

Findings

Areas to include

In this section the results of the audit are presented and should cover the following areas:

1. A problem solving approach for producing the audit and strategy
2. Conduct an initial 'broad and shallow' analysis.
3. Summarise main findings in appropriate format, consider:
 - Primary/secondary data
 - Presentation of data
 - Time periods covered
 - Spatial analysis
 - Benchmarking
4. Identify key problem issues/areas.
5. Conduct a 'narrow and deep' analysis on these issues/areas, consider:
 - Temporal analysis
 - Spatial analysis
 - Victims and offenders
 - Costs of crime, drugs and drug related crime
 - Looking beyond the data

Some suggestions for information that could be included under each heading follow below.

1. A problem solving approach for producing the audit and strategy

It is important to apply a problem solving approach to the audit and strategy process.

- ✓ [SARA](#)
- ✓ [Problem Analysis Triangle](#)
- ✓ [PROCTOR](#).

Further information on these approaches can also be found in part two of [Passport to Crime Reduction](#).

These tools have been used effectively in crime and disorder fields. They are for the most part generic and the problem solving approaches may be applicable in development of misuse of drug audits. However, the Communities against Drugs toolkit on the Crime Reduction Website and Tackling Drugs Against Neighbourhood Renewal, provide methods of analysing misuse of drugs problems and how they impact on the community. There are also a number of other useful documents at www.drugs.gov.uk/NationalStrategy/Communities. Other problem solving tools specific to drugs are covered in annex B.

Example:

SARA can be applied to the audit process in this way:

SCANNING

This is the broad and shallow process which identifies patterns and issues in relation to crime and disorder in a partnership.

ANALYSIS

This is the narrow and deep process which identifies characteristics, impact and underlying cause in greater detail.

RESPONSE

This is the development of the strategy and action plans.

ASSESSMENT

This is the monitoring and evaluation of the strategy and action plans.

2. Conduct 'broad and shallow' analysis

It is useful to begin with an initial 'broad and shallow' audit of the partnership area to form a picture of the nature and scale of the crime and misuse of drugs problems. This provides an overall context, and also a guide to determine what themes and areas require more detailed analysis.

Example:

Broad and Shallow

A broad and shallow audit will identify key priority themes and areas that warrant further investigation. Examples of areas that could be covered by a broad and shallow analysis in order to achieve this include:

- Contextual information
- Examination of total crime levels across the area
- Examination of the main crime categories across the area
- National overview/benchmarking
- Regional overview/comparison
- Extent of problematic drug use
- Extent of drug related crime (NEW-ADAM)
- Extent and nature of drug related crime
- Treatment availability

The following is a worked example of how a partnership might conduct a broad and shallow analysis.

Broad and Shallow

- Contextual information shows the partnership area has small pockets of deprivation, but is overall a relatively affluent area.
- Analysis of the total crime shows that the levels are in line with the national average.
- Examination of the main notifiable offences for the area shows an increase in vehicle crime over the past year. This places the vehicle crime rate 20% above the national average, where in previous years this offence had not been a significant problem.
- Analysis against the regional and family group also places the partnership well above the average rates for vehicle crime.
- Fire Service has experienced an increase in hoax calls relating to this location during the past year.
- The extent of problematic drug use has been identified and estimates of treatment places available in the area made.

3. Summarise main findings in appropriate format

Presentation of data

- There should be a direct description of the data and an analysis of relationships existing between the data.
- Data can be summarised in a number of ways and it is important to choose the form of presentation that best fits the purpose intended. Examples of

forms of presentation include statements, tables, figures, graphs and maps.

- Key statistical measures by which to collect crime and disorder data include:

- ✓ **Volume** Number of crimes
- ✓ **Incidence** Number of crimes per head of population/household
- ✓ **Prevalence** The number of people victimised
- ✓ **Concentration** The number of incidents per victim
- ✓ **Percentage Change between 2 time periods**

Example:

Presenting Statistics

Statistics are presented in a number of ways, the most common being percentage change and rate per population. The information below indicates the situations in which each method should be used.

In analysis percentage change is used to compare crime levels between two time periods in order to track any significant changes. Percentage change may be calculated using the following formula:

▪ **Percentage Change**

Let: A = original figure

B = new figure

Thus % change = $\frac{(B - A)}{A} \times 100$

If B is greater than A, there is a % increase

If A is greater than B, there is a % decrease (in this case B - A will give a minus figure)

Worked example:

If a town recorded 4,000 domestic burglaries between April 2001 and March 2002 and 5,000 domestic burglaries the following year, this would result in a recorded percentage increase of 25%.

Step 1

$$\frac{5,000 - 4,000}{4,000}$$

Step 2

$$\frac{1,000}{4,000} \times 100 = 25\%$$

Care should be taken when using percentage change to consider the actual numbers involved. If only small numbers are involved this may produce a large percentage change which may initially be misleading. For example, an area may record a 50% increase in robberies in May 2003 compared with May 2002. At first glance this may appear an alarming rise. However, examination of the actual number of offences may reveal that in fact the actual increase involved is only 2 offences, from 2 robberies in May 2002 to 4 robberies in May 2003.

- Audits should not fall into the trap of presenting rather than analysing data. Simply listing tables of crime incidents will not be useful. The purpose of including data is ultimately to contribute to appropriately targeted strategies and action plans.

Time periods covered

- Data should be as up-to-date and complete as possible.
- However, the publication date of 1st April 2005 for the next strategy round means that it may not be possible to include complete data for the year 1st April 2004 to 31st March 2005. Partnerships may therefore want to concentrate on collecting data for the following years: 2001/2, 2002/3, and 2003/4.
- Partnerships may have access to data after April 2004 and even if the data sets are not complete, comparisons can still be to the same period in the previous year.
- Partnerships should be cautious when using incomplete data and be explicit about which year's or time periods the data they are using covers.
- Partnerships should aim to present data that covers the same time periods from different agencies.

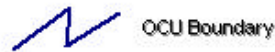
Spatial analysis

- Mapped information can enable a great deal of information on crime levels and misuse of drugs trends and hotspots to be conveyed efficiently.
- Spatial analysis may be conducted at a number of different levels:
 - ✓ Hotspot.
 - ✓ Census output area.
 - ✓ Police beat.
 - ✓ Estate or neighbourhood.
 - ✓ Ward.
 - ✓ Local authority area.
 - ✓ County.

See example map on page 33

- Combining separate data sets in a mapped form can aid investigation into the characteristics of a locality and highlight high need areas.
- However simply producing pages of mapped crime data will not necessarily help. The key factor is analysing the data and linking this analysis to the strategy.
- The Jill Dando Institute's publication [Become a Problem-Solving Crime Analyst](#) may also help explore some of the issues in this section.

Number of Crimes (2002/03) & Change in Crime since 2001/02 by Ward



Change in Crime 2001/02 to 2002/03

Light Orange	10 to 62	(26)
Orange	1 to 10	(23)
Grey	No change	(1)
Light Green	-10 to 0	(19)
Green	-25 to -10	(46)
Dark Green	-51 to -25	(47)

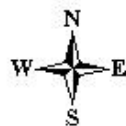
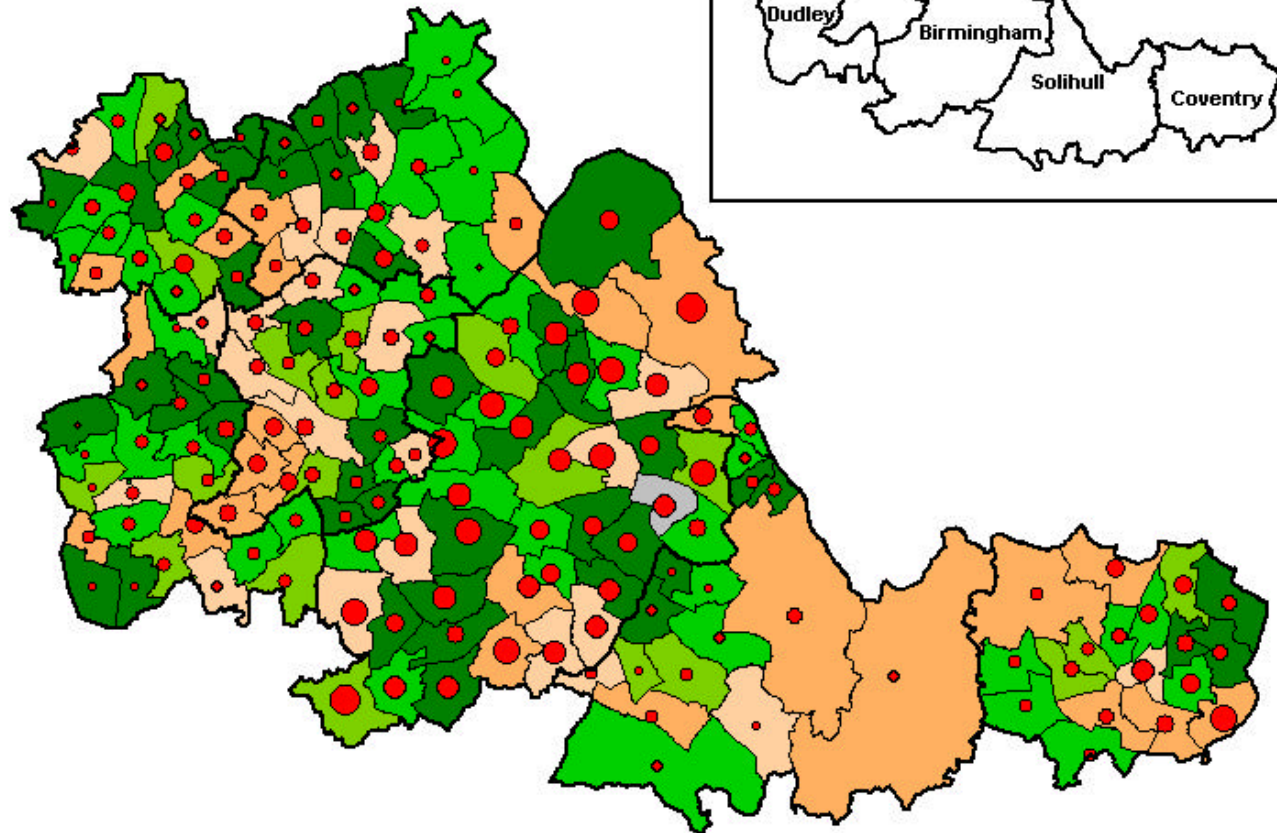
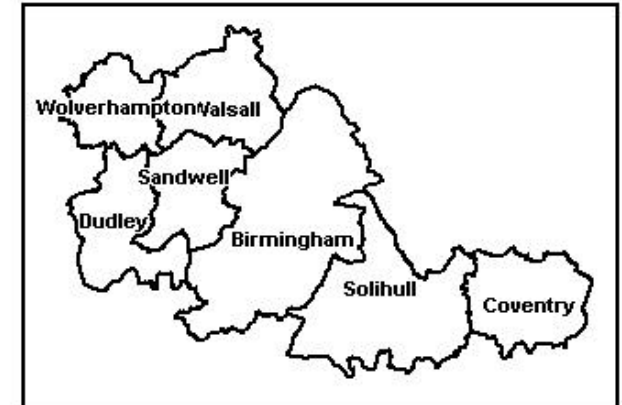
Number of Crimes in 2002/03



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A8248example_map1.wor 4th December 2003



Note: example map only - figures are fictitious

Benchmarking

Good practice in analysing crime and disorder and drugs misuse problems includes comparing or benchmarking data. This can be done in a number of ways (note that the Performance Management Framework (PMF) for the National Drug Strategy (NDS) will do this although partnerships may also choose to benchmark against local non KPI data):

- Set any data used into context, against:
 - ✓ National data.
 - ✓ Regional data.
 - ✓ County/Area data.
 - ✓ Police force area data.
 - ✓ Home Office family group data.

This can be presented in either a table or, as overleaf, a graph.

- Compare the data with the previous audit to consider what changes have occurred.
- Using data relating to distinct areas within the partnership also allows some insight into whether any displacement or diffusion of benefits has occurred as the result of a specific intervention.

Example:

Benchmarking

The table below provides an example of a comparison of a Partnerships statistics for motor vehicle theft compared to figures for its county, its police force area, its family, the regional and national average, and to its figure for the previous year.

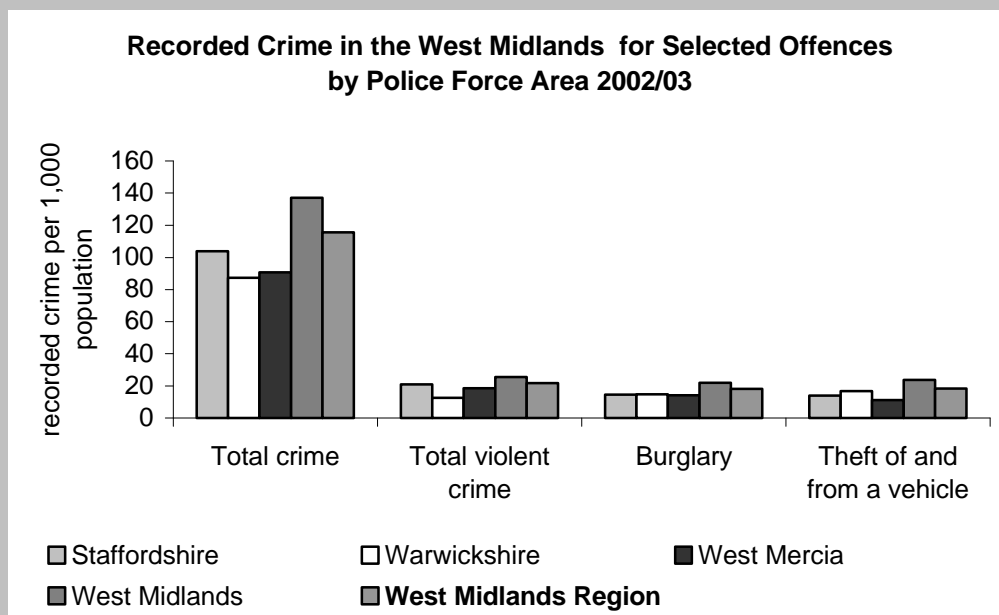
Motor vehicle theft in Anytown, 2002-2003

	Theft of a motor vehicle, offences recorded (2001/02)	Theft of a motor vehicle, offences recorded (2002/03)	Theft of a motor vehicle, % change 01/02 - 02/03	Theft of a motor vehicle, offences per 1,000 population
Anytown	276	303	9.8	3.5
Anytownshire	5486	4734	-13.7	5.1
Anytown PFA	6322	6267	-0.9	5.4
Family 14	14,867	15,329	3.1	3.2
West Midlands	36,476	33,714	-7.6	6.4
England & Wales	328,196	317,184	-3.3	6.1

Source: Crime in England and Wales 2002/03. Home Office Statistical Bulletin.

Example:

Benchmarking



Source: Crime in England and Wales 2002/03. Home Office Statistical Bulletin 07/03.
Total violent crime includes the combined total for violence against the person, robbery and sexual offences.

4. Identify key problem issues/areas

- Use the broad and shallow analysis to point towards key problem issues or areas that require further investigation. It is perhaps useful to ask a number of simple questions at this stage to help focus further analysis.
 - ✓ Can we group any information into themes. Using themes in this way can be more meaningful and helps avoid silo thinking.
 - ✓ How can we explain the emerging themes?
 - ✓ Do we understand how or why the problem has occurred and what is driving it?

5. Conduct 'narrow and deep' in-depth analysis

Having identified broad priority themes and areas, a more in-depth analysis should be undertaken, informed by the results of the 'broad and shallow' analysis. More detailed spatial analysis of a small area may also be undertaken at this stage.

Analysis should not be unnecessarily complicated and should focus on the key issues identified.

Example:

Narrow and Deep

A narrow and deep audit will look in detail at the underlying characteristics identifying why these problems occur and what factors can be manipulated to reduce them. Examples of areas that could be covered by a narrow and deep analysis in order to achieve this include:

- Breakdown of offence types within broad crime and disorder categories
- Victims analysis
- Offender analysis
- Impact analysis, e.g. economic costs, social costs, emotional costs
- Risk profiles, e.g. temporal analysis, location analysis, crime types, people/items involved
- Overlaying different agencies' data sets
- Overlaying socio-demographic information

The following is a worked example of how a partnership might conduct a narrow and deep analysis.

Narrow and Deep

- Further analysis of the vehicle crime issue shows that the problem is thefts **from** vehicles.
- These offences are concentrated within a new hotspot area that has not shown up as a problem location through previous data - the car park and surrounding areas of a local industrial estate.
- Cars targeted are mainly older models belonging to employees working on the industrial estate. Items stolen are predominantly small/portable and have usually been left on display inside the cars: loose change, car stereos, coats, tools etc.
- Offenders are predominantly male, aged between 16 and 20.
- Offending peaks during the night shift hours 10pm-2pm, Monday to Friday during the winter months.
- Overlaying Fire Service data shows that the Fire Service has experienced an increase in hoax calls relating to this location during the past year.
- Costs in Police, Local Authority and Fire Service time for dealing with the offenders and correcting damage are estimated at £250,000 per year.

Example:

A related example for a drug audit review would be:

- Both custody suite information and information from treatment agencies indicate that drug related offenders are predominantly male between the ages of 20 and 30.
- The hotspots for drug offences has been the XX estate, where the majority of complaints and arrests have occurred over the last 3 years.
- This has had a knock-on-effect on the council, as they have received a lot of complaints and have an increasing number of empty properties on this estate.
- The most common type of drug misuse tends to be the infection of heroin, which has increased by 15% over the last 3 years.
- Crack use has risen over the last 3 years.
- Offences committed by these offenders tends to be street robbery and shoplifting, both of which have significantly increased over the last 3 years.
- There has been no increase in domestic burglary over the last 3 years.

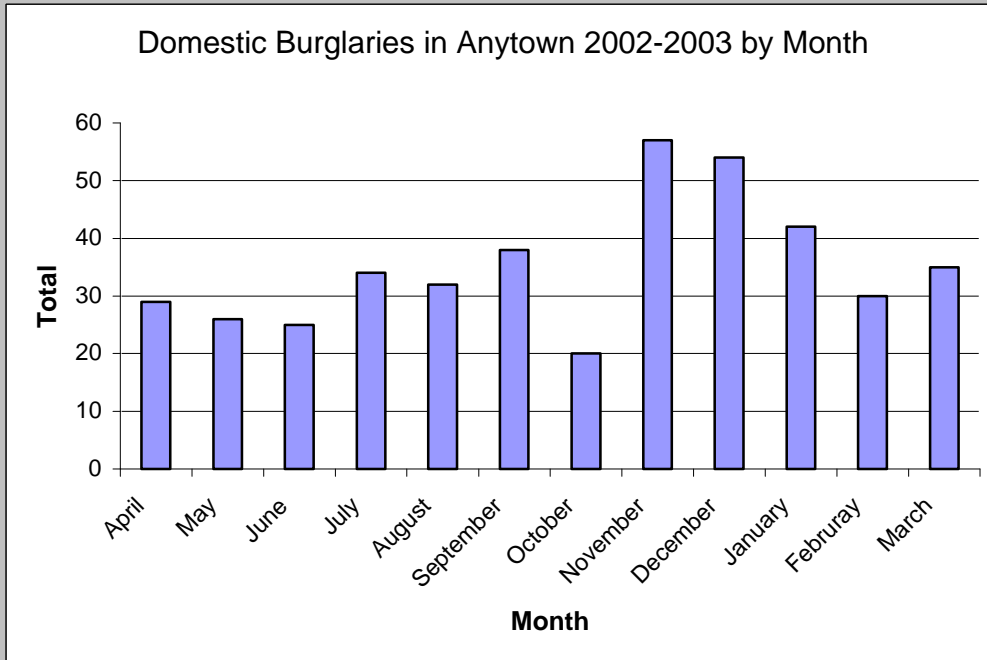
Temporal Analysis

The examples used throughout this section relate to burglary, but apply equally to other offences and drug misuse.

- Temporal analysis may be conducted, as the graphs below show, by:
 - ✓ Time of day.
 - ✓ Time bands during the day, e.g. morning, afternoon, evening.
 - ✓ Day of week.
 - ✓ Month of year.
 - ✓ Seasonal.
- When such analysis is performed, it is important to make it clear how this has informed the development of the subsequent strategy, for instance an increased police presence at peak times of offending.

Example:

Temporal analysis

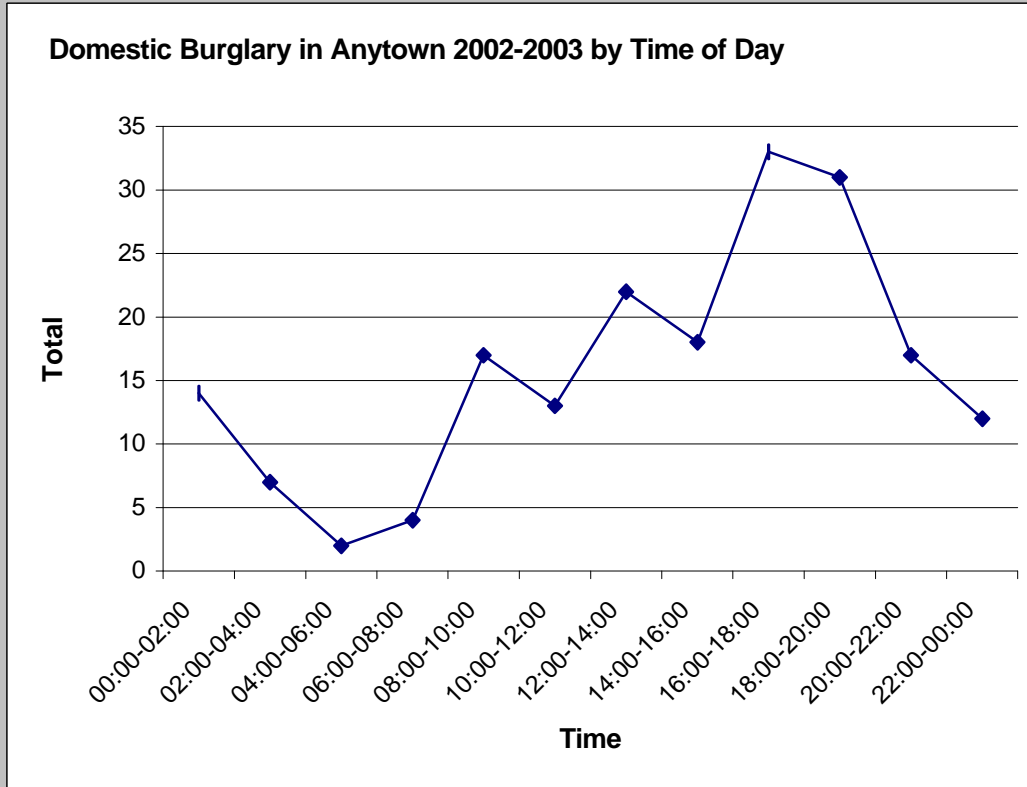


Source: Anytown Police Force

The graph depicts monthly domestic burglaries in Anytown during 2002/3. It indicates that the peak month for burglaries was November closely followed by December, with the lowest month October.

Example:

Temporal analysis



Source: Anytown Police Force

This graph shows the time of day at which burglaries are reported to have occurred over the course of one year. It indicates that burglary peaks between 4pm and 8pm, whilst the lowest level of offences are between 4am and 8am.

- Crime data varies from period to period which can make it difficult to spot any underlying pattern or trend in the data. There are a number of statistical techniques that can assist in smoothing out these variations. The simplest of these is the moving averages technique. It smoothes out the random fluctuations in the data, but at the same time, allows the moving average to identify the underlying trend. Where this technique is used the method for calculating the averages must be clearly stated. For more information see [Assessing Crime Prevention Initiatives](#), appendix A.

Example:

Moving averages

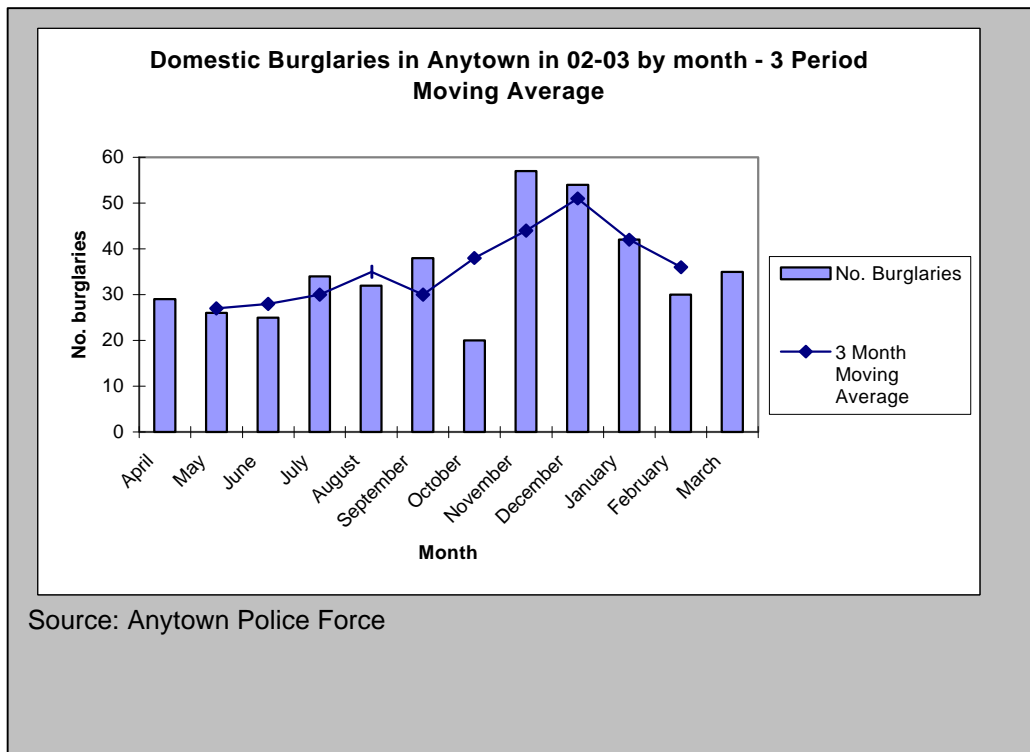
Using the data from the first example above, the number of burglaries in each month are shown in the first column. A 3-month moving average is to be calculated for this data.

The second column shows the totals for each successive 3 monthly period. The first figure in the second column (for May) is obtained by summing the figures for April, May and June, the second by summing May, June and July, the third by summing June, July and August, and so on. The third column shows these totals. The final column shows the moving average calculated for these totals. For a 3 month moving average this is simply the value of the second column divided by 3.

Month	No Burglaries	Moving 3 Month Total	3 Month Moving Average
April	29	}	
May	26	} 80	27
June	25	} 85	28
July	34	91	30
August	32	104	35
September	38	90	30
October	20	115	38
November	57	131	44
December	54	153	51
January	42	126	42
February	30	107	36
March	35		

Source: Anytown Police Force

The graph below shows the 3 month moving averages calculated for the data in the table. The moving average more clearly identifies the pattern in the data but since it is only of a short length it is still susceptible to sudden, short-term changes in the underlying data set.



Victims and offenders

[Hough and Tilley 1998](#) (p.14, box 6) suggest that mapping patterns of, and relationships between, incidents, victims and offenders makes it easier to understand how patterns of crime are produced and where interventions are most likely to produce significant benefits.

- Use the Problem Analysis Triangle to help conceptualise this. The approach draws on routine activity theory and suggests that problems should be looked at from the perspective of the:
 - ✓ Features of the victim.
 - ✓ Features of the offender.
 - ✓ Features of the location.

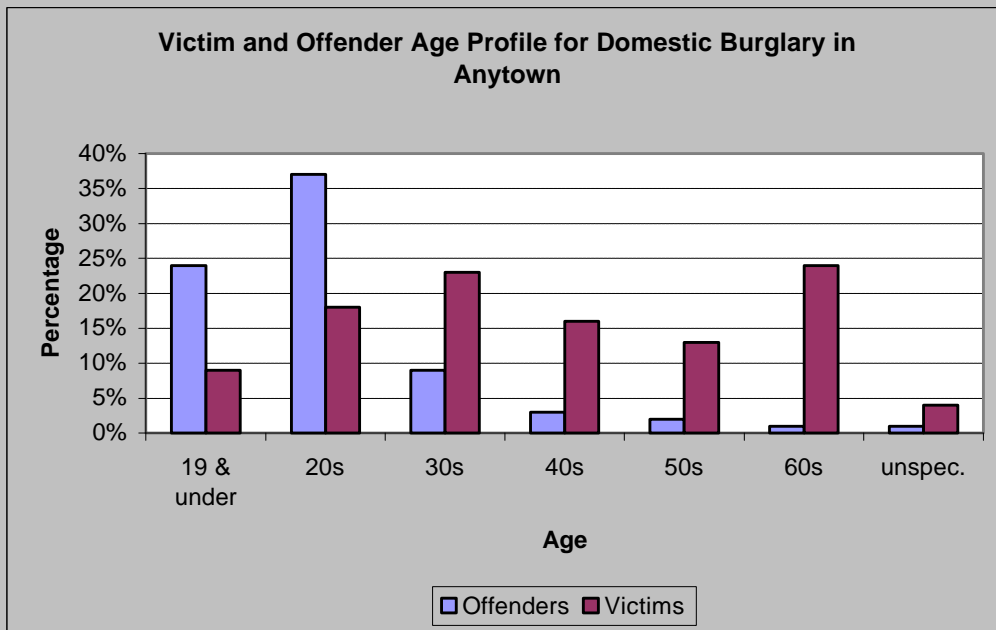
- **Profiling offenders**
Profiling factors could include:
 - ✓ Gender.
 - ✓ Age.
 - ✓ Ethnicity.
 - ✓ Types of crime committed.
 - ✓ MO's.
 - ✓ Alcohol and drug use.
 - ✓ Travel to crime pattern.
 - ✓ Persistent offenders.
 - ✓ "Imported" offenders

– **Profiling victims**

Profiling factors could include:

- ✓ Gender.
- ✓ Age.
- ✓ Ethnicity.
- ✓ Crime type.
- ✓ Repeat victimisation
- ✓ Vulnerable groups
- ✓ Virtual communities, e.g. students as victims.
- ✓ Visiting/working/tourist populations.

Example:



Source: Anytown Police Force

This graph shows that the peak age for offending in Anytown is during an individual's 20's, whilst the peak age for becoming a victim is during the 60's age bracket, closely followed by the 30's.

Costs

- Partnerships may want to consider the economic and social costs in the audit. Information on the costs of crime can be gained from [Home Office Research Paper 217. Section 4.](#)
- The London School of Economics has identified costs of responses to anti-social behaviour, see a report on how the framework works [The Economic and Social Costs of ASB.](#)

- Discussion of the costs should be used to assist in project decision-making and strategic thinking more generally.
- Guidance on how to conduct a cost estimate will be available in late Spring 2004.

Example:

Costs of Crime

The cost of recorded crime for selected offence types in Anytown, 2002-2003

Offence Type	Number of incidents	Average cost per incident ¹	Total cost 2002/2003
Burglary dwelling	437	£2,300	£1,005,100
Burglary not in dwelling	501	£2,700	£1,352,700
Theft of motor vehicle	303	£4,800	£1,454,400
Theft from vehicle	957	£580	£555,060
Common assault and battery	437	£540	£235,980
Assault on police	66	£540	£35,640
Shoplifting	1017	£100	£101,700
Robbery of personal property	42	£4,700	£197,400
Criminal damage to vehicle	734	£280	£205,520
Criminal damage to dwelling	348	£510	£177,480

Source: Sam Brand and Richard Price (2000) *The Economic and Social Costs of Crime* Home Office Research Study 217.

Looking beyond the data

- Avoid simply presenting everything that is known about a specific problem. Effective interpretation of the data is key and the reader should be able to follow the interpretation in a logical sequence.
- Identifying problem crimes or areas should only be the first stage, as there is a need to go beyond that to consider possible causes of crime and disorder and misuse of drugs.
- If appropriate, make predictions around future crime and misuse of drugs trends. Although there may be difficulties, routinely and systematically identifying potential future problems can be useful in determining strategic options. Consider:
 - ✓ Local crime trend analysis.
 - ✓ Economics and demographics.
 - ✓ Social and lifestyle trends.
 - ✓ New technology.
 - ✓ Hot products.

For a more in depth look at these issues go to ["Anticipating Future Crime Trends in Crime and Disorder Audits"](#).

- If making predictions surrounding future crime and misuse of drugs trends the methodology needs to be robust and fully explained.
- The Jill Dando Institute's publication [Become a Problem-Solving Crime Analyst](#) may also help explore some of the issues in this section.

Issues to consider

National Crime Recording Standard

The National Crime Recorded Standard (NCRS) was fully implemented in April 2002 and introduced a victim-focused approach to recording crime. The police have been encouraged to record more reported incidents as crimes and this has had the effect of inflating recorded crime figures for 2002/03. More information on the impact of the NCRS on recorded crime is available in the following Home Office reports:

[Part One: The National Picture](#)

[Part Two: Impact on Individual Police Forces](#)

Further information

Berry G. & Carter, M. (1992) [Assessing Crime Prevention Initiatives: The First Steps](#), Crime Prevention Unit Paper No. 31, London: Home Office.

Brand, S. and Price, R. (2000). [The Economic and Social Costs of Crime](#) Home Office Research Study 217. London: Home Office

Clarke, R.V and Eck, J (2003) [Become a Problem-Solving Crime Analyst](#). London: Jill Dando Institute of Crime Science

Fox, C. & McManus, J. (2001) [The NACRO Guide to Crime Audits](#). NACRO.

Home Office Crime Reduction Toolkit [Partnership Working](#). "Data Analysis"

Read, T. and Oldfield, D. (1995) [Local Crime Analysis](#). Crime Detection and Prevention Series Paper 65, London: Home Office.

Home Office (1998) [Guidance on Statutory Crime and Disorder Partnerships](#). London: Home Office. **Section 3.11 and 3.26-3.33**

Home Office (2003) [Guidance for Local Partnerships on Alcohol-related Crime and Disorder Data](#). Development and Practice Report 6. London: Home Office

Home Office Crime Reduction Centre (2003) [Passport to Crime Reduction](#) Home Office

Hough, M and Tilley, N (1998). [Auditing Crime and Disorder: Guidance for Local Partnerships](#). Crime Detection and Prevention Series Paper 91, London: Home Office. **Pages 13-21.**

ONS ["Standard Definitions for Presenting Ethnic and National Groups Data"](#)

National Drugs Strategy - Publications and reports generally concerned with aspects of the drugs strategy related to availability
www.drugs.gov.uk/ReportsandPublications/ReducingSupply

National Drugs Strategy – Publications and reports generally concerned with community related reports of the drugs strategy
www.drugs.gov.uk/ReportsandPublications/Communities

National Drugs Strategy – Publications and reports generally concerned with aspects of the drugs strategy related to the Criminal Justice Interventions Programme.
www.drugs.gov.uk/ReportsandPublications/CriminalJusticeInterventionsProgramme

National Drugs Strategy – Publications and reports specific to individual drug types

www.drugs.gov.uk/ReportsandPublications/DrugSpecific

National Drugs Strategy – Publications and reports generally at a national or strategic level.

www.drugs.gov.uk/ReportsandPublications/NationalStrategy

National Drugs Strategy – Publications and reports by the Research Development and Statistics Directorate (RDS) of the Home Office

www.drugs.gov.uk/ReportsandPublications/ResearchDevelopmentStatisticsRDS

National Drugs Strategy – Publications and reports generally concerned with aspects of the drugs strategy related to the treatment of drug users

www.drugs.gov.uk/ReportsandPublications/Treatment

National Drugs Strategy – Publications and reports concerned with aspects of the drugs strategy related to young people

www.drugs.gov.uk/ReportsandPublications/YoungPeople

Simmons, J. Legg, C. and Hosking, R. (2003) [National Crime Recording Standard \(NCRS\): an analysis of the impact on recorded crime. Companion Volume to Crime in England and Wales 2002/2003. Part One: The national picture](#) London: Home Office

Simmons, J. Legg, C. and Hosking, R. (2003) [National Crime Recording Standard \(NCRS\): an analysis of the impact on recorded crime. Companion Volume to Crime in England and Wales 2002/2003. Part Two: Impact on individual police forces](#) London: Home Office

Whitehead, C.M.E. Stockdale, J.E. and Razzu, G. (2003) [The Economic and Social Costs of Anti-Social Behaviour: A Review.](#) London School of Economics and Political Science