

Transport Committee's Inquiry on Road Safety 2019: Submission from 20's Plenty for Us

In response to the committee's questions which are posed in its terms of reference as¹:

- A. How effective is the Government's current approach to road safety?
- B. Are there any areas where the Government's current approach to road safety could be improved?
- C. What interventions would be most effective at reducing the number and severity of road traffic collisions?
- D. What evidence is there on the effectiveness of these interventions?
- E. How can interventions to reduce the number and severity of road traffic collisions best be implemented?

20's Plenty for Us, which campaigns for a change in the default speed in built-up areas from 30mph to 20mph, would make the following response.

1. Summary of Response from 20's Plenty for Us

- 1.1. Vehicle speed makes a significant contribution to the numbers of road casualties. The Transport for London (TfL) Vision Zero Action Plan estimates that speed is a factor in up to 37% of serious and fatal casualties in London.
- 1.2. We know that reducing speed to a maximum of 20mph can reduce casualties significantly. The 2009 London School of Hygiene & Tropical Medicine study into traffic calmed 20mph zones found that there was a 42% reduction in all casualties within the 20mph zones compared with outside areas.
- 1.3. The introduction of 20mph limits in built-up areas has a small but significant impact on vehicle speeds and casualty numbers AND, when used in combination with other initiatives such as road design, enforcement, new technology and programmes of behaviour change, has the capacity to reduce maximum vehicle speeds towards the 20mph target and thus make major inroads into casualty levels. This is an area whose potential for casualty reduction has been largely untapped in recent years.
- 1.4. The UK Government has shown little interest in this approach towards vehicle speed and the goal of reducing casualties through a programme of this sort and communities across the UK remain blighted by fast moving traffic. In London, however, an enhanced road safety programme under the banner of a Vision Zero approach to road casualties is now leading to concerted action to reduce speeds to a 20mph maximum across the city. This approach is being enhanced by the development of new technology such as mandatory Intelligent Speed Adaptation (ISA) which is now being fitted to all new buses entering the TfL fleet.
- 1.5. The refusal of the government to address the issue of vehicle speeds represents a significant lost opportunity which is being overlooked. We agree with calls from many bodies associated with public health and safety on our roads that it is time to adopt a default speed limit of 20mph in built-up areas (this is also being investigated by the Welsh and Scottish governments). As in London, this change in the default speed limits should also be supported by a programme of enhanced activity (as outlined above) to drive down speeds; the casualty savings will be considerable, and we are very likely to see once again a decline in casualties across the UK.

2. Background: 20's Plenty for Us

- 2.1. 20's Plenty for Us is a campaign group which was formed in 2007 which focuses on the speed of vehicles. We campaign across the UK for a change in the default speed limit in built-up areas from 30mph to 20mph.
- 2.2. There are huge benefits in terms of road safety, community cohesion and public health from motor vehicles moving at no more than 20mph where they share streets and roads with people (who are often walking and cycling). Our role has been to encourage Highways Authorities via community campaigns and through elected representatives to move to a default 20mph limit. Once in place there are many ways to increase compliance with this lower limit.

¹ <https://www.parliament.uk/business/committees/committees-a-z/commons-select/transport-committee/news-parliament-2017/road-safety-launch-17-19/>

2.3. We are a grassroots community focused organisation with more than 420 local campaigns across the country and beyond in Ireland, Canada, USA and Australia.

3. **Detailed Response to the Questions.** This response is made through the prism of a determination to see far more action undertaken in relation to the danger posed by motor vehicles through excessive speed and our view that the default speed limit (and maximum) should be 20mph in built-up areas. We would respond in detail to the issues raised as follows:

A. How effective is the Government's current approach to road safety?

- A.1. In recent years the UK Government has failed to engage with the issue of high vehicle speeds adequately. In spite of the proven impact on casualties of lower speeds and lower speed limits, it appears to have sought to kick the issue of the introduction of 20mph limits into the long grass with the commissioning of the Atkins report which had an excessively narrow interpretation of the potential of 20mph limits. The Atkins report case studies only included 12 localized sites in a small subset of the total authority-wide 20mph implementations. It included only one authority-wide case study on casualties (Middlesbrough). Case studies areas chosen typically had less than 20 casualties per annum. No London Boroughs were included.²
- A.2. There is a stark comparison between the approach of the UK Government which has refused to set targets for road casualty reduction since 2010 and the approach of Transport for London which, in the adopted Mayor's Transport Strategy backed up by the Vision Zero Action Plan³, deliberately sets a target of 2041 as the date by which serious and fatal casualties should be removed from London's roads. In the light of this target and this Vision Zero approach, TfL sets out an ambition plan for its delivery which includes a number of significant interim markers between now and this 2041 target.
- A.3. In reality, the car culture that the UK has developed since 2010 in particular will make it extremely difficult to reduce the casualties on our roads and especially amongst those who are walking and cycling. As conditions have become safer for people in vehicles, so the risk has been transferred to those outside the vehicle and the proportion of road casualties who are pedestrians and cyclists has increased over time. In reality, a fundamental shift is needed in our towns, cities and villages away from the motor vehicle and towards low trafficked and low speed environments which are far safer for people on foot and cycling and which promote activity and health and wellbeing.
- A.4. We would also make the case that "road safety" goes far beyond direct casualties. It should embrace the fear of vulnerable road users when walking or cycling in the "public spaces between buildings" that we call streets. The ability to "feel safe" in communities is a very important factor in quality of life, liveability and social cohesion.

B. Are there any areas where the Government's current approach to road safety could be improved?

- B.1. 20's Plenty for Us believes that the Government's approach to speeds and speed limits is a major missed opportunity in relation to road safety and reducing casualties in built-up areas. The move to a default 20mph speed limit is supported by WHO, BMA, FPH, NICE, PHE, ETSC and many others. Transport for London (the Highway Authority for 9 million people across London), in the Vision Zero Action Plan (Annex A, point 1), calls on the UK Government to "Amend the default urban speed limit to 20mph, and as a minimum update DfT guidance so that it facilitates and actively encourages 20mph". The city councils of Birmingham, Edinburgh, Glasgow and Cardiff have also called for a national 20mph default. In Scotland and Wales, there are ongoing moves by the devolved authorities to amend the default limit from 30mph to 20mph.
- B.2. Whilst many local traffic authorities are setting 20mph limits as a norm for their residential and other streets, the Government's refusal to amend the current national speed limit for restricted roads away from

² http://www.20splenty.org/dft_20mph_evaluation

³ <http://content.tfl.gov.uk/vision-zero-action-plan.pdf>

30mph labels 20mph limits as exceptions rather than the norm. Hence it endorses non-compliance and creates a counter-culture to slower urban and village speeds.

B.3. It also has a peculiar approach in its guidance on setting local speed limits which over-values the ability of drivers to choose an appropriate speed. The idea that the 20mph speed limit that most favours vulnerable road users should be expected to be generally self-enforcing is not logical or in accordance with best practice which endorses either rigorous enforcement or road re-design.

C. What interventions would be most effective at reducing the number and severity of road traffic collisions?

C.1. 20's Plenty for Us argues that the default speed limit in built-up areas should be reduced from 30mph to 20mph. Where there are roads that are clearly not appropriate for 20mph limit, these roads should be excepted by the Local Authority, a limit higher than 20mph should be put in place and accompanied by facilities/crossings for vulnerable road users. As we show below, simply reducing the speed limit to 20mph offers the benefit of reducing average vehicle speeds by an average of 1mph overall BUT by up to 6mph on more major roads. We would argue that additional programmes to increase compliance such as those proposed in the TfL Vision Zero Action Plan can dramatically increase compliance levels. At the heart of these additional programmes are the tenets of road danger reduction of:

- reducing danger at source by reducing reliance and usage of motor vehicles,
- designing for lower speeds,
- an enhanced programme of enforcement (Police enforcement, Community RoadWatch and wider use of safety cameras),
- the use and roll-out of new technology such as Intelligent Speed Assistance and
- programmes of education and behaviour change.

D. What evidence is there on the effectiveness of these interventions?

D.1. The value in reducing vehicle speeds in built-up area to a maximum of 20mph.

D.1.1. Before we look at the impact of 20mph schemes which have been implemented by signage alone (rather than involving physical calming) we will look at the principal research into the impact of reducing vehicle speeds to an approximate maximum of 20mph using traffic calming. The definitive study into this comes from the London School of Hygiene and Tropical Medicine which was commissioned by TfL and published in 2009 as 20 mph Zones and Road Safety in London⁴.

D.1.2. This study looked at casualties in the 399 20mph zones which had been implemented in London between 1990-91 and 2007-08 and which used a variety of forms of traffic calming to reduce vehicle speeds. The study found that: "The time series regression analysis estimated a 42% reduction in all casualties within 20 mph zones compared with outside areas, adjusting for an annual background decline in casualties of 1.7% on all roads in London."

D.1.3. In terms of the different severities in injury, the study found that:

- Overall casualties (of any severity) were reduced by 41.9%
- The number of people killed and seriously injured was reduced by 42%.
- The number of people killed was reduced by 35.1%.

D.1.4. From this we can conclude that if we can reduce vehicle speeds to around a maximum of 20mph, we can expect to reduce casualties by around two-fifths. It is, however, not practical (principally owing to cost of installing physical calming so widely) or desirable (owing to the adverse impact of physical calming on comfort) to introduce 20mph across the road network through physical traffic calming. An alternative is, therefore, the creation of wide-area 20mph limits in conjunction with a reduction in the default speed limit in built-up areas from 30mph to 20mph. The issue then becomes how to implement this most effectively to ensure widespread compliance with the lowered speed limit.

⁴ <http://www.bmj.com/content/339/bmj.b4469>

D.2. The impact of reducing the speed limit to 20mph by signs alone.

D.2..1. Many Highway Authorities have now gone down the route of changing the speed limit on some or all of their roads to 20mph in order to gain these proven advantages from lower speed limits. Across the UK, more than 17 million people now live in Local Authority areas where the default speed limit is 20mph. In London, almost all of the Inner London boroughs have adopted 20mph limits on all of the borough managed roads (main roads and residential) and in total more than half of London's almost 9 million residents live on 20mph roads and streets.

D.2..2. In the Appendix, we set out the research in relation to the impact of the introduction of 20mph limits by "signs and lines" alone in relation to both speed and numbers of casualties. The research appears to be reasonably consistent in relation to the reductions in vehicle speeds of this approach with a decline of around 1mph in average speeds (where speeds are already close to 20mph) and with far greater falls on major A and B classified roads of up to 6mph. In relation to the decline in casualties, the picture has been muddied by the publication of the UK Government commissioned WS Atkins⁵ report "20mph Research Study" which found no significant reduction in casualties where 20mph limits had been introduced. The methodologies employed in this study are, however, open to question⁶ and contradict a large number of other studies which have typically seen a decline of up to 20% in casualties where 20mph limits have been introduced. This figure of a 20% decline is consistent with a decline of 1mph in average speeds across a wide area BUT a greater decline of up to 6mph on more major (A and B classified) roads (where around 70% of all casualties typically occur in built-up areas) when (as research from TRL has found) casualties decline by 6% for every 1mph fall in average speeds.

D.2..3. Note that the Atkins research concluded that police non-enforcement of 20mph limits was a key factor in reducing compliance. It recommended increased involvement from the police. It also recommended a national awareness campaign in support of 20mph limits.⁷

D.3. Increasing Compliance with a 20mph Limit.

D.3..1. As we have seen, introducing a 20mph limit will have a small but significant impact on speeds and a more significant impact on casualties but we recognise that much more is needed to ensure greater levels of compliance with a 20mph limit. We would propose, therefore, an approach which is in line with that taken by TfL introducing its Vision Zero Action Plan policies and that the following measures are also implemented:

D.3..1.1. a) reducing danger at source by reducing reliance and usage of motor vehicles (eg through Low Traffic Neighbourhoods⁸).

D.3..1.2. b) designing for lower speeds (eg by removing gyratories, introducing segregated cycle lanes, removing centre white lines, creating tighter junctions and introducing zebra crossings on all side road entrances (as part of the Manchester Beelines⁹).

D.3..1.3. c) enhanced programmes of enforcement (Police enforcement, Community RoadWatch and the wider use of safety cameras).

D.3..1.4. d) the use and roll-out of new technology such as Intelligent Speed Assistance (ISA). This is now being introduced as standard on all new TfL buses in London¹⁰ (as part of the Bus Safety Standard) and is being considered more widely in relation to working vehicles in London. (Overridable) ISA has recently been provisionally adopted by the EU Parliament as part of a range of measures to improve car safety for all new vehicles registered in Europe from 2022¹¹.

⁵ https://www.gov.uk/government/publications/20-mph-speed-limits-on-roads?utm_source=4a35f8cc-0f02-429c-b984-0a590e326628&utm_medium=email&utm_campaign=govuk-notifications&utm_content=immediate

⁶ http://www.20splenty.org/dft_20mph_evaluation_foundation

⁷ Atkins 20mph research study – Technical Report 15.5 Lessons and considerations for national decision-makers.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757302/20mph-technical-report.pdf

⁸ <https://londonlivingstreets.com/low-traffic-neighbourhoods-two-new-guides/>

⁹ <https://londonlivingstreets.com/2018/06/27/greater-manchester-plans-uks-largest-walking-and-cycling-network/>

¹⁰ <https://etsc.eu/case-study-intelligent-speed-assistance-isa-on-london-buses/>

¹¹ <https://etsc.eu/etsc-welcomes-provisional-deal-on-new-vehicle-safety-standards/>

D.3..1.5. e) programmes of education and behaviour change. This could range from behaviour change programmes as part of the introduction of 20mph limits such as the 20 Effect in Liverpool¹² and the introduction of Kids Courts in Birmingham¹³ to longer term promotional programmes based around the umbrella of the Vision Zero approach as TfL are planning in London.

D.3..2. The potential of ISA is particularly powerful as it ensures compliance with the speed limits and begins to move the conversation from an emphasis on enforcement (which is difficult at a time of cuts to the resources that the police have) to one of natural compliance (which is built into the vehicle).

E. How can interventions to reduce the number and severity of road traffic collisions best be implemented?

E.1. 20's Plenty for Us proposes that, in line with the guidance noted above of groups that include WHO, BMA, FPH, NICE, PHE and ETSC and Transport for London, the UK's largest Highway Authority, the default speed in each of the UK's constituent countries is reduced from 30mph to 20mph and that this is carried out in conjunction with a multi-faceted programme to encourage compliance with that limit.

Appendix. Research into the Impact of the Introduction of 20mph Limits

1. The Impact of the Introduction 20mph Speed Limits (alone).

In this section we look at the research into the impact of changing the speed limit in built-up areas from 30mph to 20mph.

1.1. Historic Research (pre-2018)

1.1.1. **Brighton & Hove.** The Council's research found a reduction of 12% in all casualties (and 20% in the number of those killed and seriously injured) between the annual average of the preceding 3 years and the first year of operation of the 20mph limit¹⁴.

1.1.2. **Newcastle.** In 2007 Newcastle introduced eight 20 mph speed limit areas for a trial period to gauge the effects of 'sign-only' schemes on residential roads. The number of car-related collisions on Newcastle's residential streets fell by more than half in some areas of the city following the council's introduction of 20mph speed limits.¹⁵ The overall number of collisions reduced by between 24% and 56% in those streets where 20mph speed limits had been introduced.

1.1.3. **Edinburgh.** Evidence from the South Edinburgh pilot area points to a reduction in casualties (20% to January 2014)¹⁶.

1.1.4. **Portsmouth**¹⁷. The scheme was implemented in 2007-08, and the final report on the scheme of September 2010 had two years' worth of road traffic collision data to compare with the 'before' data to form a meaningful comparison. In the three years before the implementation of the scheme, there was an average of 183 casualties in road traffic collisions (rtcs) per year. In the two years following implementation, there was an average of 142.4 casualties per year; this is a decrease of 22%. Similar results from the DfT for the same time period show an underlying trend of 14% decrease in road traffic collisions; implying that the implementation of 20 mph limits have lowered road traffic collisions by a further 8% than would have otherwise occurred. More recent research released by Portsmouth City Council has shown that in the period since 2011 there was a 31%

¹² <https://www.liverpoolecho.co.uk/news/liverpool-councils-20mph-zones-come-9584784>

¹³ <https://www.birminghamupdates.com/birmingham-kids-court-brings-speeding-motorists-to-justice/>

¹⁴ <http://www.brighton-hove.gov.uk/content/parking-and-travel/travel-transport-and-road-safety/safer-streets-better-places>

¹⁵ <http://www.newcastle.gov.uk/news-story/drop-accidents-city-streets>

¹⁶ http://www.edinburgh.gov.uk/news/article/1743/busting_the_myths_around_edinburghs_20mph_roll-out

¹⁷ <http://www.birmingham.gov.uk/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobheadervalue1=Content-Disposition&blobkey=id&blobtable=MungoBlobs&blobwhere=1223595985319&ssbinary=true&blobheadervalue1=attachment%3B+filename%3D90432020mph>

[_Limits_Mythbusters_February_2016.pdf](http://www.birmingham.gov.uk/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobheadervalue1=Content-Disposition&blobkey=id&blobtable=MungoBlobs&blobwhere=1223595985319&ssbinary=true&blobheadervalue1=attachment%3B+filename%3D90432020mph_Limits_Mythbusters_February_2016.pdf)

reduction of collisions in 20mph roads compared to a 10.5% reduction in 30mph roads and an 11% reduction for all roads.

1.1.5. **Warrington**¹⁸. In February 2009 Warrington established three pilot 20 mph speed limit areas (140 roads in total) for an experimental eighteen-month period. There were 40 'slight' and 'serious' reported injury collisions during the study period, compared to 53.7 during the 18-month period prior to the start of the experiment (a reduction of 25% after adjusting for Warrington-wide changes in that period).

1.2. Recent Research (post 2018). There have been more recent studies which have allowed us to understand better the impact of 20mph speed limits on vehicle speeds and numbers of casualties.

1.2.1. **The Atkins Report.** The Atkins report looked at a number of area-wide studies across the UK; these studies were identified at the time that the report was commissioned in 2014. As a result, this work does not take into account the more recent studies which appear below. We would stress too that the report only looked at what is called a "signs and lines" approach on very small sample sites. It did not involve the multiple dimensions that are recommended in the TfL Vision Zero Action Plan approach of a) lower speed limits, b) designing roads for 20mph limits when changes are made, c) a more robust approach to enforcement and d) the opportunity offered by new technology such as Intelligent Speed Adaptation (ISA). The Atkins report states that with the introduction of 20mph limits in terms of:

1.2.1.1. **Vehicle Speed:**

- The median speed has fallen by 0.7mph in residential areas and 0.9mph in city centre areas;
- Faster drivers have reduced their speed more, with the 85th percentile speed falling by -1.1mph in residential areas and by -1.6mph in city centre areas;
- The overall change in speeds is greater where speeds were faster before. The median speed fell by -1.3mph on residential roads with a before speed of more than 24mph; and by -1.1mph on 'important local roads' which typically had higher before speeds. On 'minor local roads' the median speed was already below 20mph and dropped by just 0.1mph.

1.2.1.2. **Collision & Casualty Rates:** The minimal amount of evidence available to date shows no significant change in the short term in collisions and casualties, in the aggregated set of residential case studies. Most individual case studies were too small for individual analysis to be credible.

1.2.1.3.

1.2.2. **London – People Cycling.** Research by Dr Rachel Aldred at the University of Westminster (and others) on injury risk on London's roads (across the whole city) finds that the introduction of 20mph limits (alone) is linked to 21% lower injury odds for people who are cycling compared to 30mph roads¹⁹.

1.2.3. **Bristol.** A study by the University of the West of England entitled The Bristol Twenty Miles Per Hour Limit Evaluation²⁰ found that the roll-out of 20mph speed limits across the city of Bristol was linked to:

- statistically significant reductions in average traffic speeds of 2.7mph across the city.
- Lower annual rates of fatal, serious, and slight injuries following the introduction of the 20mph speed limits compared to the respective pre-20mph limit rate, thus showing a reduction in the number of injuries.
- An estimated total number of injuries avoided across the city each year is 4.53 fatal, 11.3 serious, and 159.3 slight injuries.
- The number of residents who walk for 10 minutes or more in their local area most days has generally increased in every area.

1.2.4. **Calderdale.** The Council's review of the impact of the introduction of 20mph limits across Calderdale²¹ in West Yorkshire found:

- A 30% casualty reduction over a 3-year period (and later schemes indicate a 40% reduction).
- **A 1.9mph mean reduction in speed** (taken from 3.5 million+ readings with variations in some areas).
- A rate of return of £3.65 for every £1 spent (with future benefits for a minimal ongoing cost).

¹⁸ Ibid.

¹⁹ <https://www.sciencedirect.com/science/article/pii/S0001457518301076>

²⁰ <http://eprints.uwe.ac.uk/34851/>

²¹ <https://calderdale.gov.uk/council/councillors/councilmeetings/agendas-detail.jsp?meeting=24991>

2. **Vehicle Speed (only): Recent London Studies.** To date we have not seen any reports about the impact on casualties of introducing 20mph speed limits in those London boroughs that have introduced wide 20mph limits. We have some research findings on the impact on vehicle speeds:
- 2.1. Islington (2014)²². On non-principal roads there was an average reduction of 1mph. On the principal road network average speed fell 1mph from 23mph to 22mph.
 - 2.2. City of London (2015)²³. Average motor vehicle speeds at the 46 monitoring sites are 1.5 mph lower than before the new speed limit was introduced.
 - 2.3. Southwark (2017)²⁴. Across 86 sites the mean speeds reduced from 21.6mph to 19.8mph - a reduction of 1.8mph.
 - 2.4. Lewisham (2018). Lewisham Boroughwide 20mph Limit Review by The Project Centre. The top 20 roads identified with the **highest 85th percentile speed** in 2015, have all seen a reduction in speed, of on average 2.3mph. Of the top 20 locations identified in 2015 with the **highest mean speeds**, all except one location have recorded an overall reduction, with an average reduction of 2.0mph.
- 2.5. There is evidence that when 20mph limits were introduced at the site of the IMAX roundabout (part of the TLRN) in 2013 there was a fall of 2.7mph in average speeds. This remains to be confirmed by TfL but is consistent with other findings (eg from Portsmouth) that speeds on more major roads declined to a greater degree than on the residential roads that were part of those schemes.

²² <http://www.roadsafetyknowledgecentre.org.uk/downloads/20mph-reportv1.0-FINAL.pdf>

²³ <http://democracy.cityoflondon.gov.uk/documents/s56042/20mph%20outcomes%20report%20vFINAL.pdf>

²⁴ <https://crossriverpartnership.org/media/2017/08/170531-Analysis-of-Impact-of-20-mph-Limits-Research-Report-Issue1.pdf>