

# DfT 20mph Evaluation – Reviewed by 20's Plenty for Us

A 20's Plenty for Us Press Release Dec 2018

[http://www.20splenty.org/dft\\_20mph\\_evaluation](http://www.20splenty.org/dft_20mph_evaluation)

**20's Plenty for Us welcomes the publication of the long-awaited DfT Evaluation of 20mph limits. It confirms the public support and acceptance of 20mph limits but has failed to meet the original DfT objectives or provide increased evidence on how to make our streets safer.**

## 20's Plenty for Us

...making your place a better place to be

Long before the DfT Evaluation<sup>1</sup> was commissioned in 2014, 20's Plenty had been making the case for a national review of the effectiveness of authority-wide 20mph speed limits. At that time 20% of the population were in authorities that were implementing or had implemented 20mph on most roads. Whilst many had conducted pilots and with early phases showing positive results, there had been no nation-wide analysis using consistent methodology.

In commissioning the Evaluation, the Department for Transport (DfT) set the objectives shown below which were confirmed in mid-project presentations by the consultants in 2016. The Evaluation contains much that is relevant and adds value to the debate about 20mph limits. However, against those objectives we give the following assessment.

DfT Objective	Our assessment	
<b>1. Effectiveness.</b> To evaluate the effectiveness of 20mph speed limits, in a range of settings.	<b>Not met</b>	Methodology is flawed in comparisons made; uses data with inherent bias on speed measurements and data gathered is insufficient on casualties.
<b>2. Perceptions.</b> To examine drivers' and residents' perceptions of 20mph limits.	<b>Met</b>	The wide range of surveys are useful.
<b>3. Cost/Benefits.</b> To assess the relative costs/benefits to vulnerable groups e.g. children, cyclists, the elderly.	<b>Not met</b>	Cost-effectiveness was not assessed or compared with other interventions such as physically calmed zones.
<b>4. Processes &amp; Factors.</b> To evaluate the processes and factors which contribute to the level of effectiveness of 20mph speed limit schemes.	<b>Not met</b>	These were discussed, but no evaluation made of the possible contribution in case studies chosen.

We note that the report makes no mention the original "objectives".

**Effectiveness.** In our opinion the evaluation of effectiveness has been compromised by :

- Only including 2 authority-wide case studies, Portsmouth and Middlesbrough. All others being part authority or small isolated implementations.
- Failing to include any Case Studies in London Boroughs or capital cities.
- Using TomTom data as primary mechanism for speed measurement with an estimated 3% of all traffic.
- Acknowledging potential "affluence and behaviour bias" of TomTom Data, but failed to investigate how this may have skewed results.
- Surprisingly using median rather than the mean speeds and so damping down the effect of slower speed vehicles.
- Potential dissimilarity between Case Studies and Comparators used to assess background trends.
- Assumption that Comparators had not introduced any speed or casualty reduction measures.
- Expected casualties within Case Studies were so low due to their size that any change would have no statistical significance.

Of these the reliance on extrapolating data from the 3% (estimated) vehicles with high-end **TomToms** or vehicles with embedded in-car devices for trip measurement gives us particular concern. TomTom<sup>2</sup> also acknowledges a gender and

<sup>1</sup> DfT – 20mph Research Study – Headline and Technical Reports - <https://www.gov.uk/government/publications/20-mph-speed-limits-on-roads> Note that 20's Plenty for Us have requested but not yet received the report appendices

<sup>2</sup> Cohn and Bischoff, Floating Car Data for Transportation Planning - <http://onlinepubs.trb.org/onlinepubs/conferences/2012/NATMEC/Cohn.pdf>

vehicle use bias. Delivery drivers, taxi drivers and others with incentives to reduce journey times will also be over-represented compared to local trip drivers. The compliance levels of such drivers and sensitivity to speed limits may be far lower than those on short local trips.

TomTom data may well be representative of total traffic in congested streets with most traffic at the same speed. However, in free-flowing residential streets, the speed selected will be far more dependent on individual drivers and hence be subject to any bias. TomTom themselves say “When delivering to businesses and governments, be clear about potential bias in end results”. The report mentioned some aspects of the bias and the 3% sampling of traffic but failed to investigate the extent to which bias could skew the results and mask the positive impact of 20mph limits.

With regard to effectiveness on **casualty reduction**, it is concerning to find that the realisation made in the report that the data on Case Study residential roads was too small a sample size to have any significance could have been predicted in the design stage of the project. Typically, there were less than 20 casualties per annum in the Case Study areas chosen. Whilst the absence of sufficient data (number of case studies and time periods) collected was stated in the Technical Report, this was condensed into “there has been insufficient evidence to conclude that there has been a significant change in collisions and casualties” in the Headline Report. This, in turn, was inevitably and predictably spun into “No proof 20mph speed limits make roads safer, official report says” in media headlines which ignored the caveats within the report. One must ask whether this “lack of evidence” outcome had been “designed into” the evaluation from the outset. We note that generally the reduction in casualties on the 20mph Case Study residential areas was greater than that on the Comparator areas. In one city-centre Case Study (Brighton) the casualty reductions were found to be statistically significant (18% and 29%) based on sample size but would benefit from further time periods.

Rather than evaluating a large number of schemes, the report ended up focussing on **Case Study areas** in just 8 local authorities. Only 2 of these (Middlesbrough and Portsmouth) covered the whole authority, the others were either part of an authority (Liverpool, Brighton) or far smaller towns or areas. Results in these were then compared with “**Comparator**” areas which were deemed to be similar but had not implemented 20mph limits.

On the face of it this comparator approach could be useful, but only if the comparator areas had not introduced any interventions which may have impacted on speeds or casualties. If they had then the comparison would not show the impact of 20mph schemes as an addition but only as an alternative. We note that all the Comparator areas had decided to target transport and road safety funds on alternative measures to wide-area 20mph limits. This evaluation shows that there were no road safety detriments but possible gains from taking a wide-area 20mph limits approach.

**2. Perceptions.** We were pleased to see the surveys undertaken in the evaluation and their findings on the broad support for 20mph limits from residents and vulnerable road users. Post implementation surveys showed that the majority of residents (78%) and non-resident drivers (67%) said that 20mph was an appropriate speed limit. It was also good to see some reference to the support from such organisations as WHO, OECD, Global Network of Road Safety Legislators, Directors of Public Health<sup>3</sup>, etc for 20mph/30kmh as the safe speed for where motor vehicles mix with cyclists and pedestrians. Lack of police commitment to enforcement was recognised as the primary factor in increasing non-compliance, which we agree with.

**3. Relative cost/benefits.** This was absent from the evaluation reports. There was no evaluation of the costs of wide-area 20mph limits compared with physical calming. Neither was there any evaluation of the cost of even low-level routine and random enforcement which could have radically changed the outcome and benefits. This objective seems to have been entirely dropped from the evaluation. We suggest a further desk-based assessment of the cost/benefit of routine and pro-active enforcement on faster roads as deployed by Avon & Somerset and West Midlands Police.

**4. Processes and factors.** From our understanding of the many wide-area 20mph implementations around the UK, we recognise that the success of authority-wide 20mph defaults are very much about setting a clear public consensus. We have seen schemes implemented in many ways and we see that compliance levels (and hence effectiveness) would depend on a number of “success predictor” factors :-

- Level of cross-party local political support.
- Whether police gave supportive or negative message regarding enforcement and the actual levels of enforcement that are seen to occur.
- Whether public health and behaviour change specialists had been used.
- Whether a multi-agency team had been used to promote wide community benefits

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<sup>3</sup> 20's Plenty for Us – OECD calls for 20mph limits in built-up areas [http://www.20splenty.org/oecd\\_urban\\_20mph](http://www.20splenty.org/oecd_urban_20mph)

At the start of the evaluation we emphasised within the stakeholder's consultation the benefit from evaluating the influence of these "success predictors" on implemented schemes. With the growing recognition of 20mph/30kmh being the correct and safe speed for where motor vehicles mix with pedestrians and cyclists, and with typically 100,000 casualties on 30mph roads every year there was clear benefit from a far wider adoption of 20mph limits with good compliance to reduce driver speeds.

Whilst the Evaluation Report references these factors as being important, it makes no attempt to evaluate their relative importance, or levels of costs or benefits. This is a serious omission.

### **Report lessons and considerations for national decision-makers.**

We welcome this section of the report, much of which echoes some perspectives of 20's Plenty for Us.

However, it conflates the setting of the correct speed limit with the methods used for gaining compliance. It implies changing authority/community aspirations to recognise police non-enforcement as given when there are very practical options such as using PCSOs and alternatives such as automated enforcement. Enforcement and speed awareness course operations could also be delegated to local authorities<sup>4</sup>. The emerging role of new technology in the form of (mandatory) Intelligent Speed Adaptation (on fleets or all vehicles) is a potential game changer in terms of compliance. Singly and in combination, these enable a wider or national adoption of 20mph limits to be far more effective in transforming the way our urban and village streets are shared. This would deliver substantial and predictable benefits in liveability, casualty reduction and public health.

The Evaluation is correct in calling for national 20mph awareness campaigns. For too long national resources have said its "30 for a reason" when clearly that reason is so "last century", and not appropriate when the goal is both to reduce casualties and to encourage more people to walk/cycle and to be active in their travel. Such a switch from private car based travel or even simply driving slower also reduces pollution.

The report highlights the benefits for those authorities who look at 20mph limits in a broader context of meeting other local aspirations for active travel and public health. The pooling of resources, particularly around transport, community, environment and health objectives is also critical at national level.

### **Conclusions.**

From 2014 when the Evaluation was commissioned to 2017 2,263 people have died on roads with a national 30mph speed limit that was set in 1934. There has been a further 369,000 casualties on 30mph roads of which 49,000 were serious injuries. The speed that these roads permit and endorse, intimidates pedestrians and cyclists and deters the young, elderly and disabled from using such roads. 30mph limits expose and fail to protect their vulnerabilities.

The current DfT guidance requires that local authorities take full account of the needs of vulnerable road users. It encourages them to set 20mph limits on residential roads and where pedestrian/cyclists' movement are (or could be) high. At the same time, the wide number of active travel, public health, liveability, economic mobility, equality, children/elderly and air quality boxes that can be ticked by wide-area 20mph limits make them an attractive initiative for local authorities that goes far beyond road safety. The background evidence is that 20mph is the safe speed limit. There is public consensus that 20mph is the right speed limit for those roads and there is support for it being adequately enforced.

This Evaluation shows that there is little routine enforcement taking place and how this endorses public non-compliance. We believe that a key issue is a disparity between the population-wide benefits of lower speeds and wide outcomes for local authorities, compared to the site-specific focus on casualty clusters in road policing. An objective and quantitative assessment of the comparative cost of the "success predictors", such as media marketing/community engagement/enforcement, and the societal benefits of improved speed reduction and consequential outcomes would have provided a common and objective mechanism for multi-agency teams (traffic, public health, police, etc) to optimise the implementation methodology. This would really empower decision-makers at local and national level to make informed and objective decisions on how to successfully implement what is the (20mph) right speed limit for where motor vehicles mix with pedestrians and cyclists.

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<sup>4</sup> 20's Plenty for Us – How local authorities can enforce 20mph limits [http://www.20splenty.org/las\\_could\\_enforce\\_20mph\\_limits](http://www.20splenty.org/las_could_enforce_20mph_limits)

The Evaluation could have explored why and how the majority of the 40 largest urban authorities have adopted authority-wide 20mph limits. It could have looked and quantified what worked and how it worked. It could have considered why the UK's largest urban highway authority, Transport for London, recently demanded in its Vision Zero Action Plan<sup>5</sup> that it should set 20mph limits for most roads and that the UK Government should "Amend the standard urban speed limit to 20mph".

Disappointingly...

- It measured what was available rather than what would have been meaningful.
- It failed to take into account the bias in the TomTom data it used regarding speed.
- It failed to realise that the small numbers inherent in the small area and numbers of Case Study areas would ensure that its casualty data would be "insufficient".
- It failed to deliver a "how to do it well" evaluation.
- It failed to deliver 3 out of 4 of its objectives as stated when the evaluation was commissioned.

Rod King, MBE, Founder and Campaign Director of 20's Plenty for Us commented :

*"The Evaluation Report touches on the methods and benefits of making our places better places with 20mph limits and the interdependence of speed limits, consensus, enforcement and societal benefits. But we have serious questions about the data limitations through quantity or bias. The DfT report fails to meet its original objectives and one has to question the value-for-money regarding the lack of quantifying the costs/benefits of ways to reduce vehicle speeds to towards and below 20mph for our most vulnerable road users.*

*It may not be intentional, but this report and its "lack of evidence" has become a dog-whistle to every journalist seeking a "juicy" headline. That needs to be corrected by DfT and the report authors. They need to explain the limitations of the data and lack of conclusions formed with greater clarity. This should include the fact that 70% of drivers in residential and 85% in city 20mph limits reduce their speeds to 24mph or less.*

*The report shows that there are high levels of post implementation support with the majority of residents (78%) and non-resident drivers (67%) saying that 20mph was an appropriate limit. It also shows a woeful lack of police enforcement perhaps indicating a systemic failure in the Home Office to appropriately prioritise the wide societal benefits from a 20mph speed limit which so many recognise is the maximum safe limit for where people mix with cars.*

*The public sector at local and national level have a primary "duty of care" responsibility to protect citizens. Many local authorities have taken the steps to recognise that the 1934 30mph national limit is simply obsolete and have moved forward with 20mph limits for most roads as a foundation for their active travel, public health, equality and air quality aspirations. With public and political backing, together with engagement and enforcement and complementary active travel initiatives, 20mph limits can and should transform our public places and our public health.*

*We call for a national default 20mph limit for restricted roads (with locally determined exceptions) which is adequately enforced and accompanied by a national awareness campaign. Politicians and public sector officials in transport, public health and enforcement owe it to us all, and particularly the young, the elderly, the disabled, the economically disadvantaged and the nation's public health, to use this report as a foundation to make all our places better places to be.*

*National governments must now take up the challenge to deliver safer streets for all communities with a national default 20mph limit and its considerable societal benefits. It's time to say 20's plenty wherever people are, to make it happen nationally and to do it well."*

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**20's Plenty For Us campaigns for a 20mph default speed limit in built up areas without physical calming.**

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<sup>5</sup> Transport for London – Vision Zero Action Plan -<http://content.tfl.gov.uk/vision-zero-action-plan.pdf>