PACTS
Parliamentary Advisory Council for Transport Safety

Roads policing and its contribution to road safety

Frank Norbury Policy and Research Officer

June 2020

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The conclusions and recommendations in this report are those of PACTS and do not necessarily reflect the views of those we consulted or those who supported the project financially.

About PACTS

The Parliamentary Advisory Council for Transport Safety (PACTS) promotes evidence-based solutions to achieve safe transport for all. Established in 1981, its founder members were responsible for the legislation which made it compulsory to wear seat belts in the fronts of cars in Britain.

The unique features of PACTS are that it is a multi-modal transport safety body and focuses on working with UK parliamentarians, government, professionals and other key stakeholders. It is independent and has no financial or sectoral interests.

PACTS is a charity with over 100 member organisations – our partners – who are all committed to improving safety for people on our roads, railways and when flying. Members provide PACTS with technical and business insights, advice and support. We assist them through our information, events, networking and more. If you would like information about the benefits of PACTS membership for your organisation, please visit http://www.pacts.org.uk/about/ or contact PACTS.

Dedication: Jerry Moore OBE

This report is dedicated to the memory of Chief Superintendent Jerry Moore OBE who died in May 2020. Jerry's police career was dedicated to roads policing and to raising the level of compliance with road traffic law. It began in the Metropolitan Police and continued with Essex Constabulary. During his time seconded as Police Liaison Officer at the Department for Transport, he spoke at a number of PACTS conferences and supported its work on drink and drug driving. His commitment to roads policing and to road safety incorporated both enforcement and education, being a strong advocate of alternatives to prosecution such as driver improvement and speed awareness courses. It is the dedication of officers such as Jerry that has helped to reduce the level of death and injury on our roads.

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Report by Frank Norbury,

Policy and Research Officer, PACTS

Supported by GEM Motoring Assist Road Safety Charity, with additional support from the Motor Insurers' Bureau, Jenpotik and AlcoSense

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Foreword

As a long-term supporter of PACTS and past President of GEM Motoring Assist, I am very pleased to introduce this report.

I have always believed that roads policing was a crucial part of road safety. I took various roads policing courses and have frequently accompanied road police officers on patrols where I saw, at first-hand, how they help drivers to stay safe and used their training to intercept those breaking traffic laws and endangering others. I was honoured to receive a rare "gold truncheon" from the Police Federation of England and Wales for my support.

I have pursued these issues in Parliament. During the Lords debate on the Queen's speech, at the opening of a new session of Parliament, I have often taken the opportunity to question the Minister on the Government's commitment to road safety in general and to roads policing in particular. I wish I could report more positive results. The Home Office is responsible for policing and while the Department for Transport answers on road safety. The much-vaunted cross-departmental cooperation is rarely evident in this matter. More recently, the answer is likely to be that it is a matter for local Police and Crime Commissioners. Wherever the buck-stops, the outcome seems unsatisfactory: roads policing numbers continue to decline while the UK's proud record on reducing road deaths ceased some ten years ago.

I am hearted to read in this report the robust evidence, from academics and practitioners, that enforcement of traffic laws – in well-targeted operations, by combinations of trained officers and technology – does indeed improve compliance and reduce casualties. It also shows, once again, the double value of roads policing: drivers committing traffic offences are highly likely to be involved in wider criminality. These are important messages for government ministers, police and crime commissioners, and chief constables. I hope it will also boost the morale and status of those dedicated officers who regularly risk their lives to keep others safe.

Having painted a somewhat gloomy picture, I am actually very optimistic about the future. The Covid-19 pandemic has shown the importance of roads policing. With our roads so quiet, some drivers have seen this as a green light for speeding, drug-driving and other dangerous behaviours. These people are impervious to stay safe messages; only police action has tackled them. We have also seen an explosion in people walking and cycling – on urban roads and country lanes. The Prime Minister is urging people to continue this. Respecting speed limits and giving these valuable but vulnerable road users space on the roads (maintaining social distancing!) will be crucial as we move to the "new normal".

The PACTS report is also very timely. The Prime Minister last year committed to increasing police numbers by 20,000 officers and recruitment is underway. The Department for Transport, Home Office and the National Police Chiefs' Council are

undertaking a joint review of roads policing and a call for evidence is expected shortly. To inform the review, Her Majesty's Inspectorate of Policing and Fire & Rescue Services has undertaken an inspection of roads policing functions. Publication is anticipated shortly and I understand that the conclusions are likely to make uncomfortable reading for some.

None of these things were known about when PACTS applied to the GEM Motoring Assist Road Safety Charity for a grant for this project. I am doubly delighted that their application was approved. I hope now that the recommendations will be acted upon. I and other parliamentary supporters of PACTS will be pressing ministers to do so.

The Rt. Hon. Viscount Simon, Deputy Speaker, House of Lords and President, GEM Motoring Assist 2006-19

I welcome the PACTS report into roads policing enforcement. It comes at a time when a number of key institutions, including the government and Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services are also interested in how we police our roads.

There are more than twice as many road deaths as homicides in the UK every year. This shows how significant road death still is. A successful road safety strategy requires a level of enforcement and most enforcement powers rest with the police.

Reports, such as this one, are highlighting where improvements can and should be made so that we can create a new urgency across policing and partner activity to reduce death and serious injury and make our roads the safest in the world.

Chief Constable Anthony Bangham

National Police Chiefs' Council Lead for Roads Policing

Executive Summary

Some 1,800 people die on UK roads each year – more than twice the number of deaths from homicides and terrorism combined. A further 25,000+ people are seriously injured.

Many of these casualties result from a failure to comply with traffic laws – knowingly or otherwise. Around two-thirds of collisions involve excessive speed, a driver over the legal alcohol limit, failure to wear a seat belt, or a combination of these factors. This does not take into account other offences, such drug driving or hand-held mobile phone use.

Since 2010, the long-term decline in the number of road deaths and serious injuries has largely ceased. It is widely suggested that this is at least partly due to reductions in roads policing.

This report investigates links between roads policing, compliance with traffic laws and road casualties, and looks for ways to enhance the effectiveness of roads policing. It summarises the policy and responsibility framework for policing in the UK, particularly in relation to roads policing and road safety, which is split between the Home Office and the Department for Transport respectively, or the governments of Scotland, Wales and Northern Ireland. It identifies trends in enforcement, compliance and casualties relating to the "fatal four" offences (speeding, drink and drug driving, non-wearing of seat belts and mobile phone use). It summarises the evidence on the effectiveness of general and specific enforcement techniques; and it identifies opportunities to improve roads policing and road safety.

Over the past decade, the number of roads policing officers has decreased substantially. While the total number of police officers has fallen by around 13% since 2010, there was a 22% reduction in the number of dedicated roads policing officers between 2010 and 2014, and a further reduction of 18% since 2015. In 2019, dedicated roads policing officers made up only around 4% of total force strength. Furthermore, of those dedicated officers, many are often "double-hatted" – responsible for carrying out more than one function.

As the number of dedicated roads policing officers has fallen, so too has the number of motoring offences detected, precipitously so for some offences such as failure to wear a seat belt. Only for speeding, where enforcement has largely been automated, has there been an increase. As the Transport Select Committee pointed out in 2015, the number of 'causing death' offences has not fallen, and the number of people killed and seriously injured on UK roads has remained broadly stable since 2010. This suggests that the reduction in overall offences recorded does not represent a reduction in offences committed. Over this period, there has been no significant reduction in road fatalities where the main contributory factors were associated with offending.

From an extensive literature review, which considers the findings of multiple meta-analyses comprising over 100 individual studies, there is clear evidence that an increase in enforcement will lead to a reduction in both fatal and serious injury collisions. Major studies, notably Elvik (2001), Elliott and Broughton (2005) and PEPPER (Police Enforcement Policy and Programmes on European Roads) (2008), show strong international evidence that road traffic enforcement has a significant impact on levels of compliance, collisions and casualties.

Some areas of enforcement, notably speed and drink drive law enforcement, have been the subject of much research over several decades. Individual studies and meta-analyses have found that enforcement of speed limits has the largest impact on reducing fatal and serious injury collisions, followed by enforcement of drink-driving laws. Some of the literature reports that the average effect of police interventions can be between a 23 and a 31 percent reduction in the number of collisions that cause injuries.

Less research has been undertaken in relation to enforcement of seat belt, drug driving and mobile phone laws. This is probably due to the more recent implementation of these laws, the limited range of enforcement interventions available and research difficulties, including the more dispersed impacts. However, the limited evidence available suggests there is a safety benefit from enforcement of these high-risk offences. The consequences of *not* enforcing these offences (the counter-factual case) should also be considered.

A new analysis by PACTS of enforcement, compliance and contributory factors in relation to the fatal four offers an insight into the relationship between enforcement and road casualties in Great Britain over the past decade. Where there has been an increase in enforcement since 2011, the anticipated effect on casualties appears to have materialised. Increased enforcement of speed limits, for example, appears to have helped raise compliance with speed limits and reduce fatalities in speed-related collisions. Where there have been considerable reductions in levels of enforcement, compliance and casualties appear to have worsened. There has been substantial reduction in enforcement of seat belt laws in particular since 2011. Recent fatality data obtained by PACTS suggests the number of people who have died in cars not wearing a seatbelt has increased. In all cases, other factors may have influenced outcomes too.

Based on the research and on interviews with a wide range of experts, PACTS recommends that the government, and particularly the Home Office, explicitly recognises the scale of death and injury that results from road traffic offences and the vital role of roads policing in combatting it. As a start, the government should specify roads policing as part of its pledge to fund 20,000 additional police officers.

In addition, the Home Secretary should prioritise roads policing in the Strategic Policing Requirement. Roads policing functions should be inspected annually by Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services. The

National Police Chiefs' Council should update its guidance on roads policing to clarify the priorities for policing within the safe system framework of road safety management. This should also include a revised version of the "ACPO" speed enforcement guidelines.

There are substantial opportunities to improve the effectiveness of roads policing through enhanced intelligence and data sharing. This would enable better targeting of high-risk individuals, vehicles, times and locations. It would also improve efficiency in operations and the use of scarce resources. There is appetite among agencies to achieve this and significant projects are underway. Government assistance may be required to overcome data protection restrictions.

Collaboration with other road safety stakeholders in enforcement operations is also important and forces should continue to seek it out. Partners include other forces, government agencies and local road safety partnerships.

The wider use of technology to monitor, deter, detect and prosecute should be exploited to help police target high-risk individuals and assist in improving compliance with seat belts, mobile phones, drink driving and other safety requirements - not just speed. This requires a review of Home Office Type Approval systems to allow for the more proactive development and implementation of technologies such as cameras with more than one purpose and evidential roadside testing equipment.

Policing with public consent has long been a fundamental principle for British society. It applies equally to roads policing. There is clear public support for enforcement of traffic laws and a desire for more visible roads policing. Use of speed cameras is supported by the majority, but with sensitivity. There are opportunities to involve the public more and to harness their cooperation to improve road safety. Forces that have invested in schemes such as Operation Snap that allow the public to upload video evidence, have found this to be a popular, manageable, and effective enforcement technique. With modest police support, Community Speedwatch may be able to assist more widely in enforcement of speed limits, particularly 20mph limits. The media, including social media, can be used to disseminate messages about enforcement activity which can increase its impact – provided it conforms to sound behaviour change principles.

The number of offences detected is not an adequate indicator of offences committed: it is heavily influenced by police resources and practice. Systematic national surveys and safety performance indicators are required to monitor trends in road user compliance and assess the impact of roads policing. Where feasible, these should also be monitored locally and resources targeted accordingly.

Accurate and timely reporting of road traffic collisions is also important. Half the forces in England and Wales, and Police Scotland, now use the CRaSH reporting system, developed by the DfT. In the Covid-19 lockdown, CRaSH forces have been

able to provide real-time information. The remaining police forces are urged to adopt CRaSH as soon as possible.

The recommendations of this report are shown in full in Chapter 5. They can be summarised as follows:

1. Roads policing should be included in the Strategic Policing Requirement.
2. Police and Crime Commissioners should prioritise roads policing and road safety within Police and Crime Plans
3. The number of roads policing officers should be increased.
4. NPCC roads policing strategy should be revised.
5. HMICFRS should include roads policing in its annual assessment.
6. Collaboration and partnerships should be widened.
7. Intelligence should be enhanced and more widely shared.
8. Greater use should be made of technology.
9. The support and participation of the public should be encouraged.
10. Safe system indicators should be used to monitor road safety
11. Research and evaluation should be enhanced

1 Introduction

1.1 Road safety and roads policing

In an ideal world, all road users would take on board road safety education, comply with road traffic laws and use the roads safely. Unfortunately, that is far from the present reality. Safety engineering and technological advances have greatly improved the safety of our roads and vehicles. One day, autonomous vehicles may reduce the risks much further. For now, however, the skills, judgement and decisions on risk-taking remain in the hands of millions of individual road users. While the majority act with care and consideration, many sometimes drive carelessly or dangerously and thousands of deaths and injuries occur every year in the UK as a result. Road traffic law enforcement, the responsibility of the police and associated agencies, therefore, remains a crucial tool in the armoury of road safety interventions.

Enforcement of traffic laws has long been seen as one of the fundamental "Three E's" of road safety – education, engineering and enforcement. Although the more integrated 'safe system' approach to road safety is now preferred, enforcement remains an essential intervention tool. Road deaths in the UK have not declined since 2010.[1] During this period, the number of dedicated roads policing officers has declined significantly. There is widespread concern that reductions in UK roads policing are having a negative impact on road safety.[2]

Home Office and DfT ministers have sometimes stated that the number of roads policing officers is not a good indicator of the standard of roads policing, and that it is old-fashioned to think in terms of the number of dedicated traffic officers. For example,

Q273 Chair: "Do you have any concerns at all about the reduction of road traffic officers?"

> Andrew Jones: "The evidence points the other way. We are seeing that our roads are ever safer. The road traffic data are incredibly encouraging. We have the second safest roads in the world behind Sweden. The number of road deaths fell by 45% between 2005 and 2014. I would not want to give anybody the wrong impression. Our roads are safe. Our work now is to make them even safer."[3]

Nevertheless, all indicators suggest that the number of dedicated roads policing officers has fallen substantially over consecutive decades. In 1966, dedicated traffic officers accounted for between 15-20% of total force strength. In 1998, this figure fell to 7%.[4] Now, it Is estimated that dedicated roads policing officers make up

[1] Arnholz, J., Etika, A., Showman, R., Webster, E. (2018) *Road Safety Since 2010 Update with 2017 data.* PACTS

[2] For example, IRTAD (2018) *Road Safety Annual Report 2018*, OECD

[3] Home Office Minister Mike Penning and Roads Minister Andrew Jones, in House of Commons Transport Committee (2020) Road Traffic Law Enforcement, HC518, Oral Evidence qq268-277

[4] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance.* Tenth Report of Session 2005–06

around 4% of total force strength, which has itself declined by around 13% since 2010.[5]

The available evidence points towards significant levels of decline and increasing levels of double-hatting within police forces, whereby officers responsible for roads policing will also be responsible for other functions within the force which often take priority.

The number of penalties imposed for driving offences has also fallen since 2010. The number of fixed penalty notices (FPNs) issued for driving offences (excluding speeding) has decreased significantly over the past few years.[6] Whether this is due to a reduction in levels of road policing or a change in driver behaviour (improved compliance) is unclear. However, the Home Office has noted that the fall in the number of enforcement actions may reflect changing police priorities and activity.[7] Since 2013, there has been no significant reduction in road fatalities related to contributory factors that might be associated with offending, such as exceeding the speed limit or driving under the influence of alcohol or drugs.

Whereas there is conclusive evidence that improving the safety standards of vehicles and road infrastructure reduces collisions, there is a lack of clarity in relation to the current debate on enforcement. There is a well-established body of literature on the theoretical relationship between enforcement, offending and road safety. However, there is a lack of contemporary evidence which closely defines the relationship between roads policing enforcement and road safety. Studies have found an increase in enforcement of specific offences has led to fewer collisions but it is difficult to apply those findings to other areas of roads policing.

1.2 Purpose and scope of this report

The purpose of this report is to explore the relationship between roads policing and road safety, and to consider opportunities to improve the contribution of roads policing to reducing death and injury on the roads.

The report considers policing (officers and technology, and contributions from partners such as road safety partnerships and other agencies), but its scope does not extend to include considerations of laws, courts or sentencing.

The primary objective of this work is to collate and review research evidence for a relationship between enforcement activity, driver behaviour, compliance and road casualties. This includes a review of the theoretical relationship between police enforcement and road safety, as well as a review of existing academic research which has sought to evaluate this relationship using real operations and meta-

[5] Calculation based on: Home Office (2020) *Police workforce, England and Wales: 30 September 2019*. Home Office

[6] Home Office (2018) *Fixed penalty notices for motoring offences statistics data tables: police powers and procedures year ending 31 March 2018*. Home Office

[7] Home Office (2018) *Police powers and procedures, England and Wales, year ending 31 March 2018 Statistical Bulletin*. Home Office

analyses. The purpose is to establish whether an increase in enforcement generally has an effect on safety. The relationship between enforcement of specific offences (such as speeding) and road safety is then reviewed in more detail with reference to the fatal four offences: speeding, drink and drug driving, non-wearing of seat belts and mobile phone use.

Trends over the past decade in levels of enforcement, compliance and casualties in relation to each of the fatal four offences are analysed.

Following this, opportunities within roads policing to improve road safety are reviewed. These opportunities reflect the information provided by a range of road safety experts and senior roads policing officers. The purpose is to draw attention to specific opportunities within roads policing likely to contribute to an improvement in road safety, and to arrive at recommendations.

Autonomous vehicles and roads policing

Deployment of autonomous vehicles onto the roads will likely have a significant impact not only on compliance and road safety generally, but also on the nature of interactions between the police and autonomous vehicle users.

However, whilst this poses significant implications for future demands for roads policing enforcement, the purpose of this report is to explore the existing relationship between roads policing and road safety, and to consider opportunities to improve the contribution of roads policing to reducing death and injury on the roads in the context of the present day.

1.3 Coronavirus

Most of the research for this report was undertaken prior to the emergence of the Covid-19 coronavirus pandemic and the consequent lockdown introduced in the UK on 23rd March 2020. This highly unusual period is not a focus for the report. However, the dramatic reductions in road traffic volumes and congestion, and the increases in average traffic speeds and incidences of extreme speeding, have brought roads policing into the spotlight.

The *Take Extra Care* road safety communications campaign may have had some impact but, on its own, was evidently insufficient to influence certain drivers and riders. The lockdown was imposed and modified at short notice, making it very difficult for local authorities to change road layouts or speed limits in time. In the short term, roads policing was the only viable safety intervention. In the longer term, physical measures, such as redistribution of road space, road closures and speed

reduction features, supported by roads policing, will be the appropriate interventions to ensure safety for increased walking and cycling, now urged by the government.

Although almost daily information has been available on traffic volumes, speeds, and police enforcement actions, information on casualties has not been available. No doubt the behaviour of drivers, the road safety responses and the casualty outcomes during the Covid-19 period will form the basis for future research.

1.4 Research method

1.4.1 Literature review

Academic literature reviews informed a large part of this report. Searches conducted included papers on the theoretical and general relationship between roads policing and road safety, the impact of specific forms of enforcement, the effectiveness of police operations and the effectiveness of a variety of road safety interventions. This involved using Google Scholar and Web of Science searches, as well as the bibliographies of relevant documents and other PACTS reports.

Searches were also conducted of key government, parliamentary and police force documents on the subject of roads policing. This includes previous and current roads policing policy documents, as well as records from parliament on the discussions of roads policing. It also includes force level documents, such as Police and Crime Plans.

1.4.2 Interviews

In-depth semi structured interviews were conducted with a 14 roads policing officers and road safety experts. This included officers from eight forces, academics and other road safety stakeholders and experts. The interviews were conducted primarily by one member of the PACTS staff, and occasionally two. They lasted between 60 and 120 minutes. Interviews were not recorded, but notes were made. They were followed up by email requests for further information where necessary.

PACTS staff also spent time on patrol with roads policing officers from the Metropolitan Police, Hampshire Constabulary and Devon and Cornwall Police over the course of the project.

1.4.3 Data

Data was obtained from a number of sources. Home Office data was used for the number of dedicated roads policing officers. Data on the number of FPNs issued for motoring offences was obtained from Police Powers and Procedures, England and Wales, also published by the Home Office. Police STATS19 road traffic collision reports, published by the Department for Transport, were used to provide data on the occurrence of casualties across Great Britain and trends in contributory factors.

Further information on seat belt and mobile phone use was provided by the Department for Transport observational surveys.

1.4.4 Advisory panel

PACTS set up an advisory panel which provided input throughout the project. The panel was made up of experts from the field of roads policing, including active police officers, DfT representatives and academics from the Roads Policing Academic Network. Panel members were asked to share their expertise, to recommend key documents and pieces of research, and to provide feedback on the project plans, as well as the findings and final report draft.

A number of other road safety experts who were not interviewed or part of the advisory panel were also consulted at relevant stages.

1.5 Reduction in roads policing officers

Roads policing officers, as defined by the College of Policing, help prevent the loss of life and injury on the roads by preventing, investigating and prosecuting offences through intelligence-led policing. Their key responsibilities include, amongst others, attending and conducting primary investigation of road related incidents and providing a visible presence on the roads by carrying out patrols.[8]

However, despite their fundamental role in delivering road traffic law enforcement, the number of dedicated roads policing officers has been falling. The most up-to-date data from the Home Office's Police Workforce statistics – which gives details of police officer functions – shows that, since 2010, the numbers have been in decline. Between the years 2010 and 2019, the total number of all police officers in all forces in England and Wales fell by around 13%. However, the percentage reduction in the number of roads policing officers was even greater.

As Figure 1 indicates, the number of dedicated roads policing officers fell between the years 2010 and 2014 from 5,634 to 4,355 – 22% - and then again between the years 2015 and 2019 from 5,220 to 4,276 – 18%. In between these two periods, as can be seen on the graph, it appears as though the number increased. However, this is not the case: in 2015 the Home Office replaced the old functions framework, meaning police functions data for 2015 and beyond cannot be compared to data collected under the old framework.[9]

[8] College of Policing (2020) *Roads Policing Constable*.

[9] The data in the graph is made up of a combination of statistics provided by the Home Office in response to a PQ (2010-2011). Data for years 2012-2019 was sourced from Calculation based on: Home Office Police workforce, England and Wales statistics. The functions framework change means that statistics for years prior to 2015 are not directly comparable to statistics for years 2015-2019.

Figure 1 - Number of dedicated roads policing officers (Home Office - Police workforce England and Wales statistics & Home Office - Response to PQ)

The Police Federation has stated that overall there are actually appreciably fewer roads policing officers than indicated by these Home Office statistics.[10] It seems clear that, whilst there may not be complete agreement over the scale, there has been significant, consistent decline over the years.

Reduction in the numbers of dedicated roads policing officers

There was an 18% reduction in the number of dedicated roads policing officers in England and Wales between 2015 and 2019.

Only 4 out of the 43 police forces saw an increase in the number of these officers between 2015 and 2019 (Home Office, 2019).

The official statistics above carry a caveat. The number of roads policing officers recorded by some forces – primarily the smaller forces – includes officers who work within units whose role it is to fulfil multiple functions, usually roads policing and armed policing.[11]

This "double-hatting", as it is sometimes termed, is something that was revealed from interviews to be fairly common. Some of the officers suggested that it was not

[10] Kent Police Federation (2019) *Road safety 'at risk' due to drop in road police officers, PFEW warns.*

[11] Home Office (2020) *Police workforce, England and Wales: 30 September 2019.* Home Office

uncommon for roads policing officers to participate in other non-road-related police work. Some noted that a roads policing officer within their force might spend their shift doing police work that would not be considered traditional roads policing.

> *"There are times when roads policing officers get drafted in to assist local operations or serious incidents. This itself is not the problem, the problem is that there's so few roads policing officers left that when it does happen, there's nobody left to police the roads."*
>
> - Senior roads policing officer

Whilst it is clear that there has been a decline in numbers, the figures should not necessarily be used as a proxy for the capacity of roads policing. This is dependent not just on the number of officers but also on the time spent policing the roads, and on other factors such as the number of speed and automatic number plate recognition (ANPR) cameras in operation.

1.6 Roads policing policy

1.6.1 Government

In Great Britain, the Home Office is responsible for policing. Specifically, this is for reducing and preventing crime, and ensuring people feel safe in their homes and communities, in addition to supporting visible, responsible, and accountable policing.[12]

Roads policing is not currently considered to be a national strategic priority, as set by the Home Office in the Strategic Policing Requirement. Instead, roads policing is seen by the government as a local matter for Police and Crime Commissioners. This means that roads policing strategies vary from one force area to another.

The Department for Transport is responsible for maintaining standards of safety and security in transport, including safety on the roads.[13]

In 2011, the DfT published its Strategic Framework for Road Safety. It recognised the importance of roads policing and included support for 'tougher enforcement for the minority of motorists who deliberately choose to drive dangerously'. [14] This support was reiterated in the 2015 Road Safety Statement, which stated "taking tough action against those who speed, exceed the drink-drive limit, take drugs or

[12] Home Office (2020) *About us.*
[13] Department for Transport (2020) *About us.*
[14] Department for Transport (2011) *Strategic Framework for Road Safety.* Department for Transport

use their mobile phone while on the road" was a key road safety priority for the government.[15]

More recently, the DfT published the Road Safety Statement 2019, in which roads policing featured heavily.[16] The statement recognised the important function of roads policing and crucially, the rise in the public's perception that offenders are now less likely to be caught.

The government has since announced the joint DfT/Home Office/NPCC Roads Policing Review. This two-year review with eight workstreams, is assessing how roads policing currently works, its effectiveness, and where improvements could be made or gaps bridged.[17] To provide a base-line assessment, DfT commissioned Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services (HMICFRS) to undertake an inspection of roads policing. HMICFRS was due to report in early 2020.

1.6.2 National Police Chiefs' Council

The National Police Chiefs' Council (NPCC) brings police forces in the UK together to help coordinate policing operations, and to reform, improve and provide value for money. NPCC replaced the Association of Chief Police Officers (ACPO) in April 2015, following the introduction of Police and Crime Commissioners.[18]

In 2015, NPCC released its first roads policing strategy: "*Policing the Roads in Partnership 2015 – 2020*". This stated its commitment to the reduction of collisions leading to road death and serious injury. The police would contribute through providing a visible and technological presence on the roads, and through prioritising enforcement and education about the fatal four.[19]

In 2018, NPCC published a revised strategy: "*Policing our Roads Together: A 3 year strategy 2018 – 2021*". This advocated the adoption of a Safe System approach to road safety as part of its three year strategy, in which it set objectives for policing under each of the following strands: Safe Roads; Safe Speeds; Safe Vehicles; Safe Road Users, plus an additional fifth strand of Post-Crash Response.[20]

1.6.3 Police and Crime Commissioners

Police and Crime Commissioners (PCCs) were established under the Police Reform and Social Responsibility Act 2011 for police force areas across England and Wales. They are elected individuals, representing "the voice of the people", and are responsible for ensuring the needs of the local community are met as effectively as

[15] Department for Transport (2015) *Working Together to Build a Safer Road System British Road Safety Statement*. Department for Transport
[16] Department for Transport (2019) *The Road Safety Statement 2019, A Lifetime of Road Safety.* Department for Transport
[17] Department for Transport (2019) *Roads policing review to improve safety*.
[18] NPCC (2020) History and background.
[19] NPCC (2015) *Policing the Roads in Partnership: A 5 year Strategy 2015 – 2020.* NPCC
[20] NPCC (2018) *Policing our Roads Together: A 3 year strategy 2018 – 2021.* NPCC

possible by holding the chief constable and entire force to account.[21] Elections are normally held every four years.

PCCs must produce a Police and Crime Plan which sets out their strategic police and crime objectives for the area. These plans set the agenda and priorities for the force over a four-year period. The PCC holds the chief constable to account for delivery of the plan.

According to the NPCC, around three-quarters of PCCs included road safety in their 2017-2021 Police and Crime Plans. This is a substantially higher proportion than in the previous (first) round of such plans.[22]

The extent to which road safety is represented in these plans varies considerably across police forces. Whilst the majority make some mention of road safety or roads policing, the degree of priority given to road safety in these plans varies. In a number of cases, mention of roads policing is reduced to a single bullet point; in others, it is given considerable prominence.

1.7 Public perceptions

For various reasons, many societies appear to tolerate significant levels of road death and serious injury which, if caused by some other violent act or on public transport, would excite considerable consternation and concern.[23]

Those interviewed were asked to share their own views on what they believed to be the public's perceptions of road safety and roads policing enforcement. Responses revealed a mixed view of public perceptions, with some believing the public supported road traffic law enforcement and others believing the opposite.

1.7.1 Public support for road traffic law enforcement

Policing in the UK has long been based on the principle of "policing by consent", often attributed to Robert Peel.[24] This applies to roads policing. However, unlike the views on policing of laws such as those preventing car theft or child abuse where public support is assumed to be strong, the public can express mixed attitudes to roads policing. Moreover, the authorities can have different interpretations of the public's attitudes and of the degree of their consent to enforcement of road traffic laws.

During interviews, government officials and a number of senior police officers suggested that there was a reluctance within government and within police forces to dedicate further resources to roads policing and road traffic law enforcement as this did not have public support. (The government's attitude may be changing, as

[21] APCC (2020) *Role of the PCC*.
[22] NPCC (2019) *NPCC Roads Policing Strategic Review*. NPCC
[23] Corbett, C. (2003) Car Crime. Devon: Willan
[24] Home Office (2012) *FOI release Definition of policing by consent*.

indicated by the joint DfT/Home Office/NPCC Roads Policing Review now underway.)

They stated that this resistance was almost entirely to speed limit enforcement, and that the reason the public may be unsupportive of more police time and resources being spent on roads policing was because it implied there would primarily be more enforcement of speed limits, which they believed the public were against. By contrast, there was little doubt that the public support enforcing traffic laws on drink driving or mobile phones, for example.

The resistance to speed enforcement – specifically using cameras – and the view of such enforcement as being 'unjust' and 'unfair' was explored in detail by Wells in 2008, who presented research that considered the 'techno-fixing' of speeding.

The analysis suggested that many drivers would prefer more contextualised and inconsistent treatment when it comes to speed cameras, and that such technologies too blunt to accurately capture real-world events. Many drivers in the research expressed a preference for human-led speed enforcement, i.e. by police officers, which would be based on 'common sense', discretion, intelligence, and judgment.[25]

Regardless of whether this would be a more effective or fair way of enforcing speed limits, it seems clear that this view of speed camera enforcement – as being unfair and 'out to catch' motorists – is one which the government and police forces have widely acknowledged and held to be the view of the public, and in turn this has influenced policy and practice in the past.[26]

However, there is evidence to suggest that the situation on the ground is changing and that support for roads policing enforcement, specifically even speed camera enforcement, is substantial and growing year-on-year. Indeed, there was even a small number of officers consulted as part of this project who claimed the public were by-and-large supportive of more enforcement and particularly of their presence on the road in general, which supports Wells' findings regarding individuals preference for human enforcement.

"People are happy seeing us out on the roads and they understand why we're there, even those we stop."

- Roads policing officer

"Very few people object to what we are doing anymore, I don't think drivers see us as the enemy."

- Roads policing officer

[25] Wells, H. (2008) *'The Techno-Fix Versus The Fair Cop: Procedural (In)Justice and Automated Speed Limit Enforcement' The British Journal of Criminology, 2008, Volume 48, Issue 6, 798–817*

[26] Wells, H. and Millings, M., (2019). *Scrutinising the appeal of volunteer Community Speedwatch to policing leaders in England and Wales: Resources, responsivity and responsibilisation. Policing and society*, 29(4), pp.376-391.

In the UK, insufficient enforcement by the police of safe road use is consistently ranked as one of the top concerns of motorists in the annual RAC 'Report on Motoring'. Results from the report, which captures the views of motorists, suggests that concern over the falling number of roads policing officers has been very consistent over the past few years. Since 2011, the report has shown that a growing number of motorists believe there is an insufficient number of roads policing officers active on the roads. In addition, it found that an increasing number of motorists believe they are less likely to be caught if they break a motoring law. Whilst penalties for some offences have increased, the majority (79%) of motorists believe that there is no point in increasing penalties unless there is more effective enforcement.[27]

The National Travel Attitudes Survey, first published by the DfT in 2019, suggests that the majority of the public believe both drug driving and mobile phone use laws are not being properly enforced. Survey results indicated in 2019 that 63% believe the laws on driving while impaired by illegal or legal drugs are not properly enforced. Additionally, 76% believe "the law on using mobile phones whilst driving is not properly enforced".[28]

Driver perceptions of enforcement

28% of drivers do not believe they will be caught if they break most motoring laws - a 4% increase since 2011

68% of motorists think there are not enough dedicated roads policing officers to enforce traffic laws - an 8% increase since 2010

"More drivers are worried about road rage, tailgating and excessive speeding than about congestion or the rising cost of insurance."

Source: RAC (2019) *RAC Report on Motoring* (various years).

Specifically relating to the use of speed cameras to enforce speed limits, research in 2016 by the Institute of Advanced Motorists (IAM RoadSmart) found that 80% of drivers find the use of speed cameras acceptable or very acceptable, and 79% of drivers think speed cameras have contributed to reducing deaths in recent years. The research also showed that in 2010, 18% of drivers were generally unsupportive of speed cameras, compared to 30% in 2007.[29]

[27] RAC (2019) *RAC Report on Motoring* (various years).
[28] Department for Transport (2020) *National Travel Attitudes Study*.
[29] IAM RoadSmart (2016) *Speed cameras A snapshot of drivers' opinions.* IAM RoadSmart

Research by IAM RoadSmart also suggests that drivers are becoming increasingly concerned with dangerous and illegal driving behaviour. A survey in 2017 found that more than half of motorists believed driver distraction, aggressive driving, drug driving and speeding were bigger problems in 2017 than three years previously.[30]

The ESRA2 (E-Survey of Road Users' Attitudes), carried out in 2018, found that car drivers in the UK believe they are far less likely to be checked by the police for committing traffic offences than car drivers in other countries with similar road safety records.[31] (see box). There is clear evidence to suggest that the public strongly feel that additional roads policing, in the form of police officers, is needed.

[30] IAM RoadSmart (2017) *Driving Safety Culture Survey 2017*. IAM RoadSmart

[31] ESRA (E-survey of road user attitudes) (2018) *Country fact sheets*. Vias institute

UK drivers' attitudes to enforcement - international comparisons

ESRA2 (E-Survey of Road Users' Attitudes), carried out in 2018, found that car drivers in the UK believe that they are far less likely to be checked by the police for committing traffic offences than car drivers in other countries with similar road safety records.*

Car drivers were asked how likely they were to be checked by the police for certain offences. Results indicated that in the course of a typical journey:

- 88.5% of car drivers believe they are unlikely to be checked by the police for using a handheld mobile phone to talk or text (avg. for other countries: 78.9%)*
- 86.1% of car drivers believe they are unlikely to be checked by the police for wearing their seat belt (avg. for other countries: 80.45%)*
- 75.1% of car drivers believe they are unlikely to be checked by the police for respecting the speed limits (avg. for other countries: 65.58%)*
- 90.5% of car drivers believe they are unlikely to be checked by the police for the use of illegal drugs (avg. for other countries: 88.28%)*
- 88% of car drivers believe they are unlikely to be checked by the police for alcohol (be subject to a breath test) (avg. for other countries: 82.27%)*

*Countries included: Australia, Denmark, Germany, Ireland, The Netherlands and Sweden

Source: ESRA (E-survey of road user attitudes) (2018) *Country fact sheets*.

1.7.2 Road safety as a police priority

Senior roads policing officers were asked why they believed road safety was not given sufficient priority by forces. A lack of – or ambiguity regarding - public support for roads policing was often given as a main reason. This is explored further in section 4.1.1.

Most officers suggested that it was not necessarily the case that public objected to road traffic law enforcement, although some did, but rather, it was that they believed that the public wanted the police to focus their limited resources on other priorities.

When asked to rank policing priorities, the public do not tend to focus on road safety. Research published by the Police Foundation in February 2020 showed that no more than 1 in 10, and often fewer than 1 in 20 individuals gave road safety a 'high priority' when asked to rank police priorities. It was suggested that when they are given an insight into the breadth of policing business, the public tend to shift focus away from 'neighbourhood policing' priorities, such as road safety and antisocial behaviour, which are usually set following some level of public representation and consultation.[32]

However, it may be that ranking priorities in this way does not give a full picture of the public's attitudes and priorities regarding roads policing and road safety. As noted in the report, the public, in their assessment of priorities, are most sensitive to potential harm.

It was found that when formulating a view on policing priorities the public make an assessment of the harm or impact associated with an activity. Whilst this may explain why tackling knife crime and serious violence, for example, is ranked as 'high' priority by more individuals than any other, it does not seem to explain why road safety is considered to have such a low priority. Over five times as many individuals are killed on roads in England and Wales as are killed with knives, and over twice as many are killed on the roads as are killed as a result of homicide generally.

Whilst it cannot necessarily be assumed that all fatalities on the road are as a result of traffic offending, the level of road death resulting from criminal driving behaviour is significant. For example, a similar number of people are estimated to be killed on the roads as a result of drink driving alone as are killed with a knife or sharp instrument.[33] Whilst this is not intended to imply risk, the evidence shows that the harm and impact caused by those who drive dangerously and illegally may be as significant as the harm and impact caused by homicide.

In the broader discussion of public support for more roads policing, it should also be remembered that, as evidenced later in this report, it contributes to the disruption of wider criminality and organised crime, which is something the public strongly support as an individual police priority.

Overall, whilst it is undoubtedly important to draw attention to the public perception of road safety as a police priority, results of attitudinal surveys which imply that it is not necessarily something the public feel should be the priority of the police should be interpreted with caution. They should not be used as justification

[32] Higgins, A (2020) *Policing and the public: understanding public priorities, attitudes and expectations*. The Police Foundation

[33] 2018 DfT provisional estimates (which are the most recent estimates, but do not provide data for just England and Wales) suggest the number of deaths in accidents with at least one driver over the alcohol limit for 2018 was 240 (central estimate) 270 (high estimate) for GB. In 2018, there were 285 homicides by knife in England and Wales (and 27 in Scotland). In 2017, there were estimated to be 250 drink drive fatalities in England and Wales, and there were 215 homicides by knife or sharp instrument.

for the lack of focus given to roads policing by the government and police forces. The majority of road users feel strongly that there is a need for more enforcement, and there is growing concern amongst drivers that there are simply not enough police officers on the roads.

Police and Crime Commissioners, who are accountable to and in touch with the public, report a growing demand for road traffic law enforcement.

> *"As a Police & Crime Commissioners, my in-box is full of demands from local people for more action to tackle speeding, dangerous driving, mobile phone use and so on. I support this. I know it is something that other PCCs are also pressed on. It may not always show as a high priority in Police and Crime Plans, but there is strong support for more action, not least because traffic offences are so often linked to wider criminality."*
>
> - Alison Hernandez, Police and Crime Commissioner for Devon, Cornwall and the Isles of Scilly; and Roads Policing Lead for the Association of Police and Crime Commissioners

Officers also made the point that, for many people, road traffic law enforcement is the public face of the police. They were clear that roads policing (by officers) not only reduces road casualties, but also provides interaction with the public. This may enhance the 'feel-good' factor for compliant road users generally.[34] [35] Finally, the visibility of roads police patrols can contribute to public reassurance and feelings of safety, as well as the actual and perceived risk of detection.[36] [37]

> *"For a lot of people, they're more likely to come in to contact with us [roads policing officers] than they are a local neighbourhood officer. For people that drive regularly, we are the public face of the police."*
>
> - Roads policing officer

[34] Skogan, W. (1990) *The police and public in England and Wales: A British Crime Survey Report*, HORS, No. 117. London HMSO
[35] Corbett, C., Delmonte, E., Quimby, A., Grayson, G. (2008) *Does the threat of disqualification deter drivers from speeding*? RSRR 96. DfT.
[36] Innes, M. (2006) *The public face of policing*. Criminal Justice Matters, 63: 14-15.
[37] Tuffin, R, Morris, J. and Poole, A. (2006) *An evaluation of the impact of the national reassurance policing programme*. HORS 296. London: Home Office.

2 Academic research – what does it tell us?

Chapter 2 summarises findings from key research literature that evaluates the effects of roads police enforcement on road safety. It begins with a review of the major studies – meta-analyses – which have sought to establish whether an overall relationship can be identified between roads policing enforcement and driver compliance with traffic laws, collisions and casualties. This is followed by a review of literature which evaluates the effectiveness of enforcement specifically targeting the fatal four. The chapter ends with a discussion of the underlying mechanisms by which roads policing enforcement works.

2.1 Roads policing – does it work?

Roads policing enforcement is an integral element of any effort to reduce road casualties. Apprehension and deterrence are generally held as the two main functions of police officers tasked with policing the roads. They are achieved through enforcement of traffic laws and the application of penalties and sanctions to offenders. This includes a range of overt and covert operations and includes automatic and more traditional human enforcement methods.[38]

Research on enforcement and casualty reduction establishes three main points:

- Violations of traffic laws are connected to a greater incidence of fatalities.
- Enforcement can increase in compliance with traffic laws.
- Enforcement activity leads to a reduction in casualties.[39]

The theoretical relationship between enforcement, offending and casualties is discussed further in section 2.3.

The exact quantitative relationship between specific policing inputs and casualty reduction outputs however, is less clear. Even some of the most comprehensive research concludes that it is difficult in practice to establish the relationship between levels of policing, compliance and casualty rates.

Fatal collisions related to dangerous driving

Clarke et al. studied a sample of 1185 fatal vehicle occupant cases from 10 UK police forces between the years 1994-2005 and found that over 65% of the accidents examined involved driving at excessive speed, a driver in excess of the legal alcohol limit, or failure to wear a seat belt by a fatality, or some combination of these.

Source: Clarke, David & Ward, Patrick & Bartle, Craig & Truman, Wendy. (2010). Killer crashes: Fatal road traffic accidents in the UK. Accident; analysis and prevention. 42. 764-70.

[38] Bates L., Soole D., Watson B. (2012) *The Effectiveness of Traffic Policing in Reducing Traffic Crashes*. In: Prenzler T. (eds) *Policing and Security in Practice. Crime Prevention and Security Management series*. Palgrave Macmillan: London

[39] PACTS (2005) *Policing Road Risk: Enforcement, Technologies and Road Safety.* PACTS

2.1.1 Elvik 2001 – ESCAPE project

In 2001, Elvik submitted a report[40] to the ESCAPE (Enhanced Safety Coming from Appropriate Police Enforcement) project (which reported in 2003).[41] The purpose of Elvik's report was to investigate the potential value of applying cost-benefit analysis to roads policing enforcement. It included a substantial evaluation of the effectiveness of roads policing enforcement.

It was in two parts. The first involved meta-analyses evaluating the impact of specific forms of enforcement on accidents and levels of injury, based on findings from previous meta-analyses conducted by Elvik and on findings from another working paper submitted to the ESCAPE project by Truls Vaa.[42] The second part explored the relationship between the amount of enforcement and the size of the effect on accidents or the rate of violations.

Meta-analyses of the impact of the following interventions were summarised:

- 16 stationary speed law enforcement studies,
- 9 speed camera law enforcement studies,
- 26 drink drive law enforcement studies and
- 14 seat belt law enforcement studies.

These meta-analyses estimated that an increase in enforcement in each of these areas would result in a decrease in fatal and injury accidents to varying degrees, with speed law enforcement reported to have the most substantial effect on fatal accidents.

In the second part of his report, Elvik attempted to establish the shape of the relationship between enforcement and its effect on accidents, using a small selection of studies.

Elvik analysed the dose-response function. That is a function that relates the amount of enforcement 'dose' (X-axis) to changes in the accident rate or the number of accidents 'response' (Y-axis).

Elvik attempted to answer a question of the kind he predicted would be commonly asked by police chiefs: "What is the size and duration of the effects on compliance and accidents that can be expected by assigning a patrol of three men to four hours of speed law enforcement every day for a period of, say, ten weeks?".

He concluded that unfortunately the findings do not offer a sufficient basis to answer this question. This was because research into the effects of police enforcement do not have either standardised definitions of enforcement (or the amount of enforcement) or standardised methods of measuring its effects. He noted that the

[40] Elvik, R (2001) *Cost-Benefit Analysis of Police Enforcement.* The Escape Project
[41] Mäkinen, T.Z., et al (2003). *Traffic enforcement in Europe: effects, measures, needs and future.* ESCAPE Consortium.
[42] Vaa, T. (2000) *Effects of police enforcement measures on accidents and levels of injury*. Working paper SM/1104/2000. Oslo, Institute of Transport Economics.

impact of enforcement was likely to depend upon other contextual factors, such as the severity of penalties, the prevailing risk of apprehension and the differences in permitted enforcement methods between studies.

That said, the results did indicate the direction of the relationship between the amount of enforcement and the number of accidents. The vast majority of the studies evaluated supported the view that the more enforcement there is, the greater the reduction in the number of accidents. Beyond a certain point, the marginal effect of further enforcement on accidents was 'monotonically declining', i.e. there were diminishing marginal returns. This supports the general theory of police enforcement, as discussed in section 2.2.

2.1.2 Elliott and Broughton 2005

Elliott and Broughton evaluated findings from existing literature in order to determine whether increasing the level of traffic policing is likely to reduce the number of casualties in road accidents. The study also looked for quantitative relationships between the level of enforcement and the number of accidents and casualties.[43]

In total, 66 studies were included in the review, which focused on enforcement of speed, drink driving, red lights and seat belts. There were:

- 30 studies of speed law enforcement,
- 5 of speed camera law enforcement,
- 13 of drink driving law enforcement,
- 14 of red light camera enforcement, and
- 4 studies of seat belt law enforcement.

Whilst these areas of enforcement were reviewed individually, Elliott and Broughton also sought to review the impact of roads police enforcement collectively.

Overall, they found that the majority of the studies suggested that increased levels of road policing led to reduced traffic violations and road accidents. However, they also recognised that, in practice, it is difficult to establish a clear relationship between the levels of policing and accident rates. They note that it was not possible to establish a relationship by generalising results from studies in the literature owing to a lack of appropriate information on enforcement levels. The majority of studies reviewed in the report were conducted outside the UK, in mainland Europe, Australia and the USA.

The review drew together conclusions from the individual areas of enforcement (speed, seat belts, etc). Quantitative assessment of the relationships between the level of each type of enforcement and the impact on the number of accidents and

[43] Elliott, M and Broughton, J. (2005) *How methods and levels of policing affect road casualty rates.* Transport Research Laboratory (TRL)

casualties was carried out using a combination of meta-analyses extracted from other reports.

The review found differences in the effectiveness of mobile and stationary enforcement methods and the limitations of those methods with regard to their geographical impact on behaviour, or 'halo effects'. These methods, as well as the report's conclusions in relation to specific forms of enforcement, are discussed below.

Further research was carried out in 2008 into the relationship between police enforcement and road casualties based on Elliott and Broughton's original report.[44] This involved the evaluation of Operation Radar, to establish how methods and levels of policing in London affected road casualty rates.

Operation Radar was planned and implemented by the Metropolitan Police. It was designed to increase the visible presence of police on a stretch of the A23 in Surrey and focused on mobile phone, seat belt and speed offences. A mixture of enforcement methods was employed, including static speed checks and mobile patrolling on motorcycles. On-route advertising and press coverage were used to warn motorists of the increased presence of police officers.

The purpose of the study that was carried out in support of Operation Radar was to measure the relationship between the levels of enforcement and driver compliance with traffic laws. The overall findings did suggest that increased enforcement influences driver behaviour (at least in the short term). However, evaluation of the operation was not designed to identify or quantify any effect on the occurrence of collisions.

2.1.3 PEPPER 2008

A third major piece of research was 'Police Enforcement Policy and Programmes on European Roads', often referred to as the PEPPER project. This was carried out by a consortium drawn from across the European Union (including the European Transport Safety Council, the Transport Research Laboratory, the SWOV Institute for Road Safety Research, the Danish Transport Research Institute, and others) and co-funded by the European Commission.[45]

The primary aim of PEPPER was to enhance the effectiveness and efficiency of police enforcement of road traffic laws. As part of this, PEPPER sought to evaluate the impact of roads policing enforcement on road safety. The main task was to conduct a systematic review of evaluation studies of speeding, drink driving and seat belt wearing by applying meta-analysis to assess the best estimates of the effects of enforcement measures on accidents and behaviour. PEPPER was probably the largest study undertaken to date.

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[44] Walter, L K (2008) *Evaluation of Operation Radar.* Transport Research Laboratory (TRL)
[45] Kallberg, V., Zaidel, D., Vaa, T., Malenstein, J., Siren, A., Gaitanidou, E. (2008) *Police Enforcement Policy and Programmes on European Roads.* PEPPER

In evaluating the impact of different methods of speed law enforcement, 45 studies were identified from 14 different countries, including the USA, UK, Australia and Sweden. Most of the studies dated from between 1990 and 2008, with the earliest being from 1958. 49 studies of the impact of drink drive enforcement were evaluated, mostly from the USA or Australia. Around half were published between 1990 and 2008, with the oldest being from the 1970s. Finally, 15 studies of the impact of seat belt law enforcement on wearing rates were evaluated, the vast majority of which were published between 1990 and 2008.

The report found that enforcement of speed limits and drink driving laws can result in a decrease in collisions (both fatal and all injury) but was limited in its discussion of the overall impact enforcement as a collective has on road safety. The authors acknowledged similar potential weaknesses in their analysis to those of other authors' work discussed above. Most of the studies referenced were from outside Europe. Even so, the report concluded that enforcement of speed limit and drink driving laws can be very effective at reducing casualties.

The objective was to systematically review evaluation studies of speeding, drink-driving and seat belt wearing by applying meta-analyses to previous studies of the subject.

In the case of speeding, the meta-analysis results showed a significant reduction of 18% in the number of accidents. However, there were large differences between the estimated effects of alternative types of speed law enforcement. These have been discussed in more detail in section 2.2.1. Results from meta-analysis of alcohol enforcement studies were divided into those which considered checkpoints and those that studied patrolling. For patrolling studies, the overall effect was a reduction in the number of accidents by 8% (-12; -3, 95% CI). In the case of studies which evaluated the use of checkpoints, results from the meta-analysis showed a 15% reduction in accidents on average (-18; -11, 95% CI). In the case of seat belt law enforcement, whilst 15 studies were included within the meta-analysis, only the effect on wearing rates was estimated, and results showed that enforcement increases wearing rates by 21% during the enforcement period and by 15% afterwards.

2.1.4 Smith, et al. 2015

In 2015, Smith et al. conducted a review of whether the approach to enforcement in Hampshire and the Thames Valley was efficient and effective at reducing the number of people killed and seriously injured on the roads, and how it might be improved.[46] They calculated the benefits of increasing compliance but it was not possible to quantify the enforcement levels required to influence compliance.

[46] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies*. TRL

Although this was a relatively small study, and undertaken only in Hampshire and the Thames Valley, it is one of the few based entirely on UK evidence.

Using a wide a variety of local and national data, including STATS19, compliance levels, coroners' reports and published research, Smith et al. estimated the number of collisions or casualties that are reported due to the fatal four, and the number that could be reduced by increasing compliance with speed limits, drink-drive laws, mobile phone use and seat belt laws.

They found that a relatively small reduction in the mean speed could be expected to result in a large reduction in the number of casualties. Of the roads studied, analysis found that the greatest casualty reductions could be achieved through greater enforcement at the 30mph urban A-road site studied, which had the highest mean speed relative to the speed limit.

For drink-driving, three methods were used to estimate levels of non-compliance. It was concluded that, if all drink driving was eliminated, the number of killed and seriously injured (KSI) casualties would be reduced by between 6.8% and 8.4%, with an estimated reduction in fatalities of 24%.

To estimate effects of increased compliance with seat belt laws, wearing rates observed in local surveys, literature on the effectiveness of seat belts and current casualty numbers were used. The calculation showed that if seat belt use was increased to 100% compliance (from the observed 93% at the time), the annual number of fatal and seriously injured casualties would be expected to reduce by 15% and 8% respectively.

For mobile phone use, total number of casualties, the compliance level and the relative risk of using different types of mobile phone were used to estimate the number of casualties that are attributable to the use of mobile phones while driving. The authors made three estimates:

- if no drivers used a hand-held or hands-free phone while driving, there would be a 21% reduction in fatalities and serious injuries.
- if no hand-held phone was used while driving but hands-free phone use was unchanged, there would be an 11% reduction in fatalities and serious injuries.
- if users of hand-held phones simply changed to hands-free, there would be only a 3.1% reduction in fatalities and serious injuries.[47]

Inevitably, calculations of effects involve assumptions, and the effects on fatalities are based on a relatively small sample (around 130 annual fatalities in Hampshire and the Thames Valley). Additionally, this analysis calculated the potential casualty reductions from achieving total compliance and not the effect of roads policing enforcement. Whilst it can reasonably be assumed that enforcement leads to

[47] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies*. TRL

greater compliance, and therefore more enforcement will in turn contribute towards the reductions identified, it is an important distinction.

2.1.5 Other research

Blais and Dupont conducted a systematic review of the capability of intensive police programmes to prevent severe road accidents. The paper also compared the effectiveness of different intervention types.[48]

They evaluated the results of 38 studies from a wide set of countries, which included studies of the impact of, random breath testing, selective breath testing at checkpoints, automated speed cameras, random preventative patrols and mixed programmes. They evaluated these studies in a meta-analysis. In all but three cases, they reported that the police interventions were successful. They concluded that all types of police interventions reviewed were effective in improving road safety and, in particular, that enforcement can rapidly reduce the volume of accidents with injuries by an average varying between 23 and 31 percent.

Media campaigns

Research generally suggests that, although media campaigns are not always necessary, they are strongly associated with successful programmes. Additionally, being highly visible is a key requirement of enforcement programmes, and media publicity has a large role to play in delivering increased awareness.

Research also finds that unless enforcement and publicity levels are maintained over a long period their effect is usually only short term. Road users adapt their behaviour according to their own experiences as well as those of others, and a publicity campaign may not be so effective if individuals do not see that it is clearly matched by the appropriate enforcement measures.

Sources:
Harper, J.G. (1991) Traffic violation detections and deterrence: implications for automatic policing. Applied Ergonomics, 23 (3), p. 189-197
Elliott, B. (1992) Achieving high levels of compliance with road safety laws: a review of road user behaviour modification.
Shinar, D. & McKnight, J.A. (1985). The effects of enforcement and public information on compliance. In Evans, L. and Schwing, R.C. (Eds) Human behaviour and traffic safety, pp 385-415, Plenum: New York.

They also noted, based on their results and those from other systematic reviews, that increasing the likelihood of being arrested for prohibited driving behaviour,

[48] Blais, E., Dupont, B. (2005). *Assessing the Capability of Intensive Police Programmes to Prevent Severe Road Accidents: A Systematic Review*. British Journal of Criminology. 45. 10.1093/bjc/azi017.

either by using automated technologies or by enhancing police controls, seems to prove effective in reducing the volume of road accidents and injuries. They also made reference to media campaigns and suggested that although these do not always seem to be required to achieve successful outcomes, such campaigns are strongly associated with successful programmes.

In reviewing UK-based research on the impact of roads police enforcement, one study was identified that investigated the effect of enforcement activity on KSIs through statistical analysis. [49]

Penalty data including successful prosecutions, FPNs, written warnings and vehicle defect rectification notices were used as a proxy for the 'level' of enforcement. The investigation was structured to identify any associations between the enforcement actions and the number of collisions and of KSI accidents (derived from STATS19).

Three methods of analysis were used to investigate the effect of police enforcement on the number of KSIs.

The results indicated that overall, higher levels of police enforcement lead to a lower number of KSIs. Specifically, results from the first model indicated that higher numbers of FPNs, vehicle defect rectification notices and written warnings are all associated with lower numbers of KSIs (both immediately and over time). In addition, results from the multilevel modelling suggested that an increase in all enforcement proxies measured was accompanied by a decrease in the number of KSIs.

Whilst this research makes a contribution to the debate, some limitations should be considered, particularly the use of FPN data as a proxy for all forms of enforcement. While the issuing of FPNs for motoring offences is a key part of the enforcement process, it is not the whole process. Furthermore, combining all FPNs into one single figure does not take into account any trends in the number of FPNs issued for each category of motoring offence, nor does it allow for testing the impact of, say, an FPN for a seat belt offence compared with that of an FPN issued for speeding.

2.1.6 Conclusion

It is clear that there is a relationship between roads policing and road safety – more enforcement tends to improve compliance, and to reduce collisions and casualties. However, the precise nature of the relationship is not easy to establish.

Academics have established that there is a theoretical relationship which implies that there is no level of enforcement that would have no effect on offending rates, and by extension, an increasing level of enforcement will eventually result in a

[49] Scott, A. (2010) *The Effect of Police Enforcement on Road Traffic Accidents*. Edinburgh Napier University

reduction in offences and collisions.[50] However, they also suggest there is a saturation level, at which point the increase in enforcement will have a diminishing effect on compliance and casualty reduction.[51] In reality, while it cannot necessarily be established how close to the saturation point specific countries are, research findings suggest overwhelmingly that significant reductions in collisions can still be achieved with more enforcement at any current level. This is discussed further in section 2.3.

Much of the literature which attempts to examine the effect of an overall increase in enforcement separates the evaluation of enforcement into several categories. For example, into enforcement of speed limits and drink driving laws separately. Whilst this has undoubtedly led to decisive and clear conclusions being reached within those areas, it means that conclusions drawn about the effectiveness of enforcement generally are hard to apply to specific forms of enforcement in specific situations.

Despite evidence from meta-analyses that suggests increased enforcement of speed limits leads to fewer collisions and increased enforcement of drink driving laws leads to fewer collisions, for example, it is extremely difficult in practice to establish the relationship between overall levels of policing and the number of accidents or casualties.[52] As has been discussed, this is due to a lack of consistency in appropriate information on enforcement levels and to the fact that the vast majority of studies evaluated as part of all of the literature reviewed were conducted outside the UK. Results from analysis in the 2015 report by Smith, et al., for example, which are based on UK data and provide a good indication of the casualty reductions to be expected from 100% compliance scenarios, do not provide any indication of the levels of enforcement required to achieve these.

This is particularly important when it comes to evaluating the impact of roads policing on specific offences, such as drink drive offences. Much of the literature bases its conclusions of effectiveness on the ability of police to set up checkpoints and breath test any passing driver, which is not permitted in the UK. This is a point which is explored further in section 2.2.2.

Finally, there are wider contextual issues to be considered when studying the findings of the literature. Factors that could influence the effectiveness of enforcement differ between countries, and whilst the literature suggests there is a general relationship between the level of enforcement and road safety, being aware

[50] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies.* TRL

[51] Goldenbeld, Charles. (2011). *Effects of police enforcement of safety devices, of moped helmet use, and of red light running*. 10.13140/RG.2.1.1623.4489.

[52] Elliott, M and Broughton, J. (2005) *How methods and levels of policing affect road casualty rates.* Transport Research Laboratory (TRL)

of the relationship does not necessarily suffice as a basis for planning specific enforcement operations.[53]

It should also be noted that whilst it is generally shown that an increase in enforcement will lead to casualty reductions, some research has found that accident prevention can be improved without altering the quantity of enforcement. One study found that alternative deployment of the same police – in this case changing the routes police units drive on - can have a direct effect on accident rates.[54] Findings of this report demonstrate that however much or little roads policing is determined to be affordable, it needs to be done with skill and local knowledge to maximise its impact on offending, and that each officer knowing their patrol area is crucial to effective roads policing.

Importantly though, this is not to say that additional roads policing officers performing additional patrols would not have a positive effect on road safety. Research presented above has made it clear that more enforcement would have a positive effect on reducing collisions. Instead, it may be that more can be gained from drawing attention to the impact that specific forms of enforcement have on road safety. For example, the impact that enforcement of speed limits may have on fatal collisions.

This is done in the following sections, where research on the effectiveness of specific forms of enforcement on the fatal four - speed, drink and drug driving, seat belt and mobile phone use - is reviewed. These four are then considered in Chapter 3 in the context of recent UK policing operations and outcomes.

2.2 The fatal four – the research evidence on enforcement

2.2.1 Speed enforcement

Two main forms of enforcement are used by the police to enforce speed limits: automated (fixed or mobile cameras) and non-automated methods, i.e. conventional officers. The impact of these two types of enforcement on compliance and casualty reduction can be different.

In 2018/2019, around 97% of FPNs issued for speeding were camera detected. This compares to 89% in 2011.[55] In terms of the impact speed cameras have on compliance and casualty reduction, there is a substantial amount of literature that supports the view that such cameras reduce the speed of traffic and have a positive safety benefit.

[53] Elvik, R (2001) *Cost-Benefit Analysis of Police Enforcement.* The Escape Project
[54] Weisburd, S. (2013) *The Effect of Police Patrol on Car Accidents.* The Hebrew University
[55] Home Office (2018) *Police powers and procedures, England and Wales, year ending 31 March 2018 Statistical Bulletin.* Home Office

There are several types of speed cameras:

- Spot speed cameras, which measure speed of vehicles at a single location.
- Mobile speed cameras, which can be moved from one location to another, such as hand-held laser guns and speed cameras fitted to some police vehicles.
- Average speed cameras, also known as 'time over distance' cameras, which are placed at intervals along sections of roads. They identify vehicles and record registration numbers at the start and end of the enforced section with their entry and exit times, which, together with the known distance travelled, are used to calculate an average speed.[56]

Perhaps the most comprehensive early trial of speed cameras happened as part of the West London Speed Camera Demonstration Project, which saw the installation of 21 speed cameras on 85km of the trunk road network in west London. The evaluation of this project – using other trunk roads around the rest of London as the control network – concluded that there had been an 8.9% reduction in all accidents and a 55.7% reduction in fatal accidents which were directly attributable to the presence of the speed cameras. The study also found that the speed cameras led to accident reduction across the wider network.[57]

The first national level evaluation of the use of speed cameras took place in 1996. This study, which involved 475 speed cameras, found that accidents fell by 28% at the speed camera sites and average speed was reduced by 4.2mph. Overall, it concluded that the investment in installing the speed cameras generated a return in casualty prevention benefits five times their cost over one year, and more than 25 times that after five years.[58] Further evaluations reported a reduction in their first two years of 35% in the number of people killed or seriously injured at camera sites, compared with the long-term trend. Equally, evaluations reported the virtual elimination of excessive speeding, which had fallen by 96% at fixed camera sites. This directly supports the academic view that states that faster drivers decrease the frequency of their speeding when the risk of being caught is increased.[59]

A review in 2010 found similar levels of casualty reduction as a result of the introduction of speed cameras. Wilson et al. assessed thirty-five controlled before-after studies and estimated ranges for the key effects based on the information available in each study. This research found relative reductions in proportion of

[56] RAC (2020) *Speed cameras – how they work*.
[57]London Accident Analysis Unit (1997). *West London speed camera demonstration project*. London: London Research Centre.
[58] Hooke, A., Knox, J. and Portas, D., 1996. Cost benefit analysis of traffic light & speed cameras. London, UK: Home Office, Police Research Group.
[59] DfT (2003), *A cost recovery system for speed and red-light cameras – two year pilot evaluation*. DfT

vehicles speeding ranged up to 65%, and reductions in fatal and serious injury collisions of between 11% and 55%.[60]

Academic research has found that, whilst speed cameras can reduce both the number and severity of road accidents, their effect is localised. One study found that the 'halo' effects were limited to within 500 metres of the camera sites; and that, moving away from the camera, there was a slight increase in collisions. Overall, the study points to a net reduction in accidents and injuries as a result of the cameras.[61] The preceding discussion of cameras refers to the effectiveness of spot speed cameras, such as the permanent 'Gatso'-type units. However, other types of speed cameras are in use.

The 'halo effect'

'Halo effects' are changes in driver behaviour observed over periods of time and distance due to an enforcement measure. For speed cameras, TRL found the minimum distance halo associated with physical policing to be around five times larger than for speed cameras alone.

Source: Elliott, M and Broughton, J. (2005) *How methods and levels of policing affect road casualty rates.* Transport Research Laboratory (TRL)

Average speed cameras (ASCs), are also widely used across the road network, though to a lesser extent. Research published in 2016 by the RAC Foundation found that that ASC systems are effective in reducing collisions, especially those of a high severity. A key objective of this work was to compare levels of occurrence of collisions before and after ASC installation. It analysed 294km of roads covered by 25 average speed cameras. It found that, on average, permanent ASC sites saw reductions in fatal and serious injury collisions of 25%-46% and reductions in personal injury collisions of 9%-22%.[62]

Separate research found average speed law enforcement to be better received by drivers who considered ASCs to be fairer than spot speed cameras which may not reflect overall driving behaviour.[63]

Officer-led policing has also been shown to have a varying impact on casualty reduction. Although around 97% of FPNs for speeding are camera detected, the more conventional method is still impactful, according to research. One of the most comprehensive analyses of the impact of officer-led forms of enforcement on compliance and casualty reduction is a report by Elliott and Broughton, published

[60] Wilson, C., Willis, C., Hendrikz, J.K., Le Brocque, R. and Bellamy, N., (2010). *Speed cameras for the prevention of road traffic injuries and deaths*. Cochrane database of systematic reviews, (11).
[61] Tang, Cheng Keat (2017) *Do speed cameras save lives?* SERC Discussion Papers (SERCDP221). Spatial Economics Research Centre, London School of Economics and Political Science, London, UK.
[62] Allsop, R., Owen, R., Ursachi, G. (2016) *The Effectiveness of Average Speed Cameras in Great Britain.* RAC Foundation
[63] Soole, D.W., Watson, B.C. and Fleiter, J.J. (2013). *Effects of average speed enforcement on speed compliance and crashes: A review of the literature*. Accident Analysis & Prevention, 54, pp.46-56.

in 2005 by the Transport Research Laboratory (TRL). They reviewed a number of studies and meta-analyses that focused on the effects of four different methods of speed enforcement, including: stationary and highly visible, stationary and hidden, mobile in marked cars, and mobile in unmarked vehicles.[64]

In the case of stationary and highly visible methods, which involved the use of visible police units positioned at the road side with automatic speed measuring devices, the research showed that overall the effect of a police presence using stationary speed enforcement was a statistically significant reduction of 14% in the number of fatal accidents and a 6% reduction in injury accidents. A separate set of studies evaluated in the review also found reductions in the proportion of drivers exceeding the speed limit of up to 64% as a result of enforcement.

Stationary and hidden enforcement methods, which involved the use of unmarked police vehicles hidden at the roadside and officers using photo-radar equipment were also evaluated in this review using two key studies carried out in both New Zealand and Canada. In the former, evaluation of the trial found that mean speeds reduced by around 1mph and accidents and casualties by 11% and 19% respectively. Extensive publicity campaigns accompanied the trial. The second study found speed related fatal casualties fell by 17%.

Mobile enforcement, including use of marked and unmarked police vehicles, was also reviewed. However, none of the studies included in the review investigated the effect of increased mobile enforcement on casualties. Based on studies from the UK, USA and Israel, the review concluded that the use of mobile enforcement in unmarked vehicles was not as effective at reducing speeds as the more visible method of using marked vehicles.

The PEPPER report evaluated 45 studies of speed enforcement methods and accident rates. Of those into mobile enforcement, the evaluation found an average reduction in accidents of 6% was achieved when using marked vehicles. None of the studies evaluated the effectiveness of unmarked mobile enforcement. Stationary enforcement methods were evaluated and revealed an 11% reduction in accidents. No distinction was made between the severity of the accidents nor the effectiveness of hidden stationary enforcement versus visible stationary enforcement methods.[65]

The PEPPER report found in relation to all speed enforcement methods (including automated methods) that, on average, larger accident reductions were achieved when the enforcement was clearly signposted and when there was local publicity of the enforcement, compared to when there was no publicity at all.

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[64] Elliott, M and Broughton, J. (2005) *How methods and levels of policing affect road casualty rates.* Transport Research Laboratory (TRL)

[65] Kallberg, V., Zaidel, D., Vaa, T., Malenstein, J., Siren, A., Gaitanidou, E. (2008) *Police Enforcement Policy and Programmes on European Roads.* PEPPER

To summarise, there seems to be very clear evidence that, overall, the impact of enforcing speed limits on accidents (both fatal and all injury) is significant. Although the literature suggests a variety of effects on compliance, as well as on injuries and fatal collisions, it presents statistically significant results showing that an increase in enforcement of speed limits will result in a reduction in the number of fatal and all injury collisions.

Notably, there are distinctions to be drawn between the effects of different methods of enforcement i.e. between mobile and stationary enforcement and static spot camera enforcement, which are all recognised to have small halo effects which inhibit their sustained effectiveness, and average speed camera enforcement. However, overall, there is clear evidence of a strong relationship between enforcement of speed limits and increasing road safety.

2.2.2 Drink driving enforcement

Roads policing officers enforce drink-driving laws through general observation and targeting specific individuals. They use breathalysers to test (by screening) a driver's blood alcohol content. If the blood alcohol content is over a specified level, the person is arrested and taken to the police station for an evidential test. If this test is positive, the individual will be charged.[66]

On the impact of enforcing drink-driving laws, there is clear evidence that an individual's perception of the likelihood of being caught by the police influences their decision to drink drive. Studies investigating the effects of enforcement of drink drive laws have focused specifically on the effects of mobile and/or static enforcement (patrolling and/or checkpoints).

A review of the literature suggests that mobile enforcement is the less impactful of the two. Results from a meta-analysis of 9 separate patrolling studies as part of the PEPPER project showed that the overall effect was a reduction in the number of accidents by 8%. However, for fatal accidents, no statistically significant effects on accidents were found.[67] There was variation in the size of the effect across the different study locations (which were mostly in the USA), but typically the larger effects were observed when the enforcement was accompanied by a publicity campaign.[68] Other research, whilst not focused on the resulting accident rate, found that mobile enforcement of drink drive laws can have an especially strong deterrence effect in more rural areas.[69]

The impact of static enforcement or checkpoints is an area in which there is substantially more research. 40 studies involving checkpoints were evaluated as

[66] Home Office (2020) *Being stopped by the police while driving.* Home Office
[67] Kallberg, V., Zaidel, D., Vaa, T., Malenstein, J., Siren, A., Gaitanidou, E. (2008) *Police Enforcement Policy and Programmes on European Roads.* PEPPER
[68] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies.* TRL
[69] Wundersitz, L. and Woolley, J., (2008). *Best practice review of drink driving enforcement in South Australia*. Centre for Automotive Safety Research.

part of the PEPPER project from a wide variety of countries (though predominantly from Australia and the USA). Results from the evaluation and meta-analysis showed that on average checkpoint enforcement reduced accidents by 15% on average, and fatal accidents by 6%. They also showed that larger accident reductions were reported when enforcement was accompanied by paid publicity.[70]

More widely, but without reference to specific methods of drink drive enforcement, there is research to support the view that enforcement of drink driving laws generally can lead to a reduction in fatal accidents. There is evidence from a European meta-analysis, which was conducted as part of the ESCAPE project – based on 26 studies – that suggested that increased enforcement of drink driving laws contributed to a decrease in drink driving deaths and injuries. The meta-analysis results, which were statistically significant, estimated that the effects of enforcing drink drive laws were reductions of 9% and 7% in the number of fatal and all injury accidents respectively.[71]

It should be noted that the individual studies referenced in the literature and in the meta-analyses were mainly based on countries in which enforcement of drink driving laws is used, and they relied upon random breath testing (RBT). Whilst it is noted in the literature as being effective at reducing alcohol impaired driving and fatalities, RBT is not permitted in England and Wales or Scotland (though it is permitted in Northern Ireland).[72]

However, this does not necessarily prevent the police from undertaking operations that involve establishing checkpoints. Evidence from the media and interviews for this project suggests that some forces establish what might resemble RBT checkpoints.[73] It should be noted however, that even in these cases breath testing is and can only be carried out selectively.

Using the permitted 'selective breath testing' (SBT) technique at checkpoints has been recognised in research to contribute to a reduction in alcohol-related collisions. In one study which involved meta-analyses, RBT was associated with a reduction in alcohol-related collisions of 36% for fatal collisions, 20% for fatal and serious injury collisions, and 22% for all collisions. SBT was associated with reductions of 26% for fatal collisions, 23% for fatal and serious injury collisions and 27% for overall collisions.[74]

In another large review of sobriety checkpoints which evaluated 15 SBT studies and 17 RBT studies, the results indicated decreases in alcohol-related collisions

[70] Kallberg, V., Zaidel, D., Vaa, T., Malenstein, J., Siren, A., Gaitanidou, E. (2008) *Police Enforcement Policy and Programmes on European Roads.* PEPPER
[71] Elvik, R (2001) *Cost-Benefit Analysis of Police Enforcement.* The Escape Project
[72] North, P. (2010). *Report of the Review of Drink and Drug Driving Law*. Department for Transport.
[73] Brinsford, J., Craig, Peter (2017) "*Police can spot drink-drivers before pulling them over and this is how they know" SomersetLive, Dec 23, 2017.*
[74] Bates, L., Soole, D., and Watson, B. (2012). *The effectiveness of traffic policing in reducing traffic crashes*. Policing and Security in Practice: Challenges and Achievements, 90-109.

(including fatal, non-fatal, other and aggregated collisions) of 20-24% and 16-22% for SBT and RBT respectively.[75]

To summarise, this shows that, overall, drink drive law enforcement is effective at reducing the number of collisions. Although there are certain issues with some of the evidence being based on studies which relied on random breath testing, there is evidence which supports the effectiveness of the enforcement that can be carried out in England, Wales and Scotland.

2.2.3 Drug driving enforcement

Drug driving laws are also, like drink driving laws, enforced through general observation and targeting. Roadside drug wipes are used to test for traces of cannabis and cocaine, and drivers can be arrested and taken back to the police station to provide a blood sample, which can be sent off to be tested for a much wider variety of drugs.[76]

Drug driving – new laws and tests

In 2015, new driving regulations set "zero tolerance" levels for eight specified illegal drugs (including cocaine, heroin and ketamine) and impairment levels for eight prescription drugs.

The regulations allows the police to perform roadside drug testing (a screener) using an oral saliva testing kit, commonly referred to by its trade name 'DrugWipe'. This tests for cannabis and cocaine. A positive result is likely to result in the driver being taken to the police station for an evidential blood test.

The officer may also undertake a Field Impairment Test (FIT). If the officer suspects that other drugs may have been used, they may take the driver to the police station for further tests.

Source: Risk Solutions and the Centre for Public Health at Liverpool John Moores University (2017) Evaluation of the new drug driving legislation, one year after its introduction. Department for Transport

In his 2010 report, Sir Peter North recognised that, to be impactful, any change in the law on drug driving would require effective enforcement. He also stated that a

[75] Elder, R., Shults, R., Sleet, D., Nichols, J., Zaza S., Thompson, R (2002) *Effectiveness of Sobriety Checkpoints for Reducing Alcohol-Involved Crashes*, Traffic Injury Prevention, 3:4; 266-274

[76] Risk Solutions and the Centre for Public Health at Liverpool John Moores University (2017) *Evaluation of the new drug driving legislation, one year after its introduction*. Department for Transport

means of testing a specimen of saliva would be extremely beneficial to enforcement.[77]

Due to the relatively recent introduction of the law and of testing equipment, there is limited published research on drug driving law enforcement.

In 2017 Risk Solutions and the Centre for Public Health at Liverpool John Moores University carried out an evaluation of the new drug driving legislation for the DfT. They concluded that, as a result of the increase in enforcement (drug testing) there had been an increase in awareness surrounding drug driving, and a small decrease in the percentage of individuals who reported driving while under the influence of drugs. They were unable to determine the impact on the number of collisions, injuries and fatalities involving drug driving. This was in part due to an increase in the use of drug driving as a contributory factor, which the DfT suggests has been historically under-used as a contributory factor. The increase is likely to reflect increased reporting, as opposed to an actual increase in drug-related fatalities or serious injuries.[78]

2.2.4 Seat belt enforcement

There is a lack of conclusive evidence about the direct effects of seat belt law enforcement on accidents and casualties. We found only two studies (both in the USA) which evaluated this. They reported small (4% to 8%) but not statistically significant accident reductions associated with seat belt law enforcement.[79] [80]

There are, however, many studies that have shown the effects of enforcement of seat belt laws on wearing rates, at local and national levels as well as from meta-analyses.

The most extensive meta-analysis, reported in PEPPER, evaluated 17 separate studies primarily, but not exclusively, from northern Europe. It found that enforcement increases seat belt wearing by 21% during the enforcement period and by 15% afterwards. It also found that enforcement in conjunction with local publicity increases the effectiveness of the enforcement programme.[81]

A similar study found an average increase in wearing rates of 16% during the enhanced enforcement period and of 9% afterwards. It also found that both targeted and supplemental patrols were effective, and that seat belt wearing is related both to the ratio of officers to residents and to the issuing of seat belt

[77] North, P. (2010). *Report of the Review of Drink and Drug Driving Law*. Department for Transport.
[78] Risk Solutions and the Centre for Public Health at Liverpool John Moores University (2017) *Evaluation of the new drug driving legislation, one year after its introduction*. Department for Transport
[79] Wells, J.A.K., Preusser, D.F. and Williams, A.F. (1992) *Enforcing Alcohol-Impaired Driving and Seat Belt Use Laws*, Binghamton, NY. Journal of Safety Research, 23, pp. 63-71.
[80] Williams, A.F., Reinfurt, D. and Wells, J.K. (1996*) Increasing seat belt use in North Carolina*. Journal of Safety Research, Vol. 27, No. 1, pp. 33-41.
[81] Kallberg, V., Zaidel, D., Vaa, T., Malenstein, J., Siren, A., Gaitanidou, E. (2008) *Police Enforcement Policy and Programmes on European Roads*. PEPPER

'citations' to residents.[82] This is directly supported by evidence in the literature that shows seat belt wearing increases with the perceived risk of being sanctioned.[83]

That said, wearing rates in Britain are currently high, and it is important to take into account the fact that a large proportion of the studies used in these meta-analyses were dated prior to 2000, or were based in countries with historically lower wearing rates than Britain. This is not to say that there would be no impact from enforcement were it to be carried out, but it is necessary to remember that the effects of increased enforcement in areas in which wearing rates are already high could be notably smaller unless very effectively targeted on non-wearing groups of drivers.

In 2008, the Metropolitan Police carried out Operation Radar, which was designed to increase the visible presence of police on a stretch of an A road. They focused on seat belt non-wearing, amongst other offences, and used a mixture of enforcement tactics accompanied with local publicity. TRL carried out a programme of observations to assess the impact this operation had. Results from their observations of seat belt wearing actually found that the enforcement had no significant effects on compliance with seat belt laws.[84]

However, the same research suggested that given that seat belt wearing rates were already high, assessment of the effectiveness of the enforcement was challenging, and that changes in compliance to achieve statistical significance would have to be large. This notion is described by the law of diminishing returns, whereby the higher the national level of seat belt use, the more difficult it is to achieve even greater behaviour change and safety benefit.[85]

To summarise though, despite there being a lack of studies which investigated the effect of seat belt law enforcement on accidents or casualties, a large number have found that increased enforcement results in an increased seat belt wearing rate. Thus, despite this gap, it can be assumed that increases in enforcement which lead to improved wearing rates do in fact have a positive effect on injury reduction, even if this is a very marginal one where the rate of compliance is already high.[86]

It is also important to recognise that whilst seat belt wearing rates are already high in the UK, this does not mean there would be no casualty reduction benefit from increasing compliance by even just one of the last few percent. For example.

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[82] Dinh-Zarr, T.B., Sleet, D.A., Shults, R.A., Zaza, S., Elder, R.W., Nichols, J.L., Thompson, R.S., Sosin, D.M. and Task Force on Community Preventive Services (2001) *Reviews of evidence regarding interventions to increase the use of safety belts*. American journal of preventive medicine, 21(4), pp.48-65.

[83] Chaudhary, N., Solomon, M., and Cosgrove, L. (2004). *'The relationship between perceived risk of being ticketed and self-reported seat belt use*.' Journal of Safety Research, 35(4), 383-390.

[84] Walter, L K (2008) *Evaluation of Operation Radar.* Transport Research Laboratory (TRL)

[85] SWOV. (2011) *Effects of police enforcement of safety devices, of moped helmet use, and of red light running.* Institute for Road Safety Research (SWOV): Leidschendam, The Netherlands.

[86] Elliott, M and Broughton, J. (2005) *How methods and levels of policing affect road casualty rates.* Transport Research Laboratory (TRL)

Research identified in the PACTS 2018 report on seat belts[87] contended that in Norway - where seat belt related compliance and casualty statistics are very similar to the UK – an increase in wearing rates from 96.6% to 100% would result in a 20% reduction in KSIs.[88]

2.2.5 Mobile phone use enforcement

The impact the enforcement of mobile phone laws can have on road safety is an area in which there has been a notable lack of research, at least compared with research into enforcement of the other fatal four offences. It has been noted that this may be due to the technical challenge of detecting mobile phone use while driving, particularly "at night, in heavy traffic, or in vehicles with heavily tinted windows".[89]

None of the most substantial pieces of research studied as part of this report sought to evaluate the effectiveness of enforcing mobile phone laws. A report by the World Health Organisation in 2011 found that little information on the effectiveness of interventions to reduce mobile phone use existed.[90] Reviewing existing evidence to date suggests that this may still be the case.[91]

A report by TRL in 2015 found very limited existing evidence indicating the effectiveness of mobile phone enforcement. The report made reference to an enforcement operation in Norway where police increased their routine vehicle checks and used binoculars to observe driver compliance with mobile phone laws. However, the only recorded result of the operation was an increase in the number of fines issued; no measurement of the deterrent effect or the effect on collisions was conducted.

As part of Operation Radar, which has been discussed in previous sections and was also cited in the 2015 TRL report, use of hand-held mobile phones was recorded during the enforcement operation. However, the evaluation of the operation reported that there was no change in the use of hand-held mobile phones as a result of the enforcement.[92]

[87] Webster, E., and Norbury, F. (2019). *Seat Belts: The Forgotten Road Safety Priority*. PACTS
[88] Hoye, A. (2016). *'How would increasing seat belt use affect the number of killed or seriously injured light vehicle occupants?'* Accident Analysis and Prevention, 88(1), 175-186.
[89] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies*. TRL
[90] World Health Organization (2011) *Mobile Phone Use: A growing problem of driver distraction*. WHO
[91] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies*. TRL
[92] Walter, L K (2008) Evaluation of Operation Radar. Transport Research Laboratory (TRL)

Effect of camera detected mobile phone use on compliance

In 2018, traffic police in Saudi Arabia introduced a new system for automatically detecting and issuing penalty tickets for mobile phone use while driving.

A pre-post evaluation employed to determine the impact of these cameras on compliance found that after implementation, drivers were 32% less likely to use a mobile phone whilst driving.

Source: Alghnam, S., Towhari, J., Alkelya, M. et al. The effectiveness of introducing detection cameras on compliance with mobile phone and seatbelt laws: a before-after study among drivers in Riyadh, Saudi Arabia. Inj. Epidemiol. 5, 31 (2018).

In 2019, the House of Commons Transport Committee published the report of its inquiry into the use of mobile phones whilst driving. The report drew attention to a reduction in the number of FPNs issued for use of a hand-held mobile phone, and presented that trend alongside the upward trend in the number of KSIs recorded where mobile phone use was listed as a contributory factor.[93] This may suggest that there is a relationship between lack of enforcement of mobile phone laws and KSIs, and by extension, that an improvement in enforcement may lead to a reduction in mobile phone use related KSIs. However, it cannot be concluded that this is the case simply by observing the two trends.

The Transport Committee's report discussed the benefits of other forms of mobile phone law enforcement, particularly how some police forces have been using cameras effectively to identify drivers using mobile phones. However, no reference was made to any casualty reduction benefits.

Overall, the impact of enforcing the law on the use of mobile phones whilst driving appears to be largely unknown, at least in relation to the potential collision- or casualty- reduction benefit of doing so. Whilst there is strong evidence for an increased crash risk when using a mobile phone while driving, there are few available data on the effectiveness of countermeasures.

[93] Transport Committee (2019) *Road safety: driving while using a mobile phone*. House of Commons

Potential casualty reductions from full compliance

In 2015, TRL conducted an independent review to establish whether the approach to enforcement in Hampshire and the Thames Valley was efficient and effective at reducing the number of people killed and seriously injured on the roads and how it might be improved further

Local data on the total number of casualties, combined with the compliance level and the relative risk of using a mobile phone while driving was used to estimate the number of casualties that are attributable to such use of phones and, from that, what reductions could be achieved if there was full compliance.

Their calculation showed that firstly, if no drivers used a hand-held or hands-free phone while driving, there would be a 21% reduction in fatalities and serious injuries.

Secondly, if there was no hand-held phone use while driving but hands-free phone use was unchanged, there would be an 11% reduction in fatalities and serious injuries.

Finally, if users of hand-held phones simply changed to hands-free, there would be only a 3.1% reduction in fatalities and serious injuries

Source: Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies.* TRL

Summary

The relationship between enforcement and road safety

Robust meta-analyses – which collectively consider a very large number of studies – conclude that enforcement can have a significant effect on reducing the number of both fatal and serious injury collisions. Some of the literature reports that, for collisions of all injury severities, the average effect of police interventions can be between a 23 and a 31 percent reduction in the number of collisions that cause injuries.

Speed

The strong evidence base for enforcement of speed limits indicates that most tech-led and officer-led methods of speed law enforcement can achieve significant reductions in fatal injury collisions, although some methods are more effective than others. Recent research suggests that average speed cameras have a significant effect on reducing the number of fatal and serious injury collisions.

Drink and drug driving

There is a large evidence base showing that drink drive law enforcement methods, such as random breath testing (and even selective breath testing), especially when used at 'checkpoints', can have a significant effect on reducing fatal and serious injury collisions.

There is less research into the effectiveness of drug driving law enforcement, particularly regarding the laws introduced recently in the UK. Some research points to a slight decrease in self-reported drug driving but no assessment of the effect on collisions or casualties has been made.

Seat belt non-use

While the UK has high wearing rates, significant additional casualty reductions can be achieved for every extra percent of road users who can be persuaded to wear their seat belts. A substantial body of evidence suggests that enforcement of seat belt laws can improve wearing rates.

Mobile phone use

While there is strong evidence of increased collision and casualty risks as a result of mobile phone use while driving, research is needed to explore countermeasures and compare their effectiveness. This information is not currently available.

2.3 How does it work? The theoretical relationship.

Many studies demonstrate the effectiveness of policing in deterring and reducing crime. Here we consider the theories that explain the relationship between policing and crime reduction – how, why and to what extent it works.

The basic general theory of enforcement assumes that at a zero enforcement level, offending would be at its highest and that without the threat of detection or prosecution, individuals would break laws.

This theory also applies to roads policing enforcement. At a zero enforcement level, offending, as well as accidents and casualties, will be at the highest level.[94] Conversely, with a high level of police enforcement, offending, accidents and casualties would be substantially lower. However, the relationship between the two is not linear.

The literature suggests that, in fact, the relationship is S-shaped, as seen below. It states that an increase in enforcement would have no noticeable effect at first. However, drivers would gradually become aware of the police presence at a certain level of enforcement. At this point, the expectation is that they would modify their behaviour (to reduce or stop offending), thereby reducing the frequency of collisions, and the number of collisions would start to fall. This is referred to as the tipping point. After this point, as effective enforcement increases further, the number of collisions can be expected to decrease until a saturation point is reached. Increasing enforcement beyond this point is then unlikely to have any further effect on the number of collisions. There will still be some collisions, meaning the number will never reach zero.[95]

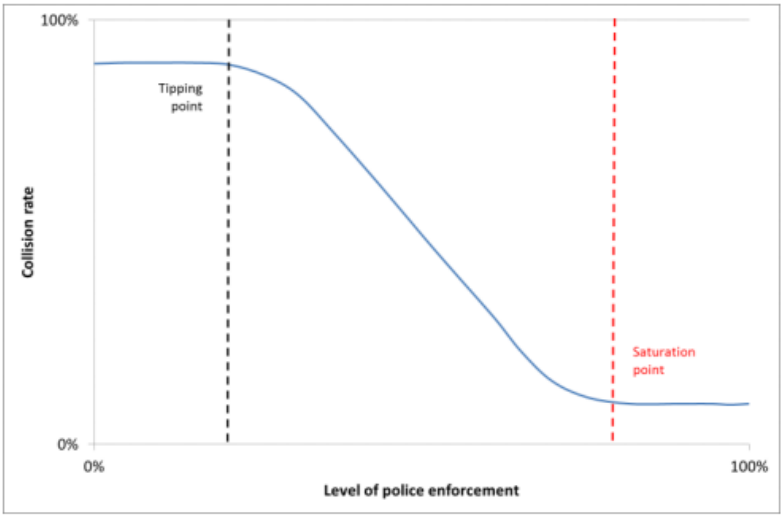

Figure 2 – Theoretical relationship between level of police enforcement and accident rates (Smith et al, 2011, TRL)

[94] Elliott, M and Broughton, J. (2005) *How methods and levels of policing affect road casualty rates.* Transport Research Laboratory (TRL)
[95] Elliott, M and Broughton, J. (2005) *How methods and levels of policing affect road casualty rates.* Transport Research Laboratory (TRL)

In short, this implies that offence rates (and by association, collision rates) are likely to be unaffected by low levels of roads policing, but an increasing level of effective enforcement will eventually result in a reduction in offences, and by extension, collisions.[96] This theory is dependent upon the assumption that effective enforcement has an effect on road user behaviour, and whilst this is considered to be the case, and there is much debate over the mechanism by which behavioural change is actually achieved.

As an overview however, the literature suggests that the mechanism used to achieve behavioural change is deterrence. The underlying principle of deterrence as it relates to roads policing enforcement is that the behaviour of road users can be modified by making them fearful of the consequence of committing an illegal act.[97]

Deterrence theories – on which much of the criminal justice penalty system is based – say that people will modify their offending behaviour to the extent that they fear the risk of detection (and prosecution) multiplied by their fear of the perceived likely penalty. It is the dynamic relationship between these two factors that is thought to deter offending. Celerity (swiftness in receiving punishment), the perceived social stigma of being caught, and moral commitment to the law, are other factors that are included in some variants of deterrence theory. Deterrence policies aim either to deter individuals (individual deterrence) or wider society (general deterrence) from crime. Regarding the enforcement of road traffic laws, both individual and general deterrence policies and initiatives may be implemented. The findings of research into the success of each are generally mixed.[98]

The risk of detection as perceived by road users is generally held to be the most important factor in achieving successful deterrence, and in determining the overall effectiveness of road traffic law enforcement. There are two strands to this: the perceived risk of detection and the actual risk of detection. Research suggests that the relationship between these factors and behaviour is complex.[99]

Rational choice theory as applied to criminal behaviour grew out of deterrence theories, and posits that people are rational beings who weigh up the opportunities, costs and benefits of particular illegal actions with limited, less than perfect rationality.[100] Because crimes differ in the demands they make upon and the needs served for would-be offenders, different models are required for specific crimes, so

[96] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies*. TRL

[97] Homel, R. & Wilson, P. (1988) *Law and road safety: strategies for modifying the social environment, with particular reference to alcohol control policies*. The Australian and New Zealand Journal of Criminology, 21, p. 104-116

[98] Corbett (2003) *Car Crime*. Cullompton: Willan.

[99] Riley, D. (1991) *Drink-driving: the effects of enforcement*. London, Home Office Research and Planning Unit.

[100] Cornish, D.B. and Clarke, R.V., 1987. *Understanding crime displacement: An application of rational choice theory*. Criminology, 25(4), pp.933-948.

understanding decisions to drink drive or to exceed speed limits would need different models of the utility of these offences.

However, the theory in relation to road safety is based on the assumption that road users make rational decisions and exercise free choice as to whether or not to commit any traffic offence.[101] According to this rational choice theory, road users will abide by the law if the expected utility of that action is greater than the expected disutility of committing an offence.[102] Whilst some authors have questioned the assumptions of this rational choice theory and claim it is flawed - particularly for offences such as drink or drug driving when the rationality of the offender is in question - the underlying aim of deterrence policy, as defined by Corbett and Simon, is to increase the perceived cost of committing an offence whilst decreasing the perceived benefits, so that the former outweigh the latter. In assessing these costs and benefits, it is assumed that the would-be offender will weigh up two factors: the perceived risk of detection and his/her fear of the perceived likely penalty or punishment.[103]

Risk of detection

There are two main risk functions which influence the road user. Firstly, the perceived risk of detection results from the road user's perception of the intensity and extent of enforcement related activities. Secondly, is the actual risk of detection, which reflects the real likelihood of detection based on the true level of roads policing activity.

The literature suggests that because the perceived risk is most likely to influence driving behaviour, the optimal situation is one where the perceived risk is equal to or higher than the actual risk. The perceived risk may be influenced by the visibility of the enforcement activity and associated publicity.

Source: Riley, D. (1991) *Drink-driving : the effects of enforcement.* London, Home Office Research and Planning Unit

The assumption behind the S-shaped model previously described is that any increased compliance is caused by an increase in the enforcement level, mediated by actual and perceived risks of detection, which then has a direct impact on the number of collisions caused by law breaking and, by extension, the number of road casualties.

[101] Corbett, C. & Simon, F. (1992) 'Decisions to break and adhere to the rules of the road viewed from the rational choice perspective'. British Journal of Criminology, 32(4), 537-549.
[102] Palmer, J. (1977). Economic analyses of the deterrent effect of punishment: A review. Journal of Research in Crime and Delinquency, 14,4-21.
[103] Zaal, D. (1994) *Traffic law enforcement: A review of the literature*. Monash University Accident Research Centre

However, in practice this link is less well evidenced. The effect of police enforcement on compliance, collision- and casualty-reduction varies in many cases, and the relationship between them is not entirely clear. It cannot be assumed, for example, that just because a particular operation or set of enforcement actions improves compliance that there is a meaningful casualty reduction benefit arising from this.

Legal but lethal

It is also the case that road traffic laws and therefore police enforcement do not cover all risks. For example, hands-free phone use while driving is not a specific offence but, according to research, it creates the same risk of a collision as using a hand-held device, which is illegal.[104] Similarly, people can still have collisions when driving below the speed limit or when they are below the drink-drive legal limit. One hundred percent compliance does not necessarily mean there will be no collisions. This has important implications for roads policing, the purpose of which is reduce harm and not simply to enforce laws.

The following chapter explores whether a relationship can be seen between trends in enforcement and in compliance or in casualties, related to the fatal four, in the UK over the past decade.

[104] Transport Committee (2019) *Road safety: driving while using a mobile phone*. House of Commons

3 Enforcement, compliance and casualties – recent trends in the fatal four

Chapter 3 reviews, for each of the fatal four, UK trends in enforcement and compliance, and their role as contributory factors in causing collisions over the past decade. It also looks for any relationship between levels of enforcement, compliance and contributory factors.

It should be noted that it was never expected that this would prove conclusive – there are simply too many limitations in the data. Representative data on levels of enforcement and compliance are not available and we have had to use proxy data, such as FPNs issued.

Increases, reductions or changes in complementary interventions, and the nature of the penalty, may also have had an impact. During the period assessed in this chapter, there have been two notable changes.

- Speed awareness courses have been extensively used an alternative disposal, usually offered to first-time, "less serious" speed offenders. The National Driver Offender Retraining Scheme (NDORS) was assessed and those drivers who attended were found to be less likely to reoffend than those who chose to pay the fine and receive the penalty points.[105] Although this may be classified as an educational approach, it is set firmly in an enforcement context.
- The penalty for using a handheld mobile phone while driving was doubled to £200 and 6 penalty points in 2017.

Nonetheless, some figures do suggest trends and relationships. The more comprehensive in-depth studies, such as PEPPER, reviewed earlier, have already evidenced these relationships.

NPCC has recently confirmed that national campaigns will focus on the fatal four. As these cause or contribute towards, such a high proportion of fatal and serious casualties, PACTS supports this focus. As the police are aware, fatigue is also a major contributory factor. However, this is less directly an issue for police enforcement.

3.1 Speeding

3.1.1 Enforcement

The possible consequences of being detected while exceeding the speed limit include a FPN, attendance at a national speed awareness course (NSAC), a fine, 3 licence penalty points, or court proceedings that may lead to a larger fine or more penalty points, or both.

As can be observed in Figure 3, the number of FPNs issued annually for speeding offences has increased by around 500,000 between the years 2011 and 2017.[106] For

[105] Ipsos MORI (2018) *Impact Evaluation of the National Speed Awareness Course, Final Report*. Ipsos MORI

[106] Home Office (2019) *Police powers and procedures, England and Wales year ending 31 March 2019*. Home Office.

speeding, we have included in the FPN numbers NDORS courses, now managed by UK ROEd, of which there are now over 1 million a year.

FPNs issued for speeding far exceed those issued for any other motoring offence, such as seat belt non-wearing or using a hand-held mobile phone.

Figure 3 - Fixed Penalty Notices issued for Speeding Offences (Home Office - Police powers and procedures)

This is almost entirely attributable to the fact that speeding offences can be detected by automated forms of enforcement – speed cameras – and, unlike other offences, do not necessarily require an officer to be present to detect the offence and issue the charge. In the UK, almost all FPNs issued for speeding offences are for offences detected by speed cameras.[107]

There are also differences between forces in the numbers of active speed cameras and FPNs issued for speeding, suggesting that the level of enforcement differs substantially across forces. This may reflect local traffic circumstances or force priorities and resources or both.

In the case of active speed cameras, the number differs between police force areas because of differences in geographical size, types of roads and volumes of traffic. However, according to information obtained by the Press Association, some police forces have only 10% of their total cameras switched on, compared with others which have 100% switched on.[108]

Research commissioned by the RAC Foundation found significant differences in the number of penalties issued for speeding. For example, 154,139 FPNs for speeding

[107] Snow, A. (2019) *Speeding offence detection and disposal in England and Wales, 2017-18*. RAC Foundation
[108] BBC News (2017) *Half of UK road speed cameras are switched off.* BBC

(including awareness courses) were issued by Avon and Somerset Constabulary in 2017-18, compared to only 14,725 by Kent Police in the same year.

The research also found significant differences between the 43 forces in the type of enforcement most relied upon for speed detection. For most forces, around 95% of detected speeding offences were camera detected in 2017-18. For 5 forces, 100% of speeding offences were detected by camera, while 2 forces detected less than 2% in this way.[109]

Speed limit enforcement statistics

Between 2011 and 2018, there was a 32% increase in the total number of speeding offence detections across England and Wales.

Of the 43 police forces, 31showed an increase in detections (by up to 428%) while 12 decreased detections (by up to -80%).

Source: Snow, A. (2019) Speeding offence detection and disposal in England and Wales, 2017-18. RAC Foundation

[109] Snow, A. (2019) *Speeding offence detection and disposal in England and Wales, 2017-18*. RAC Foundation

3.1.2 Compliance

Compliance with speed limits is currently estimated by the DfT using speed data collected from a sample of automatic traffic counters. The data provide an insight into drivers' compliance with different speed limits in free-flowing rather than congested traffic conditions.[110] [111] Whilst this is an appropriate method, it can give an exaggerated impression of non-compliance levels and the actual speeds of most vehicles.

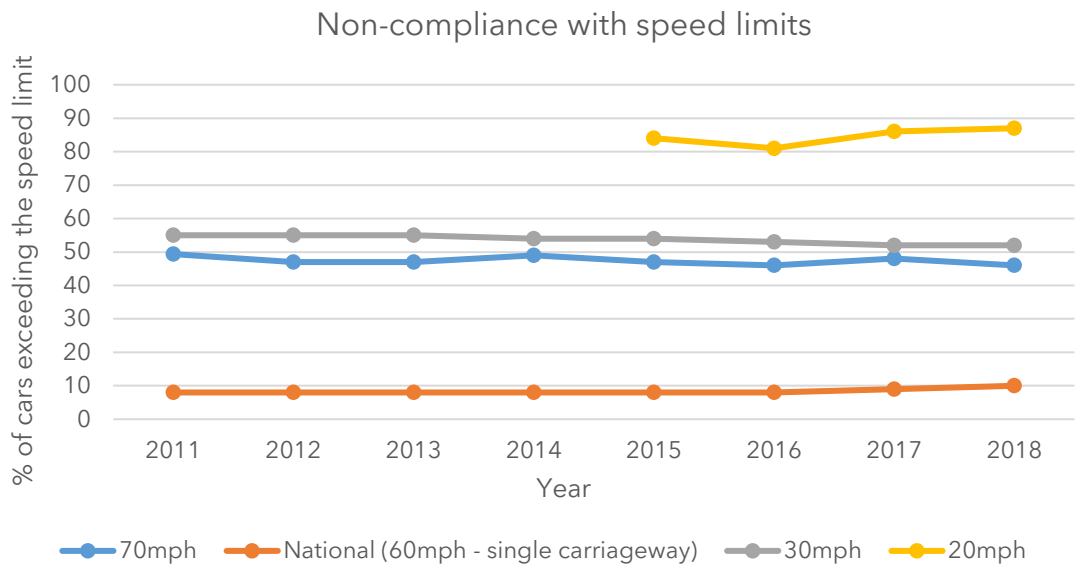

Figure 4 – Non-compliance with speed limits (Department for Transport, 2019)

As can be seen in Figure 4, non-compliance with speed limits is most prevalent on 20mph roads, possibly increasing slightly since 2015. Non-compliance with 30mph speed limits is the second most prevalent, with the level of non-compliance falling slightly from 2011 to 2018, when 55% and 52% (respectively) of cars exceeded the speed limit.[112] For roads with a 70mph speed limit, 49% of cars exceeded the limit in 2011, declining to 46% in 2018. The compliance rate with the national speed limit (60mph on single carriageway roads) is highest of the four recorded. In 2011, 8% of cars exceeded the 60mph speed limit but this increased to 10% in 2018.

Overall, these statistics indicate that compliance with 30, 60 and 70mph speed limits is, on balance, more common than non-compliance, especially given that these statistics are based on speeds recorded on free-flowing roads. Non-compliance with 30mph speed limits appears to have decreased fairly consistently (but very gradually) since 2011. Non-compliance with 70mph speed limits, however, whilst at a lower level in 2018 than in 2011, has fluctuated between 46%-49%.

[110] These statistics are based on speed data from a sample of DfT's Automatic Traffic Counters (ATCs), chosen to exclude locations where external factors might restrict driver behaviour (e.g. junctions, hills, sharp bends and speed cameras).
[111] Department for Transport (2019) *Vehicle Speed Compliance Statistics, Great Britain: 2018*. DfT
[112] Results from 2018 are not directly comparable with previous years due to changes in recording sites.

Statistics from self-reported behaviour studies suggest that at least occasional non-compliance with speed limits is quite widespread. Results from the E-survey of road user attitudes (ESRA), for example, indicate that most a majority of car drivers in the UK report having driven faster than the speed limit at least once in the last 30 days - on motorways (56.1%), outside built up areas but not on motorways (58.4%) and in built up areas (50.1%). Despite this, such self-reported compliance with speed limits is still notably higher in the UK than in other countries with similar road safety records (Sweden, the Netherlands, Germany and Denmark) according to the ESRA survey.[113]

Considering the trend, results from the RAC Report on Motoring 2018 suggest that whilst most drivers say they frequently or occasionally exceed the 70mph speed limit on motorways, self-reported compliance with speed limits on motorways generally, as well as on urban and rural roads, has been improving. In 2018, for example, 57% of surveyed drivers reported frequently or occasionally exceed the speed limit, down from 70% in 2016.[114]

3.1.3 Contributory Factor

In 2018, there were 186 fatal casualties and 1505 seriously injured casualties in collisions where 'exceeding the speed limit' was recorded as a contributory factor (11.9% of all fatalities and 7.3% of all seriously injured casualties). It was the fifth most prevalent recorded contributory factor for fatal casualties in 2018.[115] [116]

Since 2014 there has been a decline (see Figure 5) in the number of fatalities in collisions where 'exceeding the speed limit' was recorded as a contributory factor. But the individual differences between the successive years are too small for the trend yet to be judged statistically significant, so further years' data would be needed to establish a significant downward trend.

[113] ESRA (E-survey of road user attitudes) (2018) *Country fact sheets*. ESRA
[114] RAC (2019) *RAC Report on Motoring* (various years). RAC
[115] Department for Transport (2019) *Road Casualties Great Britain: RAS50001-7 (2010-2018)*.
[116] Please note: contributory factors data does not yet take into account potential CRASH effects on serious injuries. Please see here for more details.

Figure 6 shows that since 2010 there has been no systematic change in the number of seriously injured casualties in collisions where exceeding the speed limit was listed as a contributory factor. The data are complicated by the progressive switch to the Collision Reporting and Sharing (CRaSH) reporting system which has led to more casualties being classified as seriously injured.

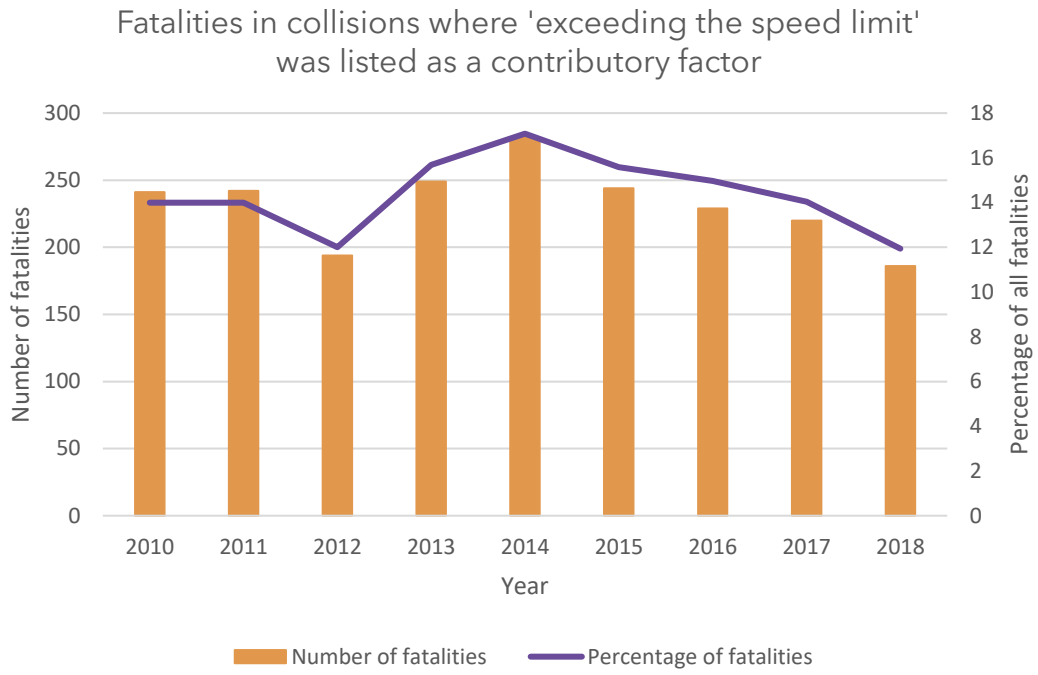

Figure 6 – Fatalities in collisions where 'exceeding the speed limit' was listed as a contributory factor (DfT 2019)

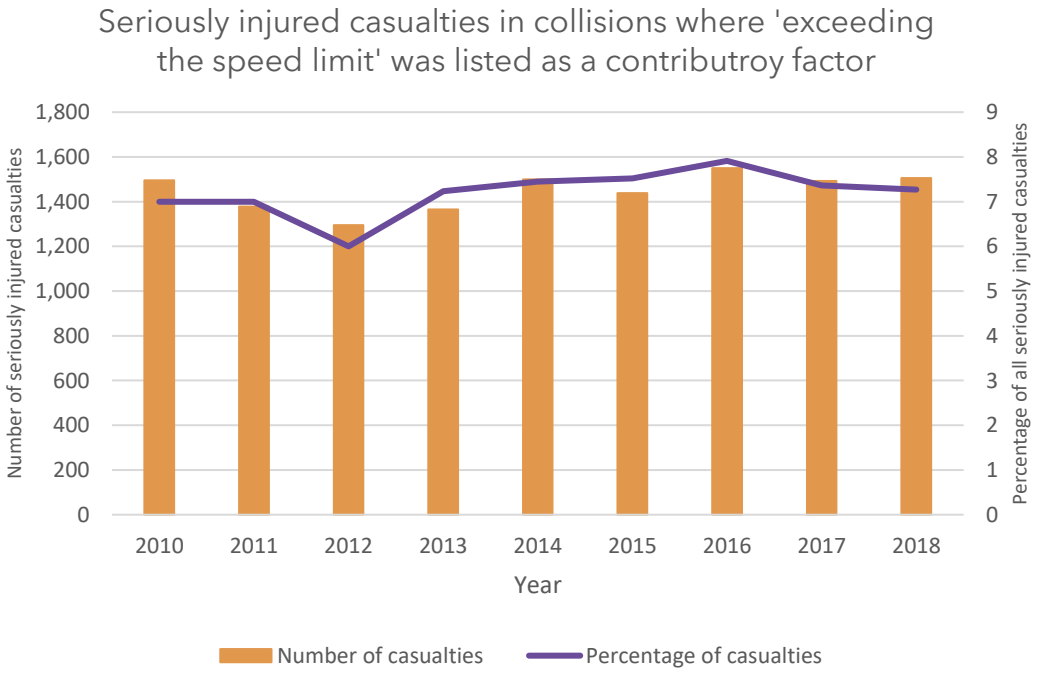

Figure 5 – Seriously injured casualties in collisions where 'exceeding the speed limit' was listed as a contributory factor (DfT, 2019)

3.1.4 Conclusion

The only fatal four offence which has seen an increase in the number of penalties issued is speeding: 32% more FPNs for speeding offences were issued in 2018 than in 2011. This is undoubtedly the result of the increased use of speed cameras to enforce speed limits.

Self-reported surveys and the national speed survey both indicate there has been an increase in levels of compliance with speed limits, and the proportion of deaths where speed was reported as a contributory factor has declined.

Bearing in mind the caveats stated above, these trends suggest that increased enforcement (as indicated by the increase in FPNs) has helped to raise compliance with speed limits and reduce fatalities in speed-related collisions.

Summary – Speeding

Enforcement

There has been a 32% increase in FPNs issued (2011 to 2018), mostly detected by cameras. Enforcement levels vary considerably across police forces.

Public perception of enforcement

According to the 2018 ESRA survey, 75% of car drivers think that a police check on their speed will be unlikely to happen.

Compliance

National speed surveys show that compliance with 30mph and 70mph speed limits has slightly increased since 2011, with more drivers complying than do not, while the majority of drivers exceed 20mph limits.

Fewer drivers are now self-reporting that they exceed speed-limits than in previous years, but slightly more admit to speeding compared with those who comply.

Contributory Factor

For fatal casualties in collisions where 'exceeding the speed limit' was listed as a contributory factor, the successive decline in the numbers of fatalities in each year following 2014 may indicate that a significant downward trend may be establishing itself. No such trend can be seen for seriously injured casualties.

3.2 Drink and Drug Driving

3.2.1 Enforcement

The current penalty for driving with more than the legal limit for alcohol in the blood normally includes being banned from driving and a fine, or even imprisonment. These punishments depend on the seriousness of the offence. For being in charge of a vehicle while above the legal limit or unfit through drink, individuals may face 3 months' imprisonment, a fine up to £2,500 and a possible driving ban. For driving or attempting to drive while above the legal limit or unfit through drink, individuals may face 6 months' imprisonment and an unlimited fine and normally receive a driving ban for at least one year (3 years if convicted twice in 10 years).[117] The punishment for being convicted of drug driving is a minimum one year driving ban, an unlimited fine and up to 6 months in prison.[118]

An absence of arrest data makes it difficult to comment on actual current levels of enforcement of drink and drug driving laws. There are statistical proxies for enforcement that might be used, such as the number of breath/drug tests carried out and the test results.

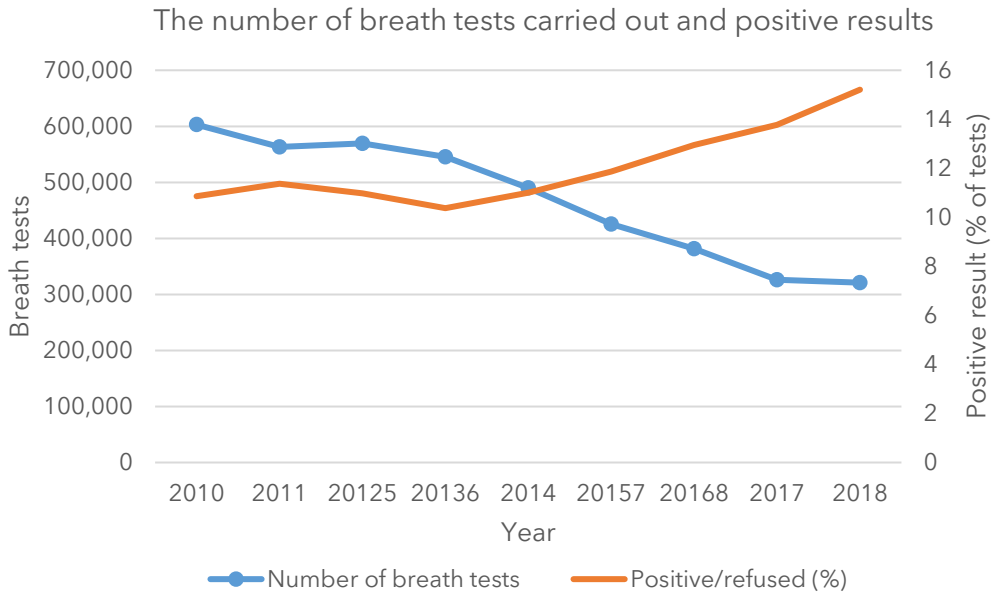

Figure 7 Number of breath tests and positive results (Home Office, 2019)

As can be observed in Figure 7, the number of breath tests carried out has fallen substantially since 2010.[119] At the same time, data for the test data suggest there has been an increase in the percentage of positive (or failed) breath tests. Whilst

[117] Home Office (2020) *Drink-driving penalties*. Home Office
[118] Home Office (2020) *Drugs and driving: the law*. Home Office
[119] Home Office (2019) *Breath test statistics – Police powers and procedures 2018/19*. Home Office

this could mean that officers are targeting suspect offenders more efficiently, it could also mean that the number of people drinking and driving is rising – though this should not detract from the fact that the number of breath tests carried out has fallen so sharply since 2010.

Unlike breath tests for alcohol, the total number of roadside drug driving tests undertaken by police nationally throughout the year is not recorded. However, the number of roadside drug tests (using DrugWipes) carried out during NPCC campaigns has been recorded since 2016. As can be seen in the table below, the number of tests carried out during these campaigns rose in 2017, but fell back to about the 2016 level in 2018.[120] Overall, the volume of drug drive testing has risen rapidly in the last five years.

Test data from campaigns

	2016		2017		2018	
	No. of tests	Positive results (%)	No. of tests	Positive results (%)	No. of tests	Positive results (%)
Drug wipes	5,230	44.1	5,907	46.7	5,164	57
Breath tests	140,207	7.3	126,848	7.4	108,672	8.6

Table 1 – Drug and breath test data from NPCC campaigns (NPCC 2019)

This table also shows that although the number of roadside drug wipe tests conducted during campaigns fell in 2018, the failure rate rose markedly.

Some police forces, such as Essex, are now testing drivers for drugs before or in addition to testing for alcohol, and in some forces the number of arrests for drug driving has begun to outnumber the arrests made for drink driving.[121] This could suggest either that the police are targeting suspect offenders more efficiently or that the level of drug driving is rising. This cannot be confirmed using arrest statistics alone.

Regarding perceptions of enforcement, according to the RAC Report on Motoring 2018, 38% of drivers say that either drink or drug driving – or both – are issues of considerable concern, which is up from 34% in 2017. The National Travel Attitudes Survey has also found that 63% of the public believe the laws on driving whilst impaired by drugs are not properly enforced.

According to the results from the ESRA survey, 88% of car drivers don't believe they are likely to be checked by the police for alcohol and 90.5% of car drivers don't believe they are likely to be checked by the police for the use of illegal drugs.

[120] NPCC (2019) *NPCC Roads Policing Strategic Review.* NPCC
[121] RSGB (2019) *Drug drive arrests outnumber drink drive offences.*

3.2.2 Compliance

It is not seen as practicable to stop and test drivers for survey purposes for compliance with drink and drug driving laws within the general driving population. However, there are sources of data that can at least give indications of the 'scale' of offending, such as self-reporting, test failures and prosecutions.

Based on self-reported behaviour, the Crime Survey for England and Wales finds that drink driving is much more prevalent than drug driving. The percentage of drivers that report driving under the influence of alcohol has shown no systematic change between 2010-11 and 2018/19, despite a lower percentage in 2018/19. In contrast, the percentage of drivers that report driving under the influence of drugs seems to have decreased.[122] See table below.

Self-reported drink and drug driving

Percentage reporting driving whilst thinking they are over the legal alcohol limit / whilst thinking they are under the influence of illegal drugs at least once in last 12 months

	2010/ 11	2011/ 12	2012/1 3	2013/ 14	2014/ 15	2015/ 16	2016/ 17	2017/ 18	2018/ 19
Alcohol	**6.9**	**7.4**	**6.4**	**5.9**	**6.2**	**7.6**	**7.6**	**6.6**	**5.4**
Drugs	**1.3**	**1.0**	**0.5**	**0.7**	**0.9**	**0.6**	**0.4**	**0.4**	**0.5**

Table 2: Self-reported drink and drug driving (Department for Transport/Crime Survey for England and Wales)

The ESRA survey, however, suggests that instances of drink and drug driving may be higher. Car drivers were asked how often they drive within one hour after using drugs (other than medication), and also how often they drive when they may have been over the legal limit for drink driving. 7.5% of drivers admitted that at least once within the last 30 days they had driven within one hour after using drugs at least once. Additionally, 8.8% of drivers admitted that at least once within the past 30 days they have driven when they may have been over the legal limit for drink driving.[123]

Although these ESRA and Crime Survey results for drug driving seem quite different, it may be pertinent to note that in the recent National Travel Attitudes Survey, 60% of respondents agreed that the number of people driving whilst impaired by illegal or legal drugs has increased in the last five years.[124]

As can be seen on Figures 8 and 9, the number of prosecutions for drink driving has fallen since 2008 by around half, whereas the number of prosecutions for drug driving has risen steadily from a low base in 2015 (the effective start date for the offence in its present form and therefore for these data).[125]

[122] Department for Transport (2020) *RAS51101 & RAS51103*. DfT
[123] ESRA (E-survey of road user attitudes) (2018) *Country fact sheets*. ESRA
[124] Department for Transport (2020) *National Travel Attitudes Study. DfT*
[125] Ministry of Justice (2020) *Criminal Justice System statistics quarterly: various*. MoJ

For failure rates of breath and drug wipe tests, results from tests carried out by forces as part of enforcement campaigns have been included in Table 1.

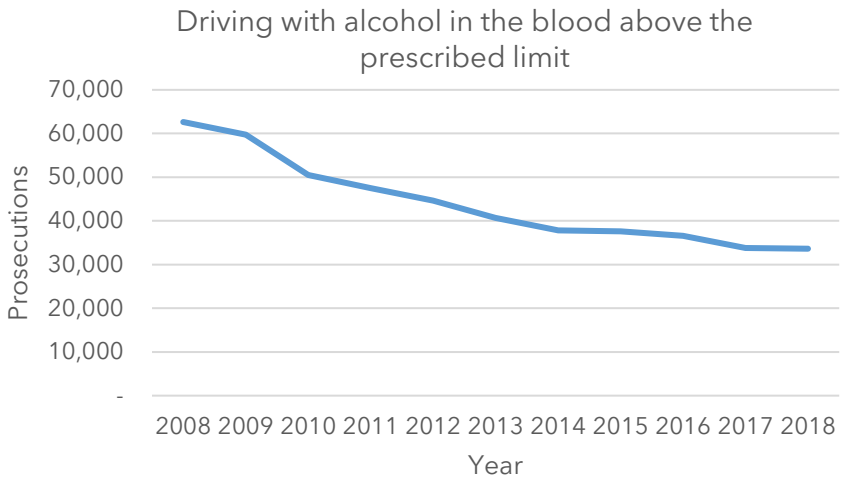

Figure 8 – Driving with alcohol in the blood above the prescribed limit (Ministry of Justice 2019)

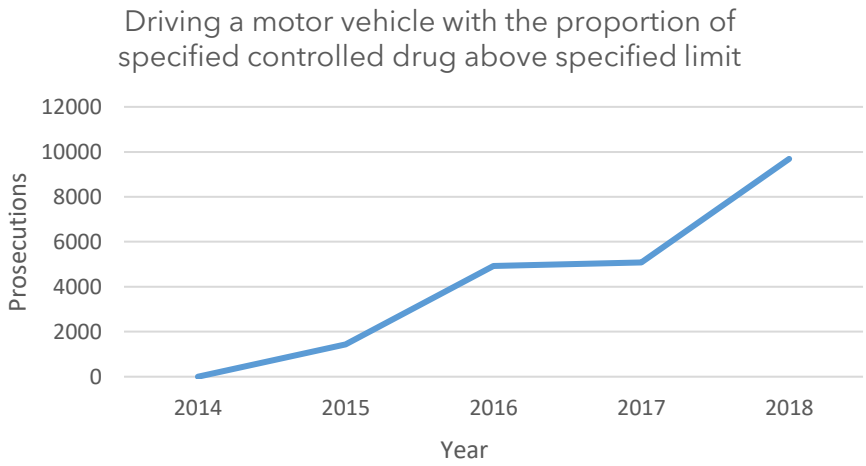

Figure 9 – Driving a motor vehicle with the proportion of specified controlled drug above specified limit (Ministry of Justice 2019)

As can be seen in table 1, failure rates for both drug wipe and breath tests have increased between the years 2016 and 2018. However, whilst this may initially appear to indicate a rise in drink and drug driving, this may not necessarily be true. In both cases – particularly for breath tests – the number of tests carried out in 2018 was lower than in 2016. It may be that the reason why failure rates were higher in 2018 was that police officers were just targeting more effectively.[126]

[126] NPCC (2019) *NPCC Roads Policing Strategic Review.* NPCC

3.2.3 Contributory Factor

In 2018, there were 126 fatal casualties and 1,445 seriously injured casualties in collisions where 'impaired by alcohol' was listed as a contributory factor (8.1% of all fatalities and 7% of all seriously injured casualties). Whilst in the case of fatalities this is the lowest number since 2010, there has been no apparent systemic change. There were more seriously injured casualties in collisions where 'impaired by alcohol' was listed as a contributory factor in 2018 than in any other year since 2010, but again without systematic change.[127] [128]

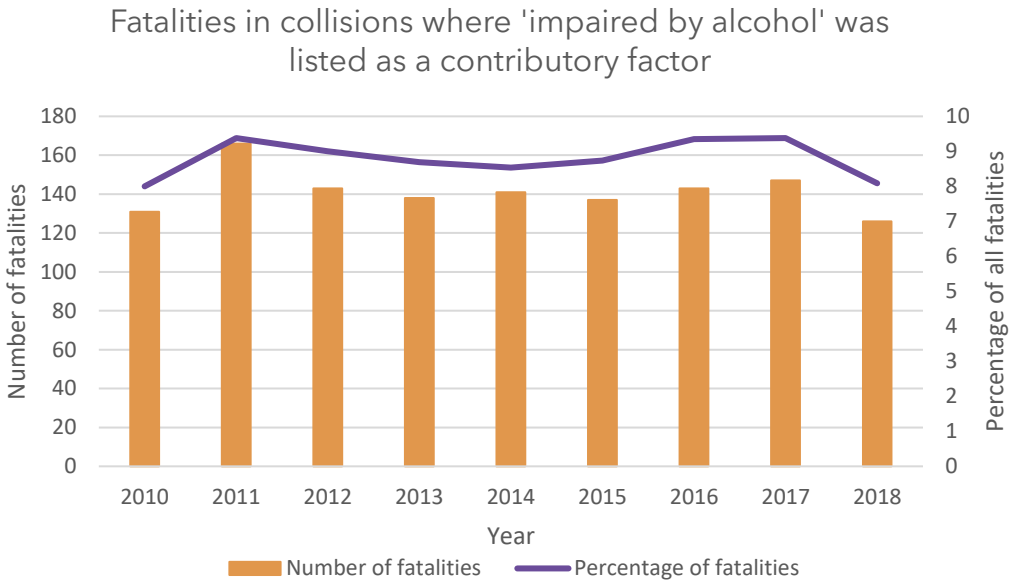

Figure 10 – Fatalities in collisions where 'impaired by alcohol' was listed as a contributory factor (DfT, 2019)

The DfT produces a comprehensive estimate of the number of people killed in collisions where at least one driver or rider was over the drink drive limit in Great Britain. This is based on STATS19 reports and toxicology data from coroners. This method indicates a substantially higher number of fatalities each year than is reported in contributory factors. Fatal casualties have been relatively stable since 2010, at around 240 people a year. The provisional estimate for 2018 is 240, identical to the final estimate for 2010.[129]

[127] Department for Transport (2019) *Road Casualties Great Britain: RAS50001-7 (2010-2018).*
[128] Please note: contributory factors data do not yet take into account potential CRaSH effects on the number of serious injuries recorded. See here for more details.
[129] Department for Transport (2019) *Reported road casualties in Great Britain: provisional estimates involving illegal alcohol levels: 2018.* Department for Transport

Despite a significant fall in the number of breath tests carried out and an increase in failure rates, there has been no increase in the number of fatalities in alcohol-related collisions. This suggests that the prevalence of drink driving has changed little even though the level of enforcement (using breath tests as a proxy) has decreased.

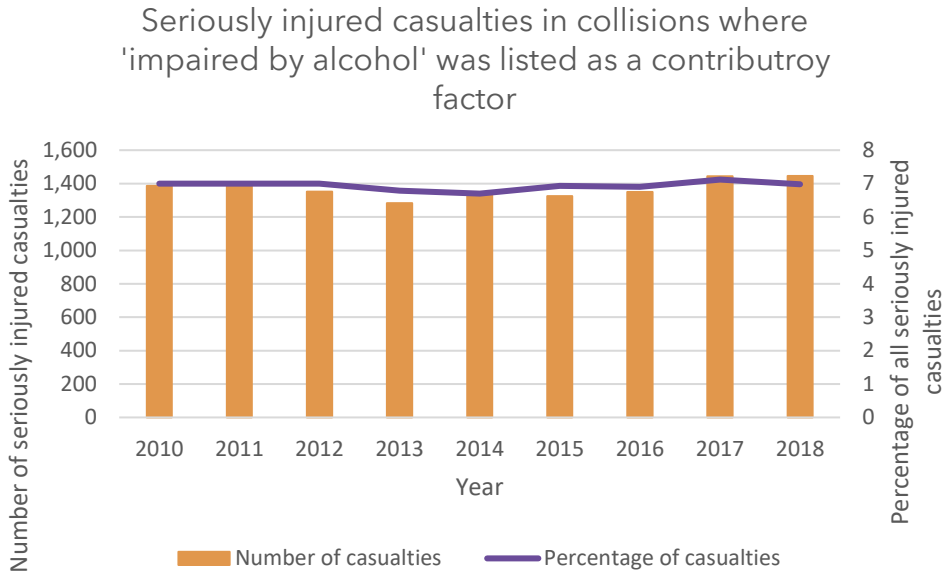

Figure 11 – Seriously injured casualties in collisions where 'impaired by alcohol' was listed as a contributory factor (DfT, 2019)

Regarding drug driving, as can be seen in Figures 12 and 13, in 2018 there were 185 fatal casualties and 545 seriously injured casualties in collisions where 'impaired by drugs' was listed as a contributory factor (5.6% of all fatalities and 2.6% of all seriously injured casualties).[130] [131] However, while the data presented below appear to indicate a growth in fatalities and serious injuries in drug-related collisions, it is important to recognise that it is not yet possible to determine any significant trend in the impact of the new offence on the numbers of fatalities and injuries in collisions where impairment by drugs is listed as a contributory factor.

As highlighted in the evaluation of the new drug driving legislation, there has been an increase in the use of drug driving as a contributory factor in police recorded collision statistics (STATS19 reports). According to the DfT, drug-driving has historically been under-reported as a contributory factor, and it is likely that the increase in numbers reflects an increase in reporting of this contributory factor.[132]

[130] Department for Transport (2019) *Road Casualties Great Britain: RAS50001-7 (2010-2018).*
[131] Please note: contributory factors data do not yet take into account potential CRASH effects on serious injuries. See here for more details.
[132] Risk Solutions and the Centre for Public Health at Liverpool John Moores University (2017) *Evaluation of the new drug driving legislation, one year after its introduction.* Department for Transport

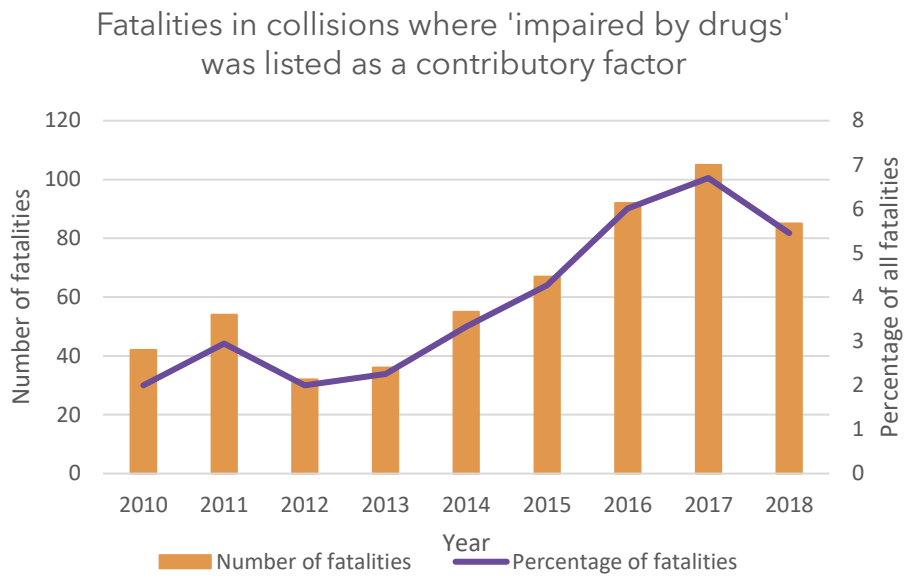

Figure 13 - Fatalities in collisions where 'impaired by drugs' was listed as a contributory factor (DfT, 2019)

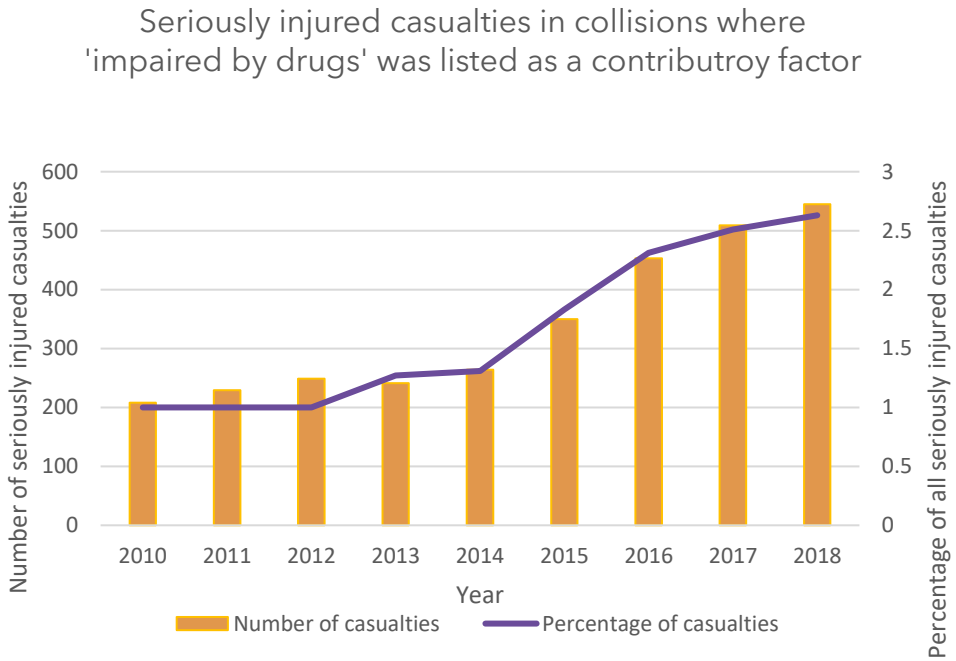

Figure 12 – Seriously injured casualties in collisions where 'impaired by drugs' was listed as a contributory factor (DfT, 2019)

3.2.4 Conclusion

The near-halving of the number of breath tests carried out since 2010 suggests that there has been a substantial reduction in drink drive law enforcement. Prosecutions rely upon the presence of an officer and enforcement action. Data from the courts suggest prosecutions for drink driving have also fallen substantially since 2010.

Self-reported data in the Crime Survey for England and Wales show that the percentage of drivers who report driving under the influence of alcohol has shown no systematic change between 2010-11 and 2017-18. Casualty data from contributory factors and DfT drink drive casualty estimates also indicate that there has been no significant change in the number of casualties in drink drive related collisions since 2010.

These trends seem to suggest that the prevalence of drink driving, with regard both to compliance and to the number of casualties in drink-drive related collisions, has changed little even though the level of enforcement (using breath tests as a proxy) has decreased.

With regard to drug driving, there has been a substantial increase in enforcement by roadside drug testing since the new drug driving legislation and saliva tests were introduced. Prosecutions for drug driving have also increased substantially over the same period.

With regard to compliance, self-reported data in the Crime Survey for England and Wales show that the percentage of drivers who report driving under the influence of drugs seems to have decreased since 2010-11. Regarding casualties, there has been an apparent increase in the use of drug driving as a contributory factor in STATS19 reports. However, drug driving has historically been under reported as a contributory factor, and it is likely that the increase in numbers reflects an increase in reporting.

Overall, it is clear that enforcement of drug driving laws (using roadside tests as a proxy) has increased recently, but it is too early to draw conclusions as to the effect on levels of compliance or on drug related casualties.

Summary – Drink/Drug Driving

Enforcement
The total number of annual breath tests carried out by the police has almost halved since 2010.

Police use of saliva-based drug tests largely started in 2016. Since then numbers have increased, with a slight reduction in 2017 due to special factors. Unlike for drink driving, the total annual number of drug tests are not officially recorded.

Public perception of enforcement
According to the RAC Report on Motoring 2018, 38% of drivers say that either drink- or drug-driving – or both – are issues of considerable concern, up from 34% in 2017. According to the ESRA survey, 88% of car drivers don't believe they are likely to be checked by the police for alcohol and 90.5% of car drivers don't believe they are likely to be checked by the police for the use of illegal drugs.

The National Travel Attitudes Survey found that 63% of the public believe the laws on driving whilst impaired by drugs are not properly enforced.

Compliance
Self-reporting suggests a mixed view of the scale of drink and drug driving. The Crime Survey for England and Wales suggests that there has been no systematic change in self-reported drink driving since 2010, but that there has been a decrease in self-reported drug driving.

Findings from several years of the RAC Report on Motoring suggest that there has been in increase in the percentage of drivers who either think or know they have driven while over the drink-drive limit in the past 12 months since 2017.

In the case of drug driving, the 2018 ESRA survey stated that 7.5% of car drivers admitted to driving 1 hour after using drugs (other than medication) at least once in the last 30 days.

Contributory Factor
Contributory factors recorded in the casualty data, and recent DfT estimates, suggest that there has been no change in the annual number of deaths caused by drink driving since 2010. Impairment by drugs, whilst lacking historical statistics, is a smaller but significant

3.3 Seat belt wearing

3.3.1 Enforcement

Currently, the penalty for not wearing a seat belt is a fine of £100, or less if the offender chooses to take a short online retraining scheme.[133]

Over the past decade, and as can be seen in Figure 14, the number of FPNs issued for seat belt offences has declined very substantially from 137,000 in 2011 to around 52,000 in 2018, taking into account the online retraining course - suggesting that there has been a decline in enforcement.[134]

As discussed in a previous PACTS report on seat belts - and supplemented by comments from interviews – police representatives have acknowledged that non-wearing of seat belts has not been prioritised as much as other offences in recent years. [135]

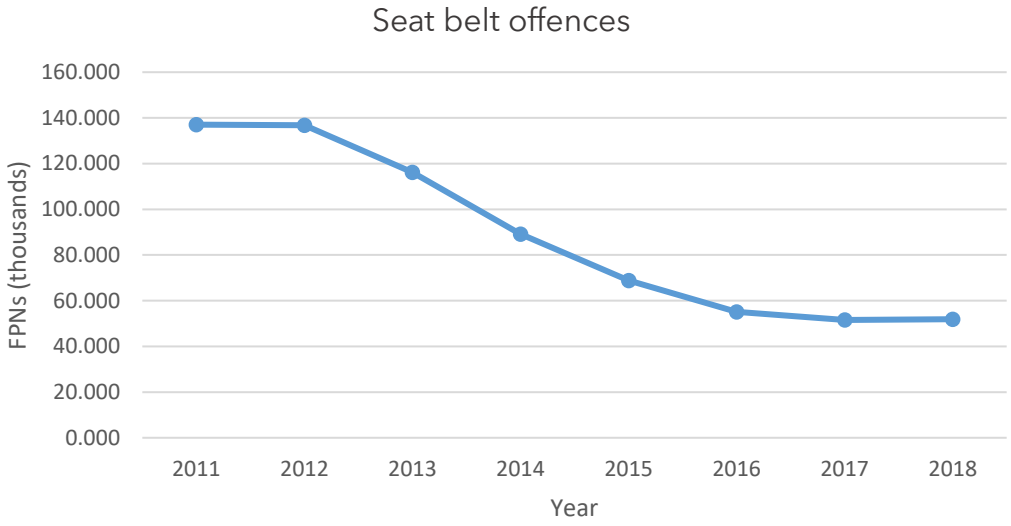

Figure 14 – FPNs issued for seat belt offences (Home Office & NDORS, 2019)

3.3.2 Compliance

Seat belt wearing rates have been rising in Great Britain over recent decades. On most trips, seat belt wearing has now become the norm for the vast majority of UK drivers and passengers.[136]

The latest observational data in Great Britain, from 2017, recorded that 98.6% of car drivers wear seat belts, 96.6% of front seat passengers, 97% of children in the rear seats and 78.9% of adult passengers in the rear seats (see table below.) Owing to

[133] NDORS (2020) *The Courses*.
[134] Home Office (2019) *Police powers and procedures, England and Wales year ending 31 March 2019*. Home Office in combination with NDORS (2020) *Trends & Statistics*.
[135] Webster, E., and Norbury, F. (2019). *Seat Belts: The Forgotten Road Safety Priority*. PACTS

changes in the study methodology, the results from 2017 are not directly comparable with those from 2014, and even less so with 2009.[137] [138]

% of car occupants observed wearing a seat belt			
	England		England and Wales
	2009	2014	2017
Car drivers	95%	98.2%	98.3%
Front seat passengers	95%	96.1%	95.2%
Rear seat passengers (adults)	79%	81.1%	78.9%

Table 3: Percentage of car occupants observed wearing a seat belt

Bearing this caveat in mind, compliance by drivers with seat belt laws seems to have increased since 2009. However, wearing rates remain lower in the front and (especially) rear passenger seats. For passengers, the surveys suggest no change in compliance since 2009 and a slight reduction since 2014.

3.3.3 Casualties

Unlike the other fatal three, seat belt wearing non-compliance is not recorded as a contributory factor. This is because contributory factors relate to collision causation, and not post-collision injury causation. However, it has been recordable as a separate factor for KSIs in STATS19 since 2014, but with low recording rates.

Despite generally high wearing rates indicated in national surveys, the casualty data give some indications that non-wearing may be increasing, particularly among high-risk driver groups. Based on STAT19, 26% of those who died in cars in 2018 were not wearing a seat belt, higher than the 20% reported in 2016.

A PACTS report, using police forensic collision investigators' data, found that in 2018 31% of those who died in vehicles were unbelted. This was higher than in previous years, based on the same data source.[139]

3.3.4 Conclusion

Data and information presented above show there has been a very substantial reduction in enforcement of seat belt laws since 2011.

Whilst observational surveys suggest wearing rates (i.e. compliance) have been increasing over time, these surveys are infrequent snapshots and do not represent driving in higher risk situations. Fatality data from two sources suggest the number of unbelted deaths has increased recently. This is a matter for concern, and it seems likely that this is linked to the reduction in enforcement.

[137] *Department for Transport. (2014). Seatbelt and mobile phone use surveys: Great Britain, 2014.* DfT
[138] TRL (2009). *Seatbelt and mobile phone use surveys: Great Britain, 2009.* DfT
[139] Webster, E (2020) *Seat Belts: Time for Action*. PACTS

Summary – Seat belt wearing

Enforcement
The evidence suggests that there has been a significant reduction in enforcement of seat belt wearing. The number of FPNs issued for non-seat belt wearing has decreased substantially since 2011. When interviewed, police officers confirm that focus on enforcing seat belt legislation has reduced.

Public perception of enforcement
Results from the ESRA survey in 2018 indicate that 86% of car drivers in the UK do not believe they are likely to be checked by the police for wearing a seat belt on a typical journey.

Compliance
Seat belt wearing rates for car drivers rose from 95% in 2009 to 98.3% in 2017, but wearing rates for front seat passengers and adult rear seat passengers were unchanged at around 95% and 79% respectively. *

The 2018 ESRA survey found that 9.9% of UK car drivers said that they had driven without wearing a seat belt at least once in the last 30 days, and 20.9% of travellers in the back seat said that they had done so without wearing a seat belt at least once in the last 30 days.

Casualties
The long-term trend in unbelted casualties is not known due to lack of statistics. However, official recent statistics suggest that around 26% of those who died in cars in 2017 and 2018 were not wearing a seat belt, an increase from 20% in 2016.

Police forensic collision investigator data recently published by PACTS, show that the number of unbelted fatalities is higher than official statistics indicate, and numbers are increasing.

*Differences in survey methodology means results from 2009 and 2017 are not directly comparable.

3.4 Mobile phone use

3.4.1 Enforcement

At present, the penalty for using a hand-held mobile phone whilst driving is six penalty points and a £200 fine. As with other offences discussed previously, the number of FPNs issued can be used to give an indication of the level of enforcement.

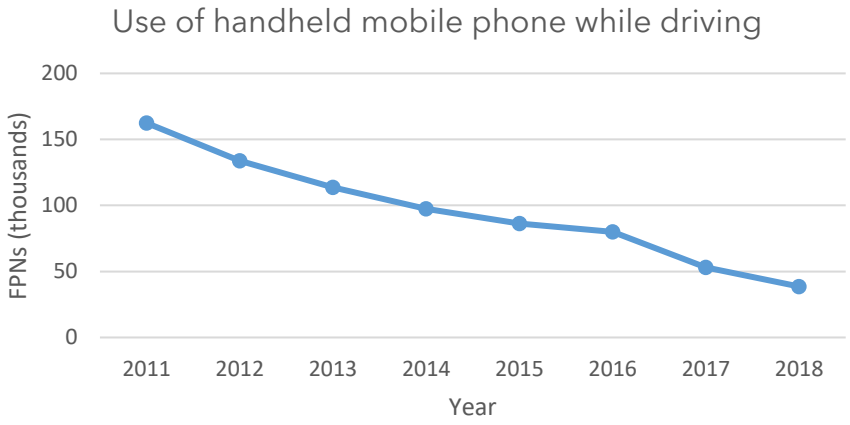

Figure 15 – Use of handheld mobile phones while driving (Home Office, 2019)

Over the past decade, the number of FPNs issued for hand-held mobile phone use has declined dramatically, from around 162,000 in 2011 to around 38,600 in 2018.[140]

3.4.2 Compliance

Observational surveys commissioned by the DfT report that use of hand-held mobile phones whilst driving has decreased since 2009. In fact, the rate reported for all drivers in the 2017 observational survey for England and Wales was 0.6%, the lowest level since modern observational surveys began – see table below.[141] [142] [143]

% of car occupants observed using a hand-held mobile phone			
	England		England and Wales
	2009	2014	2017
Car drivers	1.4%	1.5%	0.5%
Van drivers	2.6% (Incl. lorry drivers)	2.5%	1.2%

Table 4: Percentage of car occupants observed using a hand-held mobile phone (DfT & TRL)

However, these surveys do not necessarily match the findings of other surveys. The 2018 ESRA survey reported that 14.5% of UK car drivers admitted to having read a text message or email or checking social media whilst driving at least once in the

[140] Home Office (2019) *Police powers and procedures, England and Wales year ending 31 March 2019*. Home Office

[141] Department for Transport. (2019). *Seatbelt and mobile phone use surveys: Great Britain, 2017.* DfT

[142] *Department for Transport. (2014). Seatbelt and mobile phone use surveys: Great Britain, 2014.* DfT

[143] TRL (2009). *Seatbelt and mobile phone use surveys: Great Britain, 2009.* DfT

past 30 days, and that in the same period 9.6% of car drivers admitted to talking at least once having talked on a hand-held mobile phone while driving.[144]

The RAC Report on Motoring found that in 2019 a quarter of all drivers admitted to making or receiving calls on a hand-held mobile phone at least occasionally, which was similar to the results in previous years. It was also reported that 17% of all drivers said they check texts, email or social media while driving, which is down from the 19% and 18% reported in years 2018 and 2017 respectively.[145]

The official surveys do not include use of a 'hands free' mobile phones. Although it is not an offence, research shows this to be just as distracting as hand-held mobile phone use.[146]

3.4.3 Contributory Factor

In 2018, there were 29 fatal casualties and 119 seriously injured casualties in collisions where 'driver using mobile phone' was listed as a contributory factor (1.9% of all fatalities and 0.6% of all seriously injured casualties).[147] [148]

There has been no systematic change in the number of fatalities in mobile phone related collisions since 2010 (Figure 17), although some variability can be seen. However, there appears to have been a significant increase in the number of seriously injured casualties in collisions where 'driver using mobile phone' was listed as a contributory factor (Figure 18). The numbers in recent years remain around 50% higher than those in the early years of the decade. Whilst the numbers in 2017 and 2018 are slightly lower than in 2016, it would be premature to conclude that the overall increase has ceased.

[144] ESRA (E-survey of road user attitudes) (2018) *Country fact sheets*.
[145] RAC (2019) *RAC Report on Motoring* (various years).
[146] Smith, L., Lawton, B., Beard, G., Durrell, L., Scoons, J., Lloyd, L. (2015) *The effectiveness of roads policing strategies*. TRL
[147] Department for Transport (2019) *Road Casualties Great Britain: RAS50001-7 (2010-2018)*.
[148] Please note: contributory factors data do not yet take into account potential CRASH effects on serious injuries. See here for more details.

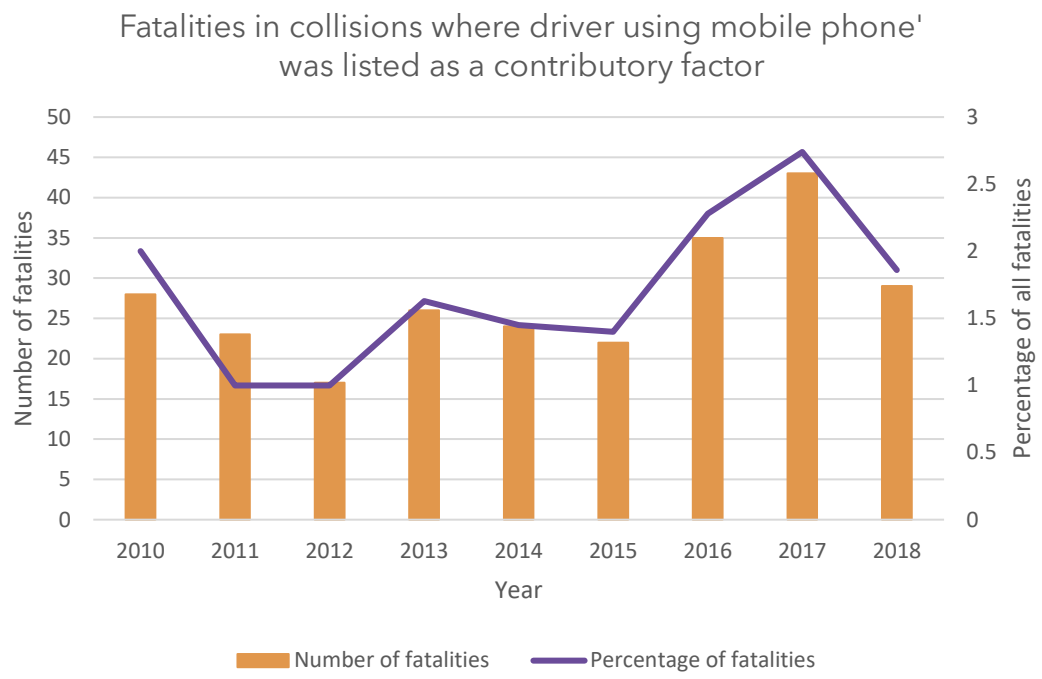

Figure 17 - Fatalities in collisions where driver using mobile phone' was listed as a contributory factor (DfT, 2019)

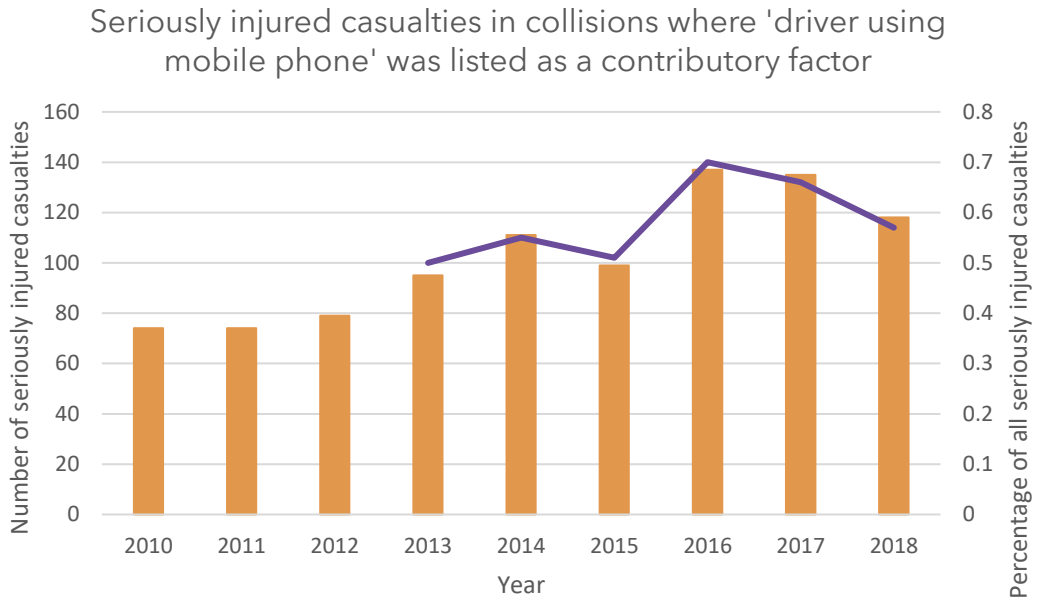

Figure 16 – Seriously injured casualties in collisions where driver using mobile phone' was listed as a contributory factor (DfT, 2019)

3.4.4 Conclusion

Data suggest that there has been a substantial reduction in the levels of enforcement against mobile phone use. In 2018, there were over 75% fewer FPNs issued for use of hand-held mobile phones while driving than in 2011.

DfT observational surveys suggest hand-held mobile phone use has declined since 2009, but self-reported surveys indicate that it is much greater. Evidence from the RAC Report on Motoring over the years indicates there has been very little change in the proportion of drivers who admit to using a hand-held mobile phone whilst driving. That said, whilst there has been no systematic change in the number of fatalities related to mobile phone use since 2010, the number of serious injuries related to it has increased.

Overall, while bearing in mind all the caveats, these trends suggest that the decrease in enforcement may potentially have contributed to an increase in number of serious injuries related to hand-held mobile phone use.

Summary – Mobile phone use

Enforcement
There has been a substantial decrease in the number of FPNs issued for mobile phone use since 2010.

Public perception of enforcement
According to the ESRA survey 2018, 89.5% of car drivers believe they won't be checked by the police for using a handheld mobile phone to talk or text.

Results from the National Travel Attitudes Survey found that 76% of the public believe the law on using mobile phones whilst driving is not properly enforced.

The 2019 RAC Report on Motoring reported that use of handheld mobile phones by other drivers at the wheel was the single biggest concern of motorists overall, exceeding concern over fuel costs and the condition of local roads.

Compliance
The percentage of drivers observed using a mobile phone has decreased since 2009. In 2017 0.6% and 1.2% of car and van drivers respectively were observed using their mobile phone.

The 2018 ESRA survey stated that 14.5% and 9.6% of car drivers admitted to having read a text message or email or checked social media whilst driving (14.5%) and talked on a handheld phone while driving (9.6%) respectively at least once in the last 30 days.

Results from the RAC Report on Motoring indicate around a quarter of all drivers admit that they make or receive calls on a handheld phone at least occasionally. Additionally, 17% of all drivers say they check texts, email or social media while driving. Both figures have changed very little over time.

Contributory Factor
Statistics for contributory factors in collisions suggest that there has been no systematic change in the annual number of deaths related to mobile phone use, but an increase in the number of seriously injured casualties for which 'driver using mobile phone' (listed as a contributory factor since 2010) was reported.

4 Opportunities to improve roads policing and road safety

4.1 Policy and strategy

4.1.1 Government policy

Policing in England and Wales is the responsibility of the Home Office while road safety is the responsibility of the Department for Transport, with many of these powers now devolved to the governments of Scotland, Wales and Northern Ireland.

The UK Government's policy towards roads policing, as led by the Home Office, has varied over recent years in terms of the emphasis placed on it and the role it performs.

In the National Policing Plans 2003-2006 and 2004-2007, roads policing was listed under "Other policing responsibilities". Both plans advised that "Forces and authorities should include in their local policing plans targeted and intelligence led strategies for reducing deaths and injuries on the roads and achieving a safe environment for all road users."[149]

In the 2005-2008 plan, roads policing was included as an example of a key priority in reducing concerns about crime. "One example of a visible police response to citizens' concerns is roads policing. Irresponsible, unlawful and anti-social use of our roads affects people's lives, safety and sense of security. Effective policing of our roads seeks to ensure that legitimate road users and pedestrians, especially children and older people, are not killed, injured or intimidated by unlawful and antisocial behaviour. We must also ensure that criminals are denied the use of our roads".[150]

In 2005, a Roads Policing Strategy, published jointly by the DfT, Association of Chief Police Officers and the Home Office, prioritised:

- denying criminals use of the road,
- reducing road casualties,
- tackling terrorism,
- reducing antisocial use of roads and
- providing reassurance to the public.[151]

The first National Community Safety Plans (2006-09 and 2008-11) supported this.[152]

The 2005 strategy included a commitment to developing indicators of outcomes, including data on compliance, e.g. with seat belt legislation and speed limits. However, in 2006, the Transport Select Committee reported that whilst the introduction of the strategy was welcomed there was some doubt over the impact it had had and the extent of its adoption amongst forces. The committee suggested

[149] PACTS (2005) *Policing Road Risk: Enforcement, Technologies and Road Safety.* PACTS
[150] Home Office (2004) *National Policing Plan 2005-08: Safer, Stronger Communities*. Home Office Communication Directorate: London.
[151] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance.* Tenth Report of Session 2005–06
[152] PACTS (2005) *Policing Road Risk: Enforcement, Technologies and Road Safety.* PACTS

that this might be due to the lack of a national mandate to implement the strategy.[153] In evidence to the committee, the Police Federation stated that no higher priority or investment was given to roads policing as a result of the strategy, and there was no national mandate to implement it at the force level.[154]

In 2011, the DfT published its Strategic Framework for Road Safety. It recognised the importance of roads policing and included support for "tougher enforcement for the minority of motorists who deliberately choose to drive dangerously."[155] This was reiterated in the 2015 Road Safety Statement, which stated that "taking tough action against those who speed, exceed the drink-drive limit, take drugs or use their mobile phone while on the road" was a key road safety priority for the government.[156]

Despite this, the 2015 Road Traffic Law Enforcement inquiry by the Transport Select Committee noted the reductions in the number of roads policing officers and concluded that the reduction in recorded offences did not represent a reduction in offences committed. It recommended that road safety engineering and education, which had been the subject of much focus by the government, be backed by effective enforcement.[157]

The DfT's 2019 Road Safety Statement announced the Roads Policing Review - a major exercise to be undertaken jointly by the DfT, Home Office and NPCC. It has eight workstreams and will be informed by an HMICFRS inspection report of roads policing, commissioned by the DfT. A government call for Evidence is also anticipated. Many policing and road safety groups, including PACTS, have welcomed this major initiative.

4.1.2 Force area policy

Roads policing is not a national strategic policing priority. Instead, it is for PCCs and chief constables to decide the extent to which it should be a local (force area) priority, and the nature of operations and level of resources. This means that roads policing strategies and approaches to roads policing and road safety vary between force areas. For example, seven of the 43 Police and Crime Plans (PCPs), written by PCCs do not mention roads policing or road safety.[158] Experts and police officers interviewed were concerned about the lack of detail given. Some also suggested that PCPs often focused on road safety issues that were politically popular, but not those which presented the most serious road safety risks.

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[153] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance*. Tenth Report of Session 2005–06
[154] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance*. Tenth Report of Session 2005–06
[155] Department for Transport (2011) *Strategic Framework for Road Safety.* Department for Transport
[156] Department for Transport (2015) *Working Together to Build a Safer Road System British Road Safety Statement*. Department for Transport
[157] Transport Committee (2016) *Road traffic law enforcement.* House of Commons
[158] NPCC (2019) *NPCC Roads Policing Strategic Review.* NPCC

> *"Although PCC road safety priorities are influenced by local communities, they are not always aimed at targeting road safety problems we think pose the biggest threat to the public"*
>
> - Senior roads policing officer

Officers also raised concerns about a lack of consistency in forces' strategic plans. They believed that road safety required more strategic focus and a comprehensive plan. As part of a wider strategic review in 2019, the NPCC sought to understand how visible roads safety and roads policing was within Police and Crime plans and how these translated into operational delivery by police forces. Police and Crime plans, as well as Force Policing Plans (or equivalent) were examined to determine how visible roads policing was as a strategic priority. In the Force Policing Plans (or equivalent) reviewed, roads policing or road safety was shown as a priority in only 19 out of 43 (44%). This was despite 36 out of 43 Police and Crime plans including roads policing or road safety as a priority.[159]

Strategic Threat and Risk Assessment (STRA)

A strategic threat and risk assessment (STRA) is a process by which police forces analyse information about threats and risks against which they are required to commit resources. Forces produce a number of STRAs which concern different areas of policing.

Forces are, for example, required to produce an armed policing STRA. The purpose of this STRA is to establish the operational requirements for the police use of firearms. The STRA enables decisions to be made about firearms deployment, capability, policy and training, and future demands and threats. Other STRAs follow the same general principle, in that they enable and assist in decision-making. In general, conversation with officers suggested that STRAs were necessary if a force is to properly address a specific area of policing, and that the presence or absence of a roads policing STRA could be a reflection of the forces overall perception of road safety as a strategic priority.

During interviews, it was revealed that while some forces had a roads policing 'Strategic Threat and Risk Assessment', others did not.

Source: College of Policing (2018) *Strategic threat and risk assessment (STRA). Available at: https://www.app.college.police.uk/app-content/armed-policing/armed-policing-strategic-threat-and-risk-assessment-stra/*

[159] NPCC (2019) *NPCC Roads Policing Strategic Review.* NPCC

Additionally, this NPCC research found that of the 24 forces who did not highlight roads policing in their strategic plans 50% saw an increase in the number of people killed on their roads in 2017, when compared to 2016.[160]

> *"I think Chiefs are more focused on other areas of policing that are in the public spotlight and have seen a big increase in demand."*
>
> - Senior roads policing officer

> *"Because we haven't seen massive increases in fatals or KSIs, I think the assumption is that roads policing isn't an area that needs focusing on"*
>
> - Senior roads policing officer

> *"Our capacity to enforce road safety isn't really something they care about. As long as we're able to respond to collisions, those at the top are happy".*
>
> - Senior roads policing officer

Interviewees stated that the lack of priority given to roads policing was broadly a result of police priorities in the last decade being focused on tackling crimes over which the public has expressed more concern. They suggested that making the case for prioritising roads policing has become increasingly difficult, especially given that not only have fatalities remained unchanged, but also that there has been a simultaneous increase of focus on the threat – or at least the perceived increasing threat – posed by violent crime and terrorism. Officers cited public perceptions of traffic enforcement as a reason for why they believed the government was hesitant to support roads policing.

In 2018, 1782 people were killed on roads in Great Britain and a further 25,484 were seriously injured. Less than half as many people – 785 - lost their lives as a result of homicide in the same year.[161] In addition, a greater number of deaths and serious injuries are caused as a consequence of collisions than of public disorder, which is

[160] NPCC (2019) *NPCC Roads Policing Strategic Review*. NPCC
[161] ONS (2019) *Homicide in England and Wales: year ending March 2018*. ONS
Department for Transport (2019) *Road Casualties Great Britain*. Department for Transport
Scottish Government (2018) *Homicide in Scotland 2017-2018: statistics*.

already part of the Strategic Policing Requirement (SPR). This is not to suggest that the police should be prioritising roads policing above all else. Instead, it is to demonstrate the scale of death and serious injury that is being caused by illegal and dangerous road user behaviour.

	No. of deaths
Road deaths	1782
Homicides (excluding terrorism)	754
Deaths caused by terrorism	31
Homicides (knife)	319

Table 5 – Deaths from various offences in 2018

Whilst it should be acknowledged that the causes of road deaths and serious injuries are not identical across all of England and Wales, the task of policing the road network is shared by all forces. It is clear that under the current model road traffic law enforcement is not given priority commensurate with the threat posed to the public by those who choose to break laws and drive dangerously.

> *"Road safety problems aren't always unique to forces. The fatal four and criminals' use of the road are problems across the entire road network which connects all the 43 forces together. They are all national problems."*
>
> - Senior roads policing officer

From reviewing interviewees' responses, as well as the views of experts consulted, it is clear that elevating roads policing so that it is included in the SPR would be a highly effective way of ensuring that roads policing is prioritised by forces.

The Strategic Policing Requirement, which is issued as a statutory duty of the Home Secretary, sets out the threats that require a national policing capability to ensure they are tackled effectively.[162] In the most recent SPR, published in 2015, these threats were considered to be terrorism, serious and organised crime, public disorder, child sex abuse, national cyber security and civil emergencies. Forces are required to follow the SPR and base their own force priorities on it.[163]

In terms of threats to life which could be averted by enhanced police prioritisation, the misuse of roads is arguably as significant a threat as others that are given

[162] HMICFRS (2020) *Strategic Policing Requirement inspections.*
[163] Home Office (2015) *The Strategic Policing Requirement.* Home Office

substantially more attention (and resources) despite posing a lesser immediate threat to individuals.

In the current Strategic Policing Requirement it is stated that "Sometimes, threats to public safety can assume such grave proportions that they place unforeseen demands on local resources and can only be addressed by forces acting in concert and mobilising their resources across boundaries".[164] Road safety and criminals' use of the roads are both issues which require national coordination, a wider network of intelligence, and joint working to address them effectively.

4.1.3 Roads policing and wider criminality

Research for the Home Office published in 2000 found that 'serious traffic offenders' (which includes drink drivers, disqualified drivers and dangerous drivers) were more likely than the population at large to have a criminal record for mainstream offending.[165] The research concluded that drink drivers were twice as likely to have a criminal record as the general population, and disqualified and dangerous drivers were four times more likely. In the case of drugs, evidence exists that states that 67% of those convicted of drug driving offences have one or more previous convictions.[166]

A 1999 Home Office study found that a disproportionately high proportion of people and vehicles parked illegally in disabled parking bays were of interest to the police. One in five of the illegally parked vehicles were known or suspected to have been previously used in crime, and one in ten were currently in an illegal condition.[167]

Drug driving and wider criminality - 2018

Essex police undertook an analysis of offending history in a sample of people arrested during 2018 for drug driving to determine if drug-drivers were likely to be involved in other criminality.

Analysis found 48% of offenders had previous arrest records for more serious crimes such as burglary, theft, drug supply, violent crime, criminal damage, robbery and rape.

Source: NPCC (2019) NPCC Roads Policing Strategic Review. NPCC

[164] Home Office (2015) *The Strategic Policing Requirement.* Home Office
[165] Rose, G (2000) *The criminal histories of serious traffic offenders.* Home Office
[166] Risk Solutions and the Centre for Public Health at Liverpool John Moores University (2017) *Evaluation of the new drug driving legislation, one year after its introduction*. Department for Transport
[167] Chenery, S., Henshaw, C., Pease, K. (1999) *Illegal parking in disabled bays: a means of offender targeting.* Home Office

In 2003, research using UK driver licence information and the Home Office's offenders index tested the hypothesis that a driver's willingness to commit traffic offences tends to be associated with a willingness to commit other types of offence. Results showed that drivers who were convicted of several non-traffic offences were far more likely than non-offenders also to commit offences such as drink driving or dangerous driving. Specifically, of people with four or more non-traffic criminal convictions, males were found to be 40-50 times more likely to be convicted of dangerous driving than those with no criminal conviction history, and females were around 100 times more likely.[168]

Further work in 2007 reported that males convicted of between four and eight non-traffic offences committed 21 times as many serious traffic offences and almost four times as many other traffic offences as males not convicted of non-traffic offences. The effect was even stronger amongst females.[169]

There is also evidence which suggests that drivers who have no insurance are more likely to commit traffic offences. Analysis of data on privately owned insured and uninsured passenger vehicles found that the accident probability of uninsured drivers is 34 percentage points higher than that of insured drivers.[170] The Motor Insurers' Bureau estimates that over 130 people are killed each year by an uninsured or untraced 'hit and run' driver.[171] The Motor Insurers' Bureau also states that its own records show drivers without insurance are more likely to be involved in other crimes, and that uninsured vehicles are consistently used to conduct wider criminal activity.[172]

Overall, the evidence shows that there is an above-average likelihood that - when compared with the general population - serious motoring offenders may also be engaged in wider criminality, and that disruption of their mobility may have benefits beyond road safety.

As well as enforcement of the fatal four, denying criminals' use of the roads is one of the main objectives of roads policing according to NPCC. Criminals' use of roads ranges from minor motoring offences to international organised crime. Roads policing officers are often called upon to assist in situations where criminals are fleeing the site of a crime, by providing tactical resolution in pursuits. More widely, they provide a visible presence to reassure communities and deter crime that is not just road based.

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[168] Broughton, J. (2003) *The number of motoring and non-motoring offences. Prepared for the Road Safety Division, Department of Transport, TRL Report TRL562.*
[169] Broughton, J. (2007) *The correlations between motoring offences and other types of offence.* Accident Analysis & Prevention, *39(2), 274-283*
[170] Yarmukhamedov, S., (2020.). *How risky are uninsured drivers?*. Journal of Transportation Safety & Security, 12(2), pp.263-274.
[171] MIB (2019) *One injured every 20 minutes - Police launch national campaign to protect the public from uninsured drivers.*
[172] MIB (2020) *Tackling uninsured driving.*

Dedicated roads policing officers perform a specialist role, which requires specialised training, skills and expertise. They not only respond to collisions and promote the free flow of vehicles on the road network but also perform a fundamental role in delivering enforcement which promotes road safety and reduces the number of casualties on the road. They also deliver a key function in denying criminals use of the road, and their specialist training enables them to play a vital supporting role in tackling organised crime more widely.[173] With limited resources, however, roads policing officers cannot deliver both tasks equally.

In its 2006 report, the Transport Select Committee expressed concern at how roads policing gives precedence to denying criminals use of the road over road safety.[174]

The report noted that the wider adoption of automatic number plate recognition (ANPR), and the fact that roads policing officers had training which put them in a strong position to pursue criminals, could ultimately lead to roads policing officers being re-deployed away from road casualty reduction work to detecting and tackling organised crime. To some extent, this was confirmed by Her Majesty's Inspectorate of Constabulary (HMIC) at the time, which explained that in assessing the quality of roads policing operations, it found that more attention was being

> *"Nowadays we [roads police] are much, much more involved in tackling wider crime"*
>
> - Senior roads policing officer

> *"I wouldn't say that tackling wider crime takes priority over road safety overall, but we know criminals pose a massive danger to road users"*
>
> - Senior roads policing officer

given to denying criminals use of the roads than to the road safety agenda.

Whilst this is disquieting, it is clear the 'denying wider criminality' function of roads policing is important, and should form a part of the case for more officers. As evidenced above, non-road offence criminals pose a higher than average threat to road users. Whilst it should be acknowledged that roads policing officers - being able to use modern technology and being trained as advanced drivers and in tactical pursuits – are extremely well placed to be involved in the disruption of non-road related crime and the tackling of organised crime, roads policing officers should be able to perform both this and their road safety function equally.

[173] College of Policing (2020) *Roads Policing Constable*.
[174] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance*. Tenth Report of Session 2005–06

Overwhelmingly though, evidence shows that roads policing has been increasingly marginalised over the last decade, most noticeably in the significant decline in the number of dedicated roads policing officers.

In the 2006 Transport Select Committee enquiry into roads policing and technology, the then ACPO noted that thanks to new technologies each officer is able to do more, and the issue should be more about effective deployment of existing resources than about an obsession with numbers of officers.[175] But, as highlighted previously, the number of dedicated roads policing officers has been consistently declining.

In 2019, the government pledged to recruit 20,000 new police officers in the next three years. Interviews with senior police officers and other road safety experts, showed their strong support for including additional roads policing officers in the pledge.

"There just simply aren't enough officers to do everything we want to do… We want to be able to be out there doing enforcement, but when there's a collision, that's a priority, and it always will be."

- Senior roads policing officer

"Although technology can do enforcement, the importance of having human officers shouldn't be underestimated"

- Senior roads policing officer

"Human officers are vital, because discretion is really important."

- Senior roads policing officer

Enforcement is part of the crime and justice system. This "eco-system" - the "back-office systems", forensic laboratories, CPS, courts, penalty regime etc also needs to be adequately resourced.

[175] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance*. Tenth Report of Session 2005–06

4.1.4 NPCC Strategy

In 2018, NPCC released "Policing our roads together, a three-year strategy 2018 to 2021". The strategy sets out objectives and advocates adoption of the safe system approach. Strategic objectives are also set within the strategy, and police roles are summarised under each pillar at a high level. The document also includes an action plan for 2018/2019. It is a short document with around 5 pages.[176]

The three primary objectives are:

- "Safe roads, free from harm
- Secure roads, free from the threat of serious crime and terrorism
- Efficient roads, that promote public confidence and satisfaction"

For the purposes of this report, senior roads policing officers in a number of forces were asked for their views on the NPCC strategy, on the implementation of it, and on adherence to it within their own forces.

Knowledge of the strategy was mixed: some were very familiar with its contents while others knew little of it.

Key issues were:

- The lack of a requirement to adhere to the strategy,
- The relevance and adaptability of the strategy, and
- The detail and relevance of content within the strategy.

The lack of a requirement for individual police forces to adhere to the strategy stems from the non-mandatory nature of the NPCC plan. This is not unique to this particular strategy. NPCC strategies are national policy statements but there is no obligation for individual forces to adhere to them. Some officers explained that their main concern with the plan was about its ability to be adapted for use in their own forces. They claimed the current state of roads policing is vastly different in some forces from others, with some more severely resource constrained. In the context of the NPCC strategy, participants suggested that in some forces the strategy is not given much precedence since they are, in some cases, only able to perform basic functions. For this reason, the strategy is viewed more as a set of ideal-world ambitions than as a document laying out objectives which are not only achievable in the current environment but are also adaptable to forces which are more resource-constrained.

The third issue that was frequently mentioned was the lack of detail and relevant content in the strategy. Several participants suggested that the current strategy, whilst it lays out principles, strategic objectives and actions, does not necessarily present forces with a clear method for delivering the strategic objectives.

There was no clear consensus from our interviewees on what the most appropriate strategy should be. Police officers in particular believed that it could be improved

[176] NPCC (2018) *Policing our Roads Together: A 3 year strategy 2018 – 2021*. NPCC

by being made to feel more relevant to them and their forces. Most simply felt that the strategy was too high-level and overly ambitious, with no clear definition of how it might be applied. Overwhelmingly, they suggested that the strategy should not be too prescriptive in nature but should offer additional guidance.

Other examples of NPCC strategies include the Wildlife Crime Policing Strategy, and the Road Safety and Road Crime Strategy 2015-18 published by Police Scotland.[177]

Other strategies include more detail in terms of:

- Contextual background
- Research and evidence
- Statistics, for example, to show road safety trends or to define the groups of most concern
- Statistics relating to the capacity or achievements of as specific force's roads policing functions
- Other stakeholders involved in the delivery of strategic objectives and the framework by which they are delivered
- Examples of good practice and innovation.

NPCC could review the strategy through consultation with police forces and road safety stakeholders.

Excessive speed is a major contributor to collisions and a focus for police enforcement. Regarding safe speeds, the strategy states:

"We will adopt the principles of intelligent enforcement and engage with the public to improve awareness and shared expectation of the dangers of excessive speed. We will enforce safe speeds especially on those high harms routes and hot spot locations."

A comprehensive policy on speed enforcement was set out in the 2013 "ACPO" guidelines.[178] Since then, there has been a substantial increase in drivers being sanctioned, either by a fine or a speed awareness course. There has also been a considerable increase in areas with 20mph speed limits, and safety campaigners have called on the police to enforce them more actively. Some have suggested that the emphasis on policing high-speed roads is inequitable towards vulnerable road users who are more at risk on urban roads with lower speed limits. As far as PACTS is aware, no robust assessment has been made.

A revised NPCC roads policing strategy could update and incorporate the speed enforcement policy guidelines.

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[177] NPCC (2018) Wildlife crime policing strategy. NPCC
Police Scotland (2016) *Road Safety and Road Crime Strategy 2015-18*. Police Scotland
[178] ACPO (2013) *ACPO Speed enforcement policy guidelines 2011-2015: Joining forces for safer roads*.

4.2 Monitoring performance and safety

4.2.1 Assessments and inspections

The quality and effectiveness of the service provided by police forces in England and Wales is assessed by Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services (HMICFRS). It inspects and reports to the public and their elected representatives on how well the police do their job. Its purpose is "to promote improvements in policing and keep everyone safe."[179]

It does this by monitoring and carrying out annual inspections, known as Integrated PEEL (police effectiveness, efficiency and legitimacy) Assessments (IPA). They are judged as outstanding, good, requiring improvement or inadequate on these criteria ("pillars") based on inspection findings, analysis and Her Majesty's Inspectors' (HMIs) professional judgment across the year. The IPA is comprised of three elements: PEEL inspections, force management statements and force monitoring.

At present, roads policing is not well represented within this inspection process. Whilst a force's roads policing functions are discussed in force management statements, roads policing is classified under 'major events', alongside civil emergencies, terrorism, public order, and armed policing. A brief review of a selection of forces' management statements also revealed that there is a distinct variation in the degree of attention given to the evaluation of roads policing between some statements and others.

Furthermore, the absence of roads policing from the HMICFRS 'judgment criteria' suggests that an assessment of forces' roads policing functions is something that is missing from the process. Currently, the only specialist capability that is annually assessed (but ungraded) is a force's armed policing function.[180]

In 2004, roads policing was inspected by the then HMIC (later HMICFRS) as part of a wider inspection of 'protective services', and performed very well. However, in 2006 the Transport Select Committee concluded that the results of this 2004 grading were undermined by the fact that the grades were not noticeably influenced by actual casualty rates.[181] Indeed, even earlier - in the year 1998 - the then HMIC carried out an inspection of roads policing. This found that roads policing had too often been marginalised.[182]

A key opportunity to improve roads policing and road safety would arise if roads policing was included among the functions annually inspected and assessed by HMICFRS.

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[179] HMICFRS (2020) *Police Forces.* HMICFRS
[180] HMICFRS (2019) PEEL *Judgment Criteria*. HMICFRS
[181] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance.* Tenth Report of Session 2005–06
[182] HMIC (1999) Annual Report of Her Majesty's Chief Inspector of Constabulary. HMIC

4.2.2 Safety indicators

The safe system approach to road safety is now seen as international best practice. In the UK, it was endorsed by the DfT in its 2015 Road Safety Statement and by the NPCC in its 2018 Roads Policing Strategy. A key aspect of this approach is the focus on the monitoring not only of casualties but also of the safety of the system. Research shows that if the safety performance of key components such as infrastructure and speed law compliance is improved, casualty reductions are likely to follow.

It is also necessary to monitor casualty trends. However, fatality and serious injury statistics do not offer sufficient insight into the factors that may underlie the casualties. Casualties are the 'worst case' scenario of unsafe operational conditions. They do not give an adequate indication of the level of safety.[183] Nor do they necessarily indicate which factors require intervention.[184]

Road safety indicators can highlight risks, such as high levels of excessive speed.[185] They can also assist in assessing the impact of interventions.

PACTS has published recommendations for a set of national road safety performance indicators. It includes the following which relate to roads policing:

- Percentage of traffic complying with speed limits on national and local roads;
- Percentage of drivers who do not drive after consuming alcohol or drugs;
- Proportion of drivers not using an in-car phone (hand held or hands free)
- Percentage of drivers wearing a seat belt.[186]

These indicators are consistent with the 2018 NPCC roads policing strategy which highlighted the importance of tackling the fatal four offences.

Whilst it was not a specific part of the scope of this project, senior police officers were asked whether they believed performance indicators should be adopted by forces, or required of them, and if so, what these indicators might be. Broadly, respondents were reluctant to adopt casualty reduction targets as casualties were not sufficiently within their control. However, there was more support, at least in principle, for monitoring indicators which focus on the fatal four.

The proportion of failed breath tests post-collision and the observed level of compliance with seat belt use - which were proposed by ACPO, DfT and HO in 2005 - may be a good starting point, but other indicators would need to be developed

[183] Gitelman, V., Vis, M., Weijermars, W. and Hakkert, S., (2014) *Development of road safety performance indicators for the European countries.* Advances in Social Sciences Research Journal, 1(4), pp.138-158

[184] Hermans, E., Brijs, T. and Wets, G., (2008) *Developing a theoretical framework for road safety performance indicators and a methodology for creating a performance index*.

[185] Hakkert, A.S, Gitelman, V. and Vis, M.A. (Eds.) (2007) *Road Safety Performance Indicators: Theory. Deliverable D3.6 of the EU FP6 project SafetyNet.*

[186] Etika, A. (2018) Developing safe system road safety indicators for the UK. PACTS

which record levels of mobile phone use (and of distraction generally), as well as the incidence of drug driving and speeding.

Additionally, whilst there is awareness that some of these suggested indicators are already measured by the HO and DfT at the national level, most road safety experts believe there is a need to monitor them at the local level too.[187]

However, individual forces may not have the capacity available to accurately to monitor even the basic fatal four at local level. Some officers interviewed suggested that it may be more appropriate for road safety partnerships to take on this responsibility.

Casualty reporting

The police have the important responsibility of recording road traffic casualties and collisions involving personal injury reported to them by the public. Resulting data are then collated and published by the DfT. They are widely used by road safety researchers, practitioners, stakeholders and others, including the police. Traditionally, a paper-based system (STATS19) has been used. The DfT, with support from the Home Office and NPCC, has developed an app-based system - Collision Recording and Sharing (CRaSH) - to replace STATS19. CRaSH has many features to make data entry easier and more accurate. It also allows for the near-instant uploading and sharing of data. It is available to all police forces at no charge.

CRaSH is recommended for all forces by the DfT, Home Office and NPCC. To date, 23 police forces in England and Wales, plus Police Scotland, have adopted CRaSH; twenty have yet to do so.

Delays in obtaining data from non-CRaSH forces have caused the DfT considerable problems in recent years and, in some cases, delayed the publication of national statistics.

The Covid-19 pandemic has shown the need for data on demands for accident and emergency services to be provided much more rapidly, ideally daily. CRaSH forces (using mobile devices) have been able to provide road casualty data; non-CRaSH forces have not.

4.2.3 Research and evaluation

The importance of basing policy and action on good science and good evidence is now more widely accepted within public sector decision making. This has been most evident in the government's handling of the Covid-19 pandemic.[188] Roads policing should be no exception.

The discussions in Chapter 2 indicated that, whilst there is good evidence to show that enforcement can have a casualty reduction benefit, evidence of the effectiveness of specific enforcement practices or tactics – barring some – is not

[187] Department for Transport (2018) *Road Safety Management Capacity Review*. DfT
[188] What Works Network (2014) *What Works? Evidence for decision makers*. What Works Network

abundant. This potentially creates a problem for police forces wishing to develop enforcement practices based on published evidence.

From our research, it is clear that whilst there is unanimous recognition – at a senior level - of the importance of using robust scientific research to inform enforcement policies, such evidence does not always exist. Therefore, operations are often developed and undertaken based broadly on the expectation that they will influence behaviour. Police officers interviewed stated that the allocation of resources was not always based on scientific research findings but, rather, upon expertise within forces. They did, however, say that they evaluate their operations to ensure that they can be improved upon, but only at a basic level, mainly measuring the number of offences and arrests.

Senior roads policing officers indicated that, in operations, they relied mostly on recording the number of stops, arrests or interventions as a measure of success, and did not have the capacity to measure the direct effects on casualty rates. Whilst this raises questions about how these evaluations can be used to measure the relative success of operations, it is important to note that they are not without use. Even if no casualty reduction benefit is measured, there is value in recording the impact of operations in terms of interventions/sanctions as it can be assumed that the number of individuals affected may be related to the scale of behaviour change influenced by the operation.

This assumption relies on the intervention having a proven effect in behavioural change. In practice, not all tactics, sanctions or interventions employed or issued by the police have an evidenced effect on road user behaviour.

Most forces and road safety partnerships undertake internal evaluation of operations, to at least some degree. Depending on the quality, this can be very valuable. Some involve external research bodies, such as local universities. These evaluations assist with deployment and are used to demonstrate to more senior managers the value of the work that roads policing officers do. That said, it is important that forces take into account research evidence on what works and what does not when deploying assets and evaluating the impact.

Resources have been established to provide police forces with good research upon which to base enforcement strategies. These could be more widely disseminated and improved.

"Practitioners and policy makers are, in our experience, keen to engage with academic research and willing to use it to inform their policy and practice. In recent years we have also seen a growing appreciation of the value of evaluation. However, it is up to us, as researchers, to make sure that we communicate our findings in ways that are realistic - to offer bespoke advice where we can, with practical and usable suggestions, rather than simply hoping that those busy delivering roads policing on the front line will find the time to read our papers"

- Dr Helen Wells, Director of the Roads Policing Academic Network

One of the main functions of the College of Policing – the professional body for those working for the police service in England and Wales - is to develop research into evidence of 'what works', and to ensure that practice and standards are based on knowledge rather than custom and convention.

The College of Policing also publishes the Crime Reduction Toolkit, which is an online tool that summarises available research evidence on what works in reducing crime. It covers a wide set of areas, one of which is driving offences. First published in 2013 with support from an academic consortium, the toolkit is the product of a review of available research on the effectiveness of interventions to reduce crime. It summarises evidence in terms of its strength, quality and cost, enabling users to see the impact of different interventions and understand how they work, where they work, how to implement them, and their cost. Its purpose is to provide police as well as PCCs and other crime reduction stakeholders with the knowledge, tools and guidance to help them target their resources more effectively.[189]

Since its introduction, the Crime Reduction Toolkit has been regarded as a relative success. It was externally evaluated by Birkbeck College, University of London. This found that there had been a shift towards greater use of research within forces and more instances of forces being actively involved in research. However, it also indicated that there were large differences between senior ranks and other ranks, in terms of their engagement with research, with the former tending to use it more and to have more positive attitudes towards it.[190]

[189] Hunter, G., May, T., Hough, M. (2017) *An Evaluation of the 'What Works Centre for Crime Reduction' Final Report*. Birkbeck & Institute for Criminal Policy Research

[190] Hunter, G., May, T., Hough, M. (2017) *An Evaluation of the 'What Works Centre for Crime Reduction' Final Report*. Birkbeck & Institute for Criminal Policy Research

The toolkit includes six relevant interventions (plus others, such as alcohol interlocks, which are listed as interventions but are not necessarily related to roads police activity). These interventions include drink drive stops, drink drive campaigns, drink drive patrols, speed cameras, red light cameras and school-based programmes to reduce drink driving. Each intervention is rated according to its impact on crime (effectiveness) and other criteria, such as cost and where it works.[191]

Police Knowledge Hub

The Police Knowledge Hub is a centrally managed platform that enables the police and its public and private sector partners to share resources, discuss ideas and opportunities, and encourage greater collaboration. It provides a platform on which knowledge, experience and evidence can be shared and learned by others who share specific policing interests.

NRPOI is one of the key groups included in the knowledge hub.

Source: The Knowledge Hub

The details given for each intervention are reasonably comprehensive. They are similar to those in this report. For example, speed cameras are scored highly in terms of effectiveness, whereas drink drive media campaigns score fairly low. The academic evidence used to evaluate each intervention is strong, and although there are interventions that have been evaluated using only a single academic reference, that reference is usually a meta-analysis itself.

At present there are six interventions relevant to roads policing included in the toolkit. This could be improved by the addition of more interventions, e.g. by including the enforcement of seat belt laws.

It is important that, for lessons to be learned, organisations should publish their evaluations and disseminating findings, so as to add to the evidence base. Forces should also make sure that knowledge is disseminated internally, at all levels and officers encouraged to learn from and to participate in research.

4.3 Enforcement as a shared responsibility

4.3.1 Collaboration and partnerships

Collaboration and partnerships are something that many interview participants regarded as being vitally important. When they were specifically asked about what direct changes could be made to improve roads policing and road safety, the need and increased desire for more collaboration was abundantly clear in most responses.

[191] College of Policing (2020) *Crime Reduction Toolkit*.

Broadly, respondents referred to the need for collaboration in two areas. These were collaboration between themselves (i.e. with other forces) and collaboration with other road safety stakeholders, primarily the associated road safety partnership (or equivalent).

With regard to collaboration with other forces, the view was that there was currently insufficient collaboration between police forces' roads policing functions. Whilst some of these concerns were over the lack of intelligence sharing, much of the concern was simply over the general lack of communication between forces, particularly neighbouring ones.

Some officers believed that there is an opportunity being missed for more sharing of ideas and experiences between forces. That is, what other forces are doing, what work they have done, what worked and what didn't, and why.

> *"We [police forces] are quite good at talking to each other on a national level, but not so good at talking to our neighbours [neighbouring forces]."*
>
> - Senior roads policing officer

When asked about platforms that already exist, respondents were largely supportive of the role, work and effectiveness of the National Roads Policing Operations and Intelligence (NRPOI), particularly in coordinating the NPCC National Roads Policing Campaigns Calendar. Officers strongly supported the calendar as an effective form of national collaboration between forces on key safety issues.

However, some suggested that better collaboration was needed at a more regional level. They stated that road safety issues are often not unique to one police force area and that, not only did most neighbouring forces share a number of roads but also journeys were often made across multiple police force areas, meaning road safety issues were shared. They believed forces could benefit from communicating and collaborating more with their 'neighbours'.

The merger of police forces or joint delivery of roads policing functions was also discussed. This is an area where there is some controversy.

Physical collaboration, whereby two or more forces combine their resources in order for certain capabilities to be delivered, is fairly common in roads policing. Alongside firearms, dogs and collision investigation, roads policing is often classified as a specialist capability, and one that can be more effectively delivered

by forces collaborating with one another to make savings, pool resources and deliver more efficient local policing.[192]

Although there is a view that some collaborations have been encouraged in the past in the pursuit of cost savings, it seems clear from responses given by officers that there collaboration is generally favoured, on the grounds of efficiency, training and flexibility.

However, in some cases concerns have emerged and some forces have broken away from the alliances. There is an on-going debate within forces over the benefits and drawbacks of collaboration.

Most recently, in response to a Home Affairs Committee report, the government has said that consideration is being given to how key specialist capabilities are delivered at a local, regional and national level through the Specialist Capabilities Programme funded jointly by the Police Transformation Fund (PTF) and NPCC. This is seeking to develop police-led recommendations for greater force collaboration across seven such capabilities, one, one of which includes roads policing. The aim of this work is to provide an evidence base to inform decisions on future collaborations in these areas.[193]

In the same report, the Home Affairs Committee concluded by stating that the current allocation of responsibilities in policing at a national, regional and local level is broken, and in dire need of review. The report also noted that policing structures remain largely unchanged since the 1960s, and whilst the creation of PCCs has enabled leadership and new partnerships within many force areas, collaboration between forces is still a problem in those areas where regional or national action is required.[194]

In addition to collaboration between forces, however, participants also spoke about the need and desire for more collaboration and partnership working with others.

Partnerships between police forces and other organisations are key to the delivery of road safety. Perhaps among the most important of these are road safety partnerships. Broadly, road safety partnerships deliver road safety schemes, initiatives and campaigns throughout the areas in which they are based. They often take part in enforcement but are mainly involved in delivering initiatives aimed at raising awareness or educating road users. Partnership members commonly include the local police force, the local authority, local fire and rescue service, local

[192] Theresa May, in – Avon & Somerset PCC (2015) *Home Secretary opens new tri-force police specialist training centre*.
[193] Home Office (2019) *The government response to the tenth report from the Home Affairs select committee session 2017-19 HC 515: Policing for the future*.
[194] Home Affairs Committee (2018) *Policing for the Future, Tenth Report of Session 2017–19*. Home Affairs Select Committee

road victims' organisations, an officer of the Police and Crime Commissioner, and others.[195]

As part of this project, a number of senior roads policing officers were asked to identify areas which they believed offered opportunities to improve road safety and roads policing. They were also asked how effectively they delivered enforcement. The role of road safety partnerships in delivering road safety was overwhelmingly apparent, and continued working with them was consistently raised as an important activity which should be encouraged.

This is particularly pertinent as at least half of the officers interviewed - whilst they spoke highly of the collaborative work done with their respective local road safety partnerships - suggested that the strength of relationships between some other police forces and such partnerships varied. Overwhelmingly, the literature on the subject of road safety partnerships suggests they can help create better road safety outcomes, by integrating education, enforcement and engineering through collaborative working.[196] Additionally, with much policy overlap between partnerships and other organisations, such as police forces and fire services, resources and expertise can be shared and the cost burden of achieving specific objectives can be spread.[197]

Beyond road safety partnerships, interviewees also shared a desire for more partnership working with government agencies, such as the Driver and Vehicle Standards Agency (DVSA), Health and Safety Executive (HSE) and Highways England, with which they already work closely. But this perceived scope for more partnership with government agencies was mostly related to the opportunity for more intelligence sharing, and is discussed in the following section.

[195] Hertfordshire County Council (2020) *Hertfordshire Road Safety Partnership*.
[196] Christie, N., Buckle, P. (2012) *Road Safety Partnerships in 2012: Sustainability in the 'Big Society'*. GEM Motoring Assist Road safety charity.
[197] ROSPA (2015) *Making road safety count: spending choices which protect your community*. ROSPA

A National Roads Police Force?

There have been suggestions that a national roads police force should be established, as exists in some other countries, and broadly similar to the British Transport Police which is responsible for railways. A national infrastructure police force was proposed by the Conservatives in the 2017 general election. This might have dedicated funding and ensure a consistent and higher level of roads policing. This was explored in interviews.

Broadly, whilst most senior roads policing officers admitted there might be benefits to having a single national roads police force, overall they showed a preference for the current structure.

Although this preference was not for 43 different ways of delivering roads policing, most senior police officers believed roads policing would best continue as a function of existing, local police forces, given the established relationships between forces and communities and the crossover and close working that already exists between roads policing officers/functions and other officers/functions within local forces.

They also stated that under the existing model, roads policing officers have a flexibility which means they can be easily deployed to assist with local matters if required to do so.

Some officers suggested a roads policing force based on the strategic road network (SRN) would be a good middle ground between the two models, and offer benefits of a larger, more focused force.

4.3.2 Intelligence sharing and partnerships with other agencies

In discussions of enforcement as a shared responsibility, the importance of intelligence-led policing and intelligence sharing should not be underestimated.

In the first National Policing Plan, it was stated that forces should increasingly be adopting intelligence-led strategies for reducing death and serious injury on the roads and achieving a safe environment for all road users. Increasingly in policing, and in roads policing in particular, forces are adopting new approaches which aim at better use of intelligence.

Whilst there is a wider literature on the definition of intelligence-led policing, it can be simply defined as a method of policing which is based on the use of existing

knowledge to direct enforcement efforts. This can include knowledge about specific offenders or profiles of offenders, or about risk in a geographical area.[198] [199]

In a 2005 HMIC assessment, 74% of the forces' roads policing functions studied were found to have an effective intelligence-led approach.[200] In the present day, feedback from interviews suggests that practically all roads policing is intelligence-led, at least to some degree.

In fact, intelligence-led approaches can be and are currently deployed to address a wide variety of common road safety issues. An example of this is an operation coordinated by NPCC which sees police forces targeting specific areas where drink-driving is more prevalent over the Christmas period. [201] Other examples given by interview participants ranged from officers being deployed to monitor a specific road, based on awareness that the road in question is often used by drivers without insurance, to officers being deployed to a specific location based on intelligence that a particularly high-risk driver had just triggered an ANPR camera.

Even when resources may not be being deployed to target a specific offender or particular road, the design of patrol routes is often based on intelligence.

Whilst there are clear benefits in taking this intelligence-led approach to roads policing, including the ability to have more effective operations and deploy limited resources more efficiently, it is important to note that intelligence-led policing still offers opportunities for improvement. Intelligence-led policing relies entirely upon knowledge or, rather, intelligence and data, and it is widely established that if these are not accurate at the outset, then the rest of the enforcement process will be adversely affected.[202]

Consideration also needs to be given to the importance of the role of communications and intelligence-sharing. In roads policing in particular, enforcement is diffused to some degree. It often involves other agencies which provide valuable intelligence.

Partnership working is becoming increasingly common as roads policing has become more intelligence-led, and forces are increasingly working with other agencies to deliver enforcement.

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[198] Tilley, Nick. (2003) *'Community policing, problem-oriented policing and intelligence-led policing'*. In Tim Newburn (ed.) Handbook of Policing. Willan: Cullompton. pp.311-39.
[199] Ratcliffe, J., (2003). *Intelligence-led policing* (Vol. 248). Canberra: Australian Institute of Criminology
[200] House of Commons Transport Committee (2006) *Roads Policing and Technology: Getting the right balance*. Tenth Report of Session 2005–06
[201] Road Safety GB (2017) *'Intelligence-led' police operations get underway ahead of festive period*.
[202] PACTS (2005) *Policing Road Risk: Enforcement, Technologies and Road Safety*. PACTS

Examples include: working with the DVLA and HSE on operations relating to dangerous loads; working with the Traffic Commissioners on issues regarding heavy goods vehicle (HGV) licensing; working with Highways England and its traffic officers when patrolling or operating on the strategic road network; and working with the Motor Insurance Bureau on tackling issues of non-insurance.

Examples of partnership working

In **Operation MARSO** the West Midlands Police, DVSA, DVLA, HMRC, the Environment Agency and other stakeholders have overlaid information on local crime and anti-social behaviour trends with areas identified to be used by high harm road offenders. The police found this to be a very efficient use of their resources.

Operation Tutelage, initially developed by Thames Valley Police (working with the Motor Insurers' Bureau) to tackle uninsured driving, involves sending letters to uninsured drivers and focused enforcement activity. Concept trials recorded 80% uptake in insurance of those targeted, and a 90% vehicle seizure rate where non-compliance continued. 40% of roadside stops carried out also resulted in identification of secondary offences. Broader opportunities to develop the scheme have been identified, and work with partner agencies such as DVSA, DVLA and Highways England is advancing. Tutelage was rolled out nationally in January 2020.

Source: NPCC (2019) NPCC Roads Policing Strategic Review. NPCC

The National Roads Policing Operations and Intelligence (NRPOI), which reports to NPCC, is the leading mechanism for coordination of operations and intelligence sharing at the overall planning level. There is clearly a willingness among its members to share data across agencies in order to improve the targeting and scope of roads policing, for purposes of road safety and wider criminality. However, significant challenges exist for data sharing between different agencies, partly due to the requirements of the 2018 General Data Protection Regulation and Data Protection Act.

National Roads Policing Operations and Intelligence – Partners (May 2020)

This also extends to collaborations with other police forces. Officers interviewed noted that roads policing officers often had to collaborate with another force, for example on specific operations or during specific pursuits. They suggested that this often included the sharing of intelligence, sometimes from officers from that force and sometimes from surveillance technologies used by it. The majority noted that the ability to share this intelligence easily across multiple force areas would offer a substantial opportunity to improve the effectiveness of roads policing.

> *"Data, knowledge and resources from partners when joined up can have a powerful impact on the effectiveness of police operations."*
>
> - Senior roads policing officer

Overall, it is clear that this collaborative working and data sharing is effective and something the police and other organisations feel is extremely valuable. But it could be improved with the development of methods or platforms which would make the sharing of data between enforcement agencies and other forces more streamlined, and which would enable the police to access data more easily, allowing them to carry out their enforcement role more effectively.

Intelligence projects

Project Galileo, sponsored by NRPOI and supported by Highways England, is a major initiative to enable greater collaboration between enforcement stakeholders and increased use of data-driven intelligence to support decision making. The ultimate goal is to reduce casualties and deny criminals' use of the road.

The Specialist Capabilities Programme is, amongst other things, also exploring opportunities to better exploit intelligence and support proactive working through collaboration. In particular, it is seeking to maximise operational benefits of the national ANPR cloud-based system.

4.4 Communications and the public

4.4.1 Police communications and behaviour change

Enforcement works best when it is supported by communications messages. Evidence from the literature shows that publicity campaigns and awareness raising can be effective if they are supporting enforcement and are strongly associated with successful enforcement programmes.

However, this does not mean that any form of engagement with the public or messaging can be equally effective. Some messages are more impactful than others, and work better for some people than others, and information alone cannot necessarily change behaviour.

Often in place of traditional communications work, such as campaign materials (posters, billboards etc.) and press releases supplied to the media, police social media accounts have multiplied in recent years – some representing entire force areas, some particular units or shifts, and some by individual officers. Some forces also use Facebook or Instagram, but Twitter accounts with various levels of 'official' branding are seemingly the most popular way of attempting to engage with large numbers of the road-using public at little or no cost. Some roads policing accounts have followings of over 100,000 users.

The growth of social media has meant that there are more opportunities for sharing messages and advice relating to road safety and roads policing, as well as for publicising operations and campaigns, highlighting particular examples of poor road user behaviour, and generally promoting the value of roads policing. However, the unregulated and quick-time nature of currently popular media platforms means that much of the output is likely to be ad hoc, authored by a range of voices and may lack co-ordination. This means that whilst the volume of messaging around roads policing has undoubtedly increased, as has the number of channels that exist

for sharing information intended to change behaviours, the communications picture may ultimately appear noisy and uncoordinated.

> *"Understandably, most content is based on well-intentioned, common sense approaches to behaviour change, rather than underpinned by any of the research in this area. However, whilst we should not expect officers to become experts in behaviour change, there are a few simple principles that can make messaging more effective."*
>
> Dr Helen Wells, Director of the Roads Policing Academic Network

Enforcement and education work best together, and certain types of educational message are more likely to succeed than others. Segmentation of messages is also important, and what works best for one group (for example young males) may not work so well for other groups. Whilst social media allows mass reach, it is not well suited to differentiating messages between audience groups. Consequently, what is known about effective behaviour change may not end up manifesting in the campaigns and communications that come out from forces.

For example, it is known that social norms are important to people, and that there is a tendency for humans to migrate towards behaviour that they believe to be the norm, or majority behaviour. However, much police media around roads policing tends to focus on the offences detected, prosecutions resulting, or road users pursued as indicators of either the success of a particular operation or the need for roads policing more generally. This risks giving the impression that non-compliance is normal. This is particularly common in relation to speed enforcement, where high numbers of offenders are often reported. Behaviour change literature might, however, encourage the publicising of the numbers of compliant road users, thanking them for their safe choices, and advising that a minority deviated from the norm.

Platforms like Twitter can also be used to create a sense of a social norm around roads policing that is not about 'police versus drivers', but about 'police and public versus a minority of dangerous road users'. This can be achieved by emphasising public support for roads policing and demonstrating that the police act because action is demanded by the public.

Individual forces have internal guidelines on the use of social media. As far as PACTS has been able to ascertain, these tend to focus on avoiding inappropriate content, confidentiality, etc and ensuring that communications do not compromise officers or the force. It would seem that there is scope to supplement guidelines with advice on basic principles of effective behaviour change, as described above.

4.4.2 Video footage submission

In 2016, North Wales Police piloted 'Operation Snap', which enabled members of the public to submit video footage and images to the police, showing what they believed to be traffic offences being committed. This enabled the police to act if a law had been broken. The project is considered to have been widely successful, given the subsequent rollout of similar systems by other forces.[203] [204]

Officers and policing experts interviewed showed a great deal of support for these kinds of schemes, suggesting that they not only lead to more penalties and prosecutions but also provide a deterrent to would-be offenders, who are made aware that other road users may have dashcams and are able to submit footage of offences being committed. In many cases these schemes also allow for other road users such as cyclists and horse riders to send in footage, as well as members of the general public.

Officers also commented on the impact that enabling dashcam submissions has had in strengthening the relationship between road users and roads police. The majority noted that the power to assist forces in taking action against offenders was something that the public widely supported.

There were suggestions that there is a drawback in the form of the additional workload put onto forces in processing and analysing footage and building case files in instances where action is needed. However, the overwhelming view and experience of those forces that have adopted this approach was that, properly managed, the additional resource costs were not large and there were often time savings to be gained. The requirement to submit a witness form also limits cases to those with more chance of a successful outcome.

Overall, such schemes have been successful, and are likely to continue to (and should) be adopted, embraced and advertised by police forces.

Research published in 2019 on the importance of enforcement in reducing harm on the roads recommended not only that footage should be used by forces but also that there should be more consistency in the approach to how footage is handled by the back office. The report suggested that forces make use of retired officers to address possible staffing concerns.[205]

4.4.3 Community Speedwatch

Community Speedwatch (CSW) is an initiative which involves members of the local community, with support from the police, to monitor speeds of vehicles by using speed detection equipment. Vehicles found exceeding the speed limit are then referred to the police, who will send letters to offending drivers with the aim of educating them to reduce their speeds. Repeat offenders are referred to the police

[203] Road Safety GB (2018) *Wales: Operation Snap is extended nationwide*.
[204] Road Safety Support (2019) *Police in Northamptonshire roll out operation snap*.
[205] Kyd, S., Camiss, S. (2018) *Promoting Safety for Vulnerable Road Users: Assessing the Investigation and Enforcement of Endangerment Offences.* University of Leicester

for further attention. CSW is a local initiative. There is no national coordination or standards; the charity CSW Online is seeking to improve this.[206]

CSW is usually described by those involved as an educational tool, not an enforcement tool, as CSW volunteers do not normally have powers to issue fines. However, it sits within an enforcement framework. These initiatives have been operating for over a decade in some places and are usually popular with local residents, PCCs and forces.

CSW is largely a local activity and joined-up evaluations of them are not available.[207] Although CSW Online has presented positive accounts of its operations. In the US, a scheme very similar to CSW found to produce lower speeds once established, but no mention of casualty reduction was included in the evaluation.[208]

This is not to say, however, that CSW schemes do not have value. As part of this project, road safety experts and police officers were asked for their views on schemes such as CSW. Whilst respondents acknowledged the lack of safety evidence, opinions of the schemes were overwhelmingly positive. Police officers in particular were supportive of them, especially about the positive relationship building that comes out of working in partnership with the community. Many suggested that the schemes empowered their participants and made them feel that they could contribute to making roads safer.

Some suggested that in the future schemes could even be extended to allow for other motoring offences to be detected and followed up, such as seat belt non-wearing and mobile phone use. Notably, in a presentation on Community Roadwatch by Transport for London, introducing the monitoring of mobile phone use and seat belt use was raised as a potential 'future idea'.[209] This idea of 'community spotters' for other motoring offences such as mobile phone use has also been mentioned in research conducted by Cranfield University for Highways England.[210]

Overall, it seems clear that there is wide support for CSW schemes, given the opportunity they offer communities to get involved in road safety - which has a value in itself for communities and police forces, as well as the potential educational effect CSW may have on some drivers.

That said, it should be noted that this is an approach which may be limited in its capacity to influence road safety. Apart from the lack of evidence about its impact on the general driving population, recidivists in particular are unlikely to change

[206] Community Speedwatch (CSW) Home Page
[207] Dorn, L. (2017) *An intervention framework for safer driver behaviour on the SRN*. Highways England & Cranfield University
[208] Blume, M. C., Noyce, D. A. & Sicinski, C. M., 2000. *The Effectiveness of a Community Traffic Safety Program*.
[209] Transport for London (2017) *Community Roadwatch*. TfL
[210] Dorn, L. (2017) *An intervention framework for safer driver behaviour on the SRN*. Highways England & Cranfield University

behaviour because of the lack of penalties. It is important that implementation of these schemes should not impact on the amount of traditional speed law enforcement carried out by the police.

4.5 Enforcement technology

4.5.1 Enforcement technologies

There have been significant advances in the technologies used to facilitate and assist with road traffic law enforcement. The development and implementation of new enforcement technology continues to present opportunities to improve both roads policing and road safety.

The most widely deployed and discussed, but perhaps the most contentious, of these technologies is speed cameras. Speed camera technology and effectiveness have been considered in section 3.1.3.

There has been a marked reduction in the number of dedicated roads policing officers, yet levels of speed limit enforcement, particularly using speed cameras, have risen continually. While speed cameras are now the means by which most forces detect the majority of speeding drivers, there may still be opportunities to deploy more.

As evidence in section 3.1.3 suggests, speed cameras have been proven to improve compliance and reduce collisions and casualties in the areas in which they are implemented. However, they are present on only a small proportion of the whole road network, and compliance statistics suggest that around half of drivers exceed the speed limit on some kinds of roads where there are no speed cameras (see section 3.1.2).

Safety experts were asked whether they believed there was an opportunity for more speed law enforcement cameras to be installed on the road network. Responses were resoundingly in favour of more speed cameras, based on the overwhelming evidence of their effectiveness at reducing casualties.

It was also suggested that whilst deployment of speed cameras in the past has undoubtedly been successful, there is a growing need for enforcement cameras to be used more effectively. Until now, use of most cameras has been restricted to collision cluster sites with high levels of casualties. It is believed that most eligible sites for spot speed cameras have now been identified according to the existing casualty criteria and, while their ongoing enforcement remains important, further speed-related casualty reductions are only likely to be achieved by deploying enforcement cameras over a wider range of sites. This should include extended use of average speed cameras which can enforce the speed limit over substantial lengths of road. This would enhance perceptions of enforcement and increase the general deterrence effect.[211]

[211] Road Safety Support (2019) *Enforcement Strategy – Raising the Game 2019*. Road Safety Support

Public support for speed cameras

Speed cameras, particularly average speed cameras, are supported by the majority of the public, according to recent evidence.

Some 79% of drivers believe average speed cameras play a greater role in delivering road safety than cameras located at a single point on the road (According to the RAC 'Report on Motoring').

PCCs have also reported that they are increasingly experiencing overwhelming demand for speed limit enforcement from communities.

Speed cameras are opposed, sometimes vehemently, by a vocal minority, to the delight of some media. This may explain why some police officers and politicians view them as unpopular.

Some police officers, however, were ambivalent, citing concerns about the public acceptance of more speed cameras. However, a growing evidence base suggests that while speed cameras have often received negative coverage in the media, for some years public opinion has been in favour of their use, and the safety benefits have been accepted.

Speed on green cameras

In some areas, so-called 'speed on green' cameras are being introduced to detect vehicles that exceed the speed limit to 'beat the red light' at traffic signals.

Their primary use is to detect vehicles jumping red lights, but they are also capable of detecting vehicles exceeding the speed limit.

Source: RAC (2019) *New 'speed on green' cameras explained.* RAC

Red light cameras, to deter red light violations, are also in use throughout the UK but to a much lesser extent than speed cameras. They operate in a similar way: a roadside camera will take a photograph of a vehicle's number plate if a violation of a red traffic light is detected.

Meta-analyses suggest that red light camera programmes have led to reductions in red light violations and in the number of injury collisions. However, some have noted an association with a small increase in rear-end collisions.[212] [213]

Experts interviewed supported the deployment of more red-light cameras, with some considering them to be less controversial than speed cameras. Some noted that their scope may be limited because red light running is much less common than speeding, while recognising that it is a dangerous activity that should be discouraged. 'Disobeyed automatic traffic signal' was listed as a contributory factor in 18 fatalities and 305 serious injuries in 2018.

In addition to speed and red-light cameras, other camera technologies are increasingly able to support roads policing.

Automatic Number Plate Recognition (ANPR) is one such technology that is well established generally and presents opportunities to improve roads policing and safety. ANPR systems read vehicle number plates via cameras. A computer system compares number plates with the relevant databases before alerting system operators when relevant matches are made. Originally used for counter terrorism purposes, ANPR systems have shown to be an effective tool in addressing crime at all levels.

Example of ANPR use

In one interview, a senior police officer described how ANPR systems have been used to target specific 'high harm' groups.

The ANPR system, when used in conjunction with a database of the most dangerous drivers (with known histories of serious motoring offences and lack of insurance, for example) notifies operators when one such driver passes a specific ANPR camera. Officers can then move to that specific area to locate and stop the vehicle.

While ANPR systems are well-established, they are still being developed and their capabilities are expanding. Increasingly, they are used to help multiple agencies work together to target vehicles being driven illegally, and to deny criminals use of the road for serious and organised crime, or if they pose a substantial threat to other road users. Roads policing officers play an important role in responding to 'hits' made by ANPR cameras. This was made clear by police officers interviewed, who explained that the capability of ANPR systems is intrinsically linked to the capability of roads policing functions. In order for ANPR systems to work most effectively, they

[212] Gitelman, Victoria & Hakkert, A.. (2004). *The effectiveness of red-light cameras: A meta-analysis of the evaluation studies*. Road and Transport Research. 13. 34-50.
[213] Steinbach, R. (2017) *What Works: crime reduction systematic review series, red light enforcement cameras to reduce traffic violations and road traffic injuries.* College of Policing

have to be supported by an adequate number of roads policing officers who are able to act on intelligence provided by the systems.

Example of ANPR use

In 2018, ANPR was at the centre of a multi-agency operation aimed at targeting road-related crime in Sussex. It brought together Sussex Police, Sussex PCC, the DVLA and the Motor Insurers' Bureau.
ANPR cameras indicated traffic offences such as driving with no insurance, as well as intelligence for criminality such as drug-dealing or a wanted person

During the operation, 62 vehicles were stopped for a variety of offences. This resulted in 17 seizures, one of which was associated with organised crime, 24 traffic offence reports and a number of verbal warnings

Source: Sussex PCC (2018) Modern technology used to stop more than 60 vehicles in Sussex. Available at: https://www.sussex-pcc.gov.uk/about/news/modern-technology-used-to-stop-more-than-60-vehicles-in-sussex/

Other enforcement technologies

Alcohol interlocks – These are used to prevent drivers starting their vehicles if they exceed the permitted alcohol limit. The technology is used in a number of countries to reduce drink driving by previous offenders. In the UK it is voluntarily used by some freight and coach operators, and there is potential for wider use. PACTS is investigating the feasibility of its use in conjunction with drink drive rehabilitation courses, for the DfT

Electronic tagging of recidivist disqualified drivers - Nearly half of offenders convicted of disqualified driving already have a conviction for that offence, and around 1 in 10 have 5 or more convictions. Disqualified drivers also pose a significant threat to road users. Such devices could discourage individuals from driving whilst disqualified.

Mobile phone use detection and warning signs – these road-side signs, while not used to issue penalties, can alert the driver when they

4.5.2 Type approval

At present, technologies that assist police forces with the task of enforcement, such as safety cameras, evidential alcohol breathalysers and ANPR cameras, all require Home Office type approval in order to be used in evidence for prosecution. It provides an assurance of the accuracy and reliability of specific enforcement technologies and the data collected.[214] The UK type approval process is considered to be extremely robust, possibly the most stringent approval process in the world.

In the last decade, technical advances have permitted the development of a wide range of new equipment and systems which have improved the capabilities of monitoring and enforcement technologies. Improvements in camera quality, the development of new sensor equipment, artificial intelligence, big data and cloud storage have all enabled the introduction of technology which can monitor a wide range of road user behaviours.

There is frustration with the current type approval process and a view that may be holding back opportunities to deploy these new technologies. The current system is complex, expensive and has long lead times, equipment cannot be changed post-approval, and devices (in most cases) may record only one offence at a time. Overall, this may mean that the approval process is preventing deployment of the most up-to-date and capable enforcement equipment.[215]

Some advisers to this research favoured a more proactive type approval strategy, to ensure the most important and effective traffic safety enforcement technologies are available more quickly and at less cost to police forces. The type approval process could be reviewed to assess its efficiency and effectiveness in enabling deployment of the best enforcement technologies.

> "Having kit which can perform more than one function such as cameras that can do seat belts and speed, and roadside kits which could speed up the time it takes us to process individuals, would be a significant time saving for us"
>
> - Senior roads policing officer

There are also opportunities to develop and deploy enforcement technologies which are capable of recording not only speed but also mobile phone use, seat belt use and potentially even distraction. The ability to do so has implications for further casualty reductions. It has been suggested that, if speed cameras performed additional safety functions, they might be more accepted by drivers.

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[214] Croft, N. (2018) *Home Office Type Approval Process*, presentation from PACTS conference on 28th March 2018.

[215] Geoff Collins – Chair, ITS UK Enforcement Interest Group – PACTS Street Legal Conference - *What enforcement technology can offer and how to exploit its potential*.

In addition, there is strong support for the development of technologies which would allow for evidential alcohol and drug testing at the roadside. This would greatly improve the effectiveness of police enforcement, providing a means to reduce casualties further, as well as the time frontline officers spend processing individuals.[216] [217]

Public support for more automated enforcement

Research by the RAC Foundation in 2018 found positive public opinions about increasing automated road traffic enforcement in the future.

Out of those surveyed, 49%, said they supported its greater use in principle, while only 19% were against .

Source: RAC Foundation (2018) Automated Enforcement, A public attitude survey.z

Currently, when a driver provides a positive alcohol screening test result at the roadside, the police are required to take them back to the police station to obtain an evidential sample. This takes time that could be used differently. Equally, with roadside drug testing, the kits only provide a reading for cannabis and cocaine, and in order to test for a wider variety of drugs and to obtain a reading that can be used in court, drivers have to be taken back to the station to provide a blood sample. This is also time consuming.

There are still opportunities to develop these technologies further. Technology which could enable officers to carry out, at the roadside, an affordable non-invasive evidential test which measures levels of alcohol and/or certain controlled substances in a driver's body is considered ideal, but is some time away.

[216] PACTS (2020) *MEBTI competition – towards evidential breath test instruments*.
[217] Tunbridge, R., Harrison, K. (2017) *Fifty years of the breathalyser – where now for drink driving?* PACTS

5 Conclusions and recommendations

5.1 Roads policing should be included in the Strategic Policing Requirement

Those who break the law by driving dangerously pose a considerable threat to other road users and remain responsible for a substantial loss of life on the roads. Evidence from the literature shows that improved enforcement can significantly reduce the number of fatal and serious injuries.

The Strategic Policing Requirement sets out national threats which require a coordinated or aggregated response in which resources are brought together from a number of police forces. Forces are expected to work collaboratively, and with other partners and national agencies, to ensure these threats are tackled effectively.

The scale of the loss of life and injury on the roads caused by those who break the law far outweighs that which is caused by some of the other national threats listed in the Strategic Policing Requirement. Additionally, tackling road crime and enforcing road traffic laws effectively requires collaborative work and the involvement of a wide range of other partners and national agencies.

See section 4.1

Recommendation 1

The Government should recognise that the loss of life resulting from road users who break the law is one of the biggest causes of traumatic deaths from law breaking and requires a nationally-coordinated response. Roads policing should be included in the strategic policing requirement set by the Home Secretary.

5.2 Police and Crime Commissioners should prioritise roads policing and road safety within Police and Crime Plans

Roads policing or road safety is shown, to some degree, as a priority in 83% (36 out of 43) of Police and Crime Plans (PCPs). Whilst this is a substantial improvement on the low representation in the first round of PCPs, there are still plans which make no reference to road safety or roads policing at all. This is hard to explain. There are no force areas which are unaffected by the fatal four. The threat and potential harm posed to communities by those that drive dangerously is cross border and shared by all 43 forces.

Furthermore, even among the 36 plans which make reference to road safety or roads policing, the attention given to these issues varies considerably. Although some PCCs provide considerable detail in their plans as to how they will address

road safety issues, others make reference to road safety or roads policing in a single sentence or bullet point.

See section 4.1

Recommendation 2

Police and Crime Commissioners should prioritise roads policing and road safety in their Police and Crime Plans. They should also provide details as to how they intend to address key road safety issues in their areas.

5.3 The number of roads policing officers should be increased

Roads policing has been increasingly marginalised over the past decade. Specifically, the number of dedicated roads policing officers has fallen substantially, with existing officers often double-hatting and fulfilling multiple roles, as officers become increasingly involved in denying criminals use of the roads and tackling organised crime.

Roads policing officers are well placed to perform these multiple roles. Not only does evidence suggest there is a strong link between traffic offending and wider criminality, roads policing officers possess equipment, capability and specialist training which means they are also extremely well placed to take an active role in tackling serious and organised crime.

That said, the dual role of roads policing officers can mean that traditional road traffic law enforcement is under-resourced.

The government pledge to fund 20,000 new police officer posts by 2022, could enable forces to expand their roads policing functions and ensure that they have the capacity to enforce road safety and deny criminals use of the road.

Roads policing is a part of the wider enforcement, regulatory and justice system. This "eco-system" (the "back-office systems", partner agencies, forensic laboratories, CPS, courts, penalty regime etc) also needs to be adequately resourced.

See section 4.1

Recommendation 3

The government should include roads policing within its pledge to fund 20,000 additional police officers by 2022.

5.4 NPCC roads policing strategy should be revised

The 2018 NPCC roads policing strategy is brief and outlines the safe system approach to road safety. Feedback suggests that there is a need for guidance that forces can translate more directly into their own work.

From a review of similar NPCC strategies, it appears that the roads policing strategy could provide: greater information on research evidence; information on what a safe system means to roads police; statistics and evidence; and greater clarity with regard to the stakeholders involved in delivering the principles, aims and actions highlighted by the safe system.

Changes made should be built on ideas conceived by the organisations and individuals for whom the strategy is specifically designed.

Furthermore, since the ACPO speed guidelines were published in 2013, there has been a substantial increase in the number of drivers being sanctioned, either by a fine or with a speed awareness course. There has also been a considerable increase in the number of areas with 20mph speed limits and resulting demands for police enforcement. Revision of the NPCC roads policing strategy could be used as an opportunity to update the ACPO speed law enforcement guidelines and incorporate them into the overall strategy.

See section 4.1

Recommendation 4

The NPCC roads policing strategy should be revised in the light of this report and the findings of the Joint HO/DfT/NPCC Review. It should offer greater guidance to police forces on the priorities for policing within the safe system road safety framework. Speed enforcement guidelines should be included.

5.5 HMICFRS should include roads policing in its annual assessment

For some time, HMICFRS, whose responsibility it is to inspect and assess the effectiveness and efficiency of police forces in England and Wales, has not considered forces' roads policing capabilities within its annual PEEL assessments. In previous one-off inspections, where roads policing was considered, it has been found to be an area of activity which has been marginalised.

Given the decline in the number of dedicated roads policing officers, and the awareness that roads policing is a police function that has been cut back over the years, HMICFRS should ensure that forces' roads policing activities are regularly assessed.

This would encourage all forces to resource their roads policing functions commensurate with the threat and harm caused to the public by road users who break the law. A role of HMICFRS is to provide a service to the public in assessing and reporting on the effectiveness of individual police forces. Including forces' roads policing functions in the capabilities assessed by HMICFRS, and providing accessible information on the performance of those functions, will increase public transparency and better inform the public and PCCs on these issues.

See section 4.2

Recommendation 5

HMICFRS should inspect police forces' roads policing functions and include this in its annual PEEL assessment, the programme which draws together evidence from its annual all-force inspections to assess the effectiveness, efficiency and legitimacy of the police.

5.6 Collaboration and partnerships should be widened

Collaboration in the delivery of specialist functions such as roads policing is common amongst forces and is often considered to be a highly effective and more affordable method of delivering road traffic law enforcement. Those involved in roads policing see value and opportunity in further collaboration.

Road safety partnerships were identified as key organisations in the delivery of road safety throughout force areas. These partnerships – which often deliver a wide range of road safety initiatives that complement police work – bring together road safety stakeholders and facilitate the sharing of resources and expertise to achieve shared

objectives. However, they have no statutory basis and vary considerably in their scope, membership and priority.

Collaboration with other government organisations, such as the Health and Safety Executive, the Driver and Vehicle Standards Agency, Highways England and local public health bodies was also seen as being invaluable to effective roads policing. Collaboration with the private sector, such as the Motor Insurance Bureau, was also seen as important. The evidence demonstrates that, from providing assistance on specific issues on a day-to-day basis to broader collaboration on campaigns and targeted operations, these other organisations have a key role to play in the road traffic law enforcement process. Forces should be encouraged to continue to seek out means of collaborating with further these partners.

See section 4.3

Recommendation 6

Police forces should continue to seek out collaboration with other road safety stakeholders. This includes road safety partnerships, other police forces, other government agencies such as DVSA, HSE and Highways England and parts of the private sector.

5.7 Intelligence should be enhanced and more widely shared

Intelligence-led policing has become increasingly prevalent in the field of roads policing and has meant that the limited resources available are used to target specific road safety issues. This has been enhanced by greater intelligence sharing between forces and other road safety stakeholders, including government agencies.

Officers we interviewed were keen to see intelligence improved, sharing extended much further, and the speed of data sharing made faster. They believed that initiatives such Project Galileo would improve the effectiveness of roads policing. However, government support may be needed to overcome GDPR and Data Protection Act restrictions.

See section 4.3

Recommendation 7

Intelligence and data collection should be enhanced and more widely shared to improve targeting and effectiveness of roads policing.

5.8 Greater use should be made of technology

Research shows that speed and red-light law enforcement cameras have a significant impact on road safety and have been proven to improve compliance and reduce collisions. However, they are still deployed on only small sections of the road network. National statistics on compliance suggest that around half of drivers still exceed the speed limit on urban roads and motorways where there are no speed law enforcement cameras.

Despite opposition from a vocal minority, the evidence shows that an overwhelming majority (around 80%) of the public support more speed camera enforcement, particularly average speed cameras, when used to improve compliance and reduce casualties.

Other technologies, including ANPR systems, are also shown to have applications in roads policing which can facilitate more intelligence-led policing and help target the drivers that pose the greatest risk to road users.

Technology could also be used more widely to gather information, monitor and encourage compliance, for example in relation to seatbelt wearing.

See section 4.5

The Home Office type approval process, whilst robust, is potentially holding back the development and deployment of some of the most up-to-date enforcement technology. With the improvement of camera technology, sensor technology and artificial intelligence, the monitoring capabilities of devices have increased substantially.

There is demand for the Home Office to develop a more proactive strategy that encourages development of up-to-date, more effective equipment, including those with more than one purpose. This could improve enforcement activities considerably.

See section 4.5

Recommendation 8

Enforcement technologies, for which there is strong evidence of a compliance and road safety benefit, should be used more widely across the road network.

The Home Office should develop a more proactive strategy to ensure that the most important traffic safety enforcement technologies and equipment are available to the police. Type approval procedures should be reviewed for efficiency and effectiveness.

5.9 The support and participation of the public should be encouraged

Evidence shows that communications which heighten awareness of enforcement can increase the deterrent effect of enforcement operations. However, this does not mean that all or any forms of communications with the public will be equally effective. Communications based on sound behaviour change principles can heighten awareness and enhance effectiveness of enforce actions and help enlist public support.

The public are becoming increasingly involved in road traffic law enforcement. Most police forces now have schemes which allow members of the public to submit video footage of road users apparently breaking laws and this has led to an increase in users being warned or prosecuted for incidents which may previously have gone undetected. These schemes were regarded highly by officers interviewed who saw them as a route to achieving more prosecutions and, in turn, more compliance with the law.

On the whole, officers were positive about Community Speedwatch. This is seen as an opportunity for the police to engage with the public and to enlist their support in improving driver behaviour. With modest police support, it can be a valuable local enforcement tool, particularly in areas with 20mph limits.

See section 4.4

Recommendation 9

The involvement and support of the public should be encouraged. Forces should be establish and more widely advertise schemes which allow members of the public to submit video footage of road users apparently committing traffic offences. Forces should consider giving increased support to Community Speedwatch schemes. Awareness of enforcement activity should be enhanced through communications, consistent with behaviour change principles.

5.10 Safe system indicators should be used to monitor road safety

Collisions are a 'worst case' scenario and do not give a complete indication of the level of road safety. Safe system road safety indicators, such as speed limit compliance, describe this better and can provide a diagnostic tool for understanding the processes leading to a collision. They can also assist in illustrating how effective road safety interventions are in achieving their objectives, acting as a potential performance monitoring tool.

It is clear that the use of indicators varies between forces. Whilst some forces apparently use internal performance indicators, a number rely exclusively on fatalities and KSIs to measure safety and performance.

Were forces to adopt road safety indicators, they would be better placed not only to monitor their own performance and trends in driving in their areas but also to assess the impact of specific operations they have carried out. These indicators may also be useful to PCCs and HMICFRS whose role it is to hold police forces to account.

For recording casualty collisions, the new app-based casualty reporting system CRaSH, provided by the Department for Transport, is available at no cost to all police forces. It offers significant benefits in terms of ease of use, data accuracy, speed of reporting and sharing. The superiority of CRaSH has been evident during the Covid-19 pandemic. Although endorsed by the DfT, Home Office and NPCC, almost half the forces in England and Wales have yet to adopt it.

See section 4.2

Recommendation 10

Forces should adopt safe system strategic road safety indicators to monitor those elements within their remit, such as compliance with speed limits and seat belt wearing. These could also be used for HMICFRS assessments of forces.

As a matter of urgency, all forces should adopt the new CRaSH casualty reporting system.

5.11 Research and evaluation should be enhanced

There is a substantial body of research and evidence in the field of enforcement. However, it is not necessarily readily available to those involved in the delivery of road traffic law enforcement. Even within those organisations, the key findings may not be properly disseminated.

There is a need to encourage police forces and other road safety organisations to use existing research on the subject of enforcement and behaviour change, and to conduct their own, preferably in collaboration with others. Individuals at all levels within forces should be encouraged to recognise and take into account research findings which may help achieve a desired outcome.

Though forces are generally not equipped to evaluate their own operations to the scientific level as some research projects, sound evaluations of their operations are within the capability of the forces themselves, helped by advice where required. Collaboration with external research partners, such as universities, can be valuable. Robust research and the evaluation of operations present forces with opportunities to significantly improve the effectiveness of enforcement.

See section 4.2

Recommendation 11

Forces should be encouraged to collaborate in robust research on the effectiveness of roads policing strategies. They should ensure that research findings are disseminated and taken into account when planning operations. Wider research should also be made more readily available to forces.

Glossary of abbreviations

ACPO – Association of Chief Police Officers (now NPCC)

HMIC – now HMICFRS

HMICFRS – Her Majesty's Inspectorate of Constabulary and Fire & Rescue Services

PCC – Police and Crime Commissioner

PCP – Police and Crime Plan

NPCC – National Police Chiefs' Council

FPN – Fixed Penalty Notice

DfT – Department for Transport

SPR – Strategic Policing Requirement

RBT – Random Breath Testing

SBT – Selective Breath Testing

CRaSH - Collision Reporting and Sharing

ASC – Average Speed Camera

End

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