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MULTIPLE VICTIMISATION IN NORTHERN IRELAND

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March 30th 1991

Report to the Northern Ireland Office from the Department
and Social Policy and Social Work, University of
Manchester.

EXECUTIVE SUMMARY

MULTIPLE CRIME VICTIMISATION AND NORTHERN IRELAND

No fully satisfactory data on this topic exists. The literature from elsewhere is reviewed. It is found that crime victims tend to be victimised repeatedly far more than would be the case if crimes were independent events. This is true for all crime types studied and has been determined by a total of nine different research methods, from the analysis of hospital records to victimisation surveys. The phenomenon is thus robust and widespread enough to inform policy. For a variety of methodological reasons which are explored in the report, the extent of the effect has been systematically understated in research.

Further analysis of such data as exist for Northern Ireland show that the effect is not more marked here than elsewhere, but that it does exist, at roughly the same order of magnitude as in other European countries. Different offences have different likelihoods of recurrence to the same victim, with assaults / threats being most likely to recur. It is also true in Northern Ireland (as elsewhere) that the victim of one type of crime is more likely to be victimised in other ways too. The crucial analysis of differences in rates of multiple victimisation between areas within the Province has not been undertaken, but the differences in crime incidence per head between police sub-divisions is (unsurprisingly) found to be very large. It the same pattern obtains in Northern Ireland as in England and Wales, the contribution of multiple victimisation to crime incidence is much greater in the areas of highest crime incidence.

A study by Extern in Lisburn shows a very substantial rate of revictimisation by commercial burglary. Victimised premises are much more likely to be revictimised than non-victimised premises are to be victimised for the first time. Those victimised twice are even more likely to be victimised for a third time, with half being revictimised within seven weeks. The time between repeat victimisations is typically short, thus offering better prospects for crime prevention. The Lisburn study offers for the first time in the Northern Ireland context a dramatic study of repeat victimisation.

A chapter of the report is given over to the use of geographical information systems (GIS) to plot crime concentration at the individual (repeat victimisation) and the small area level.

The conclusion is reached that the phenomenon of repeat victimisation offers an attractive basis for the delivery of crime prevention in the Province, as elsewhere. The prevention of repeat victimisation offers probably the most efficient basis for the deployment of crime prevention resources available. This is because it automatically directs attention to where need exists rather than where demands for time originate; it directs attention to those with the highest probability of further victimisation; and it schedules crime prevention work to the pace of victimisation (which is untrue of current ways of working).

Recommendations for Action

1. Data be gathered from crime report forms in Northern Ireland to establish that the relationship between high crime incidence

and high rates of repeat victimisation apply there as in England and Wales.

2. Consideration be given to establishing (probably in the Lisburn sub-division to take advantage of Extern's work to date) a pilot geographical information system with the specification sketched out in the report to establish the practicability of incorporating considerations of repeat victimisation probabilities into routine police responses.

3. Consideration be given to establishing a pilot scheme in one area of the Province to establish the practicability of crime prevention officers working primarily on the prevention of repeat victimisation, as outlined in the report and its annexes.

Ken Pease

30-3-91

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FOREWORD

My co-authors and I were commissioned to write a paper on multiple crime victimisation with particular reference to its implications for Northern Ireland policy. The commission was carried out in haste to a requested deadline. It bears the marks of that haste. Apologies are made for the paucity of graphics and other frills.

Thanks are due to Stephen Donnelly, Roland Beckett and their colleagues for discussions on this topic, and for their provision of data from the Northern Ireland responses to the international crime survey. A separate executive summary accompanies this report.

The basic division of responsibility between the authors is as follows: Graham Farrell produced Chapter 1, Fiona McCready produced Chapter 3 and Bob Barr Chapter 4. I drafted Chapters 2 and 5, and applied a light editorial hand throughout. The lightness of that hand means that the style and approach in different chapters varies, although I have found nothing which is contradictory across chapters. The excuse is the tightness of the deadline. From confirmation of the commission to its completion was less than four weeks, which I hope makes the reader more tolerant of the unevenness of the final product.

Carrying out the commission makes me more convinced than ever of the central importance of repeat victimisation in understanding and controlling crime, no less in Northern Ireland than elsewhere.

Ken Pease

31-3-91

CHAPTER 1

LITERATURE REVIEW

Multiple victimisation is used in this report to refer to repeated criminal incidents experienced by either a person or place. It is also called repeat victimisation, recidivist victimisation (drawing the link with recidivist offending), or multi-victimisation. This definition will be developed as the report progresses.

The report is necessarily brief, and does not cover many of the theoretical issues in criminology to which it is relevant. This is in an attempt to make the literature review of practical orientation. Having said that, it is necessary to cover the emergence of repeat victimisation within research. This is in order to suggest why a phenomenon of potential practical importance has only comparatively recently begun to influence policy.

This report concentrates on the prevention of 'ordinary' crime. The level of 'ordinary' crime in Northern Ireland is sufficient to justify continuing the development of crime prevention strategy, especially if it may be effective, labour saving and economically viable. Morison and Geary (1989) make four main points of 'justification' (if any are needed) for further research into Northern Ireland's 'ordinary' crime problems;

1. Ordinary crime exists in Northern Ireland
2. Ordinary crime in Northern Ireland has risen in a similar fashion to that elsewhere
3. Terrorist offences make up only a small part of all crime

(this is distorted by the media), and 'ordinary' crime is far more likely to effect people's lives

4. Any differences still leave Northern Ireland and the rest of Britain with many fundamentally similar aspects.

Whilst there are acknowledged differences between the official data available in Northern Ireland and the rest of Britain (Pease and Morrissey 1982), these differences do not affect the fact that they should be used to their full potential for preventing further crime.

If a summary of the potential for developing general crime prevention strategies around multiple victimisation had to be given, it might take this form, split into three parts;

(i) the reasoning behind it,

(ii) an illustration of the extent of multiple victimisation,

(iii) explanation of the link between points (i) and (ii);

(i) Reason: if multiple victimisation (using the broadest definition), could be prevented, most crimes might be prevented.

(ii) Illustration; the information gathered by the 1982 British Crime Survey (for some reason only relating to Scotland, Wales and England) suggests that over 70%, or over seven in ten, of the offences it covered, were experienced by just 14% of the total population. There is no reason to believe that these experiences will not be common to Northern Ireland.

(iii) Explanation; If a small proportion of the whole population are repeatedly victimised, so that they experience a large proportion of all criminal offences, then preventing

repeat victimisation may prevent a large proportion of all offences from being committed. (1) (2)

It has long been suggested that some offenders repeatedly offend (recidivist offending), and account for a disproportionately large proportion of all offences committed. However, it has barely been recognised that some people, households, or other targets however defined, may, through being 'recidivist' or repeat-victims, account for a large proportion of all offences experienced. (This is not necessarily to suggest a link between the two phenomena.) Despite the growth of victimology in the past two decades, the absence of substantive research into multiple victimisation is reflected in crime prevention policy. Recognition of the importance of repeat victimisation for general crime prevention strategy might also influence other, crime-related activities, for examples, other aspects of the criminal justice system, health services, insurance and security industries.

FOOTNOTES:

(1) The summary used here generalises across types of crime, and assumes known and accepted (that is, often those used in law,) definitions of what constitute 'a crime', 'a victim', and consequently a multiple victim.

(2). The main limitation to crime prevention may be crime displacement, to be discussed later.

The literature review is presented in an approximate chronological order, to demonstrate how the 'topic' of multi-victimisation is still in its very early stages of development. The individual studies each contribute to the overall picture of multiple victimisation, so that they provide a more comprehensive and persuasive argument when considered as a whole.

Review of Previous Literature

In 1973, Johnson, Kerper, Hayes and Killenger published a monograph entitled 'The Recidivist Victim; A Descriptive Study'. The study attempted to describe the social, medical and criminal characteristics of victims and recidivist victims of gunshot and stabwounds from the records of a US hospital. The study emerged due to the authors' personal experiences of the same people returning to the hospital time and again, as repeat victims of these types of violence. Case histories were constructed which showed that some victims, whilst not always 'frequently' returning to the hospital, did so every year or every other year throughout the 1960's. Since it can be supposed that only a small proportion of all violence reaches hospital records, most going unreported, the study might be seen to suggest that some people live with violent repeat victimisation as part of their everyday lives, in some cases over their lifetime. The purpose of the study was to try and

increase awareness of repeat victimisation, though it appears to be largely overlooked, possibly due to criticisms of methodology. However, it does suggest that criminal justice procedures might be different for multi-victims, for example, in terms of compensation and insurance. In the conclusions, crime prevention policy is implicit when it suggests "A suicide or a battered or abused child is automatically reported for investigation, why not a recidivist victim?" (p75). Perhaps the earliest work to use a victim survey and concentrate on repeat victimisation is that of Eduard Ziegenhagen, "The Recidivist Victim of Violent Crime" (1976). Ziegenhagen used statistical tests to try and predict any outstanding characteristics of repeat-victims of types of violence, and suggests that they may be of lower socio-economic status than single incident victims. Ziegenhagen finds that repeated assaults are more likely to take place "inside [a] neighbour's home or other building" (p549), whereas repeat robberies take place outside, near the home. With respect to gender, Ziegenhagen finds that "males are more likely to be recidivist victims.. than females probably because of social roles which emphasise violence as an acceptable and in some cases preferred solution to disagreement" (p545). Whilst this may in part explain why males are more likely violent offenders, it does not suffice as an explanation of victimisation, primarily because crimes against women will be under-reported (Ziegenhagen acknowledges that domestic violence will be largely excluded from the survey). Ziegenhagen concludes that for repeat victims of

violence, "expectations that they will be treated worse than others by the police may preclude their participation in crime prevention efforts as well as in police related programs designed to aid victims of crime." (p550). These findings may suggest either that policing might need to adapt to account for violent repeat victimisations, or that a different orientation, perhaps with the emphasis on alternative service agencies, should be developed for crime prevention efforts aimed at interpersonal crime. This will be discussed at greater length in the context of more recent developments.

The two studies so far mentioned have limited their definition of repeat victimisation. Both looked at only violent crime. Johnson et al. restricted their study to only some of the more serious types of violence, and then only if it was on hospital records. Ziegenhagen selected interviewees based on police records, which have reporting and recording limitations, and then only studied assault, and assault with robbery. Both studies use the phrase 'recidivist' victim, which suggests that the victim is in some way to blame for the repeated victimisation. The phrase 'recidivism' is useful in drawing an analogy with recidivist offending, but unfortunate in that it implicitly blames the victim.

One of the major studies recognising repeat victimisation is also commonly accepted as one of the 'classics' of victim-survey based studies in victimology. 'Surveying Victims' by Sparks, Genn and Dodd (1977), was based on work conducted in three London boroughs, from which Sparks went on to write a

series of articles in the early 1980's, and upon which Genn's 1988 article 'Multiple Victimization' is based. In the 1977 book, Sparks et al. used mathematical modelling to observe the highly skewed distribution of victimisation through the sample population. They found that a small percentage of the population, because they were repeatedly victimised, accounted for a substantial proportion of all types of crime in the survey. Initially, Sparks attempted to fit the spread of repeat victimisation to a Poisson distribution. By conclusively failing to fit to the Poisson distribution, the data showed that repeat victimisation was not caused by 'bad luck', that is, it did not correspond to a chance distribution of single-incident victimisations in a population sampled with replacement. With the further dismissal of a 'contagion' effect Poisson model of victimisation, the attempt was made to fit a heterogeneous model. This was an attempt to fit a Poisson model to different sub-groups of the population characterised by, for example, socio-demographic characteristics such as age, sex and ethnicity, or by type of crime. Whilst this was found to be more accurate than the standard poisson model, it was "far from perfect".

Since Zeigenhagen and Sparks, Genn and Dodd, other attempts have been made to explain repeat victimisation through mathematical and statistical techniques. Albert Reiss (1980), using data from the US National Crime Survey (NCS) wrote that

"Evidence of repeat victimisation makes it clear that victimisation is not a random occurrence... Moreover, in

repeat victimisation, there is a proneness to repeat victimisation by the same type of crime." (Reiss, 1980; 52). This was a finding echoed by Fienberg (1980), though using different methods of analysis. As will become clearer as the report progresses, the recognition that one victimisation incident may be followed by another of the same type has direct implications for crime prevention. The United States NCS, when analysed, excluded 'series' of crimes reported. A series of crimes are crimes which an interviewee deemed to be related (whether rightly or wrongly), so that they appeared as a 'series'. These are potentially of great importance as a prime example of repeat victimisation. According to Albert Reiss (1978, cited in Skogan, 1981; 9),

"including series incidents (for analyses of the NCS) would increase the estimated number of crimes in the United States by 18 percent".

In 1984, Michael Gottfredson, in writing a Home Office paper analysing aspects of the 1982 British Crime Survey, included a two and a half page appendix 'Multiple victimisation' (Gottfredson 1984; 41-3). Whilst reducing it to an appendix has the effect of marginalising the issue (which could have changed the whole nature of the paper if the implications had been recognised), the extent of multiple victimisation in the BCS is evident when he writes

"of the victims of personal crime in the BCS, 72% were one time victims while 28% were repetitively victimised. For all crimes in the survey, the corresponding percentages are 56% one-time victims and 44% multiple victims.." (ibid;42)

The data which Gottfredson presents can be used to calculate that over 70% of all criminal incidents reported by the BCS were experienced by multi-victims, who made up only 14% of the population. This is despite the fact that, as will be discussed later in this report, the crimes against women which are under-represented in the BCS (see Stanko 1983, Hough and Mayhew 1985), may also be those most likely to result in repeat victimisation.

Some inferences about the extent of multiple victimisation might be made from Mike Hough's (1986) article 'Victims of Violent Crime, Findings from the British Crime Survey'. Hough presents both incidence and prevalence rates of victimisation for violent crimes. In this instance, the incidence rate represents the estimated number of incidents divided by the total population. The prevalence rate represents the estimated percentage of respondents who are victimised. For all violent offences in the 1982 British Crime Survey, there is a prevalence of 4.5%, and an incidence of 8.02%, suggesting almost twice as many incidents as victims. There are variations within types of violence. The most prevalent crimes are not those with the highest number of victimisations per victim. Thus the most prevalent crimes are not necessarily those with the highest rates of repeat victimisation. (Sexual assaults are excluded here, which, as with violence between familiars and against women is largely unreported.) The rankings of incidence and prevalence are (unsurprisingly, given that prevalence is one determinant of incidence) the same, with common assault most prevalent, followed by threat

of assault, wounding and robbery. However, from the ratio of incidence to prevalence (which is, as discussed, not a totally unambiguous indicator), robbery appears the most likely type of violence to be repeated. This is followed by assault, threat of assault and wounding. The suggestion is, therefore, that whilst a person is unlikely to be robbed, once robbed they may be the most likely to be robbed again in comparison to the recurrence of other types of violence. The fact that the ratio of incidence to prevalence for all types of crime is higher than would be expected if it were a sum of the individual types of crime suggests that victims report more than one type of violence. Multiple victimisation can therefore be by different types of violent crime as well as by the same type of crime.

Incidence rates are always higher than prevalence rates, with there being more criminal incidents than victims. This is because some people are multiple victims. Presented side by side, incidence and prevalence rates do suggest the existence of multiple victimisation, however they serve as little more than an indicator and generalisation. They fail to attribute any importance to multiple victimisation, and do not demonstrate the distribution of victimisation within the victimised population. This is a criticism of the way that most of the previous literature has presented victimisation, though it is a progression from the times when only incidence rates were presented as 'the' victimisation rate (see, for example, Hough and Mayhew 1985).

Amongst the limitations of the British Crime Survey is the

fact that interviews are only conducted with persons aged over 16 years. There is very little evidence about the victimisation of young people. The recent Edinburgh survey of the victimisation of young people (Anderson et al. 1990) showed that the victimisation of young people, commonly portrayed solely as offenders, is widespread. There would as yet appear to be virtually no information available about the extent of multiple victimisation of young people, although current attempts to assess this in relation to bullying are currently in train (Farrington forthcoming).

Repeat victimisation may be of particular relevance in the study of racial attacks and racially motivated crime; in the London borough of Newham, a recent crime survey (London Borough of Newham 1987) showed that 116 ethnic minority victims reported 1,550 incidents of victimisation over a one-year time period. In addition, an ongoing Manchester University project studying violent crime has found that on an estate in the east end of London racial attacks are one of the major problems, as well as being one of the crimes most likely to be repeated. In this instance, the offenders often know, or can easily find out the address of the ethnic minority victims, and so the opportunity is great for repeated victimisation. An analogy between racial attacks and sectarian attacks in Northern Ireland is attractive, in that once the location of a potential target is known, there is the opportunity for continuous victimisation among local communities. Given housing segregation and markers of sectarian allegiance in the Province, random sectarian killing

is extremely easy.

Multiple victimisation is mentioned, again all too briefly, in the report of the first Islington Crime Survey (ICS) (Jones, Maclean and Young, 1986; 84). The survey showed that for all crimes, 47% of households reported multiple victimisation, and that multiple victimisation was most likely for assault (38%), followed by vandalism (37%), and burglary (24%). Much lower rates of repeat victimisation were reported for theft from person (17%), as might be expected for a relatively 'anonymous' crime, though no information is provided with respect to repeat robbery. The apparently low frequency (15%) of repeat sexual offences reported can probably be put down to the fact that those sexual assaults which are reported may be much more likely to be 'stranger violence', with sexual assaults by men who are known, and which may be more likely to be repeated, going largely unreported.

The Kirkholt Burglary Prevention Project (Forrester, Chatterton and Pease 1988) aimed to reduce burglary on a council housing estate in Rochdale, in the North West of England. The initial research phase combined interviews with known (detained) burglars, with burglary victims and their neighbours, and analysis of available burglary data, to find that,

"once a house had been burgled, its chance of further victimisation was four times the rate of houses that had not been burgled at all" (Forrester, 1988, see also Polvi et. al 1990 who find similar patterns for burglaries across the whole

of Saskatoon City in Canada.)

The strategy was developed to implement a combined package of opportunity reduction and situational crime prevention measures at those households which were burgled during the course of the project. These were the houses that were predicted to be the most likely victims in the near future, and the package of measures effectively stopped repeat victimisation. The final report (Forrester et al. 1990) states that burglary was reduced by 75% within three years. In addition, the project also implemented social crime prevention measures, such as initiatives in the local schools, to try and reduce the future levels of offenders in the area. The project has been 'returned to the community' with the intention that its members will work to maintain its practices. As a crime prevention project, this provides the most persuasive indications to date that the targetting of repeat victimisation may be a successful, focused and economically viable means of general crime prevention. The perceived attractions of the prevention of repeat victimisation as a general strategy of crime prevention are summarised in Pease (1991), which are detailed as,

- " - Attention to dwellings or people already victimised has a higher 'hit rate' of those likely to be victimised in the future.
- Preventing repeat victimisation protects the most vulnerable social groups, without having to identify those groups as such, which can be socially divisive. Having been victimised already probably represents the

least contentious basis for a claim to be given crime prevention attention.

- Repeat victimisation is highest, both absolutely and proportionately, in the most crime-ridden areas (Trickett et al., 1991), which are also the areas that suffer the most serious crime (Pease, 1988). The prevention of repeat victimisation is thus commensurately more important the greater an area's crime problem.

- The rate of victimisation offers a realistic schedule for crime prevention activity. Preventing repeat victimisation is a way of "drip-feeding" crime prevention.

- Even from the unrealistic view that crime is only displaced, avoiding repeat victimisation at least shares the agony around (see Barr and Pease, 1990). "

(Pease, 1991)

Whilst the Kirkholt project focused solely on burglary prevention, Pease argues that its theoretical base provides a foundation for crime prevention of a general nature. This is not necessarily to argue that the opportunity reduction and situational measures used in the Kirkholt project are generally applicable - these were tailored for the specific project - rather that crime prevention in general might concentrate upon the phenomenon of repeat victimisation. The 'drip-feeding' of crime prevention is an analogy created to suggest that targetting repeat victimisation is more practically viable - it is spread through time and hence less labour intensive and easier to maintain. Obviously the main

motivation underlying the prevention of repeat victimisation is the social benefit to the victim(s) and the community, but other 'positive externalities' would include police-labour saved for crimes prevented (no crime reports, no follow-ups). A particular advantage of focussed crime prevention in the Northern Ireland context stems from the risks of ambush when attending a crime call. When every crime call is a potential murder of a police officer, the stakes in reducing calls are not trivial.

The main objection to the prevention of repeat victimisation as it has so far been discussed might be that crimes perceived to be 'prevented' might instead be displaced. Barr and Pease (1990) suggest that whilst much of the literature on displacement is inconclusive, it is unlikely that all crime 'prevented' in one place will occur elsewhere, and that even if it does this may result in a more egalitarian distribution of crime.

Hazel Genn's paper 'Multiple victimisation' (1988) provides a shift away from the conventional definition of repeat victimisation used so far in this report. It provides a critique of victim surveys which impose a strict definition of 'a crime' and 'a victim' upon the interviewee. Most victim surveys limit the number of crimes which can be reported, before redefining them for computer analysis. Genn suggests that, in particular for certain types of crime such as domestic violence, some people are forced to live with almost continual victimisation as part of their everyday lives. Based upon the findings of a victim survey (Sparks, Genn and Dodd

1977) and the extent of victimisation in some households, Genn returned to the research site to conduct some follow-up interviews. Genn's participant observation study of multiple victimisation included spending several months with a group of victims on a high crime estate in north London. Genn reports that "after some months of association with this group of people, I no longer found it surprising that a structured questionnaire administered to one household should uncover some thirteen incidents of 'victimisation' " (p93). Genn argued that for some households, victim surveys often picked up only a fraction of the total incidents. Similar limitations of existing sources of knowledge about victimisation are suggested by Stanko (1988), who argues that most violence remains 'hidden' from official agencies like the police, as well as from victim surveys. This, it is argued, is one of the factors behind the commonly held belief, perpetuated by the media, that violence is usually between strangers. There is an increasing volume of literature to suggest that the majority of violence may take place between familiars, that is, people who know each other, whether as partners, neighbours, relatives, workplace acquaintances, 'friends' or known others (Wise and Stanley 1987, Dobash and Dobash 1980, Stanko 1988, 1990, Smith 1989 gives an overview of some of the literature on domestic violence, to name but a few). The literature draws attention to the fact that a large proportion of familiars' violence is against women. The prevention of violent crime may, therefore, not necessarily be based upon recorded crime information from the police, as it could be with burglary

(burglary is usually reported for insurance purposes), but has to look at what is largely hidden violence against women. Violence by men against women, whilst not only constituting a large proportion of all violence, might also be the most likely to be repeat victimisation. Violence between familiars is more likely to be recurring (for reasons of opportunity at the very least); the most obvious example of which is domestic violence.

Sherman, Gartin and Buerger (1989) studied a spacial distribution of calls reported to the police. They found that in a major city in the US, 50% of all calls to the police for some types of crime came from only 3% of locations. An analogy can be drawn between their locational 'hot-spots of predatory crime', and the phenomenon of repeat victimisation of certain people and households.

Providing an additional quantitative perspective to the phenomenon of repeat victimisation, Trickett et al. (1991), using BCS data, demonstrate that repeat victimisation is more intense in 'high crime' areas. They suggest a positive correlation between overall incidence of crime and the extent of repeat victimisation, from which it might be inferred that crime prevention may become more efficient as it becomes more 'focused'. Focusing on repeat victimisation within 'high crime' areas may be more efficient in terms of crimes prevented (as well, therefore, as per unit of labour and expenditure), even than focusing on repeat victimisation across all areas. This first foray into the phenomenon of repeat victimisation from a sociological perspective may be

taken to suggest that more widespread social differences between areas are the primary determining factors in repeat victimisation, rather than the characteristics or actions of individuals, although other interpretations cannot be discounted. The earlier work of Sparks' (1981) tried to suggest that repeat victimisation was due to characteristics of victims, but based on these more recent findings, it would be difficult to suggest that there are whole areas where a large number of people 'choose to make themselves more vulnerable', or refuse to change their activities so that they 'become' multiple victims. This is not, however, to suggest that there are not certain high crime areas which might benefit more from crime prevention activity generated around victims; a wholly different concept to blaming the victims themselves. Denise Osborn, Alan Trickett and other at Manchester University are currently addressing this issue by analysing multiple victimisation experience separately by individual and small area characteristics, eg to determine whether individual rates of repeat victimisation are influenced more by ones personal characteristics like age, employment and gender, or by the age, employment and gender of most people who live in the area.

A report by Alice Sampson (1991, forthcoming), presents some information about multiple victims referred to a 'high crime' estate-based Victim Support scheme which mirror the patterns of repeat victimisation from victim surveys. Sampson found that, of 289 referrals to the scheme over two years, 46 households or residents (16%) were victims of more than one

reported crime, and that " (t)hese victims accounted for 38% of the crimes." In addition, 20 of the multi-victim households suffered from both property and personal crimes, 20 from at least two property crimes, and 8 people were victims of interpersonal crime only. Of the 46 multi-victims, "in 10 cases it is not known if the incidents were related or unrelated; in 23 cases the (victim support) workers thought they were unrelated; and in 13 cases the incidents were related (they were either domestic attacks, neighbour disputes or the offender was known but did not live in the same flat or next door)." A victim survey carried out on the estate on which the victim support scheme was based found similar patterns of multiple victimisation. Six hundred people were interviewed. Multiple victimisation accounted for 78.8% of all crimes reported. This finding corresponds with the findings from the British Crime Survey (multiple victimisation accounted for 72% of all crimes). In addition, the higher rate of multiple victimisation on the 'high crime' estate corresponds with the findings of Tricket et. al (1991) that repeat victimisation is more intense in high crime areas. The survey also suggested that 5% of the respondents reported 62% of the 159 personal crimes. Of the victims of personal crime, a third were multi-victims of personal crime, and 1 in 6 had experienced at least two different types of personal crime in the last year (corresponding with the suggestions from the analysis of Hough, 1986). A person or household that reported a burglary or attempted burglary was more than twice as likely to report a personal crime. The suggested link between

personal and property crime found both in the survey and in the referrals to the Victim Support workers is also recognised by Hindelang et al. (1978) and by Gottfredson (1984) in his analysis of the 1982 British Crime Survey.

A prevention strategy based around repeat victimisation must have sources of information about crime. With respect to sources of information, property and personal crimes can again be contrasted. A large proportion of burglaries and car thefts are reported to the police (Hough and Mayhew, 1985), not least for insurance purposes. However, as already mentioned, much violence goes unreported. In order to have any chance of preventing repeat victimisation, knowledge of the occurrence of crime must be increased beyond that of recorded crime. Existing available sources of information must be explored, and potential sources developed. One alternative to recorded crimes is police incident logs or message pads (which are mainly telephone calls to the police from the public). To give one concrete example, an ongoing Manchester University project researching violence has found that on one estate in North-Western England of about 1300 houses, there were (at least estimate) 143 calls to the police about domestic violence in 1990 (Stanko, 1991). These calls came from 86 different addresses. One household made at least 15 calls! It is also important to note that these are only incidents which, when received by the police are 'coded' as domestic violence; it is possible for domestic violence to go unrecognised when it is logged as a disturbance or assault. With respect to repeat victimisation, these findings must also be taken in the

context of the fact that it has been suggested that a women who calls the police has, on average, been the victim of 30 previous beatings by a male partner (Horley, 1988).

Other potential sources of information about the nature of repeat victimisation might include hospital casualty departments (Shepherd, 1990) or General Practitioners' surgeries (Stanko, 1991). In a survey of victims of assault at an accident and emergency hospital in Bristol, England, Shepherd (1990) found that 43% of victims were multi-victims of assault. Of these, 27% reported suffering more than two assaults, and 7% reported having been assaulted more than ten times! These findings mirror those found in different studies; that a small proportion of victims experience a large proportion of the crime. Shepherd also studied social factors, and suggests that multi-victims of assault are more likely to be unemployed, with 58% of unemployed respondents as multi-victims, compared to 38% of employed victims. In addition, the suggestion is made that unemployed victims are twice as likely as employed victims to have experienced more than two previous assaults; 44% compared to 22%.

Bringing together the existing evidence provides a fuller picture of the importance of repeat victimisation. The tentative findings from each individual study provide a more comprehensive and persuasive argument when presented as a whole. What becomes apparent from the literature are not only the crime prevention possibilities, but also the fact that criminology/victimology should only approach the study of victimisation when taking account of multiple victimisation.

The perceived definition of 'victimisation' implicit to many criminological studies should adjust to include the phenomenon of multi-victimisation. Whilst incidence and prevalence rates are now being increasingly used together, they do little more than suggest the existence of multiple victimisation. There are other theoretical implications once the significance of repeat victimisation is recognised. As well as questioning the accepted definitions of 'a victim' and 'a crime', these include implications for the study of fear of crime (see Stanko, 1988), and lifetime experiences of (multiple) victimisation.

Some patterns of the nature of repeat victimisation begin to emerge from the literature. The most obvious of these is that a relatively small proportion of the population seem to experience a large proportion of all crime. There is a highly skewed distribution of crime in the population which is not due to chance. This observation would appear to hold up to rigorous testing from a variety of different sources. In this report, nine different research methods have generated similar patterns of the distribution of victimisation. Similar patterns of multiple victimisation have emerged from; hospital records (Johnson et al 1973); interviews generated from recorded crime (Zeigenhagen 1976); local victim surveys (project of Sampson 1991, Sparks et al. 1977, Jones et al. 1986); national victim surveys (Gottfredson 1984, Hough 1986, Trickett et al. 1991); international victim surveys (Reiss 1980, Fienberg 1980); a survey of hospitalised victims of assault (Shepherd 1990); participant observation (Genn 1988);

victim referrals to a Victim Support scheme (Sampson 1991); police recorded crimes (Forrester et al 1988, 1990, Polvi et al. 1990), and police incident logs (Stanko 1991, project of Sampson 1991).

A multiple victim may experience many different types of crime. In addition, not necessarily in contradiction, there is the suggestion of repeat victimisation by the same type of crime. These two phenomena might be termed inter-crime and intra-crime multiple victimisation respectively. Some emerging patterns are currently unexplained, for example, the apparent connection between property and personal crimes suggested by the fact that they are often both reported by the same victim. The most obvious 'conclusions' might be that the existing research is encouraging, and the existing practical example (the Kirkholt Burglary prevention project) suggests there is potential for crime prevention policy. The Kirkholt project suggests that a combined package of opportunity reduction and situational measures can be used to effectively reduce repeat household burglary, with comparatively low rates of displacement. By preventing repeat burglary, the vast majority of all burglaries were prevented. The most obvious implications from this project are the prevention of repeat instances of other types of property crime; preventing repeat burglary of business and other non-residential premises. This could possibly be extended to the prevention of car theft and other motor vehicle crime, other possibilities for target hardening. The Kirkholt burglary project concentrated only on one estate. It is possible that its practices can be extended

to different and wider areas. There is currently a replication of the Kirkholt project being undertaken in Northern Ireland by the EXTERN organisation. There is currently an ongoing Manchester University project, still in its initial research phase, intended to reduce violent crime through targetting repeat victimisation.

CHAPTER 2

MULTIPLE VICTIMISATION IN NORTHERN IRELAND

In the last chapter, the literature on repeat victimisation was reviewed. In this, some attempt will be made to get a sense of the dimensions of the problem in Northern Ireland. Part of this attempt is necessarily speculative. The next chapter will describe a project in Lisburn based upon close consideration of repeat victimisation and its implications. The chapter after that will go on to consider the role of Geographical Information Systems (GIS) in crime analysis generally, and particularly in relation to repeat victimisations. In the final chapter, an attempt will be made to spell out the practical implications of victim concentration.

The distribution of repeat victimisation within Northern Ireland can be considered both directly and indirectly. The direct data come from the international victimisation survey by telephone, in which Northern Ireland participated, and which was reported primarily by Van Dijk et al (1990). Stephen Donnelly of the Northern Ireland Office has already written up some material for a Northern Ireland audience from this project (eg Donnelly 1990a,b,c). Before proceeding, three central terms will be defined as they will be used in what follows. Hereinafter prevalence refers to the proportion of those sampled who are victims in the sense of the relevant question, eg by burglary, or a victim of any offence.

Concentration refers to the number of victimisations per victim. Incidence is the number of victimisations suffered by those sampled, and is the arithmetic product of prevalence and concentration. The least conventional usage is concentration, since the same term has been used in connection with the spatial distribution of crime (Barr and Pease, in press), while a different term, vulnerability, has been used to describe what is referred to here as concentration (Trickett et al. in press). Each usage seems to have drawbacks. In the sense used here, the term refers to the concentration of victimisations against individual people or places. For example, a crime incidence of 6 would result from six people being victimised once (minimal concentration) or one person being victimised six times (maximal concentration). The drawback of the usage is that concentration may also refer to clustering of events at a particular time or area. This is not intended here, but the drawback may have the merit of being capable of addressing the wider issues of crime concentration, of which concentration on an individual victim is the extreme case. The point merits a little development because it bears upon issues addressed in the chapter on Geographical Information Systems.

The focus of concern in this report is on individual people or places. This can be regarded as concentration at the highest useful level of resolution. At lower levels of resolution, differences between small areas or between families would be identified, at still lower levels of resolution, differences between larger areas or groups would

be the focus of interest. To be flippant, even higher levels of resolution would be possible, such as burglaries in a particular house always occurring through a particular window, or a particular assault victim always having his nose broken. However, the limiting case in terms of usefulness is the person or building (or space). Any system which is capable of identifying victims at this level of resolution could readily be made capable of operating at lower levels of resolution. Thus referring to repeat victimisation as concentration directs attention to the fact that a system which could identify victim concentration could identify grosser forms of concentration too. In this way, hi-jacking the word with a particular geographical history is useful.

The Typical Underestimation of Victim Concentration

It is of great interest that the basic statistic used consistently in the Van Dijk et al. survey is the prevalence rate (see Van Dijk et al. 1990 p13). This has the effect of marginalising the phenomenon of repeat victimisation, and understating its international significance. It is to be hoped that secondary analysis of the data can be done, along the lines of Trickett et al (in press), to show how countries differ in rates of multiple victimisation. This is not intended as harsh criticism of the pioneers of the international survey in question. It is merely that their report reflects the general neglect of repeat victimisation as a phenomenon of central interest in the conduct of victimisation surveys, as was pointed out in Chapter 1. This

occurs in two obvious ways. First, an arbitrary limit is set for the number of victimisations per victim whose details are elicited. In the British Crime Survey, for example, that number is set at four. The second, and numerically more important restriction on reflecting the true extent of victim concentration stems from the practice of completing only one victim form in respect of a series of offences of the same kind which are believed to have been committed by the same people. The combined effect of these procedures is to understate total victimisation by around one third (for the 1982 British Crime Survey) and for the whole of the underestimation to be specifically the underestimation of the extent of repeat victimisation. Although there were sound practical reasons for the conventions adopted in the British Crime Survey and other such surveys, the unhappy consequence is the disguising of the extent and importance of repeat victimisation as a contributor to total victimisation. A less obvious way in which victimisation surveys understate the extent of repeat victimisation occurs as a result of the time frame employed. Usually recall in relation to a period of one year or so is invited. This means that the prevalence of first victimisation is based on a time of one year. However, someone is only eligible to be classified as a repeat victim on the basis of incidents occurring after the first victimisation but before the end of the recall period. Assuming a rectilinear distribution of victimisations, this will be six months. In short, first victimisation has a time window of one year. Repeat victimisation has a time window of six months.

Although it understates the extent of repeat victimisation, the van Dijk et al. report does give some clues and these will be explored (and probably over-interpreted) in what follows. It is strongly stressed that what follows is not rigorous statistical analysis of the international data set, but approximations of the situation on the basis of published data from the survey. While it is unlikely that the conclusions reached are in substantial error, secondary analysis using the original data must be undertaken for the conclusions to be reached with any confidence.

In Van Dijk et al (1990) we read that prevalence rates are not "sensitive to differential proneness to multiple victimisation. There is further work that can be done on this, but country rankings for all crimes are very similar whether incidence or prevalence rates are used" (p13-14). An accompanying footnote reveals that the statistic used to reach this conclusion was the Spearman rank coefficient. To those intrigued by multiple victimisation, this sort of analysis is not central. It is entirely to be expected that there is an association between prevalence and incidence, since prevalence partially determines incidence. There are more important questions. For example, does the number of victimisations per victim (concentration) covary with the prevalence of victimisation? If it does, it ceases to be attractive to think of national differences in terms of repeat victimisation separately, (although the distinctive practical issues raised by repeat victimisation are not at issue). If prevalence of victimisation and concentration of victimisation do not

covary, the distinctive contribution of concentration to national crime differences must be explored further. Another important question concerns whether the extent of concentration is reliably greater than expected on assumptions of independence of crime events in all countries, or whether there are certain countries which do not have the generally discovered excess of repeat victimisations relative to expectation. Questions of this kind may offer distinctive insights into how victimisation is distributed across victims.

There is a slight suggestion in the text of van Dijk et al. that multiple victimisation is a proportionately greater problem in Northern Ireland (and Belgium) than elsewhere. The relevant text will be quoted in full "Generally speaking, country positions were similar as measured by incidence risks as they were as measured by prevalence risks.... However, on an incidence measure, Canadians emerge slightly less at risk; that is, although relatively many Canadians experienced a crime counted in the survey, they were less likely to do so on several occasions than those in the USA and Australia. Relatively speaking, risks in England and Wales and Finland were also slightly lower as indicated by the incidence measure. Conversely, risks in N.Ireland and Belgium were relatively higher on an incidence base than on a prevalence one; although relatively few people were victims in these countries, they were slightly more likely to have experienced more than one crime."(p42) It is possible to take matters somewhat further by examination of the Tables in Appendix E of the van Dijk et al. book.

In the survey, questions were asked about a maximum of five victimisations. It should be possible to do a simple analysis of the number of victimisations across offence types, and fit a Poisson distribution. That is not possible with the published data, but should certainly be attempted when the survey data enters the public domain. What follows is an attempt to get close to the same sort of analysis, but it should be strongly stressed that it is tentative, and should be regarded accordingly. Its main purpose is to persuade the reader that the fuller analysis would be worth doing.

Two kinds of analysis are possible. First, Table E1 presents prevalence data as percentage victimisation by offence type and victimisation of any offence type, for 1988. If no-one was victimised for more than one offence, the two figures would be the same. Thus, if 5% of people were victimised by assault and a different 5% by burglary, the total prevalence for the two kinds of victimisation combined would be 10%. At the other extreme, if 5% of people were victimised by assault and the same 5% by burglary, the total prevalence would be 5%. Where the actual figure falls between these extremes reflects the number of different types of victimisation per victim. This is presented as Table 1. It should be stressed that this excludes repeat victimisations within an offence type and thus understates the true extent of repeat victimisation even more than is inherent in the design of the survey. In Table 1 the figures are presented alongside the expected probabilities if victimisations by different offence types were independent of each other. It will be seen that for all countries, actual

numbers of different victimisations are much greater than expected values. The figures are not absolutely comparable, since the first column includes offences against those victimised three or more times, whereas the expected values are calculated by reference to the summed joint probabilities of all possible pairs of victimisation types. This will have the effect of slightly overstating the excess of the first column of figures over the second.

Table 1. Mean Number of Victimization Types per Crime Victim, by Country, and Expressed in Relation to Expected Prevalence of Repeat Victimization. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

	Mean Vict Types	Expected
England and Wales	1.45	1.03
Scotland	1.44	1.02
Northern Ireland	1.51	1.01
Netherlands	1.59	1.08
West Germany	1.62	1.04
Switzerland	1.41	1.02
Belgium	1.63	1.03
France	1.67	1.04
Spain	1.66	1.07
Norway	1.46	1.02
Finland	1.48	1.02
USA	1.91	1.13
Canada	1.64	1.09
Australia	1.88	1.11
Warsaw	1.86	1.24
Suribaja	1.74	1.05

It is difficult to see from Table 1 how the conclusion could have been reached that Northern Ireland and Belgium are most prone to repeat victimisation. However, it is possible that the conclusion was reached about repeat victimisation within an offence type. To this possibility we turn next. However, it should be stressed that Table 1 shows the now familiar excess of repeat victimisation relative to expectation. This is true for all countries included, as for the two cities appended to

the data set. It seems that the answer to one of the questions posed is that concentration of victimisation across offence type is greater than would be the case if the events were independent. We turn now to the same question for concentration of victimisation within an offence type.

Tables 2-9 present the number of victimisations per victim (concentration) within each offence type for which the analysis is possible. Also presented is the Pearson product moment correlation coefficient for the relationship between prevalence of that offence and its concentration. This is to show that differences in concentration do not reliably covary with prevalence, ie that the phenomena are at best only modestly related to each other. Expected values are not included since they never exceed 1.01. It is thus reasonable to say that for these Tables the expected number of victimisations per victim is only trivially greater than one, if crimes were independent.

Table 2. Number of Thefts of Car Suffered by Each Victim of Car Theft, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

England and Wales	1.06
Scotland	1.00
Northern Ireland	1.25
Netherlands	1.33
West Germany	1.25
Belgium	1.50
France	1.00
Spain	1.38
Norway	1.00
Finland	1.00
USA	1.43
Canada	1.13
Australia	1.30

Product-moment correlation between concentration (as above) and prevalence = +.04.

Table 3. Number of Thefts from Car Suffered by Each Victim of Theft from Car, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

England and Wales	1.16
Scotland	1.45
Northern Ireland	1.18
Netherlands	1.30
West Germany	1.19
Switzerland	1.11
Belgium	1.30
France	1.25
Spain	1.44
Norway	1.43
Finland	1.19
USA	1.33
Canada	1.25
Australia	1.35

Product-moment correlation between concentration (as above) and prevalence = +.45.

Table 4. Number of Car Vandalisms Suffered by Each Victim of Car Vandalism, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

England and Wales	1.28
Scotland	1.37
Northern Ireland	1.40
Netherlands	1.33
West Germany	1.43
Switzerland	1.17
Belgium	1.32
France	1.17
Spain	1.44
Norway	1.35
Finland	1.23
USA	1.37
Canada	1.18
Australia	1.36

Product-moment correlation between concentration (as above) and prevalence = +.16.

Table 5 Theft of Motorbikes Suffered by Each Victim of Motorbike Theft, by Country. Source of Data: International Victimisation Survey (Van Dijk et al. 1990).

Scotland	1.33
Northern Ireland	1.00
Netherlands	1.00
West Germany	1.00
Switzerland	1.42
Belgium	1.67
France	1.17
Spain	1.25
Norway	1.67
USA	1.00
Canada	1.00
Australia	2.00

Product-moment correlation between concentration (as above) and prevalence = +.04.

Table 6. Number of Cycle Thefts Suffered by Each Victim of Cycle Theft, by Country. Source of Data: International Victimisation Survey (Van Dijk et al. 1990).

England and Wales	1.50
Scotland	1.40
Northern Ireland	1.19
Netherlands	1.37
West Germany	1.15
Switzerland	1.25
Belgium	1.33
France	1.07
Spain	1.20
Norway	1.00
Finland	1.23
USA	1.26
Canada	1.18
Australia	1.21

Product-moment correlation between concentration (as above) and prevalence = +.06.

Table 7. Number of Domestic Burglaries Suffered by Each Victim of Domestic Burglary, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

England and Wales	1.05
Scotland	1.15
Northern Ireland	1.18
Netherlands	1.08
West Germany	1.08
Switzerland	1.10
Belgium	1.22
France	1.38
Spain	1.29
Norway	1.13
Finland	1.00
USA	1.45
Canada	1.23
Australia	1.30

Product-moment correlation between concentration (as above) and prevalence = +.69. (p<.01)

Table 8. Number of Robberies Suffered by Each Victim of Robbery, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

England and Wales	1.00
Scotland	1.20
Northern Ireland	1.00
Netherlands	1.44
West Germany	1.38
Switzerland	1.00
Belgium	1.40
France	1.50
Spain	1.39
Norway	2.00
Finland	1.00
USA	1.58
Canada	1.45
Australia	1.22

Product-moment correlation between concentration (as above) and prevalence = +.19.

Table 9. Number of Thefts from the Person Suffered by Each Victim of Theft from the Person, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

England and Wales	1.29
Scotland	1.08
Northern Ireland	1.41
Netherlands	1.13
West Germany	1.28
Switzerland	1.24
Belgium	1.05
France	1.11
Spain	1.22
Norway	1.03
Finland	1.09
USA	1.38
Canada	1.22
Australia	1.28

Product-moment correlation between concentration (as above) and prevalence = +.04.

Table 10. Number of Assaults/Threats Suffered by Each Victim of Assault/Threat, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

England and Wales	1.32
Scotland	1.78
Northern Ireland	1.50
Netherlands	1.91
West Germany	1.52
Switzerland	1.33
Belgium	1.60
France	1.50
Spain	2.07
Norway	2.03
Finland	1.14
USA	1.87
Canada	1.68
Australia	1.81

Product-moment correlation between concentration (as above) and prevalence = +.48.

Perhaps the first thing to say about these tables is that for all crimes and most countries the extent of concentration is such as to make its comparison with expected levels otiose.

Clearly the extent of crime concentration is high, perhaps high enough to have the desired implications for prevention strategies. Equally clearly, for all offences apart from domestic burglary, the extent of concentration is independent of the prevalence of victimisation. Those countries which suffer a relatively high prevalence of victimisation are not necessarily those whose victims suffer repeated victimisation. At least this means that repeated victimisation is not an artefact of the spread of victimisation, at the level of international comparison at least. It is much less plausible for this to be true of comparisons within a country. The exception is domestic burglary, but restraint is necessary against interpreting the single reliable result in ten comparisons.

Another way of looking at the data is the number of within-type repeat victimisations characteristic of individual countries (across offence types) and characteristic of individual offence types (across countries). These are presented as Tables 11 and 12 respectively. Table 11 is comparable with Table 1, being for repeats within offence type in contrast to Table 1's repetitions across offence types. As with Tables 2-9, the expected number of victimisations per victim is never more than trivially greater than one.

Table 11. Mean Number of Within-Type Victimisations per Crime Victim, by Country. Source of Data: International Victimization Survey (Van Dijk et al. 1990).

	Mean No. Victimisations Within Type
England and Wales	1.21
Scotland	1.31
Northern Ireland	1.23
Netherlands	1.31
West Germany	1.24
Switzerland	1.20
Belgium	1.38
France	1.24
Spain	1.41
Norway	1.40
Finland	1.11
USA	1.41
Canada	1.26
Australia	1.43

In short, however the data is organised, it does not appear that Northern Ireland is a country with an unusually high rate of repeat victimisation - rather the contrary. To restate a point made earlier, however, the extent of repeat victimisation remains high enough to make discussion of the prevention of repeat victimisation as a strategy of crime prevention at least tenable. Table 11 means that (giving offences equal weight) one victim in five in Northern Ireland is likely to be a victim of another similar offence within the same calendar year. In addition, one victim in two is likely to be victimised at least once of an offence of a different kind in the same calendar year (the repeat victims in the two categories of revictimisation may be the same people). Thus the odds of revictimisation in either way are quite high. It should not be overlooked that these are censored data, and are not rates of revictimisation within a calendar year. This is because a first victimisation after say six months of a survey

period leaves only a six month risk period during which a victimisation would occur to classify the victim as a repeat victim. It would be worthwhile calculating the risk of revictimisation with one year of a first victimisation (see Polvi et al (1990) since the first victimisation is the point at which preventive action would be triggered. It should thus reflect the start point of the period of possible revictimisation. It should be noted that this means that the real rate of revictimisation is much higher than is suggested by this reanalysis.

The final piece of secondary analysis of the van Dijk survey concerns the rates of within crime type revictimisation across countries, ie which offences are associated with the highest rates of victim concentration worldwide. This is presented as Table 12. Of course the same data for individual countries were presented as Tables 2 to 10.

Table 12. Number of Victimisations per Victim by Offence Type, Across Countries. (Country data not weighted by population).

Note

Data in this Table are not weighted by Prevalence of Offence Type.

Theft of Car	1.20
Theft from Car	1.28
Car Vandalism	1.31
Theft M.bike	1.29
Cycle Theft	1.24
Burglary with Entry	1.18
Robbery	1.33
Theft From Person	1.20
Assault/Threat	1.64

It will be seen that assaultive / threatening crime is the one most concentrated on particular victims. One objection is

that this is lifestyle related. The writer does not see this as an objection. It simply defines the kind of crime which could be most substantially reduced by the successful prevention of repeat victimisation. Whether this reduction derives from change of lifestyle is beside the point.

To make concrete the point about the concentration of repeat victimisation in Northern Ireland, it is worth looking at how the incidents captured by the international survey were distributed between victims, for two sample offences, theft of personal property and being attacked or threatened. Thanks are due to Stephen Donnelly and an anonymous colleague of his for making this available. Thirty-four people had personal property stolen once, six two times, two three times, one four times, and one five times or more. For attack / threat, twenty-six people had been victimised once, six twice, and three five times or more. This concretises the experience described earlier here, and the earlier point that incidence/prevalence ratios are unsatisfactory in that they disguise the distribution of victimisations among victims. Looking at assault / threats, three individuals suffered nearly one third of all the victimisations captured in the survey.

Within-Country Variation in Victim Concentration

The van Dijk et al research offers a convenient basis for comparison between countries. Of even greater interest is the variation within a country, since it is on this basis that decisions will be made about crime prevention strategy. Sadly,

here there is no convenient basis for comparison. What is provided below is a speculative extrapolation from England and Wales.

Secondary analysis of the 1982 British Crime Survey was undertaken by Trickett et al (in press). The purpose was a descriptive decomposition of crime incidence into its components, prevalence and concentration. Sampling points used in the Survey were ranked into those with the highest crime incidence to those with the lowest crime incidence. The sampling points were then collapsed into deciles, from the 10% of sampling points with the lowest crime incidence, to the 10% with the highest. The crime incidence in the lowest crime decile was around 3% of that in the highest decile. The interesting question was the extent to which that was attributable to area differences in prevalence and to what extent to area differences in offender concentration. Most broadly, it was attributable to both. Most dramatically, crimes against the person were spectacularly more prevalent in the high crime areas, but for both personal and property crimes the rate of repeat victimisations was very much higher in the high incidence areas. Prevalence and concentration did covary in this analysis, unlike the international comparison. The Trickett et al. paper is appended to this report.

Analysis of Northern Ireland statistics alongside Trickett et al. is intended as suggestive, nothing more. For a start, the Northern Ireland data relate only to recorded crimes, whereas Trickett et al. deal with all crimes captured by the 1982 BCS. The hope is that the analysis will prove

sufficiently intriguing to proceed with on a more rigorous basis within NIO. The lowest level of disaggregation of Northern Ireland police data which are available to the writer concerns Police Sub-Divisions. Data on 1990 crimes were made available, alongside population estimates for these sub-divisions, for which the writer is extremely grateful. (The Musgrave Street population figure was obviously in error and this sub-division is excluded from further analysis). First, the number of crimes per head in each sub-division was calculated. Sub-divisions were then ranked by crimes per head. The ratio between the lowest and highest subdivisions was around 17 fold, as compared with the more dramatic 34 fold ratio between the lowest and highest crime decile found by Trickett et al. (despite the Ulster comparison being the more extreme). This is to be expected given the reliance on recorded crimes in Ulster, and assuming a lower rate of report in the most crime-prone areas. If the same pattern obtains here as in England and Wales, however, the number of victimisation per victim in the highest crime sub-divisions will be markedly higher than expected on the basis of incidence differences. The reader is referred to Tables 1 and 2 of Trickett et al. to see that expected prevalence outstrips observed prevalence as the amount of crime in an area increases. Precisely the opposite is true of number of victimisations per victim. It was hoped to intrapolate Northern Ireland experience to produce a guess about the number of repeat victimisation likely in high and low crime areas, but there is a point at which speculation becomes

nonsense. Given that rates of crime in most of Northern Ireland (even when grossed up to take account of reporting rates) are so much lower than in the lowest decile of England and Wales, this is the point at which the nerve fails!

CHAPTER 3

BURGLARY VICTIMISATION IN LISBURN SUB-DIVISION

This chapter looks at a specific project in Northern Ireland starting from the presumption that repeat victimisation is an important lever for crime prevention practice. On 2nd April 1990 the Lisburn Burglary Prevention Project was launched. The aim of the project is to reduce the incidence of burglary in the Lisburn area over the next two years, by developing and implementing burglary prevention initiatives. Lisburn was primarily selected as the area in which to locate the project because it had a significant burglary problem and because the agencies concerned wished to cooperate. The project was based on a similar study carried out in the Rochdale area of Manchester on the Kirkholt housing estate.

The Lisburn Burglary Prevention Project is a joint initiative, led by the Probation Board for Northern Ireland, the Royal Ulster Constabulary, and assisted by Victim Support Northern Ireland and the Northern Ireland Housing Executive. The project has focussed on victims of burglary, asking for their assistance with a survey, which examines situational factors, previous victimisations, and long-term effects of the burglary. In order to tackle the problem of burglary more comprehensively, the Probation Board for Northern Ireland is also offering programmes of work designed to prevent re-offending, directed at those who have been convicted of burglary.

For the purposes of this particular study of burglary

revictimisation, the information required was selected from the current database on burglary victimisations and accessed for analysis using the Crime Analysis Package, developed by the Home Office.

Caution must be exercised in interpreting the results of this study because of the small data base. However, information is being gathered on an ongoing basis. This will be analysed at a future date with larger numbers. Furthermore, proper analysis will depend upon a time-limited record of repeat victimisations. What is presented here is best regarded as descriptive data with no pretensions to provide a valid indication of how much repeat victimisation exceeds expected rates.

Domestic Burglary Revictimisation

Since the beginning of the Lisburn Burglary Prevention Project on 1st April 1990, until 15th February 1991 65 victims have been surveyed. Of these only 1 has been revictimised since the project came into operation. There is thus roughly a median five-month risk period. The expected number of revictimisation is .05, with a housing stock of 21877. We obviously need a longer period of the project before we can be confident of anything. Looking at the previous victimisation experience of those burgled since 1st April 1990, our results indicate that a significant number of victims have been burgled in the past. 15.4% of victims (9) had received a burglary in the past. Table 13 indicates frequency of revictimisation, and Table 14 previous burglary attempts:

Table 13

NUMBER OF PREVIOUS BURGLARIES	COUNT	%
1	3	33.3
2	3	33.3
3	2	22.2
4	1	11.1

As well as actual burglaries, a further 6.2% of victims (4) had suffered attempted burglaries previously.

Table 14

NUMBER OF PREVIOUS ATTEMPTED BURGLARIES	COUNT	%
1	2	50.0
2	1	25.5
* 4	1	25.5

Of those victims who had suffered attempted burglaries, 2 had also suffered burglaries.

* this victim is a single parent (aged 26-40), 1 child, living in a mid-terrace house, rented from the Northern Ireland Housing Executive, home usually empty on Monday and Tuesday, lived at current address two years, lived in area all life, has been burgled twice in the past year, and has experienced 'a few' attempted burglaries.

Victims were also asked if they had been burgled at previous addresses, 6.2% (4) had, three experiencing one burglary, and one two burglaries. Thus in total 23.1% of victims have experienced some form of burglary in the past.

Table 15

NUMBER OF PREVIOUS BURGLARIES AT PREVIOUS ADDRESS		COUNT	%
1		3	75.0
2		1	25.0

Table 16 TIME LIVED AT ADDRESS

	NO PREVIOUS BURGLARIES		YES - PREVIOUS BURGLARIES		TOTAL	
	COUNT	%	COUNT	%		%
Less than 1 yr	5	10.0	-	-	5	7.7
1-5 yrs	15	30.0	6	40.0	21	32.2
6-10 yrs	13	26.0	4	26.6	17	26.1
11-15 yrs	4	8.0	3	20.0	7	10.8
16-20 yrs	6	12.0	-	-	6	9.2
21 yrs +	7	14.0	2	13.3	9	13.8
TOTAL	50		15		65	

Table 16 shows that 40% of those experiencing burglaries previously had lived in the area between one and five years, compared to 30% of those who had not experienced previous burglaries. This interesting finding shows that revictimisation is not a simple function of time at risk. If it had been, the proportion previously victimised would increase as length of residence increased.

Table 17 Age of Victims

	NO PREVIOUS BURGLARIES		YES - PREVIOUS BURGLARIES		TOTAL	
	COUNT	%	COUNT	%		%
18 - 25	2	4.0	1	6.6	3	4.6
26 - 40	21	42.0	5	33.3	26	40.0
41 - 60	16	32.0	6	40.0	22	33.8
60 +	10	20.0	3	20.0	13	20.0
UNKNOWN	1	2.0	-	-	1	1.5
TOTAL	50		15		65	

There was a slight tendency for people who had been revictimised to be in the older age groups (41+). Analysis indicates that the difference between the groups is not significant (CHI SQ = 0.17).

Table 18. Marital status of victims

	NO PREVIOUS BURGLARIES		YES - PREVIOUS BURGLARIES		TOTAL	
	COUNT	%	COUNT	%		%
Divorced	2	4.0	1	6.7	3	4.6
Married	33	66.0	8	53.3	41	63.1
Separated	3	6.0	-	-	3	4.6
Single	3	6.0	3	20.0	6	9.2
Widow	3	6.0	2	13.3	5	7.7
Unknown	6	12.0	1	6.7	7	10.8
TOTAL	50		15		65	

If we group together those victims who are divorced/separated/single and widowed, there is a considerable difference according to marital status between those who have had previous burglaries (40%) and those who have not experienced previous burglaries (22%). Analysis indicates though that this is not a significant difference (CHI SQ = 0.78).

Table 19. Ownership of Home

	NO PREVIOUS BURGLARIES		YES - PREVIOUS BURGLARIES		TOTAL	
	COUNT	%	COUNT	%		%
HOUSING EXECUTIVE	14	28	6	40	20	30.8
PRIVATELY OWNED	36	72	9	60	45	69.2

There was a tendency for a greater proportion of Housing Executive properties to have had previous burglaries. Analysis indicates however that this difference is not significant (CHI SQ = .789).

Table 20 Burglaries by House Type

	NO PREVIOUS BURGLARIES		YES - PREVIOUS BURGLARIES		TOTAL	
	COUNT	%	COUNT	%		%
Detd bungalow	17	34	6	40.0	23	35.4
Detd house	15	30	1	6.7	16	24.6
End terrace hse	5	10	2	13.3	7	10.8
Mid terrace hse	3	6	2	13.3	5	7.7
Semi-det house	3	6	2	13.3	5	7.7
Semi-det bungalow	2	4	2	13.3	4	6.1
End of ter bungalow	3	6	-	-	3	4.6
Upstairs flat	2	4	-	-	2	3.1

Detached houses appear to have a lot less revictimisations in the past (30% against 6.7%). Analysis indicates that there is not a significant difference between those who live in bungalows and those who live in house and flats in relation to having experienced previous burglaries or not (CHI SQ = 0.4)

After searching through police records on burglary from 1987-1990, details of three of the fifteen victims who claim to have been burgled in the past were found :

ref 83 - date 27/9/90, entry point window at back, goods stolen include alcohol, cassettes, tapes, records, clothing, video recorder, total value £700 - 800.

ref 114 - date 17/11/90, entry point window at back of house boarded up, goods stolen include cassettes, tapes, records, childrens toys, value £35.
previous date 26/8/89, no sign of forced entry, £11 cash stolen.
previous date 31/12/89, no sign of forced entry, rooms ransacked, nothing stolen.
previous date 5/1/90 attempted burglary, no entrance gained, nothing stolen.
Time between burglaries - 1st and 2nd = 4 months
2nd and 3rd = 5 days
3rd and 4th = 10 months.

ref 140 - date 5.1.91 entry point side window in shed, tools stolen value £600.
previous date 14.6.88, entry point window at back, jewellery value £400.
Time between burglaries 30 months.

There appear to be no common factors or patterns emerging from those individuals who have been victimised in the past. Times between burglaries ranged from 5 days to 32.5 months, with a mean of 15.3 months. The close proximity of ref 114, incidents 2 and 3, and the fact that nothing was stolen may suggest attempts by the same burglar.

Summary of Points on Domestic Burglary

Results indicate that 23.1% of victims have experienced

burglary in some form in the past. The frequency of burglaries and attempted burglaries ranges from one to four incidents. The number of revictimisations of domestic properties since the project began in April 1990 is small in absolute terms, but may well be high relative to expectation, if maintained. Whether it is lower than found in Kirkholt has yet to be established. In relation to the length of time that victims had lived at their current address, results suggest that there is a significant difference between those who have had previous burglaries and those which have not, in the opposite direction to that expected, ie that relative newcomers are more victimised. With regard to the age of victims, although there was a slight tendency for older people to be revictimised, this was not statistically reliable.

The results also indicate that, although more single people tended to have experienced previous burglaries, there was not a significant difference between the different status types. Single parents appear to be particularly vulnerable. 43% of them were identified as victims of multiple burglary. This was also found on Kirkholt.

Housing executive tenants tended to be more likely than private house owners to have experienced previous burglaries, but again this result is not significant.

In relation to the type of home, analysis indicates that there is not a significant difference between the types of properties in relation to previous victimisations.

Commercial Burglary Victimization

73 commercial questionnaires have been returned in the period of the study 1st April 1990 to 15th February 1991. There is an estimated total of 2463 commercial premises in Lisburn. 56.2% of victims (41) had received a burglary in the past, one third approximately had experienced only one previous burglary while 12.2% had burglaries continually.

Table 21 Frequency of Previous Commercial Burglaries

N OF PREVIOUS BURGLARIES	COUNT	%
1	14	34.1
2	3	7.3
3	4	9.8
4	3	7.3
5	1	2.4
6	1	2.4
7	1	2.4
8	1	2.4
10	1	2.4
12	1	2.4
* continually occurring	5	12.2
unknown	6	14.6

Of those victims who claim to be continually burgled 2 are schools, 1 is a factory, 1 is a builder, 1 is an office and 1 is a service station.

A further 32.9% of victims (24) had received previous attempted burglaries and these numbered between one and five, with seven premises having had one previous attempted burglary (see Table 22).

Table 22 Previous attempted burglaries

NUMBER OF PREVIOUS BURGLARIES	COUNT	%
1	7	29.2
2	4	16.7
3	3	12.5
5	2	5.9
unknown	8	33.3

Victims were also asked if they had been burgled at previous addresses 10.3% had (7), one had received one previous burglary, one had received two previous burglaries, and one had received thirty previous burglaries. The remainder were unsure of how many previous burglaries they had experienced at previous addresses.

Table 23. Burglaries at Previous Premises

NUMBER OF PREVIOUS BURGLARIES AT PREVIOUS ADDRESSES	COUNT	%
2	1	14.3
3	1	14.3
30	1	14.3
unsure	4	57.1

7.4% of victims (5) had received attempted burglaries at previous addresses.

Table 24. Attempted Burglaries at Previous Premises

LENGTH OF TIME IN PREMISES

	NO PREVIOUS BURGLARIES		YES - PREVIOUS BURGLARIES		TOTAL	%
	COUNT	%	COUNT	%		
Less than 1 yr.	2	6.2	4	9.8	6	8.2
1-5 yrs	13	40.6	5	12.2	18	24.7
6-10 yrs	6	18.7	10	24.4	16	21.9
11-15 yrs	-	-	2	4.9	2	2.7
16-20 yrs	3	9.4	5	12.2	8	10.9
21 yrs +	3	9.4	8	19.5	11	15.1
Unknown	5	15.6	7	17.1	12	16.4
TOTAL	32		41		73	

Victims who have experienced burglaries in the past tended to have been in the same business premises longer than those who had not had previous burglaries, 78.1% had been in their premises for longer than 5 years, whereas only 53.1% of those who had not received previous burglaries had been on their premises for longer than 5 years.

Analysis suggests that there is a significant difference between those who have experienced previous burglaries and those who have not in relation to the length of time they have been in their premises (CHI SQ = 5.38 $p < 0.05$).

Commercial Premises Revictimised Since April 1st 1990

20 victims have been revictimised since April 1990. Table 25 below details the amount of time between these victimisations.

Table 25. Time Elapsed Between Burglaries

TIME BETWEEN BURGLARIES (DAYS)				
	1st + 2nd	2nd + 3rd	3rd + 4th	4th + 5th
1.	18	184		
2.	-	-		
3.	71			
4.	99			
5.	72			
6.	34	25	3	5
7.	65			
8.	39			
9.	204			
10.	54	15		
11.	-	14	32	
12.	87			
13.	107			
14.	112			
15.	88	12		
16.	9			
17.	89			
18.	14	14		
19.	13	36		
20.	5	50		
	MEAN=62.1	MEAN=43.8	MEAN=16.3	MEAN=5

39.4% of revictimisations occurred within a month.
 18.2% occurred within two months.
 18.2% occurred within three months.
 9.1% occurred within four months.
 9.1% time period unknown.
 3.0% occurred within five months.
 3.0% occurred within six months.

The modal time elapsed between revictimisations was less than a month from the previous victimisation. The times between victimisations ranged from 3 to 204 days, with a mean of 51 days. Not surprisingly, the mean length of time between victimisations decreases as the number of revictimisations increases.

There appears to be no relationship between time lapse between burglaries and the goods stolen on each occasion. Both where goods taken were similar and where they were not, over

half of repeat victimisations occurred within six weeks.

Looking at the characteristics of the premises which are revictimised, 30% are schools, 10% are building sites, 10% are garages, the remainder consisting of a variety of businesses. 30% of victims had been on their premises for between six and fifteen years, the remainder for more than fifteen years.

Where revictimisation had occurred, in 40% of cases the same entry point was used.

Summary and Discussion of Points

A substantial proportion of commercial premises have experienced previous burglaries (56%). What is more significant, of the 75 premises burgled during the project period, 20 were revictimised. Half of these revictimisations occurred within ten weeks of the first. Of those eight premises who were victimised for a third time, seven revictimisations occurred within 50 days of the second victimisation. Of those seven, three were victimised again, all within thirty-two days. To put the matter another way, 3% of premises were victimised once in the period. Of those victimised once, 27% were revictimised. Of those victimised twice, 40% were revictimised - and the time elapsing to the next victimisation got shorter and shorter as the number of previous victimisations increased. This illustrates perfectly the attraction of the prevention of repeat victimisations as a crime prevention strategy.

CHAPTER 4

GEOGRAPHICAL INFORMATION SYSTEMS FOR THE MONITORING OF MULTIPLE VICTIMISATION

Much data collection concerned with the monitoring of either the provision of public services, or with the need for services, is aimed at the establishment of an aggregate picture. Conventional crime statistics, one of whose aims is to provide a picture of the demand for law enforcement services, rely almost solely on such aggregate measures. However, in the case of reported crime there is often a separation, or even duplication, of the efforts involved in collecting information to support the tactical effort to find the perpetrator of a particular offence and the recording of the crime as part of the compilation of crime statistics. There is frequently a third opportunity for the timely use of information at the point when the criminal incident is initially reported, often in a command and control context. Of these three uses of data: despatch, detection and analysis, the third has received most attention.

Classical Area-Based Crime Analysis

Crime analysis systems classically aggregate crimes over time within an administrative or operational boundary and relate the aggregate pattern to other known data for the area (see Ekblom 1988). Such an approach has many shortcomings, not the least of which is the submergence of individual

victimisation records in the aggregate. There are many other problems with this approach. Patterns may be recognisable at the individual level but, because they do not fall neatly within the chosen boundaries, disappear in the aggregate. Percentages are used, rather than absolute figures, to compensate for unequal populations, or numbers of properties, within areas . These depend on the availability of reliable divisors, which may not be obtainable between censuses. Areas with sparse populations appear to be as meaningful, when they have a high or low value, as more populated areas, even though this is statistically unreliable and insignificant. As most crimes are rare events very small numbers of incidents, even in the more populous areas can make a large difference to the pattern. This cannot be disentangled easily afterwards as the original individual data may have become unavailable. The approach is usually based on incidence rather than prevalence hence multiple victimisations appear identical to a higher number of incidents to separate victims even though the two patterns are different. The statistical analysis of relationships of aggregate figures for areas with area based population characteristics can lead to spurious 'ecological correlations'. A relationship which exists at the area level does not necessarily represent a relationship at the level of the individual. In crime analysis ecological correlations cannot distinguish between offenders and victims so, for example, the relationship between the proportion of a population that belongs to a particular ethnic minority and street crime, could be due either to members of that ethnic

minority being the victims, the offenders, or, having the misfortune to live in areas where the majority group in the population mug each other!

If the aggregate analysis of area based data has so many flaws why is it so widely used? There are many reasons, the most important of which is probably data availability and data volume. Statistical data has to be collected for administrative and operational areas and is thus available for further analysis. The volume of data, particularly when batched into annual returns is manageable in quite modest computer systems running familiar statistical analysis software. The structure of the data lends itself to analysis using simple statistical methods. Easy to use mapping systems usually provide area fill maps (choropleth maps) as a standard and easy option. The data has a direct link to areas for which operational policy is made and the results of the analysis are presented, sometimes spuriously, as an aid to resourcing decisions. The final advantage of aggregate analysis is the anonymity and privacy that it ensures for individual victims.

Disaggregated Crime Analysis and Geo-Referencing

The recognition of local crime patterns, particularly of crimes which are clustered together in space (of which multiple victimisation may be one cause), or over time, requires an approach that allows summary data on the individual crime to be held, displayed and analysed. Any system that can handle such dis-aggregated crime reports should also be capable of flexibly re-aggregating data to any

set of areas. There are two approaches that can be adopted to ensure that this is the case. One is based on a database, the second on the analytical functions found in geographical information systems. Each approach requires the fundamental entities, in this case the individual crime report, to be geographically referenced. Such a reference may be a simple postal address, it may be some unique reference number, or a grid reference to a given resolution (1 metre is usual) that guarantees the identification of individual properties.

The database approach requires the compilation of a comprehensive index of streets, the intersections between streets and the numbers (or names) of properties on each side of each street segment (the part of a street that lies between intersections). Boundaries are stored in such a database either, as attributes of the streets along which they lie, or as pseudo-streets which have a boundary attribute but which have no name or properties along them. Such an approach has been used in the US to administer the taking of the 1991 census of population. The resulting geo-referencing system is known as TIGER (Topologically Integrated Geographical Encoding and Referencing; Marx 1990). The advantages of such a system are its flexibility and the ability to relate any address, or any location known to lie on one side of any street or boundary, to a known zone. The smallest zonal units in the system are normally a single urban block, surrounded by streets (or other edges such as a river or railway). From the point of view of crime analysis such a block has a degree of logic based on accessibility and the probable homogeneity of

the properties within the block). The TIGER system is placed in the public domain in the US because of freedom of information legislation. It, and its by products, have, as a result, become the basis of many small scale crime recording systems in the US (for an example see Sherman 1990). The availability of relatively inexpensive desktop (small personal computer based) mapping software has coincided with the free availability of this underlying geo-referencing information. The important aspect of this approach to geo-referencing is that its accuracy is based on a series of logical operations matching an address to the database. While maps can be produced, and the aggregation of crimes into areas is accurate, the location of individual addresses is only approximately represented. Also, such a system can operate without its mapping component, purely as a spatially referenced database.

In the UK only Merseyside has a maintained geo-referencing system similar to TIGER. This is routinely used for the mapping of police beats and the production of street maps. The system is suitable for the monitoring of individual crimes but has not yet been used at that level of detail. The building and maintenance of a street index based geo-referencing system is a relatively costly process. Notwithstanding this cost, the reliability, flexibility and ease of use of such a system makes it an attractive option. The rapidly expanding use of such systems in the US and the availability of software that exploits their structure makes their use here increasingly attractive.

An alternative approach, that is feasible more immediately in the UK, is the use of a map reference based geo-reference rather than a street index. On the mainland, Pinpoint (a geographical information services company) has been producing a product for selected parts of the country that relates a one metre resolution grid reference, located at the centre of the frontage of every property, to the property's postal address. The resulting file of Pinpoint Address Codes (PACs) allows the accurate point mapping of address based data of any sort. Pinpoint are also producing associated computerised maps of street centre lines. Unfortunately the very high cost of Pinpoint's data has limited its use. The Northern Ireland Ordnance Survey has, however, produced similar data for the Greater Belfast area which would make a valuable resource for a pilot project on the analysis of individual crime data. The disadvantage of map reference based systems is that they rely on software with some geographical information system (gis) capability to analyse aggregate patterns. Questions such as 'Which beat is this address in?', or 'What blocks in the city have suffered an above average rate of burglaries?' cannot be answered directly. It is necessary to produce computerised, accurate, versions of the map boundaries of any area of interest and then to carry out a 'point in polygon' procedure which allocates points to these areas. Such an analysis, though not complicated in itself requires specialised software and hardware and can involve large volumes of data. By contrast the database approach described above can be implemented using simpler software and less costly data.

The ideal method of geo-referencing would be a combination of both the database and the map based approaches. The precise locations, and other cartographic detail, of individual properties would be available for the mapping of crimes while an underlying database system would deal with the aggregation of crimes and the search for underlying patterns. The identification of second or subsequent victimisations would emerge from the database of referenced crimes rather than from their mapping.

A Pilot Project

CRISTAL is a Crimes and Incidents Recording and Analysis System developed and installed in the Rochdale Division of the Greater Manchester Police Force. A predecessor to CRISTAL was developed as part of the Kirkholt project (Forrester et al. 1988) using Home Office funding as part of a burglary prevention demonstration project. Kirkholt is a deprived estate of public housing close to the town of Rochdale in Greater Manchester. The estate is a relatively self contained area characterised by high degrees of social stress, unemployment and crime. It was chosen for the pilot project because of a high burglary rate (one in four households on the estate suffered one or more burglaries in a given year) and a high rate of multiple victimisation. Once burgled the likelihood of a second burglary in the same property appeared to rise substantially. As part of the project properties which had been burgled were 'hardened' by fitting improved locks and security devices. Neighbours were also alerted to the burglary

and were asked to keep an eye on the vulnerable property. This package of measures, both physical and social, yielded a 60% reduction in domestic burglary on the estate.

In order, first to monitor, and then to maintain, such a battery of measures a system was required that could store, retrieve and provide simple analysis of crime reports quickly and easily. The system is designed to be a crime and incident data entry and data querying system, and is aimed at users who have little or no computing experience. The system allows for the output of a series pre-defined reports which are used by various departments throughout the Division. There is also a powerful interactive ad-hoc query module which enables users to query any aspect of the crime and incident databases and direct output to screen or printer.

The geo-referencing aspects of CRISTAL are based on the address of an incident and on the pre-coding of sub beats, which in turn nest into beats and electoral wards for aggregate analysis. CRISTAL now operates in the divisional HQ on a relatively powerful personal computer. This system is based on PARADOX (a widely used, efficient, flexible and easy to use database) and is written in the databases's programming language PAL. While the existing database application provides adequate information for routine local crime monitoring, for briefings and for the tactical allocation of officers, its capacity to identify multiple victimisations or other patterns automatically is limited. CRISTAL has been enhanced by the addition of a mapping module based on the MapInfo desktop mapping package. MapInfo is the

best selling desktop mapping software in the US and it relies on the availability of either TIGER type street index files, from which it calculates approximate locations along streets for individual addresses. It can also accept map references for individual addresses entered directly from an underlying database and can aggregate those into areas for which boundaries have been digitised. A new release of MapInfo operates under the Microsoft Windows environment on personal computers and offers the prospect of an easy to use system that can easily be integrated with other software.

Recommendations

The identification of cases of multiple victimisation should, logically, begin with the first report of either an individual, or more commonly a property, having suffered, or been the location of, a crime. Such identification implies the availability of a victim log as part of the command and control system. This would allow the prioritisation of calls that relate to an existing victim over first time victimisations. Ideally a database containing such a log would also flag the existence of existing victims in an area where new incidents are being reported. For example if a new spate of burglaries is identified, the log should identify existing victims, presumed to be at risk again, in the immediate vicinity.

As in the case of CRISTAL, the formal crime report completed by the investigating officer would provide the principal input into the crime monitoring system. However this should be built

on the back of a more sophisticated geographical referencing system which would automatically abstract data for statistical returns and would incorporate some methods of semi-automatic pattern detection. Such methods would involve the flagging of second or further victimisations, new crime reports in the vicinity of already victimised areas and the reappearance of patterns of already identified crime patterns (including time and mode) in new areas. A geographically based crime recording system cannot deal easily with mobile crimes such as personal attacks, or the theft or damage of vehicles, away from home or workplace. However, by recording such incidents, vulnerable areas can be identified.

The Ordnance Survey of Northern Ireland has a more sophisticated and more advanced programme of geo-referencing than is available in Great Britain, much of which has been completed in the Greater Belfast area. Advantage should be taken of this data for the mapping of crime incidence (possibly using MapInfo) and to replicate, as far as possible, the TIGER data structure to take advantage of crime monitoring systems developed in the US.

A good opportunity exists in the Greater Belfast area to take advantage of a number of co-incident developments

- the interest of the Northern Ireland Office in the impact of multiple victimisation on local crime patterns;
- the availability of a responsive and advanced mapping agency in the Ordnance Survey of Northern Ireland;
- the existence of precedents in the US and Great Britain for local crime monitoring projects, many of which have been

developed with an inadequate geographical base and using technology which was insufficient for the job.

An opportunity exists for establishing a local pilot project based on the positive, and negative, experiences elsewhere which will identify multiple victimisation incidents and will trace local patterns of victimisation. Such a system, should be capable of providing tactical information at the point of report, immediate information on local crime patterns at the level of the individual incident and be able to both make comparisons with and feed into the normal pattern of collecting crime statistics.

Should the Northern Ireland Office wish to consider running such a pilot I would recommend a discussion with Michael Brand, Head of the Northern Ireland Ordnance Survey and his officers responsible for the implementation of the geo-referencing and street centre line mapping projects for Greater Belfast. Michael Brand has taken a leading role in the UK Association for Geographical Information and would, presumably, be keen to see such a pilot project implemented. It would seem appropriate, rather than commissioning an entire new project in the Belfast area to use the accumulated Lisburn Study data for further analysis. Possibly the Ordnance Survey may be persuaded to provide the appropriate geo-referencing base for Lisburn which would be comparable with their work on Belfast. Such a pilot project could be quick to execute, relatively inexpensive, and could pave the way to a more extensive study of the distribution, impact and prevention of multiple victimisation in the Belfast area.

CHAPTER 5

MULTIPLE VICTIMISATION: NEXT STEPS

It is taken as having been established that all crimes studied have a tendency to cluster around the same victims, and the extent of this repetition is such as to make it an important consideration in police deployment and in crime prevention. It is also taken as established that while Northern Ireland does not appear to have an unusually high rate of repeat victimisation, there are areas and types of crime within the Province where the odds of repeat victimisation in the short term are particularly high. The study of commercial burglary in Lisburn reported as the latter half of Chapter 3 provides a good instance of an offence whose swift repetition is so likely as to justify additional preventive action. In short, repeat victimisation is a phenomenon so substantial and common as to merit serious consideration in allocating crime prevention and other police resources.

Crime prevention and detection are founded upon predictability. Detection is founded primarily on predictability of perpetrator, and crime prevention on predictability of the victim to whom and time in which a crime will take place. Of course the two kinds of predictability have a close relationship. Certain perpetrators will be more likely to offend against certain victims in certain places. Predicting the victim and place can lead to the choice to detect as well as the choice to prevent. Entrapment is

precisely the choice to detect when prevention could have been achieved. This parallelism between predictability of perpetrator and predictability of victim can be taken further. Recent years have seen an increase of interest in offender profiling, whereby characteristics of known offenders are combined to yield odds that an unsolved offence is attributable to a particular offender. The power of offender profiling derives from the awareness that a small number of offenders are responsible for a large proportion of crimes committed. While offender profiling is becoming fashionable, victim profiling is not (Indeed I know of no prior use of the phrase). In a similar way to that achieved in offender profiling, victim profiling would yield odds that a particular person or place will be victimised in the future. Just as criminal record is the best statistical predictor of future criminality and is central in offender profiling, so it seems that past victimisation experience is the best predictor of future victimisation, and is usable in victim profiling. The small proportions of victims 'responsible for' large amounts of crime are quite close to the disproportions obtaining between offenders and crimes. This suggests that victim profiling has the capacity to be for crime prevention what offender profiling will assuredly become for crime detection. If this proposition were to be accepted, what would be the practical implications for crime prevention work? Before presenting suggestions which may be regarded as unrealistic, I wish to present some facts about present policing which I regard as indefensible.

Harvey et al (1989) showed that the proportion of a police force's complement given over to crime prevention work was inversely related to the amount of crime in the area. One could defend the opposite relationship, one could defend there being no relationship, but not an inverse relationship, since it means that least police crime prevention effort is going into those places which most need it. Harvey et al. (1990) also reported that the crime prevention officer's mandate was so wide that he or she was vulnerable to immediate pressures, wherever they came from. Very often, such pressures come from worthy community organisations. In this way, a crime prevention officer can spend large proportions of his or her working life addressing Women's Institutes, Christian clubs of one kind or another, or Rotary and Round Table organisations. These may be good for police-public relations, but are unlikely to direct the crime prevention officer to the areas of the greatest need for his or her services. Another point is, as was earlier noted, mapping facilities at the required level of resolution exist nowhere in police command and control systems (the closest approximation being Merseyside). It is an interesting commentary that the Crime Analysis Package sponsored by the Home Office is not a real time system. It is used after the event, interestingly in Northern Ireland by Extern rather than the Royal Ulster Constabulary. The use of this official package seems slight even in Crime Prevention Departments of GB police forces. Repeat victimisation and clustering of victimisation are thus implicitly deemed to be of little importance in determining a

standard police response to crime.

The writer has had recent experience of the way in which repeat calls to domestic disputes are handled in two forces in England. These will be briefly mentioned to show the paucity of information about relevant previous victimisations which accompanies an officer to the scene of a crime. In one force, officers simply cannot know how many like calls there have been to the same address. They approach each call informed only by any experience of the place which they themselves may have accumulated as an individual. The only concession is a whiteboard containing handwritten notes of which houses may contain someone particularly violent. This requires the alertness of control room staff to notice, and is entirely ad hoc. In the other force, a domestic violence unit responds to calls during normal working hours, but an officer responding to calls outside that time is again totally alone and uninformed by previous events at the same address. If the immediate response to such incidents may influence their probability of recurrence (as seems very likely), it is important that the officer attends as rich in relevant information as possible.

In short, it cannot be said for either the immediate police response or the considered response of the police crime prevention officer that the implications of patterns of repeat victimisation have been absorbed.

Recommendations for Action

One recommendation for action has been set out in the last

Chapter. This was for a mapping facility for the Lisburn sub-division which could inform command and control decisions. It would have a resolution by place down to one metre and should incorporate a victim-based search facility too. The system is conceived as a pilot project. In this writer's view, it would have to be usable in providing information to officers about previous incidents at the same place and/or to the same people before they reached their destination.

A second recommendation would be for the reorganisation of the police crime prevention service so as to become primarily a service for the prevention of repeat victimisation. Since prior victimisation seems generally to flag a much higher probability of repeat victimisation, this process automatically directs crime prevention effort to where it is most needed, including to the right groups and people. This should not cut across Victim Support, which primarily dispenses emotional help and advice about insurance claims, and so on. The best sort of victim support is prevention of recurrence, and this would be the task of the police crime prevention officer. The service should incorporate both social and physical means of prevention, and should swiftly follow a crime. Some measures, like the loan of silent alarms, may be worthwhile in increasing rates of detection among those who swiftly return to commit repeat offences. It does seem that repeat calls by the same offenders may be primary reason for the swift repeat victimisation pattern seen for burglary (see Polvi et al. in press).

Attention should be given to how the NIO and RUC could best

present routine statistical information to highlight the risks of repeat victimisation, and how to communicate the information to those with an interest in responding to them. For instance, it is clear that insurers should be aware of the Lisburn data on repeat burglaries of commercial premises.

One basic aim of this paper has been to alert the Northern Ireland Office to the evidence for and some of the implications of the high level of repeat victimisation. Those who prepared this report would be happy to speak to it in the Northern Ireland Office or elsewhere, and to explore particular spin-offs from this piece of work.

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