Measuring the harm from illegal drugs: a summary of the Drug Harm Index 2006

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Background

The Government's previous Drug Strategy was underpinned by a Public Service Agreement (PSA) target which, over the Spending Review Period 2005-06 to 2007-08, required it to:

> *"reduce the harm caused by illegal drugs (as measured by the Drug Harm Index encompassing measures of the availability of Class A drugs and drug related crime) including substantially increasing the number of drug misusing offenders entering treatment through the criminal justice system."*

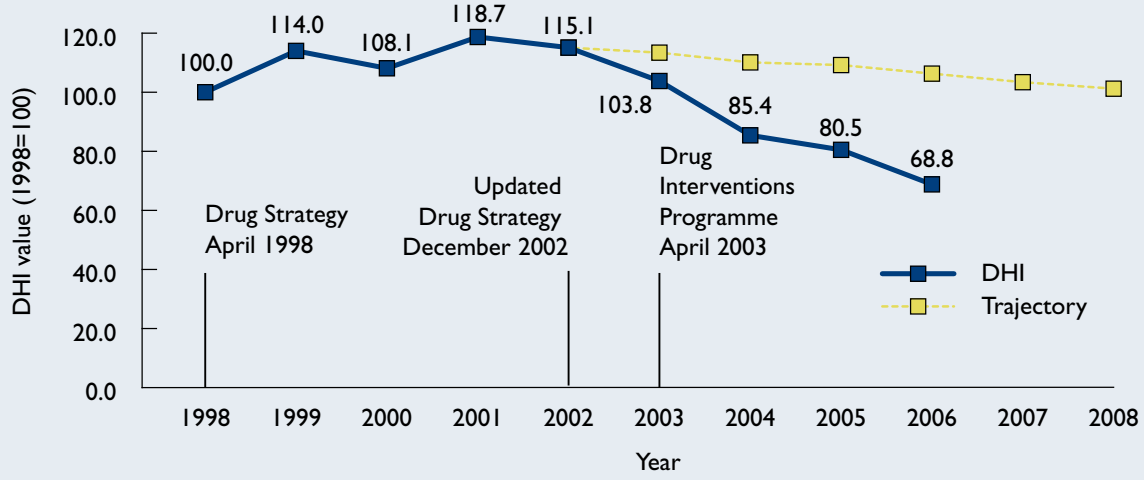
The Drug Harm Index (DHI) was developed as the overarching measure for this PSA target. The PSA target requires that the DHI is lower in 2007-08 than in 2002, the period covered by the previous Drug Strategy since its 2002 update. The DHI combines robust national indicators of the harms generated by illegal drugs into a single figure time-series index. The harms include drug-related crime, community perceptions of drug use and drug dealing and the various health consequences that arise from drug abuse (e.g. HIV, overdoses, deaths). To enable a single index to be constructed, the harms are measured and weighted together according to their relative costs to individuals and society.

This summary provides the 2006 update to the Drug Harm Index. A full description of the methodology and data sources used are published in a technical report; this is available at: www.homeoffice.gov.uk/rds/pdfs05/rdsolr2405.pdf

Results for 2006

The 2006 DHI is presented in Figure 1. The new series adds data for 2006 and incorporates revised data for earlier years. Figure 1 also shows the forward-looking trajectory for the DHI (which has a 2002 baseline). A summary of the recent performance of the DHI and the main drivers of change is given in Table 1.

Figure 1: The Drug Harm Index and updated trajectory



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Changes between 2005 and 2006

The drivers of change for the 2006 DHI are summarised in Table 1, below. Harms with a downward impact on the DHI in 2006 are denoted in green in the final column. The harm with an upward impact is denoted in red.

Table 1: Drivers of change in harm (2005-2006)

Indicator	Growth rate*	Weight	Impact on growth of DHI (points)
Commercial burglary	-0.36	10.5%	-3.82
Domestic burglary	-0.33	10.9%	-3.61
Shoplifting	-0.33	7.6%	-2.46
Other theft	-0.32	5.2%	-1.68
Theft from vehicle (domestic)	-0.34	3.7%	-1.28
Robbery	-0.07	15.6%	-1.04
Drug deaths	-0.02	32.6%	-0.72
Theft of vehicle (domestic)	-0.37	1.8%	-0.67
Theft of vehicle (commercial)	-0.42	0.5%	-0.23
Perceptions of drug nuisance	0.04	3.6%	0.16
HIV (inc. indirect causes)	-0.04	2.6%	-0.11
Hepatitis C	-0.04	2.6%	-0.10
Bike theft	-0.23	0.4%	-0.09
Mental & behavioural problems	-0.16	0.4%	-0.07
Theft from vehicle (commercial)	-0.33	0.1%	-0.04
Overdoses	0.01	0.1%	0.00
Fraud	-0.47	0.0%	0.00
HIV	0.01	0.0%	0.00
Hepatitis B	0.00	0.0%	0.00
Recorded trafficking offences	0.00	1.6%	0.00
Neo-natal effects	0.00	0.1%	0.00
Total		100%	-15.8**

* The growth rates in the table are expressed as differences in natural logs in keeping with the methodology used to construct the DHI. Further details can be found in the technical paper: www.homeoffice.gov.uk/rds/pdfs05/rdsolr2405.pdf

** The sum of the numbers in the final column suggests that the DHI decreased by 15.8 per cent between 2005 and 2006. This is slightly different to the figure for a simple percentage change quoted above (14.5 per cent) as the DHI model calculates the growth rate of the DHI using differences in natural logs.

Year-to-year changes in the value of the DHI result from the weighted growth in the volume of harms (e.g. the number of new HIV cases or the estimated number of drug-related burglaries), where the weights are constructed using information on unit economic or social costs of the harms (e.g. the expected cost per new HIV case or the average victim cost of a domestic burglary)[1]. By multiplying the growth rate of each indicator by its weight, it is possible to calculate the contribution of each harm to the overall growth rate of the DHI.

Table 1 highlights the effect that the weights have to the growth rate. As an example, although the growth rate for domestic burglary and shoplifting are the same, the greater weight attached to domestic burglary means that its overall impact on the DHI is greater.

Between 2005 and 2006, the DHI fell by 11.7 points, or 14.5 per cent. This is a more pronounced fall than between 2004 and 2005 where the DHI fell by 5.7 per cent (see Figure 1 above), and is partly due to the larger decrease in all crime types in 2006 than in 2005.

Many of the drivers of change in the 2006 DHI remain similar to those in the 2005 DHI:

- The largest downward impact again came from drug-related crime, particularly burglary, shoplifting and 'other theft'.
- Unlike the previous year, drug-related deaths decreased from 1,608 in 2005 to 1,573 in 2006, and thus contributed to the greater downward fall in the 2006 index.
- The only upward influence on the DHI in 2006 came from British Crime Survey (BCS) perceptions of drug nuisance[2], although this did not substantially impact on the DHI overall.

Changes to the historical series

As with previous versions of the DHI, data providers have retrospectively updated some of the data used to construct the DHI to reflect the most recently available figures. As a result, the DHI figures up to 2005 (shown in Figure 2) in the 2006 DHI are slightly different to those published previously.

1 A description of the methodology for drug-related crime estimates is available in the technical paper: www.homeoffice.gov.uk/rds/pdfs05/rdsolr2405.pdf

2 The slight increase in BCS perceptions from 27% in 2005/06 to 28% in 2006/07 was not a statistically significant change.

Historical volume data that have been updated include the hepatitis C (HCV) data which have been subject to a de-duplication exercise; this has resulted in a reduction in the volume of HCV cases throughout the time series.

As reported in the 2004 DHI, the Health Protection Agency Centre for Infections had imposed an embargo on their hepatitis B surveillance data due to problems in the reporting systems. This remains in place while current reporting problems are being addressed and it has once again been necessary to assume that the volume of new cases of drug-related hepatitis B remained constant at the 2003 level (the last year for which data are available). As noted previously, the impact of this should be small due to the relatively low weight of hepatitis B in the DHI.

The overall impact of the historical data revisions on the DHI is illustrated in Figure 2. The blue line shows the published 2005 version of the index, using the data available at that time. The yellow line shows the most recent version of the DHI, incorporating data for 2005, plus revised figures for earlier years. The impact of historical data revisions is to decrease slightly the value of the DHI between 1999 and 2005. However, the overall trend over time has remained broadly unchanged.

Figure 2: The impact of historical revisions to the 2006 DHI