

## THE 2002 QUALITY REVIEW OF ROAD ACCIDENT INJURY STATISTICS INTERIM REPORT : EXTENSION OF TIMETABLE

**Peter Wilding : Review Project Manager**

(Contact : [Peter.Wilding@dft.gsi.gov.uk](mailto:Peter.Wilding@dft.gsi.gov.uk), or, 020 7944 4926)

### 1 Introduction

1.1 In earlier years the STATS 19 collection system was subjected to a quinquennial review to check that it continued to provide essential information for government, but minimised the burden of form filling and data provision upon local police forces and local authorities. This quinquennial review process has now been succeeded by an enhanced review process designed to improve public confidence in National Statistics generally. Consequently the 2002 quality review is being organised in accordance with the National Statistics Quality Assurance Programme Board guidance paper 'Commissioning a National Statistics Review', following publication of the White Paper 'Building Trust In Statistics' (available on the Office of National Statistics web-site [www.statistics.gov.uk](http://www.statistics.gov.uk)). The 2002 quality review of the STATS19 injury road accident data collection system will contribute to this process.

1.2 Although the review process has been enhanced, particularly to assess as a distinct component, the dissemination of and means of access to national statistics on road accidents involving personal injury, the mechanics of the review process are largely unaltered. But, for the first time, the process is now subject to independent assessment and evaluation. The 2002 quality review is being assessed by Professor Richard Allsop from the Centre for Transport Studies at University College London.

1.3 The coverage and quality of the STATS19 collection process depends upon close co-operation between central government, local government and police forces. This is achieved by placing the management and ownership of the STATS19 system in the hands of the Standing Committee on Road Accident Statistics (SCRAS), which represents the interests of all participants in the collection and processing of STATS19 data. It is a voluntary process and there is no specific statutory duty upon the police, or local authorities, to report STATS19 road accidents to central government.

1.4 The 2002 quality review is being conducted by working groups, drawn from SCRAS, whose recommendations are subject to approval by SCRAS, the independent assessor and a quality assurance programme manager from the Office of National Statistics. (ONS). The final report of agreed recommendations is submitted to Ministers for approval and this will be in two parts; the first to report on recommended changes to the STATS19 road accident data collection and processing system, and the second to report on possible improvements concerning the dissemination of, and access to, road accident statistics.

## 2 The STATS19 collection and processing system

### Background

2.1 Personal injury road accident statistics were first collected in 1909. The modern 'STATS19' collection system was established in 1949 and the current collection system was implemented in 1979 following a wide-ranging review. Road accident statistics are essential for informing and monitoring road safety policy at local, national, and international level. Locally they have a long established application to support remedial engineering work on public roads. They also support road safety education, training and publicity at both central and local government levels, enforcement undertaken by the police, and are essential for steering road safety strategy and underpinning targeted casualty reduction. Within the EU they contribute, along with road accident data from other Member States, to European road safety initiatives and the sharing of best practice guidance.

2.2 Individual police forces and local authorities require road accident statistics to support their own road safety policy programmes. The collection process and data collected vary in local authority and police force areas, reflecting different local road safety requirements and circumstances. However, each local area is required to report the same set of accident records for national purposes and to transmit them to central government. These are popularly known as STATS19 records, named after the code number of the collection form.

2.3 In England, within each local area, STATS19 data are collated by a central unit referred to as a Local Processing Authority (LPA) which can be managed directly either by the police or local authority, or be sub-contracted to a private consultancy. In Scotland and in Wales the Scottish Executive (SE) and the National Assembly for Wales (NAW) act as the LPA for the Department for Transport (DfT). There are 58 LPA's in Great Britain of which just under half are managed by local police authorities and the rest by local authorities.

2.4 The STATS19 report form consists of an accident record, a vehicle record to be completed for each involved vehicle and a casualty record for each casualty arising from the injury accident. In 2001, local authorities and police forces collected, coded, validated and reported 229,000 accident records, 420,000 vehicle records and 313,000 casualty records for central government.

### **3 Consultation**

3.1 The 2002 quality review formally started with a consultation period, and a project definition paper setting out the broad scope of the review was mailed to all participants in the STATS19 process and known users of road accident data and statistics. The paper and all other background consultation papers were, and still are, mounted on the DfT web-site.

<http://www.transtat.dft.gov.uk/scras/qareview.htm>.

3.2 The consultation produced a very wide range of ideas for changes to the road accident data (STATS19) collection process. There were many suggestions to improve the coverage of the collection system and also to clarify the definition and improve the quality of what is collected. Annex 1 records the major suggestions that were made by consultees concerning the STATS19 requirement. They are recorded as reported to DfT and at this stage are unattributable. The final report will show which organisations supported or did not support the various suggestions and which were the most popular. **Annex 1 is designed to indicate the data requirements and issues which are of most concern to consultees, and also serves as a record for future reference, but of course the working group can only recommend a very small proportion of them.**

3.3 Annex 1 does not include the more general comments received about the need to present aggregated police reported injury road accident statistics in context and in relation to hospital road accident casualty information. The specific need is to highlight the extent to which police reported statistics under-estimate the true social cost of road accidents. In addition, data linkage with hospital data sets offers the possibility to derive more detailed information about injury severity than can be offered by current (and possibly immutable) STATS19 severity definitions. This omission from the more specific suggestions in Annex 1 is not to diminish this important point.

### **4 The working group sift**

4.1 All these suggestions have been gradually sifted by a working group, drawn from SCRAS, to produce a short list of recommendations for STATS 19 changes. These will be presented for agreement at the next SCRAS meeting this October. The sifting process was subject to independent scrutiny by Professor Richard Allsop from the Centre for Transport Studies at University College London.

4.2 The most significant of the changes to be recommended arises from the need to respond to the recommendations contained in the report to the Health and Safety Commission by the Work Related Road Safety Task Group. A key recommendation in the report was that STATS19 should be modified 'to include questions about journey purpose' in order to quantify 'the number of at-work road traffic incidents'. The working group has agreed two new variables to include in STATS19 in order to collect information about road injury accidents 'at-work'. This has still to be formally ratified by SCRAS, but the specification of the variables addresses police concerns about the practical difficulties of collecting this type of information. Details of all the changes to the STATS19 reporting requirement will be specified in the final report after ratification by ACPO and ACPO(s) and acceptance by Ministers.

The sifting process by the working group balances the need for :-

- new variables (and existing variables) to monitor and inform policy with
- the collection burden borne by the police and the processing burden borne by the police and local authorities.

4.3 The aim of the working group is to produce recommendations for changes to the STATS19 system which are acceptable to all parties represented on SCRAS, and by definition which police forces are prepared to accept. The need of DfT, supported by police and local authority associations, is to maintain the voluntary national framework for reporting injury road accidents which all local reporting and processing areas can carry out simultaneously.

## **5 Contributory factors**

5.1 Although the working group has reached an agreement on STATS19 changes to present to SCRAS for ratification, this by no means represents the final conclusion of the review process. The consultation process revealed, not wholly unexpectedly, a wide range of divergent views concerning the proposed national collection form of contributory factors to injury road accidents developed by TRL. (attached as Annex 2) There were many different views about the appropriate factors to include in the national form and also the particular structure of the codable framework in the form. A large proportion of consultees supported the existing proposed national collection form (attached as Annex 2) without reservation, but an equally large proportion, although supporting the need for harmonised national collection, were critical of the proposed national form. The consultation response in Annex 1 shows most of the comments received about the proposed national contributory factors. Fifteen police forces are currently supplying contributory factor information to DfT, using the proposed national form, on a voluntary basis.

5.2 It was decided that further independent research was required to investigate the possibilities for drawing together the divergent views to seek a reasonable modification of the proposed national form which would be acceptable to all parties. Dr Richard Hall from the Transport Research Group at Southampton University is currently leading this research. A balanced sample of local police forces and local authorities has been selected to discuss the issues. The research will be conducted in close consultation with the review working group and a report is due in October 2002. The working group, and SCRAS, will need time to assess the report and to see if an agreement can be reached which will yield a national collection form for contributory factors which will be acceptable to all.

## **6 Review of dissemination of and access to national road accident statistics**

6.1 The consultation exercise carried out towards the end of last year did in fact gather some general views, from both suppliers and users of national road accident data, about published statistics. It also asked for suggestions about how statistical publications could be improved. A general picture emerged that most respondents were very frequent users of national road accident statistics because it was essential for their work, and that the statistics were a unique data source. However the consultation did not pick up many ideas for improving specific publications or improving access to road accident statistics.

6.2 It was therefore decided to conduct an additional consultation exercise about the dissemination and accessibility of national road accident statistics which would cover only the statistics produced by the Department for Transport (DfT), the National Assembly for Wales (NAW) and the Scottish Executive (SE). This will be a principal input to the review of dissemination and access, which will be chaired by Professor Richard Allsop from the Centre for Transport Studies at University College London. A copy of the questionnaire was mounted on the web ([www.transtat.dft.gov.uk/scras/qareview.htm](http://www.transtat.dft.gov.uk/scras/qareview.htm)).

6.3 The broad aims of this part of the review are:

- To obtain indications of the level and frequency of use of the principal DfT, NAW and SE publications which contain road accident statistics.
- To receive and consider suggestions for modifications to existing publications which, by way of example, could include:-
  - Different analyses for specific road user groups or road accident types
  - Different use of graphics and tables
  - Changes in the balance between time-series and detailed analysis for the most recent year
  - Links to road accident statistics or research results in other publications
  - Links to statistics of exposure to risk or to other background data
- To examine the case for additional publications such as topic based fact sheets or more information for regions or local authorities.
- To examine the scope and content of the current first releases of road accident statistics.
- To obtain indications of awareness of the availability of road accident data in SPSS format from the UK Data Archive.  
(<http://www.data-archive.ac.uk>)
- To consider how web based publication of and access to road accident statistics can be best developed.

6.4 The intention is to assess to what extent the DfT, NAW and SE publication effort is meeting user demand and to identify the scope for useful improvement having regard to the associated resource implications. In doing so, the review will take into account the need for exercise of professional statistical judgement in the compilation and issuing of the statistics, constraints which may arise from considerations of data protection, and the need, within the current or any future level of resources, to allocate effort among requests for information which range from school project work to parliamentary questions, and from single numbers to massive arrays of data.

## **7 Review timetable**

7.1 It is now clear that the final report, which was scheduled for October 2002, will now have to be re-scheduled to accommodate some important outstanding strategic issues. **Consequently it has been decided that the final review report to Ministers will be put back to March 2003 to allow time to incorporate these developments.** This additional time will also allow breathing space for the working group to consider some other important issues which require resolution. In particular:

- There are growing concerns (especially from the police side) about the quality of injury road accident data reported 'over the counter' at police stations. The working group will be considering to what extent, and how, the STATS19 reporting requirement could be reduced for such accidents. This will also include the treatment of contributory factors if an agreement is forthcoming on the detail of a national collection form.
- Data protection. There is a need for clear guidance from the legal authorities about what data can be supplied in STATS19 without contravening data protection and privacy laws.

**7.2 Given the extension to the timetable for producing the final report it is most likely that the implementation date for STATS19 changes will be moved from 1 January 2004 to 1 January 2005, but this has yet to be agreed at the next SCRAS meeting.**

**2 August 2002**



**(Annex 1 is designed to indicate the data requirements and issues which are of most concern to consultees, and also serves as a record for future reference, but of course the working group can only recommend a very small proportion of them.)**

**STATS19 : ADDITIONS (NEW VARIABLES)****Accidents**

Presence of speed enforcement cameras  
Time of police arrival at accident scene.  
Presence of pedestrian guard rails within 50 metres of a crossing.  
Day of week  
Confirmation of speed limit.  
Local project code

**Vehicles**

Air bag deployment  
Stolen vehicle  
Foreign vehicle  
Vehicle occupant  
Number of axles  
Dangerous vehicle loading  
Ridden horse (where there is no personal injury)  
Trailer serial number  
Local project code

**Casualties**

Seat belt use  
Child restraint use  
Journey purpose/Work related accidents  
Mobile phone use  
School child casualty (after alighting from a school bus)  
Ethnic origin  
Regular use of road where accident occurred  
School attended by child casualty  
Driver age of parked vehicle  
Understanding of English  
Breathalyser reading for evidential alcohol test  
Drug impairment results  
Eyesight checks  
Pedestrian breath test results  
Issuing country of driving licence  
Pedestrian injury without the involvement of mechanically propelled vehicles  
Cycle helmet use  
Use of night-time lights by cyclists  
Use of reflective clothing by cyclists  
Cyclists undergone training  
Local project code

## **STATS19 : MODIFICATIONS**

**(The current detailed coding relating to the specified variable numbers can be found in the STATS19 form re-printed at the end of this publication)**

### **ACCIDENTS**

**Variable 2.9b** 'Vehicle location at time of accident' to include a code for 'Shared footway and cycleway'

**Variable 1.14** 'Road type' to include a code for 'Traffic calmed road' eg 'road humps', 'raised platforms', 'entry treatments', 'pedestrian build outs'

**Variable 1.17** 'Junction control' to include a code for 'advanced stop lines'

**Variable 1.20b** 'Pedestrian crossing – physical facilities' to include a code for 'pedestrian build out'

**Variable 1.25** 'Carriageway hazard' to include a separate code for Deer.

Distinguish 1,2,3 and 4 lane motorways separately in coding for **1.14** 'Road Type'.

Specific code for 'slip roads' in **1.14** 'Road Type'.

Junction accidents should be defined to occur within 100 metres of the junction and not the current requirement of 20 metres

Specific identification of 'merging' and 'diverging' accidents' on grade separated dual carriageways

6 figure grid reference to be used

**Variable 1.10** 'Local authority' to include specific codes for 'Type of Authority'

**Variable 1.11** 'Location'. Replace 'grid reference' by the term 'grid co-ordinates'

**Variable 1.12** 'Road Class'. Replace 'road class' with the term 'road division'

**Variable 1.14** 'Road type' to include codes for 'Number of lanes in a one-way street', 'Carriageways with contiguous footways', 'Cycle track', 'Vehicle restricted area', 'Advisory and Mandatory cycle lanes', and 'Carriageways with or without cycle lanes'.

**Variable 1.20b** 'Pedestrian crossing – physical facilities' to include specific codes for 'Staggered and non-staggered pedestrian crossing arrangements', 'pelican crossings', 'puffin crossings, and 'toucan crossings'.

**Variable 1.23** 'Road surface condition' to include a code for 'Badly damaged road surface'

Record 'oil' and 'mud' in separate fields to restore mutual exclusivity of codes.

**Variable 1.24** 'Special conditions at site' to include a code for 'Traffic calming features present'

**Variable 1.24** 'Special Conditions at site' to include codes for 'excessive quantities of loose gravel', 'potholes' and 'poorly executed repairs'.

**Variable 1.25** 'Carriageway hazard' to include 'Unridden horse'.

**Variable 1.25** 'Carriageway hazard' to include 'Subsidence'

**Variable 1.22** 'Weather' to include codes for 'light rain' and 'heavy rain'. (see also contributory factors)

For **variables 1.16** 'Junction detail', and **1.20b** 'Pedestrian crossing – physical facilities' suggest that the definitional distances from 'junction' and 'physical facilities' should be reduced to 10 metres from 20 metres and 50 metres respectively.

## **VEHICLES**

**Variable 2.5** 'Type of Vehicle' to include 'Motor Scooter' as a separate variable

**Variable 2.5** 'Type of Vehicle' to include 'Engine Size of Motorcycles'

**Variable 2.7** 'Manoeuvres' to include codes for 'Entering roundabout', 'Leaving roundabout', and 'Merging from slip-road'

**Variable 2.7** 'Manoeuvres' to include code for 'Slowing'

**Variable 2.8** 'Parked vehicle' codes to be deleted and replaced with simple 'Parked Vehicle without direction' code

**Variable 2.9b** 'Vehicle location at time of accident –restricted lane/away from main carriageway' to include 'cycle track away from main carriageway' thus broadening the STATS19 definition of 'Public road'

**Variable 2.12** 'Hit object in carriageway' to include 'Deer'.

**Variable 2.12** 'Hit object in carriageway'. Replace 'Parked Vehicle – lit' and 'Parked Vehicle – unlit' codes with single 'Parked Vehicle' code

**Variable 2.5** 'Hire cars' should be coded as 'taxis' and not 'cars'

Need coding to reflect 'vehicle mounting a verge and rebounding to the carriageway without hitting an object'

Need code for 'vehicle parked off the carriageway'

**Variable 2.5** 'Type of vehicle' to includes codes for 'Pedestrian scooter' and 'Motorised wheelchair'

**Variable 2.7** 'Manoeuvres' to include codes for 'crossing road at controlled crossing' and 'crossing road at uncontrolled crossing'.

**Variable 2.12** 'Hit object in carriageway' to include 'hit traffic calming feature'

**Variable 2.12** 'Hit object in carriageway' to include 'Unridden horse'

**Variable 2.12** 'Hit object in carriageway' to include 'Build-out'

**Variable 2.14** 'Hit object off-carriageway' to include codes for 'Bollard' and 'Seating'.

**Variable 2.17** 'Other vehicle hit' to include a specific code for 'pedal cycle hit'

**Variable 2.22** 'Age of Driver' to include allowance for estimated or known age in Hit and Run accident

**Variable 2.24** 'Hit and Run' to allow for driver being traced after the accident

## **CASUALTIES**

**Variable 3.6** 'Casualty class' to include separate codes for 'driver', 'rider', 'pedal cyclist' and 'motor cyclist'.

**Variable 3.10** 'pedestrian location' to include a code for 'On cycle track'

**Variable 3.11** 'Pedestrian movement' to include codes for 'walking on footway/verge' and 'walking on cycle track'

'Estimated speed', and whether an offending driver is charged, prosecuted, and convicted.

## **STATS19 : CLARIFICATIONS**

**Variable 1.17** 'Junction control' . Code 4 - 'Give way sign or markings' reported to cause confusion.

**Variable 1.20a** (crossings human control). Code 0 should be re-worded to ' No pedestrian crossing facility with human control within 50 metres'

**Variable 2.8** 'Vehicle movement compass point' – The 'from' compass point is often confused with the compass point to which the vehicle was initially travelling.

**Variable 2.10** Junction location of vehicle ; Value 4 'did not impact' - specify that this only applies when the involved vehicle was at a junction.

**Variable 2.11** 'Skidding and overturning' – need a definition for 'jack-knifed'

Suggest clarification of 'limited vehicle access' for defining 'public road' by means of reference to signs or physical barriers

Reporting officers continue to confuse 'nearside and 'offside'

## **STATS19 : Severity of injury**

Harmonise the classification of serious injury across all emergency services by use of a common incident reference number

Investigate the possibilities for gathering more detail about injury severity by linking to health records

Need for some disaggregation of current definition

Report of confusion with current definitions because they are different from the requirement for reporting criminal assaults

Current STATS19 definition preferable to DoH definition

Including 'hospitalisation' in the STATS19 requirement is too difficult

## **PROPOSED NATIONAL CONTRIBUTORY FACTORS FORM**

### **MODIFICATIONS TO EXISTING CODES**

Move 'excessive speed' (contributory factor 21) up the list to make it more prominent

Change 'Reckless driver behaviour' (contributory factor 9) to 'Dangerous driver behaviour' in accordance with current legislation

Disaggregate codes for 'Weather' (contributory factor 52) (see also STATS19 modification)

If precipitating factor 'poor overtaking' is selected (code 12), then a contributory factor for 'insufficient view for circumstances' should be included.

### **CONTRIBUTORY FACTORS : NEW CODES**

#### **Precipitating**

Failure to comply with road markings

Failure to take up lane (manoeuvres)

#### **Contributory**

Inappropriate speed

Mobile phone use (see also STATS19 addition)

Driver experience

Work related accidents (see also STATS19 addition)

Foreign driver

Obscuration due to 'vegetation or hedgerow'

Distraction

Sleep related accidents

Racing on the highway

Overloaded vehicle

Defective eyesight (see also STATS19 addition)

Poor road layout

No consideration for vulnerable road users

Road rage

Stolen vehicle (see also STATS19 addition)

Combined Weather/road surface condition (road surface condition OK in normal weather, but not OK because of poor weather conditions)

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#### **Problems raised**

Concern about allocating blame to road users

Concern about the poor quality of the trial data

Data not being collected if accident not attended by a police officer

Concern that form is biased in allocating blame either towards drivers or towards pedestrians

Concern that only one road user can be identified as being 'at fault'

Concern that the codable frame requires all the contributory factors to be allocated to the chosen precipitating factor and that this is too great a simplification for many complex accident situations.

Concern that too many similar choices of factors are available for selection



## A NEW SYSTEM FOR RECORDING CONTRIBUTORY FACTORS IN ROAD ACCIDENTS

By Dr J Broughton, Miss K A Markey and Superintendent D Rowe  
Unpublished TRL Project Report PR/SE//229/96

### EXECUTIVE SUMMARY

The present national system for collecting information about road accidents was established in 1949, and is still known as the STATS19 system after the standard reporting form. The data collected have proved invaluable in monitoring accident trends and developing new measures to improve road safety. One important reason for this is that accident data are collected in a consistent way in all parts of Great Britain, so local data can be brought together in a national database.

In addition to objective factors such as time of day and speed limit, the original system also collected 'contributory factors', i.e. the factors which the reporting officer considered had contributed to the causation of the accident. Subsequent doubts over the reliability of the factors being collected meant that collection of these data ceased to be a national requirement in 1959. Nevertheless, in 1994 a TRL survey of the 43 police forces in England and Wales found that over one half were still recording contributory factors, but the systems being used had diverged over time so that patterns of accident causation in different areas could not be compared.

The contributory factors summarise the events and influences which led directly to an accident. The information is inevitably subjective as it depends upon the investigator's 'reconstruction' of the circumstances leading up to the accident from the available evidence. The information can suggest possible interventions and remedial measures which could have prevented the individual accident, and measures for improving road safety can be developed by studying the factors for large numbers of accidents. The fact that many police forces continue to record contributory factors so long after the national requirement ended provides one indication of the local value of this information at a time when road safety has assumed greater prominence.

The information has been mainly used by the Local Authorities, for example in developing remedial measures at accident blackspots and for road safety publicity. Its value would be greatly enhanced, however, if the factors could be recorded in a consistent way by all forces, and assembled into a database closely linked to the national STATS19 database. Accordingly, the Department of Transport commissioned the Transport Research Laboratory to develop a prototype system. This report describes the development of a system that could be used by the police. It also describes the trial of the scheme that was carried out by eight police forces for three months in the summer of 1996, and presents analyses of the data collected.

There were various objectives in developing the new system. It had to be simple to use yet sufficiently comprehensive to accommodate the great majority of road accidents within a standard set of codes. Many police officers attend only one or two accidents per year, so it should be self-explanatory and not require extensive training or documentation. Equally importantly, its design should encourage the collection of high quality data.

The following approach to accident investigation was adopted in order to optimise the overall quality of the data collected:

1. ascertain the critical failure or manoeuvre which led up to the accident (referred to as the Precipitating Factor) and record it using the appropriate code,
2. from the evidence available, identify the factors which contributed to this failure or manoeuvre (there may be more than one of these Contributory Factors) and record them using the appropriate codes.

Two lists were drawn up, one consisting of 15 Precipitating Factors and the other of 54 Contributory Factors. As the identification of Contributory Factors in an accident tends to be relatively subjective, depending upon the experience of the investigator and the strength of the evidence, investigators were asked to code each factor as either Definite, Probable or Possible.

The eight police forces which co-operated in the trial represented all parts of Great Britain and all types of roads: two forces had not been recording contributory factors routinely. The trial thus provided a rigorous test of the new system. TRL staff made a single visit to y each force to brief key personnel about the new system: these were then responsible for briefing the officers who would attend accidents during the trial. According to responses received from the participating police officers, few problems were encountered when using the new system. 2897 coding forms were returned to TRL, only 102 of these had not been completed satisfactorily.

The report presents various analyses of the contributory factors that had been recorded. In addition, the forms have been linked to the regular STATS19 reports for those accidents whose details had reached the national database by November 1996 (if in future a police force uses the system to record contributory factors routinely then the link would be made automatically in its accident database), and analyses of the linked data are also presented.

A system capable of recording contributory factors for every conceivable type of accident would be unmanageably large. In order to judge whether the new system provides a satisfactory compromise between completeness and ease-of use, investigating officers who were unable to choose an appropriate code were asked to enter 'other' and supply full details. Analysis of these details suggests that only a few minor adjustments to the factor lists are required. This 'other' facility also provided a means of recording valuable non-standard information, such as that two of the accidents resulted from suicide attempts, so the facility could be a useful feature of a future implementation of the new system.

The value of STATS19 accident information to Local Authorities and the Department of Transport in attempting to improve road safety has been widely recognised for many years, but its potential contribution to the effective management of traffic policing has received less attention. This report shows that the STATS19 information augmented by the contributory factors collected with the new system can be entered and stored by the police using the MAAP5 software mounted on a PC, and that it can be analysed to guide deployment of police resources in support of the National Road Policing Strategy adopted by the Association of Chief Police Officers of England, Wales and Northern Ireland (ACPO). This approach was adopted by the Cleveland Constabulary in January 1997 and represents a further test of the new system for recording contributory factors, but it is too early to evaluate the results achieved. In addition to the benefits to the police, the enhanced data will be useful to the Local Authorities for developing remedial measures.

**PROPOSED NATIONAL CONTRIBUTORY FACTORS CODING FORM**

**WHAT WENT WRONG (Precipitating Factors)**

FAILURES OF DRIVER or RIDER 1 Failed to stop (mandatory sign) 2 Failed to give way 3 Failed to avoid pedestrian (pedestrian not to blame) 4 Failed to avoid vehicle or object in carriageway 5 Failure to signal/misleading signal 6 Loss of control of vehicle	MANOEUVRES 9 Swerved to avoid object in carriageway 10 Sudden Braking 11 Poor turn/manoeuvre 12 Poor overtaking 13 Drove wrong way (eg 1-way street) 14 Operating door carelessly
FAILURES OF PEDESTRIAN or PASSENGER 7 Pedestrian entered carriageway without due care (driver/rider not to blame) 8 Passenger fell in or near PSV	15 OTHER
<b>WHY? (Causation Factors)</b>	
PERSONAL DETAILS 1 Impairment            alcohol 2                                drugs 3                                fatigue 4                                illness 5 Distraction            stress/emotional state of mind 6                                physical in/on vehicle 7                                physical outside vehicle 8 Behaviour                panic 9                                careless/thoughtless/reckless 10                               nervous/uncertain 11                               in a hurry	VEHICLE DEFECTS 28 Tyres                    wrong pressure 29                               deflation before impact 30                               worn/insufficient tread 31 Defective lights or signals 32 Defective brakes 33 OTHER
12 Failure to judge other person's path or speed 13 Disability 14 Failed to look 15 Looked but did not see 16 Inattention 17 Person hit wore dark or inconspicuous clothing 18 OTHER	LOCAL CONDITIONS 34 Site details            poor road surface 35                               poor/no street lighting 36                               inadequate signing 37                               steep hill 38                               narrow road 39                               bend/winding road 40                               roadworks 41 Slippery road 42 High winds 43 Earlier accident 44 OTHER
PEDESTRIAN DETAILS 19 Crossed from behind parked vehicle etc 20 Ignored lights at crossing	OBSCURATION 45 View                    windows obscured 46                               glare from sun 47                               glare from headlights
DRIVER DETAILS 21 Excessive Speed 22 Following too close	48 Surroundings    bend/winding road 49                               stationary or parked vehicle 50                               moving vehicle 51                               buildings, fences,vegetation etc
23 Inexperience            of driving 24                               of vehicle	52 Weather (eg mist or sleet) 53 Failed to see pedestrian or vehicle in blindspot
25 Interaction or competition with other road users 26 Aggressive driving 27 Lack of judgement of own path	ANIMAL INVOLVEMENT 54 Animal out of control

Precipitating Factor			Vehicle or Casualty			Vehicle or Casualty Ref				Causation Factor 1			Confidence in CF 1	
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Causation Factor 2			Confidence in CF2			Causation Factor 3			Confidence in CF 3			Causation Factor 4			Confidence in CF 4	
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Notes: Only enter codes for one person who has a Precipitating Factor, with the "Stats 19" Vehicle Ref for a driver or rider , and the "Stats 19" Casualty Ref for a pedestrian or passenger  
 Causation Factor 1 is the most important Causation Factor, Causation Factor 2 the next most important, etc  
 Show the level of confidence in the Causation Factor codes by entering A=Definite, B= Probable, C=Possible

