

# Motorcycle Safety Action Plan

Working together, towards roads free from death and serious injury



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#### **Foreword**

Many Londoners choose motorcycles to get around our city as they provide flexible personal mobility. Yet motorcyclists face the highest levels of collision risk on our roads – a situation we are determined to improve.

London has a long history of successful initiatives to increase the safety of motorcyclists. Since 2000 the number of motorcyclists killed in the Capital has been halved. In 2013 the Mayor and Transport for London (TfL) published Safe Streets for London: an ambitious and comprehensive plan to reduce further the number of people killed or seriously injured in London by 40 per cent by 2020.

To achieve this target, and work towards the ambition of a future with roads free from death and serious injury, this Motorcycle Safety Action Plan, a first for London, sets out 29 actions. These cover many areas, including an ambitious programme of engineering, education and enforcement, together with increased investment in road safety. Collaborative working will be critical to success. We have already put this at the centre of our approach with the establishment of the Road Safety Steering Group for London, as well as a Motorcycle Safety Working Group to ensure that we are working with partners across the Capital to make motorcycling safer.

The actions in this plan reflect what we know about how, where and why motorcycle collisions occur. Activity will be targeted to reduce speed-related collisions, reduce right-turning vehicle collisions, increase compliance with the rules of the road, increase the use of Personal Protective Equipment by motorcyclists, and improve motorcyclist skill and riding behaviour. We know that these challenges need to be addressed to reduce collisions involving motorcyclists. We also know that changes to the behaviour and awareness of other road users, as well as those riding motorcycles, will be important.

We will therefore fund more dedicated motorcycle police officers, produce hardhitting safety campaigns to change road user behaviour and build on the Institute of Highway Engineers' forthcoming design guidelines for motorcycling to tailor it for London.

We will learn from what others across Europe are doing and, working in partnership with motorcycle stakeholders, bring the best of it to London to make riding motorcycles in the Capital safer.

**Leon Daniels** 

Managing Director, Surface Transport

## 1 Setting the scene

#### 1.1 Introduction

In June 2013, Safe Streets for London was published. This new Road Safety Action Plan contains a target to reduce killed or seriously injured (KSI) casualties by 40 per cent, from the 2005-09 baseline period, by 2020. A key part of the plan is to improve the safety of those walking, cycling or riding a motorcycle. In 2012, these combined groups accounted for 80 per cent of KSIs in London (37 per cent of KSIs were pedestrians, 22 per cent were cyclists and 21 per cent were motorcyclists). In this plan, the term 'motorcycles' is used to cover all forms of bike, from mopeds, through to scooters and the largest sports and touring machines.

Safe Streets for London sets out the Mayor's and TfL's strategic direction for road safety and casualty reduction, articulated through the long-term ambition of working together towards roads free from death and serious injury. This is in line with the Mayor's Transport Strategy<sup>1</sup> commitment to improve the safety and security of all Londoners as one of its six goals.

The Mayor's Roads Task Force (RTF) sets out a bold vision for the future of London's roads and streets and the role they have to play in supporting major population growth and maintaining the Capital as being one of the most attractive, vibrant, accessible and competitive world cities. The Mayor's RTF highlighted a clear and compelling agenda for change in London. Its recommendations, and the commitments made in TfL's response, are consistent with those outlined in Safe Streets for London. Safer conditions will continue to be supported by delivering the TfL investment programme to improve the experience of travelling and living in London for all road users, including motorcyclists. This plan sets out how efforts will be focused on improving the safety of motorcyclists in London.

The Motorcycle Safety Action Plan (MSAP) focuses on understanding the risks and challenges faced by motorcyclists while riding on London's roads and uses an intelligence-led approach to identify interventions that are designed to improve the safety of motorcycle riders and passengers.

The MSAP has been developed with the support and assistance of key stakeholders who have contributed to the Motorcycle Safety Working Group. Members of this group include the Metropolitan Police Service, British Motorcycle Federation, Motorcycle Action Group UK and the Motorcycle Industry Association. The MSAP also incorporates the relevant feedback from the wider road safety stakeholder community that was received through the consultation process for the new London Road Safety Action Plan.

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<sup>&</sup>lt;sup>1</sup> The Mayor's Transport Strategy, Greater London Authority, May 2010

Through engagement and collaboration with stakeholders, this plan reflects the views and expertise of partners committed to improving road safety for all on London's roads.



### 2 Understanding the challenge

#### 2.1 Motorcycle collisions and casualties

Road safety is a key priority for the Mayor and TfL and in recent years substantial progress has been made in reducing casualties in London. In 2012, total KSI casualties were 17 per cent lower than the 2005-09 baseline. While casualties among those riding a motorcycle have also reduced by 21 per cent, motorcyclist KSI casualties remain disproportionately high with respect to actual levels of motorcycle usage.

In 2012 there were 629 motorcyclist KSIs on London's roads. While this equates to 21 per cent of all KSIs in the Capital that year, the modal share of journeys across all boroughs for motorcycling was just 2.3 per cent of all vehicle kilometres travelled in London. The personal trauma and distress that these collisions create blights the lives of those affected, making action to improve road safety for motorcyclists imperative. Beyond the personal tragedies, however, they have an impact on, and cost to, wider society.

The Department for Transport (DfT) publishes figures on the cost to society from collisions. In 2012 the total cost to society from motorcycle injuries in London was over £220mn<sup>2</sup>. These costs include lost output (loss of earnings and reduced consumption), human costs (pain, grief) and medical costs (ambulance and hospital treatment). In addition to these costs, there is also a significant impact on the road network through the disruption and congestion caused by collisions.

To achieve an overall reduction of 40 per cent in KSI casualties by 2020, we must redouble our efforts to improve motorcycle safety in the Capital. This plan is informed by a detailed analysis of the risk faced by London's motorcyclists. This analysis has shed light on those who are injured in motorcycle collisions and when, where and why they occur, which other vehicles are involved in these collisions and what can be done to make motorcycling safe.

#### 2.2 Motorcycling in London

The number of motorcycles registered in the Capital has steadily increased in the past decade. But the number of new motorcycles being sold<sup>3</sup> has steadily decreased since 2000. This suggests that there are likely to be a growing number of second hand, and therefore older, motorcycles on the road. Because of this trend, the rate of uptake of new safety technology, such as motorcycle anti-lock braking systems, in London's motorcycles may slow.

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<sup>&</sup>lt;sup>2</sup> Calculated using 2012 prices from DfT Road Casualties in Great Britain: Annual report 2012

<sup>&</sup>lt;sup>3</sup> Data from the Motorcycle Industry Association

The composition of the motorcycle fleet in the Capital is also changing towards larger bikes. Between 2000 and 2010, the proportion of new motorcycle sales accounted for by scooters decreased from 59 to 47 per cent<sup>4</sup>.

Motorcycle flows are not evenly distributed on the Capital's roads. Within London, central areas have the highest number of motorcycle journeys, and journeys from the south and west, into the centre, are high<sup>5</sup>.

Compared to car drivers and cyclists, motorcyclists use their bikes more often for work-related journeys, including commuting to or from their normal place of work. This makes up 61 per cent of all motorcycle journeys in London.

The majority (54 per cent) of motorcycle journeys are five kilometres or more in length, but many journeys cover very short distances, with 16 per cent under two kilometres in length.

Motorcycles are an important way that Londoners choose to travel, particularly in supporting access to employment, yet motorcyclists face disproportionately high levels of risk on London's roads and streets.



<sup>&</sup>lt;sup>4</sup> Motorcycle Industry Association motorcycle and Scooter sales data 2010

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<sup>&</sup>lt;sup>5</sup> Traffic Note 1 – Traffic Levels in Greater London 1993-2009

### 3 Understanding the causes

This section describes who is being injured, where motorcyclists have collisions and when and why they occur. This knowledge has been used to identify how to improve motorcycle safety in London, including actions to change the behaviour of motorcyclists themselves through education or enforcement, improve the safety of road infrastructure, and change the behaviour of other road users who put motorcyclists at risk.

#### 3.1 Motorcycle risk in London in context: who, where, when?

Information reported by the attending police officer at the scene of a collision is held in TfL's ACCSTATS database of STATS19<sup>6</sup> records and is used to better understand collision circumstances and to identify potential counter-measures.

This Motorcycle Safety Action Plan, together with Safe Streets for London, use an understanding of risk to identify locations where, and socio-demographic groups for whom, safety can be improved. This puts risk at the heart of road safety assessment, informing practitioners of the best way to target resources where they will be most effective. By focusing on safety improvements for a particular road user group, age or location, risk can be reduced, leading to fewer casualties in that road user group, age group or location.

This new analysis was undertaken by combining collision and casualty data from STATS19 with detailed journey data from the London Travel Demand Survey (LTDS). LTDS is a rolling sample survey of travel by households in London, with an annual sample size of 8,000 households. It provides data representative of on the diversity of both people and places in the Capital that, over time, builds up to provide a comprehensive and detailed picture of the travel behaviour of London residents.

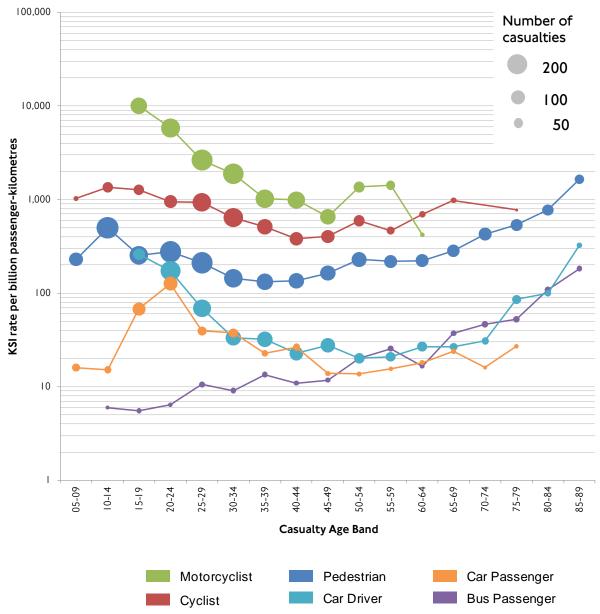
This allows a full and robust profiling of the nature of trips by Londoners - where and when they travel, by which methods of transport, which combinations of modes, and for what purposes. This analysis combines to enable a KSI rate to be derived for all road users. The KSI rate per billion kilometres travelled and absolute number of casualties for each of the main road user groups from this analysis is presented in Figure 1.

Motorcyclists are shown to face the highest levels of risk of all road users. Within the mode itself, different levels of risk are experienced by different age groups. The risk for motorcyclists peaks at above 10,000 KSI casualties per billion kilometres for riders aged 15 to 19 years old and then drops sharply with increasing age before levelling out. The youngest age group, 15 to 19 year old motorcyclists, are

<sup>&</sup>lt;sup>6</sup> STATS19 is the term given to records of personal injury collisions recorded by the police and used to monitor collision and casualty number in London.

approximately 10 times more at risk of being killed or seriously injured than 40 to 44 year old motorcyclists when riding in London.

Figure 1: KSI casualty rate per billion kilometres by age and road user group, the size of the circles represent the absolute number of KSI casualties



Although the level of risk decreases with age, there remains a large number of 20 to 39 year old motorcyclists injured on London's roads, indicated by the larger circles in Figure 1. Therefore an approach focusing on improving the safety of younger riders and those aged up to 39 years old is essential to reduce casualties.

Rider age, experience, skill levels and ability are inter-related. Attitudes towards risk and unsafe behaviour on the road, for example speeding and riding while over the alcohol limit, are more prevalent in younger riders than older riders. This means that measures to change these attitudes and behaviours are best focused towards younger riders.



In London there are 10 times as many male motorcyclists killed or seriously injured as female motorcyclists and male riders have a higher risk per kilometre travelled. Black Asian and Minority Ethnic (BAME) groups experience four times the risk that non-BAME motorcyclists do. This points towards the need for a stronger focus on the safety of BAME groups.

Most motorcycle collisions and injuries occur in the morning and evening commuting periods. However, the risk of injury per distance travelled is higher for motorcyclists later at night. Around 10 per cent of motorcycle KSI casualties in the Capital are motorcyclists who live outside London and have travelled into the city. Casualty risk also varies across London and is highest in the southern boroughs, as shown in figure 2. This helps to identify the times and locations where measures to improve motorcycle safety should be focused. In areas with a higher risk of motorcycle injury, this information can be used to develop targeted initiatives.

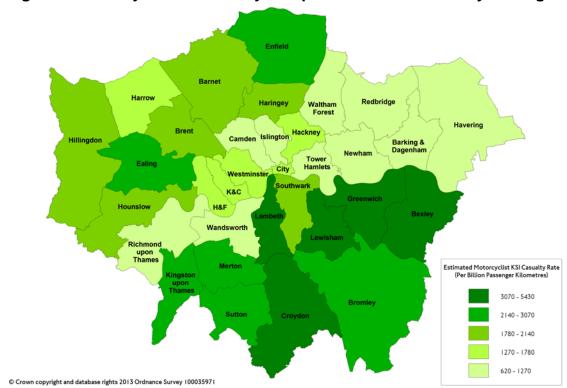


Figure 2: Motorcycle KSI casualty rate per billion kilometres by borough

#### 3.2 Motorcycle collisions: why?

In-depth knowledge of the details of collisions, including the conflicts, manoeuvres, other vehicles involved and unsafe behaviour shows what action is needed to improve the safety of motorcyclists. The most common types of manoeuvre involved in collisions are summarised in Table 1 below. The indicative diagram shows the direction of the motorcycle (shown by the dotted line) and the other vehicle.

Table 1. The five conflict types most commonly resulting in KSIs to motorcyclists in 2011

Conflict rank	Indicative diagram	Manoeuvre description	Serious collisions (% of total)	Fatal collisions (% of total)
1		Other vehicle turns right across path of motorcycle		6 (20%)
2	101	All 'loss of control' conflicts	76 (13%)	12 (40%)
3	*	Other vehicle disobeys junction control and turns right into path of motorcycle	60 (11%)	1 (3%)
4		Other vehicle u-turns into path of motorcycle	34 (6%)	3 (10%)
5	<b>&gt;</b>	Motorcycle performs overtaking manoeuvre into path of right turning vehicle	36 (6%)	0 (0%)

Four of the five most common conflicts resulting in serious injury to motorcyclists involved another vehicle turning across the path of the motorcycle.

Collisions involving only a motorcyclist and no other vehicle, where the motorcyclist lost control of the bike, were responsible for 40 per cent of motorcyclist fatalities and 13 per cent of serious injuries. 'Loss of control' collisions can occur from excessive speed or braking, rider error or the interaction of the motorcycle with the road surface, for example skidding. Of collisions classed as the conflict type 'Loss of control', 38 per cent of serious collisions and 50 per cent of fatalities involved the motorcyclist being recorded as driving in excess of the speed limit or too fast for the conditions.

Where other drivers turn across the path of a motorcyclist, this can be because the motorcyclist, when filtering through traffic, is not seen by the driver; the driver's sight of the motorcycle is compromised by barriers to their view, such as the car's 'A'

pillar; or when drivers misjudge the approach speed of the motorcycle. The human eye and brain use the apparent changing width of oncoming vehicles to judge their approach speed. This 'looming' effect occurs because motorcycles are narrower than cars, making their approach speed more difficult to judge, leading other road users to think they have more time to perform manoeuvres, for example pulling across the path of a motorcycle into a side road, than they actually have. This points to the need to improve driver awareness of motorcycles, as well as raising awareness among motorcyclists of this issue, which is a key factor in many collisions. By running headlights during the daytime and wearing high visibility clothing, motorcyclists can help to improve their visibility to drivers.

The rider was recorded as overtaking in 25 per cent of all collisions with another vehicle in which a rider was seriously injured<sup>7</sup>. The rider was recorded as overtaking or filtering<sup>8</sup> at the time in 38 per cent of serious collisions where the vehicle U-turned into the motorcycle. These statistics point to the need to raise awareness of the danger of these manoeuvres and the need for drivers to be aware of the presence of motorcyclists.

There are also differences in the type of collisions in which young motorcyclists are involved, in comparison to older riders. Younger riders, under 30 years of age, are most often involved in collisions resulting in death or serious injury from 'loss of control' manoeuvres, whereas 'other vehicle turning right across the path of motorcycle' is the most common type when considering motorcyclists' conflicts across all ages.

Cars are the most common vehicle type in two vehicle collisions, as they are involved in almost 80 per cent of motorcycle KSI collisions.

#### 3.3 In depth analysis of police motorcycle fatality investigations

We commissioned in-depth research using police investigation files on 94 motorcyclist fatalities which occurred between 2006 and 2009 and identified measures that may help to prevent fatal injury collisions in future<sup>9</sup>. This analysis gives further insight and detail than is available using standard STATS19 data.

The research found that a limited number of contributory factors accounted for the cause of a substantial proportion of fatalities. Of the 94 motorcyclist fatalities investigated:

- 48 per cent involved motorcycles exceeding the speed limit
- 45 per cent involved loss of control by the motorcyclist

<sup>&</sup>lt;sup>7</sup> Defined as the vehicle manoeuvre field in STATS19 containing the word "overtake" or "overtaking"

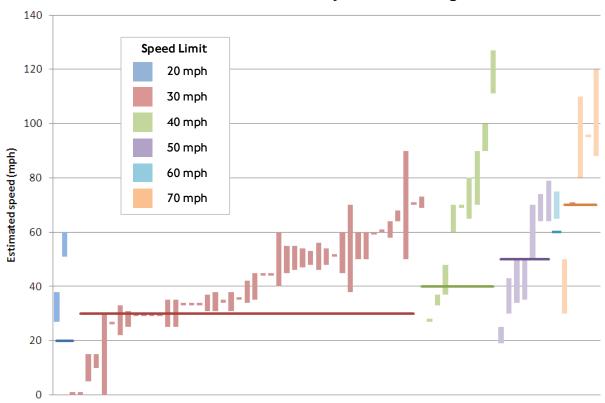
<sup>&</sup>lt;sup>8</sup> Overtaking defined as above, filtering defined as the text "filter" appearing in the collision description

<sup>&</sup>lt;sup>9</sup> Analysis of Police collision files for motorcyclist fatalities in London, 2006-10, PR621, Cuerden, R et al 2013. L Smith, J Knowles and R Cuerden

 22 per cent involved another vehicle turning across the path of the motorcyclist

Exceeding the speed limit was the largest contributory factor to the fatal collision occurring. Figure 3 shows the speeds of fatally injured motorcyclists relative to the speed limit. It is clear that in the majority of the 69 cases where the motorcyclist's speed was known, the speed limit was being exceeded, often by a significant amount. Each vertical bar in Figure 3 represents a single fatality; the height of the bar represents the lower and upper estimated speed of the motorcyclist recorded by the police.

Figure 3. Speeds of motorcyclists killed in collisions relative to the speed limit on the road on which they were travelling



#### 3.4 Personal Protective Equipment

A key principle that underpins the approach set out in Safe Streets for London and this action plan is that human error will sometimes lead to collisions occurring. An important aspect of motorcycle safety is to therefore improve the chances of a rider not sustaining injuries in the event that a collision does occur through the wearing of protective equipment.

Protective gloves, jackets, trousers, helmets, boots and other items can prevent motorcyclist injury or reduce injury severity. In particular, Personal Protective Equipment (PPE) is designed to protect parts of the body by reducing the severity of an impact and reducing friction with the road surface, should a collision occur. Clothing has to meet approved EU standards to be classified as PPE. However, heavy weight clothing that is not approved can also offer a lower level of protection to riders.

The wearing rates of protective clothing (heavy-weight motorcycle clothing and PPE) by motorcyclists in summer are 60 per cent for protective jackets, between 22 per cent and 27 per cent for protective trousers and 64 per cent to 77 per cent for protective gloves<sup>10</sup>. PPE wearing rates increase by between four per cent and 12 per cent in the winter and lightweight clothing, which offers no protection from injuries, reduces by between 10 per cent and 20 per cent. Scooter riders are considerably less likely to wear PPE, or heavy-weight clothing.



<sup>&</sup>lt;sup>10</sup> Based on a study undertaken in 2011 by TRL into Personal Protective Equipment wearing rates for TfL

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In London, Hospital Episode Statistics show that serious injuries to motorcyclists occur to the legs or hips in 46 per cent of admissions, 38 per cent to arms or shoulders, 15 per cent to the lower back or pelvis, 11 per cent to the upper back or thorax, four per cent to the neck and 17 per cent to the head or face.

Research shows that the probability of protective clothing preventing an injury ranges from 17 per cent to 26 per cent for injuries to the upper torso, from 20 per cent to 45 per cent for the upper extremities, from 11 per cent to 39 per cent for the lower torso and from 21 per cent to 45 per cent for the lower extremities.

This supports the need for an increased focus on the use of protective clothing which could result in a reduction in the extent and seriousness of motorcyclist injury in the Capital, in the event of collisions occurring.

#### 3.5 London's motorcycling population

Recent market segmentation commissioned by TfL provides an improved understanding of London's motorcyclists, identifying distinct groups with different characteristics and attitudes to safety. Table 2 sets out these groups and highlights their key characteristics.

Seven groups can be identified, based on a spectrum of attitudes to risk, passion for riding and reasons for riding in the Capital. Each group's attitudes and behaviours were established and an accurate and unique portrait of London's riders was developed. This enables a more sophisticated approach to how we communicate safety messages to riders. Overall 67 per cent have had at least one near miss in the last 12 months and 29 per cent have had at least one minor crash.

Riders represent a spectrum, from leisure to practical motorcycle users, and have different reasons for riding. However the practical and functional benefits of riding are key motivators for London's motorcyclists who actively choose motorcycling over other forms of transport.

The desire to 'get ahead', maintain the speed and benefit from shorter journey times are all-important for motorcyclists, and are key drivers behind risky behaviours such as speeding.

Four-fifths of motorcyclists say that they would not ride while under the influence of alcohol and 29 per cent say that they would not ride above the speed limit. However, 33 per cent of motorcycle riders would sometimes ride over the speed limit and 13 per cent regularly do so. In addition, 45 per cent of motorcyclists riders think it is risky to ride while fatigued and 32 per cent would not ride while fatigued. It is important that risk factors for being involved in a collision are communicated to London's motorcyclists.

Table 2. The seven segments of motorcycle riders in London

Informed and cautious	Measured and practical	Respectful road- crafters	Developing riders	Accidental appreciators	All about image	Self-assured attention seekers
13 per cent of the population	18 per cent of the population	27 per cent of the population	11 per cent of the population	9 per cent of the population	16 per cent of the population	7 per cent of the population
29 per cent are aged 50-59 years old	35 per cent are aged 40-49 years old	29 per cent are aged 50-59 years old	40 per cent are aged 30-39 years old	38 per cent are aged 30-39 years old	47 per cent are aged 30-39 years old	63 per cent are aged 20-29 years old
Characteristics	Characteristics	Characteristics	Characteristics	Characteristics	Characteristics	Characteristics
Enthusiasts who have ended up using their bikes in the city even though they don't necessarily enjoy it. Strong sense of vulnerability informed by experience	Sensible, practical, working people who take advantage of the opportunities riding offers. Unlikely to have ridden if not in London	Bike enthusiasts who live and breathe riding and want to be the best rider they can possibly be. Skill and safety can seem inseparable	New to two wheels but keen to learn, and anxious not to make the same mistakes twice	People who initially turned to two wheels for practical reasons but have found they enjoy the 'edge' it gives them	Fashion and image conscious people who have bought into riding for the look of it. Often identified by more serious bikers as lacking in motorcycling skill and ability	Young, hedonistic and liable to ride in groups. Often thrill seeking or showing off to others
Attitude to safety	Attitude to safety	Attitude to safety	Attitude to safety	Attitude to safety	Attitude to safety	Attitude to safety
Focus on cautious riding, with low levels of risk taking – but do feel vulnerable to actions of others	Highest proportion of scooter riders so safety clothing isn't a priority but safe/cautious ways of riding are	Competent and considered risk taking. Assess when a behaviour is risky and when not and calculate appropriate time / place	Not strong risk takers, and they make sure they wear the right clothing  Have experienced more near misses than other riders	Much less likely to own correct gear  Take more minor risks, and do have more crashes than other groups, but some recognition of their own inexperience and behaviour	Image is all: won't wear appropriate gear and riding is more about looking good than staying safe	Appreciation of what a risk is, but do it anyway – and awareness that it's risky almost adds to the buzz/likelihood to perform the behaviour

### 4 Actions to reduce motorcyclist injuries in London

This action plan sets out a summary of the motorcycle safety challenges, the levels of risk experienced by motorcyclists in London and the key characteristics of collisions that, if countered, will reduce motorcyclist casualties. To improve the safety of motorcyclists, measures that focus on changing the behaviour of other road users needs to be implemented as well as actions that encourage riders to make their own behaviour safer. There is also a key role for safer infrastructure and improvements to technology.

This plan has been developed collaboratively through the Motorcycle Safety Working Group, comprised of motorcycle stakeholders and representative organisations. We will continue to work closely with this group to deliver safe roads and streets for London's motorcyclists. There are many organisations involved in road casualty prevention and reduction in London. Collaboration between groups is essential as no single organisation will be successful in significantly reducing casualties by itself. Moving forward, more collaboration will be needed and more investment in safety required from the industry, stakeholders and further areas of the public sector. Together with the Metropolitan Police Service we will create a new Roads and Transport Policing Command (RTPC) with more than 2,340 officers. This will be the largest single police command in the UK and give the police an unprecedented ability to improve road safety.

Many of the actions in Safe Streets for London will increase the safety of motorcyclists and prevent further KSIs over the course of the plan. There are also a number of specific actions included in the plan which are directly concentrated on motorcycle safety. The safe system approach, with a focus on vulnerable road users, will result in safety benefits from wider programmes and from targeted interventions.

The actions on the following pages have been tailored to meet the specific needs and key challenges for motorcyclist safety and have been developed with motorcycle stakeholders. The programme covers the period to 2020. There is also a need to continue to innovate to improve road safety in London and we will seek out emerging technologies that will be ready for wider use in the future. As well as building an improved working partnership for the benefit of London's motorcyclists, the actions are grouped by the key collision factors and trends, identified by the analysis in this plan, which are designed to:

- Reduce speed-related collisions
- Reduce right turning vehicle collisions
- Increase compliance with the rules of the road
- Increase the use of PPE to prevent or reduce injury severity
- Improve motorcyclist skill and riding behaviour
- Deliver in partnership

# Actions to reduce speed-related collisions

Number	Description	Complete by
1	TfL will provide funding for a 40 per cent uplift in the activities of the Metropolitan Police's Motorcycle Tasking Team, part of the RTPC, to further clamp down on illegal and antisocial road user behaviour such as:  • Speeding • Careless riding • Red light running • Uninsured and unlicensed riding; and • Traffic violations by motorcyclists and other road users	2014
2	TfL will continue to deliver market leading safety campaigns to reduce speeding by motorcyclists and to change their attitudes to speeding.	2014
3	TfL will increase the reach and coverage of motorcycle speed compliance by installing rear facing cameras on the A13 to enforce the speed limit. TfL will ensure that all average speed camera trial locations will enforce the speed limit with rear facing cameras.	2015
4	The Mayor and TfL will work with London's police to embed the use of Speed Awareness Courses for motorcyclists as an alternative to prosecution, in cases of minor speed infractions.	2016

# Actions to reduce right turning vehicle collisions

Number	Description	Complete by
5	TfL will produce hard-hitting safety campaigns to change road user behaviour that currently puts motorcyclists at risk, with a particular focus on areas such as:  • Drivers failing to look properly or to accurately judge motorcyclists' paths when turning into or out of side roads, U-turning without appropriate care, changing lanes across motorcyclists'	2015
	<ul> <li>Raising awareness among other road users of the presence and vulnerability of motorcyclists to increase the level of empathy drivers have for motorcyclists</li> </ul>	2015
	<ul> <li>The particular dangers that motorcyclists themselves face when other drivers are turning right or when they are filtering</li> </ul>	2015
6	Building on the Institute of Highway Engineers' forthcoming design guidelines for motorcycling, TfL will produce new design guidance tailored for London. Used on all TLRN schemes, this will draw on the knowledge of motorcycle safety experts to embed motorcycle safety within the design process. TfL will use the borough Local Implementation Plan process to encourage boroughs to apply these principles to their roads.	2015
7	TfL will proactively trial new technologies designed to make motorcycling safer. For example, the use of innovative lighting displays designed to increase the width of a motorcycle's visual footprint in order to reduce right turning 'failed to look' collisions.	2016

# Actions to increase enforcement and compliance with the rules of the road

Number	Description	Complete by
8	Building on the success of Operation Safeway, TfL and the police, through the new Metropolitan Police Service Roads and Transport Policing Command (RTPC), will ensure that future monthly high visibility traffic enforcement operations will target motorcycle safety alongside that of pedestrians and cyclists.	2015
9	TfL will work with the police to use alternative disposal schemes, such as the Rider Intervention Developing Experience, instead of issuing penalty charge notices for lower order offences.	2015
10	TfL will fund Scootersafe-London and Bikesafe-London rider assessment days for all high risk riders who have been involved in slight injury collisions in London.	2015
11	TfL will work with the police to crack down on illegal bikes and riders, as well as cars, forcing them off the road through the ongoing Operation CUBO and other targeted operations.	2015

# Actions to increase the use of Personal Protective Equipment to prevent or reduce injury severity

Number	Description	Complete by
12	TfL will advocate and encourage, through a focused programme of engagement, the increased use of PPE by motorcyclists in order to reduce the severity of the injuries they incur when involved in a collision by:  • Calling on the motorcycle industry and retailers to continue to promote and increase the availability and usage of PPE	2015
	<ul> <li>Encouraging manufacturers to develop new types of clothing and take forward other PPE advances such as air-bag jackets and use of light weight materials</li> </ul>	2014
	<ul> <li>Encouraging manufacturers and dealers to broaden their ranges of PPE to include clothing for smaller bikes and younger riders</li> </ul>	2014
	<ul> <li>Working with boroughs where motorcyclists experience high levels of risk to implement local awareness campaigns</li> </ul>	2014
13	TfL and the boroughs will work with the motorcycle industry and rider groups to improve awareness among riders on choosing and wearing helmets correctly.	2016
14	The Mayor and TfL will lobby the DfT to include more makes and models of helmets in their Safety Helmet Assessment and Rating Programme so that members of the public are properly informed about helmet safety performance and that future test standards are continually improved.	2014

# Actions to improve motorcyclist skill and riding behaviour

Number	Description	Complete by
15	TfL will develop and pilot a new approach involving schools, colleges, universities, trainers, retailers and businesses in order to reach out to young riders who are most at risk.	2015
16	The Motorcycle Industry Association, working with TfL, will increase the availability of post-test training through promotions, incentives and industry shows.	2015
17	TfL will undertake a wide ranging review of Scootersafe-London and Bikesafe-London to ensure they reflect the most up-to-date evidence and best practice in motorcycle safety.	2014
18	TfL will use the latest data analytics to ensure that its campaigns are targeted and delivered to the right groups and through the right channels by:	00.15
	<ul> <li>Making better use of data from the LTDS, crime reporting and MOSAIC classifications to better inform campaign design and implementation</li> <li>Increasing our knowledge of riders who live outside London but regularly ride in London</li> <li>Identifying collision hotspots where there has</li> </ul>	2015
	<ul> <li>been a disproportionately high number of injuries among BAME groups and using this data to influence future initiatives by boroughs</li> <li>Making road safety materials available to</li> </ul>	2014
	<ul> <li>London boroughs and the police to improve campaign co-ordination across London</li> <li>Working with local authorities outside London to</li> </ul>	2014
	ensure that campaign, education and training materials reach those commuting into or visiting London	2014
	<ul> <li>Using peer-to-peer engagement with hard to reach groups of young riders when needed</li> </ul>	2015
19	TfL, with representatives from the motorcycling industry, will launch a new motorcycle courier and delivery rider code to protect those who use a motorcycle for work and to instil better riding behaviour among their riders.	2015

Actions to deliver in partnership			
Number	Description	Complete by	
20	TfL, with partners, will undertake a multi-modal research study into younger riders and drivers to better understand their attitudes and behaviour to safety which will influence future road safety initiatives in London.	2014	
21	TfL and the police will update the motorcycle fatality files research study to identify any emerging safety issues that lead to fatal collisions.	2015	
22	TfL, in partnership with the Motorcycle Industry Association, will investigate motorcycle safety in European cities that have lower motorcycle injury rates than London and apply the lessons learned from this review.	2014	
23	The Road Fatality Review Group, including senior representatives from the police and TfL, will meet every two months and will use the latest 'Compstat' style approaches from crime analysis to improve the safety of motorcycles at high priority junctions.	2014	
24	TfL will develop and fund new engineering guidance and training to up-skill London's road safety professionals and address the unique needs of motorcycle safety in the Capital.	2016	
25	TfL will enable boroughs to target locations where motorcycle safety improvements are needed by providing, every year, information on high risk locations.	2015	
26	The Road Safety Steering Group and Motorcycle Safety Working Group will define new areas of research and evidence by:		
	Bringing together hospital, trauma and police data to better understand how injuries happen and to identify ways to increase motorcyclists chances of avoiding injury in collisions  Description:	2014	
	<ul> <li>Bringing experts and leading practitioners to seminars and events to further spread motorcycle safety best practice.</li> </ul>	2014	

#### **Actions to deliver in partnership** Complete Number **Description** by 27 The Mayor and TfL will lobby the DfT for further safety 2015 and training elements to be included in the motorcycle compulsory basic training and the motorcycle licence test. 28 TfL, working with the DfT, the Driver and Vehicle 2016 Standards Agency, industry and motorcycle user groups, will ensure that motorcycle training standards in London are industry-leading using the safest practices and equipment. 29 TfL, through the motorcycle working group, will work 2016 with the motorcycle industry in Europe to continue to develop future designs and technology to improve motorcycle safety through trials and knowledge sharing.

## 5 Monitoring outcomes

We will work with the Motorcycle Safety Working Group to deliver this action plan in the coming years. The Motorcycle Safety Working Group will meet regularly to monitor progress on the key outcomes and identify priority areas for action.

We publish regular collision and casualty data and will report on progress on the target for a 40 per cent reduction in KSI casualties by 2020. We will also continue to publish research reports and information to strengthen the evidence base for all vulnerable road user groups.

