimisation, the CTC factor was not appropriate since both bullies and bullied were grouped together. A victimisation factor was compiled from bullying indexes developed in Sheffield to match this factor. One exclusion question, 16 questions about problem behaviour (including truancy and arrests), and a further 12 demographic questions made the survey 66 questions long.

The survey items from primary schools were mapped to the secondary items, but are not discussed here as risk factors, because at this early stage in the analysis of this important data set it is important to validate whether risk and protection factors do indeed relate to the population addressed and there may be other confounding influences in data from primary children. Outcome variables (problem behaviour) were also not measured at the primary stage. Further analysis will determine the viability of using the primary school data as predictive material.

Having mapped the risk and protective factors against the recognised models, we checked the clarity of definitions linking the items to risk factors using percentage agreement between two independent raters. There were three aspects to this validity testing:
To establish whether the items sufficiently reflected all the aspects of the risk factor.

To establish whether a weighting system was appropriate for items within risk factors, since some of the items were felt to be more appropriate to the risk factor than others.

To establish domain preference of risk factors.

Raters used three subjective levels of categorisation: importance of the item to the risk factor; clear relation to the risk factor; domain of influence on child. Both raters also assessed whether an alternative title could be offered through the aggregated items offering a specific aspect of the risk factor.

(1) The questionnaire clearly reflected the focus on offending and risk and protection in children. Relation to the risk factor showed a very high agreement ratio (86%), thus agreement between raters was clear enough. One scale which was later changed because it also had poor internal consistency (poor housing and low income) was considered by both raters to be inconsistent. Only four items were matched as ambiguous by both raters. The ambiguous/clear ratings were distributed throughout the survey and showed no cluster pattern. Both raters considered that aggregated items addressed specific issues of the more general descriptions of ‘risk and protection’. The titles of risk and protective factors were redefined to explicitly state the aspect of risk addressed by the survey and reflect changes from the CTC model. Furthermore, because we held no assumptions regarding the ‘buffer’ or ‘mediator’ role of risk and protection factors (see CTC US study), we used neutral labels rather than indicate the direction of assumed affect.

Example of clear relation – On Track Factor ‘Family Conflict’:
Matched with CTC USA and CTC UK – [Family conflict]; Farrington (1994b) [Poor parental child rearing].
Subsumes On Track survey items:
(15f.) People in my family often insult or yell at each other.
(15g.) People in my family have serious arguments.
(15h.) We argue about the same things in my family over and over again.

Example of aspect relation – On Track Factor ‘Sibling history of problem behaviour’
Matched with:
Subsumes On Track survey items
Have any of your brothers or sisters (a) been regularly excluded from school; (b) drunk alcohol (under the age of 18); (c) smoked regularly (under the age of 16); (d) smoked cannabis; (e) taken other illegal drugs; (f) been found guilty of a crime by a court of law.

There were disagreements allocating importance to items of a risk factor, probably because of the generality of the initial descriptions. Weighting of items would have been rather subjective and there were some ambiguities in relation of a small number of items to risk factors. Therefore weighting was inappropriate.

There was very high agreement on domain preference (98%). Theory predicts that each domain contributes to the total risk influencing the child towards problem behaviour. We tested the influence of each domain among risk factors relevant to offending behaviour.

Proportionality of domain was checked through a tally of risk factors related to each of four domains.

Family domain - seven risk/protection factors.
School domain - four risk/protection factors.
Individual/peers domain – five risk/protection factors.
Community domain – six risk/protection factors.

Results indicated that the focus of the questionnaire was primarily on family and community risk factors. School lay more in the protective sphere and there were many more risk factors identified than protective factors. This may be important in interpretation of results.

Distinguishing risk and protective factors

The CTC US study differentiates protective factors as pro-social mediating influences, and corresponding factors from the On Track survey that matched with these were labelled protective factors. The literature reports little consensus on the definition and effect of screening influence of protective factors distinguished by their pro-social influence as opposed to anti-social (anti-risk) factors and their statistical relationship to problem behaviour is still under investigation. Factors that seemed to indicate protection but were purely the opposite of risk factors were not duplicated.
Reliability of risk /protection scales

The prospective risk and protection factors now comprised of numbers of survey items that were subsumed under a further descriptive title appropriate to their collective meaning after the reliability test. The Cronbach-alpha test of consistency of responses between items was performed for each risk factor with more than one item. Table 1 shows the results of the analysis with survey items subsumed for each risk factor.

Many risk factors were clearly internally consistent, with high coefficients. For risk factors with inconsistent results (see Table 1), we removed items to improve the score and the reworked scores are shown in column two. The risk factor describing ‘low income and poor housing’ contained six clearly inconsistent items and scores did not improve when items were removed. The item ‘free school meals’ is a widely used measure of poverty in Britain and this was retained as a single item and the risk factor renamed ‘free school meals’.

Comparison to the CTC studies

Our risk factors were originally grouped similarly to the CTC UK study but after the reliability analysis, there were only two factors with no changes. The CTC UK report did not calculate risk scores for combinations of items, but used a simple grouping method to relate their items under a risk heading.

The CTC US study used more differentiated gradations than the UK study, particularly in their drugs focus. The On Track reliability study supports some of the CTC UK groupings, but other groupings showed poor reliability, and were more appropriately grouped by the US study. Scores were mostly similar to the US, except for two items which indicated the consistency of scores was differently spread, but we excluded items with low reliability (under 0.6) from the analysis.

One item risk factors: Two risk factors with one item remained; ‘free school meals’, which is widely validated as a measure of poverty, and ‘school achievement’ as perceived by the child, validation of which could not be established through the literature, and thus was removed as a risk factor. No protective factors with one item were identified.

Risk and protection factors retained: protective factor four – clear expectations of behaviour was included as ‘protection’ because it was pro-socially and not negatively worded, but the cross reference locates it as a ‘risk’ factor for the CTC analysis.
<table>
<thead>
<tr>
<th>RISK FACTORS</th>
<th>Q. No.</th>
<th>alpha 1 excluded</th>
<th>alpha 2</th>
<th>CTC (UK) Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAMILY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1 Parental supervision</td>
<td>14a-c, 15a-e</td>
<td></td>
<td>0.75</td>
<td>Poor parental supervision and discipline</td>
</tr>
<tr>
<td>and discipline</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2 Family conflict</td>
<td>15f,g,h</td>
<td></td>
<td>0.77</td>
<td>Family conflict</td>
</tr>
<tr>
<td>R3 Siblings history of</td>
<td>55a-f</td>
<td></td>
<td>0.74</td>
<td>Family history of problem behaviour</td>
</tr>
<tr>
<td>problem behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R4 Parental attitudes on</td>
<td>18a-e,42</td>
<td>0.7</td>
<td>0.73</td>
<td>Family involvement or attitudes condoning problem behaviour</td>
</tr>
<tr>
<td>problem behaviour</td>
<td></td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCHOOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R5 School commitment</td>
<td>26, 27, 28a-c, 36</td>
<td>0.6</td>
<td>0.72</td>
<td>Lack of commitment to school including truancy</td>
</tr>
<tr>
<td>COMMUNITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R6 Community dis-</td>
<td>20a-e, 21</td>
<td></td>
<td>0.70</td>
<td>Community disorganisation and neglect</td>
</tr>
<tr>
<td>organisation and neglect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R7 Neighbourhood</td>
<td>19a,b,d, 13, 33</td>
<td>0.48</td>
<td>0.76</td>
<td>High turnover and neighbourhood attachment</td>
</tr>
<tr>
<td>attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R8 Availability of drugs</td>
<td>50a-e</td>
<td></td>
<td>0.85</td>
<td>Perceived availability of drugs</td>
</tr>
<tr>
<td>INDIVIDUAL/PEER</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R9 Attitudes towards</td>
<td>50a-j</td>
<td></td>
<td>0.89</td>
<td>Attitudes condoning problem behaviour</td>
</tr>
<tr>
<td>problem behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R10 Friends involved in</td>
<td>56a-l</td>
<td></td>
<td>0.86</td>
<td>Friends involved in problem behaviour</td>
</tr>
<tr>
<td>problem behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R11 Individual conflict</td>
<td>58a-g, 58f</td>
<td>0.75</td>
<td>0.82</td>
<td>Alienation and lack of social commitment</td>
</tr>
<tr>
<td>behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R12 Victimisation</td>
<td>29a-e, 51a-d</td>
<td></td>
<td>0.79</td>
<td>Aggressive behaviour at school including bullying</td>
</tr>
<tr>
<td>Aggressive behaviour</td>
<td>30, 31, 32</td>
<td>0.36</td>
<td>0.24-</td>
<td>Aggressive behaviour at school including bullying</td>
</tr>
<tr>
<td>(excluded factor)</td>
<td></td>
<td></td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td>Single risk items</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free school meals</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School achievement</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(excluded)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 1  Reliability of risk and protective factors (continued)

<table>
<thead>
<tr>
<th>RISK FACTORS</th>
<th>Q. No.</th>
<th>alpha 1 excluded</th>
<th>alpha 2</th>
<th>CTC (UK) Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 Positive relationship with parents</td>
<td></td>
<td></td>
<td>0.79</td>
<td>Family opportunities for involvement</td>
</tr>
<tr>
<td>P2 Family attachment</td>
<td>16a-f</td>
<td></td>
<td>0.83</td>
<td>Family attachment</td>
</tr>
<tr>
<td>SCHOOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3 Opportunities for pro-social involvement in school</td>
<td>22a-d</td>
<td></td>
<td>0.69</td>
<td>School – opportunities to feel involved</td>
</tr>
<tr>
<td>P4 Positive feelings about schools and teachers</td>
<td>22e, 23a-c</td>
<td></td>
<td>0.72</td>
<td>School – recognition and praise</td>
</tr>
<tr>
<td>P5 School expectations of behaviour</td>
<td>23e-g, 23d,h,l</td>
<td>0.54</td>
<td>23h,d</td>
<td>0.72</td>
</tr>
<tr>
<td>COMMUNITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P6 Positive relationship with adults (Community)</td>
<td>19c, 20b,d</td>
<td></td>
<td>0.76</td>
<td>No comparison (CTC US – opportunities for pro-social involvement)</td>
</tr>
</tbody>
</table>

#### The CTC UK adaptation of the Youth Lifestyle survey for British schoolchildren

The CTC UK survey was an adapted version of the Youth Lifestyle survey used in the US and contained similarly worded questions, adapted for greater understanding by British schoolchildren. The On Track survey used most of the same questions as the CTC UK questionnaire, but the CTC UK questionnaire had questions not used by the On Track survey.

We used the CTC UK aggregation of their questions to ‘risk factors’ as a starting point for our reliability analysis. Risk factors are constructs derived from a number of constituent questions. For example: the CTC construct of ‘school disorganisation’ includes these questions:

- My school has clear rules about what happens if I’m late for school.
- My school has clear rules about what to do if I’m absent from school.
- My school has clear rules about what I should do if I’m bullied.
- My teachers at my school usually use punishments to keep control.
- It is easy to truant at my school.
Each question addresses a slightly different aspect of school disorganisation, and it is expected that children would score consistently high or low (when coded for risk) if the items measure one idea. Children completing the On Track survey answered consistently for the first three items but the other items did not seem related. If we remove the last two items, the remaining items address a different construct, that of ‘expectations of behaviour’, the On Track risk factor.

The aggregation of items to a single idea, then, depends on the consistency of responses. The CTC UK study did not report reliabilities for their aggregation of questions to risk factors and therefore we cannot compare them.

Table 2 presents risk factors showing no change from the US risk and protection factors in item aggregation for comparable items from the On Track and the CTC UK survey. Question wording or title wording does not constitute a change here. ‘Supported’ means that the On Track reliability test indicated the construct measured was consistent, that all the items aggregated to measure one idea. ‘Not supported’ means that one or more of the questions showed no inter-item reliability, that children answered inconsistently and the aggregated items were not a single construct.

Table 2:

<table>
<thead>
<tr>
<th>Risk factor</th>
<th>CTC UK no change from CTC US</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor parental supervision and discipline</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Family opportunities for involvement</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Family recognition and praise</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Opportunities to feel involved at school</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Recognition and praise at school</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Community disorganisation and neglect</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Perceived availability of drugs</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>7 items</td>
<td></td>
<td>5 items supported</td>
</tr>
</tbody>
</table>

Table 3 shows CTC UK categories with changes in aggregation from the US risk and protection factors in item aggregation (additions or deletions) for comparable factors and items from the On Track and the CTC UK survey. Not tested means that although the factor was changed, the On Track study did not include the changed items and measured the original CTC US category.
### Table 3

<table>
<thead>
<tr>
<th>Risk factors</th>
<th>Change in the CTC UK study</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family conflict</td>
<td>Added 2 items (change not tested)</td>
<td>Yes</td>
</tr>
<tr>
<td>Family history of problem behaviour</td>
<td>Added 1 item</td>
<td>Yes</td>
</tr>
<tr>
<td>Family involvement or attitudes condoning problem behaviour</td>
<td>Added smoking (supported) and deleted graffiti (not supported)</td>
<td>Partly</td>
</tr>
<tr>
<td>Family attachment</td>
<td>Aggregated family rewards and family attachment</td>
<td>Yes</td>
</tr>
<tr>
<td>Lack of commitment to school including truancy</td>
<td>Deleted missed school (supported) added truancy (not tested)</td>
<td>Partly</td>
</tr>
<tr>
<td>Aggressive behaviour at school including bullying</td>
<td>Added factor</td>
<td>No</td>
</tr>
<tr>
<td>School disorganisation</td>
<td>Added factor (partly retained)</td>
<td>No</td>
</tr>
<tr>
<td>High turnover and neighbourhood attachment</td>
<td>Aggregated ‘transitions and mobility’ and ‘attachment’</td>
<td>No</td>
</tr>
<tr>
<td>Opportunities for pro-social involvement in community</td>
<td>Factor deleted</td>
<td>No</td>
</tr>
<tr>
<td>Peer attitudes condoning problem behaviour</td>
<td>Aggregated anti-social behaviour and drug use</td>
<td>Yes</td>
</tr>
<tr>
<td>Friends involved in problem behaviour</td>
<td>Aggregated anti-social behaviour and drug use</td>
<td>Yes</td>
</tr>
<tr>
<td>Alienation and lack of social commitment</td>
<td>Aggregated rebelliousness and belief in moral order</td>
<td>No</td>
</tr>
<tr>
<td>Early involvement in problem behaviour</td>
<td>Aggregated ‘indications of problem behaviour’ and ‘anti-social behaviour’ not tested</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>13 changes</td>
<td>4 supported</td>
</tr>
<tr>
<td></td>
<td>2 risk factors partly supported 2 not tested</td>
<td></td>
</tr>
</tbody>
</table>

#### The CTC UK aggregation of questions to risk factors

- Left seven US risk factors unchanged, of which five were fully supported and two not supported.
- Made 13 changes of which four were fully supported and seven not supported.
‘Family conflict’ was supported as the original CTC US configuration since the questions added by CTC UK were not asked in the On Track survey and ‘early involvement in problem behaviour’ was not tested, because the On Track analysis considered this would confound the behaviour items.

Our own work on validity and reliability for the On Track Youth Lifestyle Survey found that:

- Content validity of the UK study was good, with changes to wording of questions, risk factors and excluded questions supported.
- Domain grouping by individual, school, family, and community was supported. There were no overlaps of risk or protection factors between domains.
- Survey questions naturally grouped roughly into the risk categories defined by the CTC although some items had more weight than others.
- There was evidence to suggest that theoretical development, definition and measurement of protection was weak.
- The general constructs of risk and protection were supported; there were no overlaps of items included in risk factors to protection factors.
- Truancy, involvement in crime, aggressive behaviour and victimisation were minimally correlated with measurements of risk factors. Other problem behaviours seemed to share their variance across the range of risk and protection factors.
- The On Track decision to exclude measurements of problem behaviours from the risk factors (this practice was used both in the UK and the US study) was fully supported.
- The CTC UK adaptation of the US risk factors for British schoolchildren was generally not supported.

Although, generally, we support the risk and protection approach, the CTC UK discussion of adapted risk factors that are not supported by a reliability analysis cannot be made. If items do not measure the same construct, they must be discussed individually as CTC UK has done in its recent report (CTC, 2002), but the wider implications of its contribution to risk or protection in Britain are ambiguous. The On Track survey did not ask all the questions of the CTC US survey but there were too many differences in both our risk factors and aggregation to fully test its method. There was evidence to suggest our population was different from the US population, indicating a British adaptation was appropriate. Our risk items are additive, that is they measure the same construct, and we can use the total number of items to discuss a ‘risk’ as an aggregate concept.
It is beyond the scope of this report to go further into validity measures; construct validity is very hard to establish and the test for reliability between items constructing an additive factor is not exhaustive and only a first step. Further validation measures, potentially drawing on natural categories, as an alternative to imposed rational categories (the theory driven approach) would establish construct validity.
The analysis of the Secondary School Survey data revealed that many demographic, risk and protective factors were statistically significantly associated with involvement in the range of problem behaviours. It was also clear that there were many significant interrelationships between these variables too, which makes it difficult to assess which factors are having the most impact on problem behaviours. Logistic regression has been used to address this problem. It is a multivariate statistical technique used to assess the independent impact of each variable on the ‘outcome’ measure.

This multivariate technique constructs a statistical model through which it identifies key characteristics of use when attempting to predict a particular outcome, such as offending. In essence the technique takes account of all of the variables included in the analysis and their interrelationships, and assesses the independent effect of each variable. The analysis constructs a model that includes all of the variables that have a statistically significant impact, and throws out variables that have no statistical impact on the outcome being assessed. The relative contribution of each variable is presented in the form of odds ratios.

The following variables were inputted into each regression model (using a forward stepwise selection)

- Whether or not living in On Track area
- Sex
- School year
- Ethnic origin
- Family composition
- Level of risk (none, low, high) for all 12 risk factors
- Level of protection (none, low, high) for all six protection factors
- Involvement in truancy
- Smokes regularly
- Level of alcohol consumption in past four weeks
- Whether or not used drugs in past four weeks

Separate logistic regressions were carried out to explore which of the above variables were significant in predicting whether or not a pupil was involved in the following self-reported behaviours in the past year.
- Offending of any kind
- Property offences
- Stealing
- Shoplifting
- Vehicle theft
- Theft from vehicle
- Mobile phone theft
- Burglary
- Vandalism
- Receiving stolen goods
- Attacking someone with the intent to hurt them
- Carrying a knife to school
- Being arrested
- Being found guilty of a crime by a court of law

All characteristics were recoded into dichotomous variables which, in most cases, resulted in a simple binary variable, one side of which denoted the presence of a given characteristic (for example, being classed as a ‘regular smoker’) and the other its absence (not being a ‘regular smoker’). Where the variable did not allow such a simple binary division (e.g. family composition), one characteristic was selected as a base against which all other characteristics were compared (in the example of family composition, living with both parents was taken as the base against which the relative importance of each of the other family structure categories was assessed in predicting involvement in problem behaviours). The significance of the relationship of each variable with the problem behaviour, once the relationship with other variables in the model was taken into account, was then examined using stepwise logistic regression in the computer programme SPSS (Statistics Package for Social Sciences).

The example output presented below relates to Table 7.1 in the report on any offending. Only those items which have a statistical probability of <0.01 and have 95 per cent confidence intervals within 30 per cent of the odds ratio have been used in the report. These are highlighted by ** in the following table.
### Example of output from logistic regression analysis

<table>
<thead>
<tr>
<th>Variables in the equation</th>
<th>B</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 17</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender = Male</strong></td>
<td>0.311347815</td>
<td>0.0000</td>
<td>1.37</td>
<td>1.20 1.55</td>
</tr>
<tr>
<td>School year</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School year = 8</td>
<td>0.191619965</td>
<td>0.0385</td>
<td>1.21</td>
<td>1.01 1.45</td>
</tr>
<tr>
<td>School year = 9</td>
<td>-0.038889103</td>
<td>0.6896</td>
<td>0.96</td>
<td>0.79 1.16</td>
</tr>
<tr>
<td><strong>School year = 10</strong></td>
<td>-0.336178347</td>
<td>0.0014</td>
<td>0.71</td>
<td>0.58 0.88</td>
</tr>
<tr>
<td>Ethnicity = African</td>
<td>0.593652084</td>
<td>0.0287</td>
<td>1.81</td>
<td>1.06 3.08</td>
</tr>
<tr>
<td>Family structure = one parent</td>
<td>0.231100373</td>
<td>0.0128</td>
<td>1.26</td>
<td>1.05 1.51</td>
</tr>
<tr>
<td>R1 Parental supervision and discipline</td>
<td>0.0005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1 Moderate risk</td>
<td>0.222821641</td>
<td>0.0015</td>
<td>1.25</td>
<td>1.09 1.43</td>
</tr>
<tr>
<td><strong>R1 High risk</strong></td>
<td>0.429848883</td>
<td>0.0010</td>
<td>1.54</td>
<td>1.19 1.98</td>
</tr>
<tr>
<td>R3 Siblings history of problem behaviour</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>R3 Moderate risk</strong></td>
<td>0.361878155</td>
<td>0.0000</td>
<td>1.44</td>
<td>1.26 1.64</td>
</tr>
<tr>
<td>R3 High risk</td>
<td>1.149889185</td>
<td>0.0000</td>
<td>3.16</td>
<td>2.17 4.60</td>
</tr>
<tr>
<td>R4 Parental attitudes on problem behaviour</td>
<td>0.0148</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R4 Moderate risk</td>
<td>0.08584952</td>
<td>0.2400</td>
<td>1.09</td>
<td>0.94 1.26</td>
</tr>
<tr>
<td><strong>R4 High risk</strong></td>
<td>0.525235933</td>
<td>0.0042</td>
<td>1.69</td>
<td>1.18 2.42</td>
</tr>
<tr>
<td>R7 Neighbourhood attachment</td>
<td>0.0070</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R7 Moderate risk</td>
<td>-0.262030527</td>
<td>0.0018</td>
<td>0.77</td>
<td>0.65 0.91</td>
</tr>
<tr>
<td>R7 High risk</td>
<td>-0.100247528</td>
<td>0.0542</td>
<td>0.90</td>
<td>0.77 1.07</td>
</tr>
<tr>
<td>R8 Availability of drugs</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R8 Moderate risk</td>
<td>0.362457289</td>
<td>0.0001</td>
<td>1.44</td>
<td>1.20 1.72</td>
</tr>
<tr>
<td><strong>R8 High risk</strong></td>
<td>0.631043981</td>
<td>0.0000</td>
<td>1.88</td>
<td>1.52 2.32</td>
</tr>
<tr>
<td>R9 Attitudes towards problem behaviour</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R9 Moderate risk</td>
<td>0.302873978</td>
<td>0.0001</td>
<td>1.35</td>
<td>1.17 1.57</td>
</tr>
<tr>
<td><strong>R9 High risk</strong></td>
<td>0.721345414</td>
<td>0.0000</td>
<td>2.06</td>
<td>1.66 2.55</td>
</tr>
<tr>
<td>R10 Friends involved in problem behaviour</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R10 Moderate risk</td>
<td>0.781560533</td>
<td>0.0000</td>
<td>2.18</td>
<td>1.81 2.64</td>
</tr>
<tr>
<td><strong>R10 High risk</strong></td>
<td>1.427241887</td>
<td>0.0000</td>
<td>4.17</td>
<td>3.40 5.11</td>
</tr>
<tr>
<td>R11 Individual conflict attitudes</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix D: Case studies of offenders who participated in basic skills tuition
Example of output from logistic regression analysis (continued)

<table>
<thead>
<tr>
<th>Variables in the equation</th>
<th>B</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 17</td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>R11 Moderate risk</td>
<td>0.752551723</td>
<td>0.0000</td>
<td>2.12</td>
<td>1.84</td>
</tr>
<tr>
<td>** R11 High risk</td>
<td>1.262189131</td>
<td>0.0000</td>
<td>3.53</td>
<td>2.78</td>
</tr>
<tr>
<td>R12 Victimisation</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R12 Moderate risk</td>
<td>0.394088731</td>
<td>0.0000</td>
<td>1.48</td>
<td>1.29</td>
</tr>
<tr>
<td>** R12 High risk</td>
<td>0.620018115</td>
<td>0.0000</td>
<td>1.86</td>
<td>1.54</td>
</tr>
<tr>
<td>** Currently smokes regularly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of times drunk alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>last 4 weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>** Drunk alcohol 1-2 times last 4 weeks</td>
<td>0.263552528</td>
<td>0.0008</td>
<td>1.30</td>
<td>1.12</td>
</tr>
<tr>
<td>Drunk alcohol 3-9 times last 4 weeks</td>
<td>0.267956703</td>
<td>0.0112</td>
<td>1.31</td>
<td>1.06</td>
</tr>
<tr>
<td>Drunk alcohol 10+ times last 4 weeks</td>
<td>0.227852365</td>
<td>0.2440</td>
<td>1.26</td>
<td>0.86</td>
</tr>
<tr>
<td>** Has had 5 + drinks in a row (binge)</td>
<td>0.263669586</td>
<td>0.0036</td>
<td>1.30</td>
<td>1.09</td>
</tr>
<tr>
<td>** Substance misuse in last 4 weeks</td>
<td>0.863947019</td>
<td>0.0000</td>
<td>2.37</td>
<td>1.76</td>
</tr>
<tr>
<td>Constant</td>
<td>-4.033</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpreting Odds Ratios Exp (B)

The odds ratio, or Exp (B), is a way of comparing whether the probability of a certain event is the same for two groups.

The odds of an event are calculated as the number of events divided by the number of non-events or p/(1-p), where p is the probability of that outcome. For example, where an outcome has a ten per cent chance the corresponding odds are 10/90=1/9.

The odds ratio is calculated by dividing the odds of one group by the odds of another. An odds ratio of one implies that the event is equally likely in both groups. An odds ratio greater than one implies that the event is more likely in the first group. An odds ratio less than one implies that the event is less likely in the first group. For example where two groups have a thirty-five per cent and ten per cent risk of an outcome the odds ratio is (35/65)/(10/90)=4.85.

As the odds ratio increases the relative risk of the event also increases. However, the change in odds should not be interpreted as the change in the relative risk (e.g. an odds
ratio of two does not mean that the relative risk of an event is doubled). For example, two groups, having respective risks of 75 per cent and 60 per cent for a particular outcome, have an odds ratio equal to two (i.e. the respective odds are 3:1 and 6:4 and the odds ratio is (3/1)/(6/4)=2). Similarly two groups with respective risks of 33 per cent and 20 per cent also have an odds ratio equal to two (i.e. (1/2)/(1/4)=2; the respective odds are 1:2 and 1:4).
<table>
<thead>
<tr>
<th>School domain</th>
<th>School domain</th>
<th>School Domain</th>
<th>School domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Academic failure</td>
<td>• Low achievement beginning in primary school</td>
<td>• Low achievement</td>
<td>• Low intelligence (8-10)</td>
</tr>
<tr>
<td>• Low school commitment</td>
<td>• Lack of commitment to school including truancy</td>
<td>• Aggressive behaviour including bullying</td>
<td>• Low attainment (11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• School disorganisation</td>
<td>• Frequent truants (12-14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• High delinquency school (11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Aggressive (12-14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Bullies (14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Left school by 15 (15)</td>
</tr>
</tbody>
</table>
## Appendix D: Case studies of offenders who participated in basic skills tuition

<table>
<thead>
<tr>
<th>CTC USA risk factors</th>
<th>CTC UK risk factors</th>
<th>Farrington</th>
<th>Farringtons 25 risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 25 risk factors</td>
<td>- 17 risk factors</td>
<td>- 9 risk factors</td>
<td>( ) Brackets contain age at which measured</td>
</tr>
</tbody>
</table>

### Individual and peer domain

- Early initiation of problem behaviour
- Rebelliousness
- Friends’ delinquent behaviour
- Peer rewards for anti-social behaviour
- Attitudes that condone problem behaviour
- Friends use of drugs
- Favourable attitude towards drug use
- Perceived risk of drug use
- Favourable attitudes towards anti-social behaviour
- Alienation and the lack of social commitment

### Farrington

- Troublesome (8-10)
- Delinquent friends (14)
- Dishonest (10)
- Lies frequently (12-14)

### Farringtons 25 risk factors

- Small physical size (8-10)
- Poor concentration
- Lacks concentration/restless (8-10)
- Hyperactivity
- High daring (8-10)
References


MORI. (2002). *Youth Survey 2002* for the Youth Justice Board. London. YJB.


Youth Justice Board (2001). Risk and Protective Factors Associated with Youth Crime and Effective Interventions to Prevent. London. YJB.
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