

An Evidence Review on the Health Effects of 20mph zones

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Context

- 20mph zone introduced in 1990's based on international experience that lower speed limits could have safety benefits when combined with traffic calming measures.
- NICE guide suggests to implement traffic calming measures to reduce speeds, with the aim to reduce casualties (20mph mentioned).
- 1996 - 2001 residential UK areas: 61% reduction total injuries (esp. children; Accidents reduced by 6.2% for each 1mph; reduced risk to environment through reduced speed and volume.

How are journeys made?

- 64% trips by car - worsened by growth in road transport
- 22% by foot
- 2% by bike



20MPH ZONES

- Recent article published by Public Health concluded that 20mph zones:
 - Reduce accidents & injuries
 - Reduce traffic speed & volume
 - Improve perceptions of safety
 - Potentially cost-effective
 - Help to build walking and cycling into daily routines - esp. <5mile car trips



Isle of Wight Road Casualties

59 / 100,000 - killed and/or seriously injured casualties on loW Roads
2012-2015

39 / 100,000 national average

2nd highest in comparator groups
(behind East Sussex)



Local Context – Newport

- Newport amongst the 20% most deprived areas in England
 - Lower socio-economic status (SES) groups are 5x more likely to be injured in RTAs compared with those in higher SES groups
 - Due to related exposure to danger within their environment, not necessarily individual behaviour
 - Additionally, High-speed traffic is associated within lower SES neighbourhoods
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Fuel emissions

■ The AA:

- change 30mph zone to 20mph zone - increases fuel consumption by 10%

- add speed humps to 30mph zone - increased by 47%

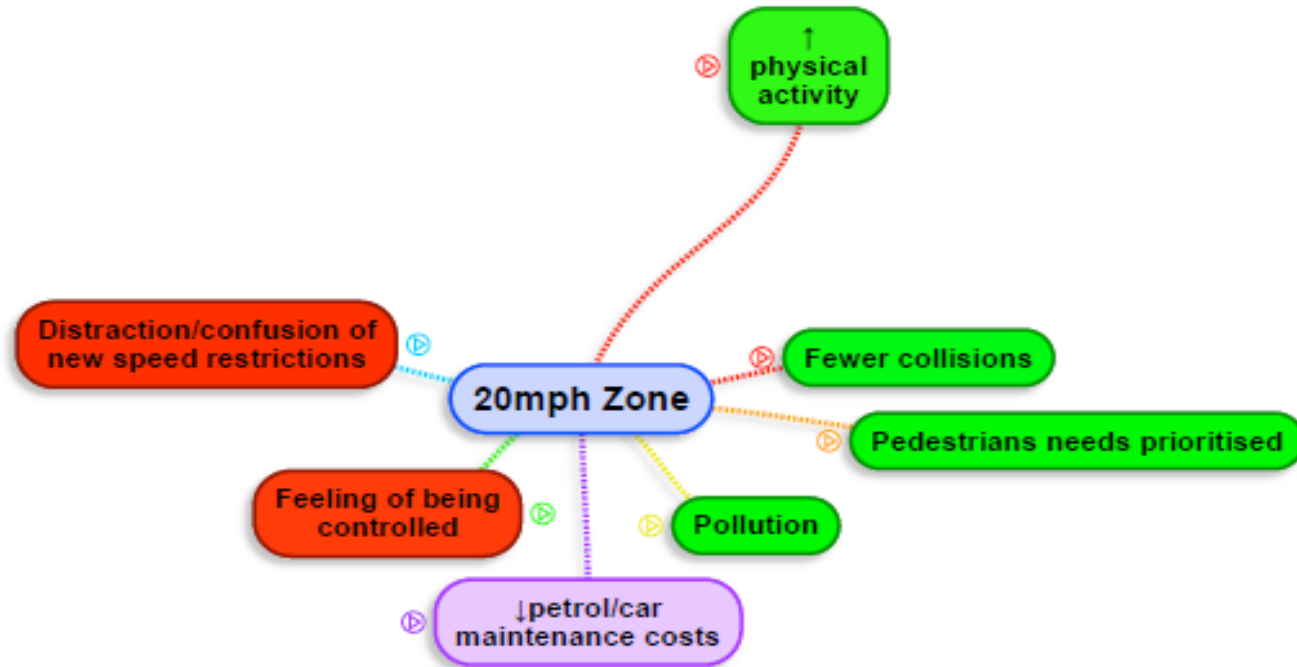
■ But different driving styles

- reduced emissions if reduced accel/decels

But do the residents want this?

- “High level of acceptance” amongst local residents for 30km/h zones in Dutch study
 - British Social Attitude Survey (2010) concluded that:
‘71% of people were found to be supportive of 20 mph speed limits in residential areas. However, only 48 percent favoured speed bumps and every survey since 2000 has reported a majority in favour of 20mph limits’.
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20mph zone links to health



Multiplier (knock-on) effects



Key concluding points:

- Traffic calming measures such as 20mph zones, dependent on technique(s) and methods could:
- Reduce speed and traffic volume;
- Reduce accidents and injuries, therefore casualties;
- Reduce environmental pollution, leading to better air quality;
- Increased perceptions of safety within community;
- Reduce levels of physical inactivity across the lifecycle; through promoting and supporting active travel as part of healthier lifestyles.

In Summary...

To consider:

- Lack of evidence around impact on surrounding roads due to drivers changing their route
- Traffic calming used in 20mph zones has unintended negative consequences, such as causing vehicle damage and injuring vehicle occupants

Finally:

- Introduction of 20mph zones had the potential to have both positive and negative health effects. The extent to which, is dependent on the implementation and involvement of key stakeholders.

Thank You

- For any further questions and/or references, please contact me: chad.oatley@iow.gov.uk
 - To access the local data provided, please visit: <https://www.iwight.com/Council/OtherServices/Isle-of-Wight-Facts-and-Figures/Joint-Strategic-Needs-Assessment-JSNA>
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