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ROAD SAFETY NEWS

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Slower speeds are better for health: Danny Dorling



Professor Danny Dorling certainly pulled no punches in the online seminar he hosted earlier today (27 March) on the Academy website.

Professor Dorling was answering Academy members' questions about 20mph limits and zones, which he has described as "the most effective thing a local authority can do to reduce health inequalities".

Below is a full transcript of the seminar - with the questions in red.

How can we be assured that speeds in such areas do not exceed 20mph without the use of ISA (Intelligent Speed Adaptation), which, it would seem, the Government is failing to promote?

Almost all areas which should be getting 20mph currently have 30mph. In such areas we cannot be assured that speeds do not exceed the 30mph limit. However, because there is a 30mph limit drivers become used to driving no faster than that limit. They know it is illegal to do so. And most drivers drive at or below the limit which has the effect of forcing drivers behind them who might want to drive faster than 30mph to have to obey the limit.

There is no reason to suppose that the same process does not operate in 20mph zones. When speeds in such zones have been monitored, local councils have found that they are successful in encouraging drivers not to speed. Just as 30mph zones are successful in encouraging large numbers of drivers not to drive above 30mph in those zones. The problem is that 30mph is simply too fast in most residential areas, near shops and schools. It is an anti-social speed to drive at, but by zoning these areas as 30mph drivers are being encouraged to drive towards that speed. It is quite hard to drive at 20mph in a 30mph zone. You get tail-gated very quickly.

There is now a huge amount of evidence on the 20's Plenty website as to why councils should be ashamed if they have not joined the growing numbers who already think their citizens are worth enough to be able to live in quality neighbourhoods without such fear of traffic. See: <http://www.20splentyforus.org.uk/> and, if you want to know why this matters above improving the general quality of neighbourhoods, see: <http://www.roadpeace.org/>

If 20mph schemes have a positive impact on health inequalities and deliver wider health benefits, at a local level who should be paying for the schemes? Should it be highways/transportation or public health?

In a time of austerity it is hard to think of a policy which represents better value for money than replacing 30mph signs with 20mph signs. It would be cheaper if there was a national move to make the default residential speed limit 20mph, and that will occur at some point. Already around 100 local authorities have adopted 20mph – at some point there will only be a minority which have not. However, before we get to that point, there is the question of who pays.

In the North West of England public health authorities have led the way by providing budgets to local authorities to help them implement authority-wide 20mph schemes. It is worth asking why this is not happening (if it is not happening) where you live? It is not just the loss of life that is prevented by slower speeds, or the savings made to the NHS from having to deal with fewer accidents on the roads. People walk more and cycle more when they are less afraid of traffic, which is good for health. Pollution from cars is reduced, which is good for health. Sitting in a car burning almost no calories is not good for your health and sitting in car going at speed is the most dangerous thing most people do in any day – other than trying to cross the road.

There are currently many contentious issues in public health over what works best: statins/never drinking/drinking moderately – and so on. There is no contention over whether slower speeds are not better for health.

With the results of the DfT's study into the effectiveness of 20mph limits not expected until 2017, what should local authorities do in the intervening period?

There are already enough results showing the effectiveness of 20mph limits that local authorities can act on. Perhaps the single most devastating study is the following paper which was published in the British Medical Journal on 2 January 2010: "Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis". <http://www.bmj.com/content/339/bmj.b4469>

Here are its results for London:

"The introduction of 20 mph zones was associated with a 41.9% (95% confidence interval 36.0% to 47.8%) reduction in road casualties, after adjustment for underlying time trends. The percentage reduction was larger in children (48.5%, 41.9% to 55.0%) and also larger for the category of killed or seriously injured casualties than for minor injuries. There was no evidence of casualty migration to areas adjacent to 20 mph zones, where casualties also fell slightly by an average of 8.0% (4.4% to 11.5%). The study estimates that 20 mph zones prevent around 200 casualties a year, of whom 27 would be killed or seriously injured and 51 would be pedestrians."

I can see no reason why, until the DfT study is released, local authorities should not take this British Medical Journal paper as being the single most important study published to date. I also hope that the DfT study is peer reviewed and refereed to the same level of quality as that BMJ paper. It should at the very least include analysis of the same quality, but for all of the country and a longer time period.

What would you suggest is the most effective way to ensure 20mph speeds are achieved if a 20mph limit is introduced?

I think it is a question of winning over hearts and minds. At some point in the future we may have "Intelligent Speed Adaptation" and all manner of other technological advances which would make us safer. Human beings didn't evolve to safely steer a ton of metal and glass at speed. It is a stupid thing to get a human to do. But, in the short term, we are where we are - and we need to quickly move many more areas to slower speeds.

Take an analogy. How do you stop parents hitting children? It used to be common for parents to hit children, often in public. Teachers used to be allowed to hit children as well when corporal punishment was legal. Now we consider hitting children as child abuse. Hearts and minds were won over.

There will come a time when driving at 30mph in a 20mph will come to be seen as being as anti-social, as small minded, and as inconsiderate to others as smoking in a confined space is now viewed, or as randomly striking out at a stranger might be seen, let alone hitting children. If you think the analogy with hitting children takes things too far ask yourself what damages, kills and seriously injures children the most in the UK today – adults who strike them with their fists, or adults who strike them from behind the wheel of a vehicle?

We got people wearing seat belts through hearts and minds campaigns, and to largely stop drink driving. We are currently helping people to realise that they are considered an idiot if seen talking on their mobile phone while driving. Most things in society work because most people follow the rules, including a lot of unwritten rules. A few people are psychopaths, a slightly larger number lack much empathy, but the vast majority of people are what is called “pro-social” in their attitudes. When it comes to behavior change and predisposition this is a rapidly evolving area of research, but we are getting a clearer and clearer picture that suggests only a few people have severe antisocial behaviour problems and can't be persuaded not to harm others.

Some road safety professionals feel that all the attention/funding that is being focused on 20mph limits is deflecting attention/resources from bigger road safety issues such as young drivers/motorcyclists etc. What would you say to them?

It is not an either/or issue. Would you suggest that campaigns telling people not to smoke detract from campaigns suggesting that it is bad to drink too much as it might harm your liver? There is also an obvious end point to 20mph campaigns. Perhaps in those areas of the country that have them campaigners are now more free to concentrate on the problems that are left – including coping with those few people who are arguing for even faster motorways.

Men and motorcycles is certainly a big problem. Young people getting access to cars is similarly a big issue. Anybody reading this forum will know that the worst birthday present you can give an 18 year old is a fast car. Sadly many rich people do not yet understand that. You have to be rich to afford to make such a mistake.

There are other issues too. Why do we not have a public transport system more like that which works so well in Japan? Why do we have such polarized and segregated cities that we commute so much further than most other people in Europe do (because it is harder to live near where we work)? Why can't we see that we need far more cycle friendly cities such as they have in the Netherlands and Denmark?

There are always many things to consider. But of all these, the simplest question to answer is – is there any good reason not to have 20mph in residential areas, near shops or schools? The answer is that there is not a single convincing reason for carrying on treating other people's welfare as being of so little value.

There have been many cases where societal values have developed and as a result laws changed to reflect those values. Whilst there may be majority support (as in case of 20mph limits) universal support (and hence compliance) may take longer. The role of enforcement always plays a part in levering up (or down) the rate at which new values are accepted. It is often done with more progressive communities (cities or countries) taking the lead and eventually others following towards universal acceptance. I would ask if Prof Dorling could put the movement towards lower speeds in urban and residential environments into such a context and compare with similar movements for change.

See my answer above to James – but let's make the context much wider. Here is a list of things that we made law. At each point there was opposition to it becoming a law – and then, not much later, people wondered how on earth they could have ever opposed the change in the law:

- 1) Factory acts limiting the working hours of children
- 2) Laws requiring the building of sewers in towns
- 3) Extending the vote to people who did not own property
- 4) Introducing a 30mph speed limit in the first place
- 5) Introducing a right for ramblers to climb hills
- 6) Banning fuel/coal that causes smog in cities
- 7) Banning teachers from using the cane on children
- 8) Rules to prevent people owning or carrying guns
- 9) Domestic violence becoming seen as a crime
- 10) The introduction of 20mph local speed limits

I'll have got some of these out of order. It is simply a list off the top of my head. You may think some are more important than others (I chose not to mention slavery, the death penalty, or abortion). Often the gaining of rights is continuous. It is never easy. If it was easy it would have happened by now. But the campaign for 20mph in residential areas, by shops and schools is part of a wider campaign to be safe and happy living in your city, town or village. It's a campaign to worry far less when your children play out, or when your elderly parent walks home, or when you don't want to have to be so afraid – including many people who are afraid of driving at current unsafe speeds.

Do you think engineering schemes are pretty much a necessity in order to get people to comply with 20mph limits?

The most important thing to understand is that speed enforcement in the main works by consent and people adapting to what becomes normal. The introduction of speed humps is not favoured by many of those advocating 20mph in all residential areas because of the cost and the annoyance, the damage to vehicles and so on. Similarly with road narrowing.

There will always be places where engineering is needed to improve road safety as well as the liveability of cities. But these will always be a minority of areas. Similarly there will be areas where cameras help, but these too will be a minority of areas. Just as for 30mph today, 20mph is becoming the new norm in many areas and will become so in many other places.

It is when drivers (and cyclists) calm down, and are helped to calm down by being told that 20mph is the maximum safe speed to travel in an area that they slow down and start to see the people and places they are driving past. This is not just an issue of immediate road safety. Slower speeds would mean that far more parents would be happy with their children playing out and visiting friends on their own, going to school on their own at ages, 8, 9 and 10.

The ultimate enforcement goes when a large majority of people come to see that a particular action is anti-social. In those towns and cities where 20mph is already normal you can begin to see drivers changing more than just their speed. They become more courteous overall. Cyclists find it more embarrassing to undertake and to act in other ways when car drivers are driving more slowly. Pedestrians see cyclists and drivers as less of a threat, partly because at 20mph or less it is easier to look people in the eye.

Professor Danny Dorling

[Danny Dorling](#) is Halford Mackinder Professor of the School of Geography and the Environment at the University of Oxford. He is a widely published and highly respected expert with a special interest in differential life expectancy between socio-economic groups.

Recently, [in a paper published by the British Academy](#), he suggested that introducing 20mph limits is the most effective thing a local authority can do to reduce health inequalities. In his paper Professor Dorling suggests that “introducing 20mph zones would save lives, prevent injuries and reduce health inequalities in the process”. He describes it as “a low cost measure and a devolved power that can only easily be enacted at the local level”. He goes on to suggest that “death is much less likely if a pedestrian is hit by a car travelling at 20mph, than at 30mph or more, and cyclists are far safer if travelling with traffic that does not exceed 20mph”. He also says that “lower traffic speeds bring many other benefits: less congestion; less air pollution and CO2 emissions; stronger communities; more walking and cycling; and reduced obesity”.

Road Safety GB Academy

The Road Safety GB Academy is the professional development arm of Road Safety GB. Complimentary membership of The Academy is offered to road safety practitioners employed by local authority members of Road Safety GB – up to a maximum of 10 places per authority. Applications are also welcomed from practitioners working in the private and voluntary sector, subject to meeting the membership criteria. The annual cost of membership for these practitioners is £35.

Since its introduction in July 2013, the monthly online seminar programme has proved popular with Academy members. The seminars are free and open to all members, and questions can be submitted in advance or during the session.

Figure 10: How to ensure speed limits are enforced.



Source: RoadPeace.