



20mph Limits For Dorset

Is traffic speed a problem ?

Resident led - 20's Plenty for Dorset

Campaign coordinator - Dilys Gartside

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A branch of the 20's Plenty for Us National Campaign
to whom many of the following slides are attributable

March 2023



Supporters include

“Our politicians must fully reflect that road accidents are the biggest killer of fit people especially the young. I refer to these deaths as MOTORCIDE

. . . . our politicians . . must learn from other areas that 20 is plenty”

Dr Vincent Argent

Consultant in A&E Dorset County Hospital



English Govt and Establishment support 20mph

- ▶ Wide area 20mph limits supported by UK Government since 2013.
- ▶ UK Govt agreed Stockholm Declaration Feb 2020:
- ▶ 130 Nations agreed it
- ▶ UN Assembly policy



“a safe speed on roads with possible conflicts between cars and pedestrians, cyclists and other vulnerable road users is 30 km/h (20mph).”



Government support strengthened due to Covid

Statutory guidance

Traffic Management Act 2004: network management in response to COVID-19

Updated 13 November 2020

- Reducing speed limits: 20mph speed limits are being more widely adopted as an appropriate speed limit for residential roads, and many through streets in built-up areas. 20mph limits alone will not be sufficient to meet the needs of active travel, but in association with other measures, reducing the speed limit can provide a more attractive and safer environment for walking and cycling.



Dorset Traffic Speed Management Policy updated in Nov 2022

- ▶ As result of campaigning, councils can now apply for 20mph in built up areas including A and B roads
- ▶ Show your support for slowing traffic speed by asking your parish or town council to apply to Dorset Council
- ▶ Tell your county councillor and your MP that you want this where you live



Okeford Fitzpaine - shop and pub between two blind bends on a single track street, no pavement. School closed 2022 partly due to traffic safety fear



30mph = 6 car lengths
stopping distance

20mph = half that distance



20mph - closely linked to policies on :

- road safety and public health
- motor traffic reduction by encouraging
active travel
- air quality and climate changing emissions
- active neighbourhoods
- economically vibrant town and village centres

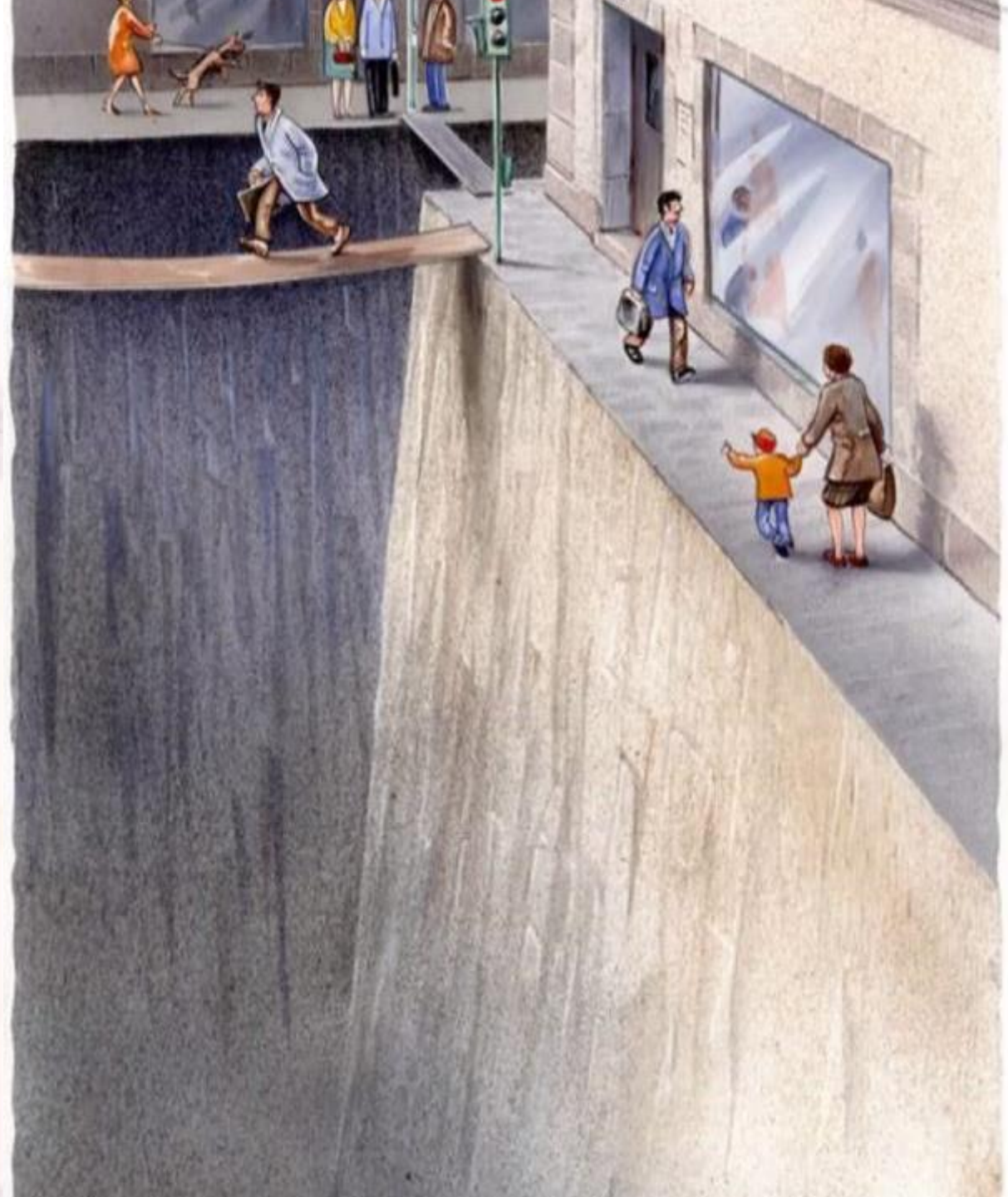


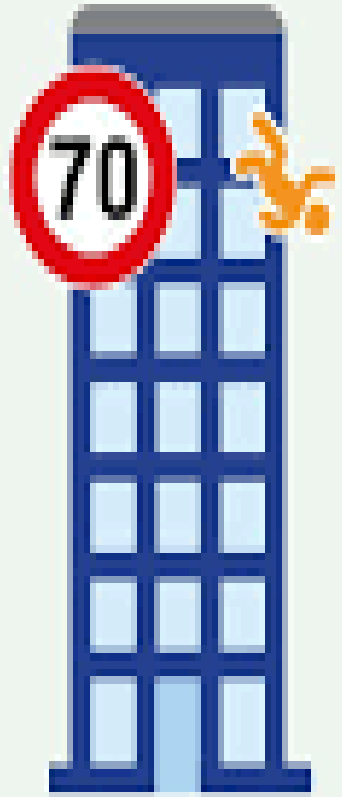
20's Plenty for Us

...making your place a better place to be

20^{mph} 20's Plenty

▶ *No space for error !*

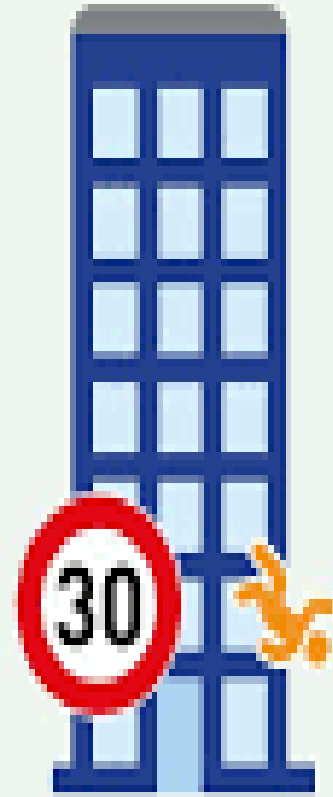




6th floor fall



3rd floor fall

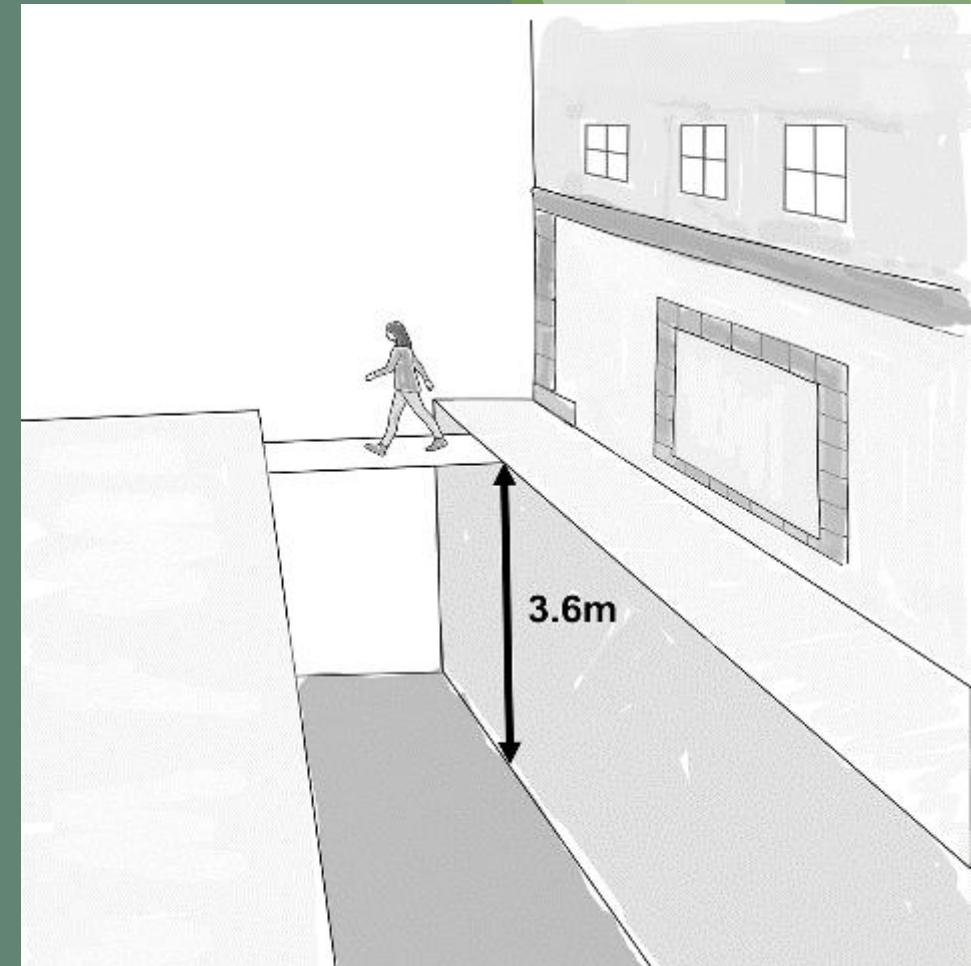
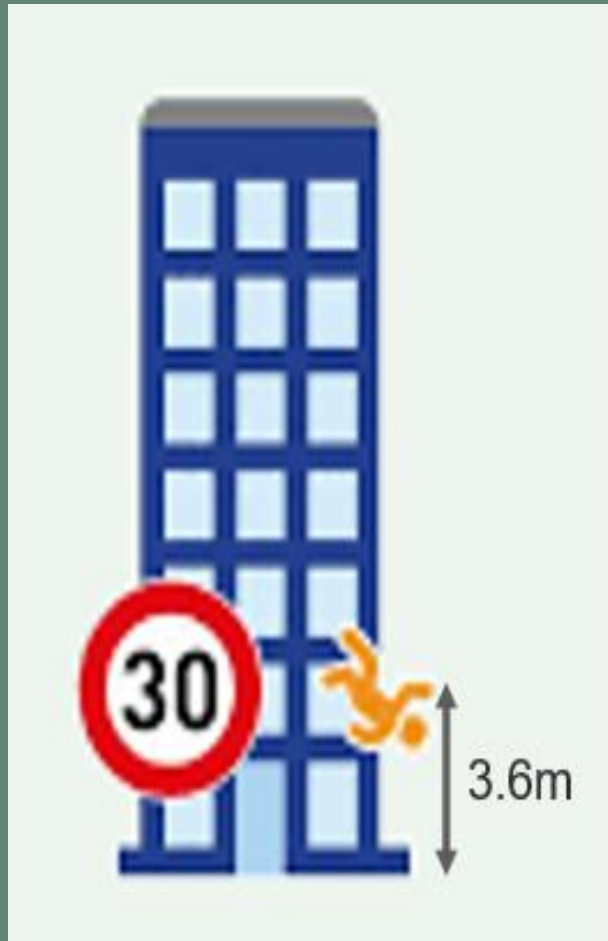


1st floor fall

And so we use another graphic to show how being hit by a car at different km/h speeds is equivalent injury to falling out of a window



By combining the two sets of graphics, we show a very different story. Where we have 20mph speed limit, the road is not a suicidal chasm, but a drop less fearful, more manageable and survivable when human error occurs





Vision Zero/ Safe Systems

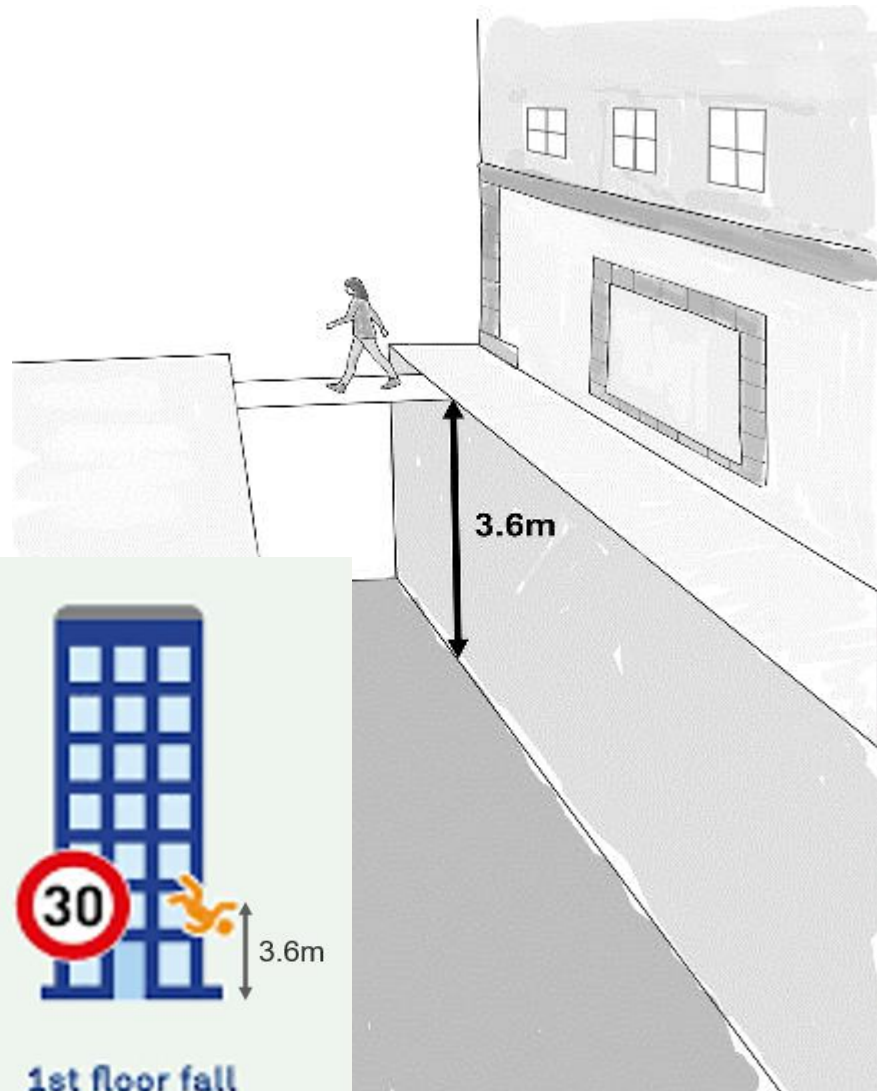
- ▶ outdated road safety approach = get vulnerable out of the way
- ▶ DfT guidance/ best practice = ensure a safe system forgiving of human error to eliminate road death and maiming
- ▶ Road danger kills and injures fit, healthy people particularly poorer children and older folk
- ▶ Road crashes: predictable, preventable, waste 2% GDP

The effect of speed

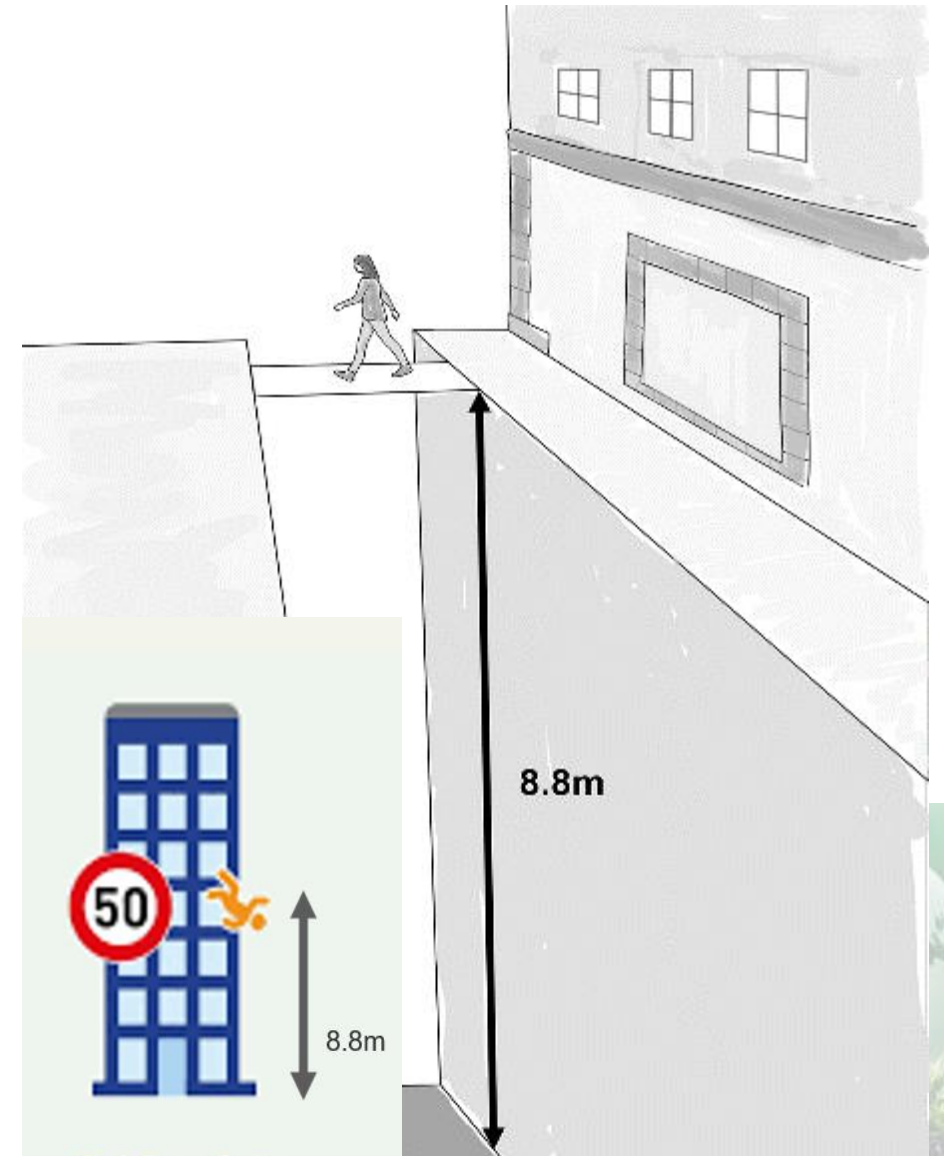
	Average for all ages	Over 60 year olds
At 40 mph	• 31% are killed	• 98% are killed
At 30 mph	• 7% are killed	• 50% are killed
At 20 mph	• 1% are killed	• 5% are killed

Data from Road Safety Web Publication No. 16 *Relationship between Speed and Risk of Fatal Injury: Pedestrians and Car Occupants* - Department for Transport (September 2010)

The desired norm (what UNGRSW call for)



The current norm (what we currently have)



Dorset Councillors set Speed Limits for Dorset roads

- ▶ Highest risk we take daily is using roads.
- ▶ Road injury = leading cause of death of young people
- ▶ The most important power a councillor has !

- ▶ 20mph - the new NORM

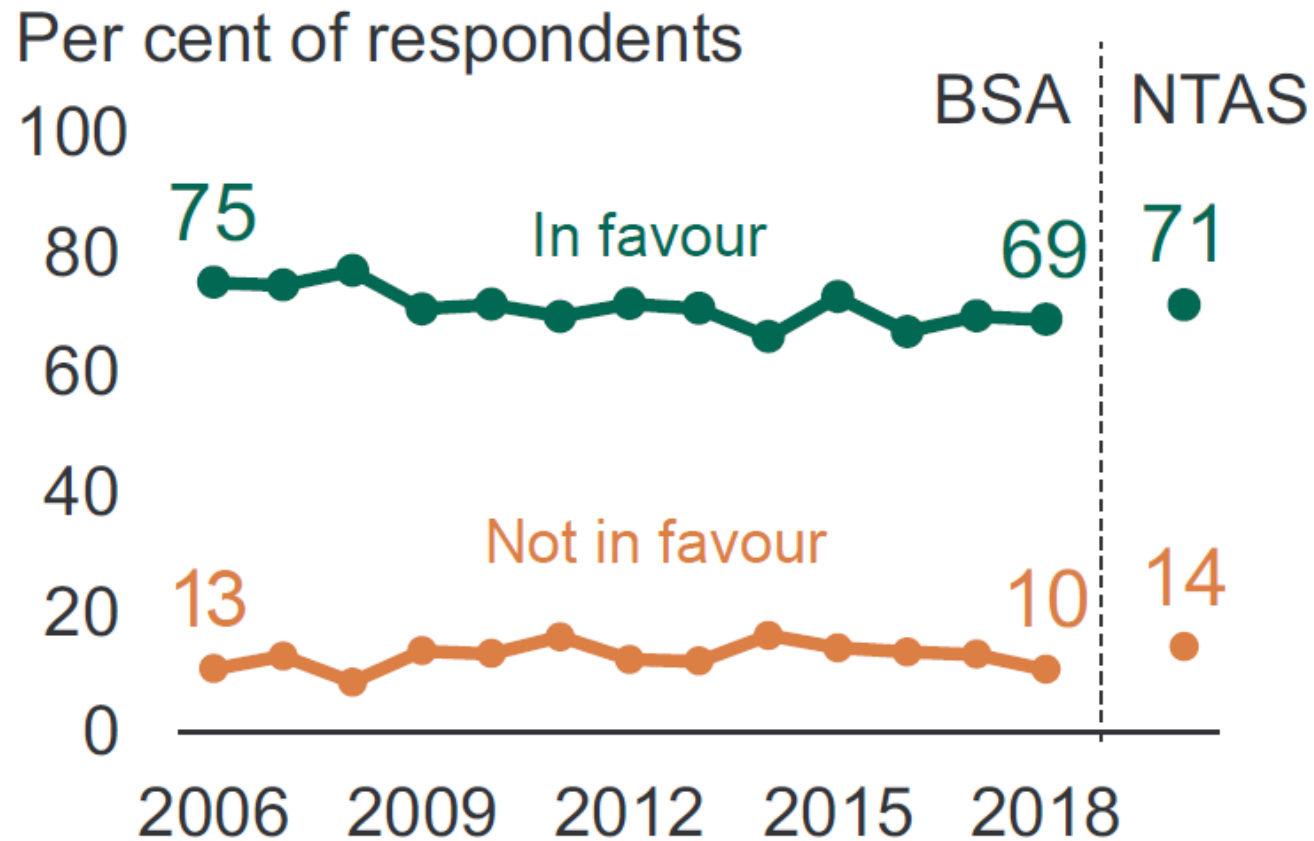


20's Plenty for Us

...making your place a better place to be

Strong public support nationally for 20mph limits

Speed limits of 20mph in residential streets



Scope: England, 18+



wide Area Limits, not Small Zones = Best Practice

- ▶ Say Yes to Limits - signs/markings only, no traffic calming, wide areas where default speed limit is 20mph
- ▶ Say No to small Zones, eg by schools; ineffective



Who is 20's Plenty for Us?



Rod King MBE
(founder)



Anna Semlyen
(campaigns)



Jeremy Leach
(London)



Adrian Berendt
(South East)





20mph . . some of the Benefits

- ▶ 20+% fewer casualties
- ▶ More walking & cycling, active health,
- ▶ Cut obesity, heart disease
- ▶ Cut fume-related deaths/illness
- ▶ Climate-friendly
- ▶ Stronger communities
- ▶ Medics want less road crash victims:
A+E demand, more hospital beds freed up





. . . and more Benefits

- ▶ Independent mobility - elderly, children
- ▶ Children cant judge traffic speed over 20mph until age12+
- ▶ Halves noise
- ▶ Improves air quality



- ▶ Economic bonuses for local business
- ▶ Minor effect on journey time -10sec per mile
No adverse effect on bus timetables
- ▶ Make Dorset a better place to live, work and visit

Most pedestrian casualties are on 30mph roads

The majority of pedestrian casualties of all severities occurred on roads with a 30mph speed limit in 2017





Road Safety

- ▶ Even small reductions in speed have significant benefits
- ▶ 1 mph reduction in speed = > 6% reduction in collisions (DfT)
- ▶ Speed reductions are greatest on fastest roads
- ▶ Compliance increases



6th floor fall



3rd floor fall

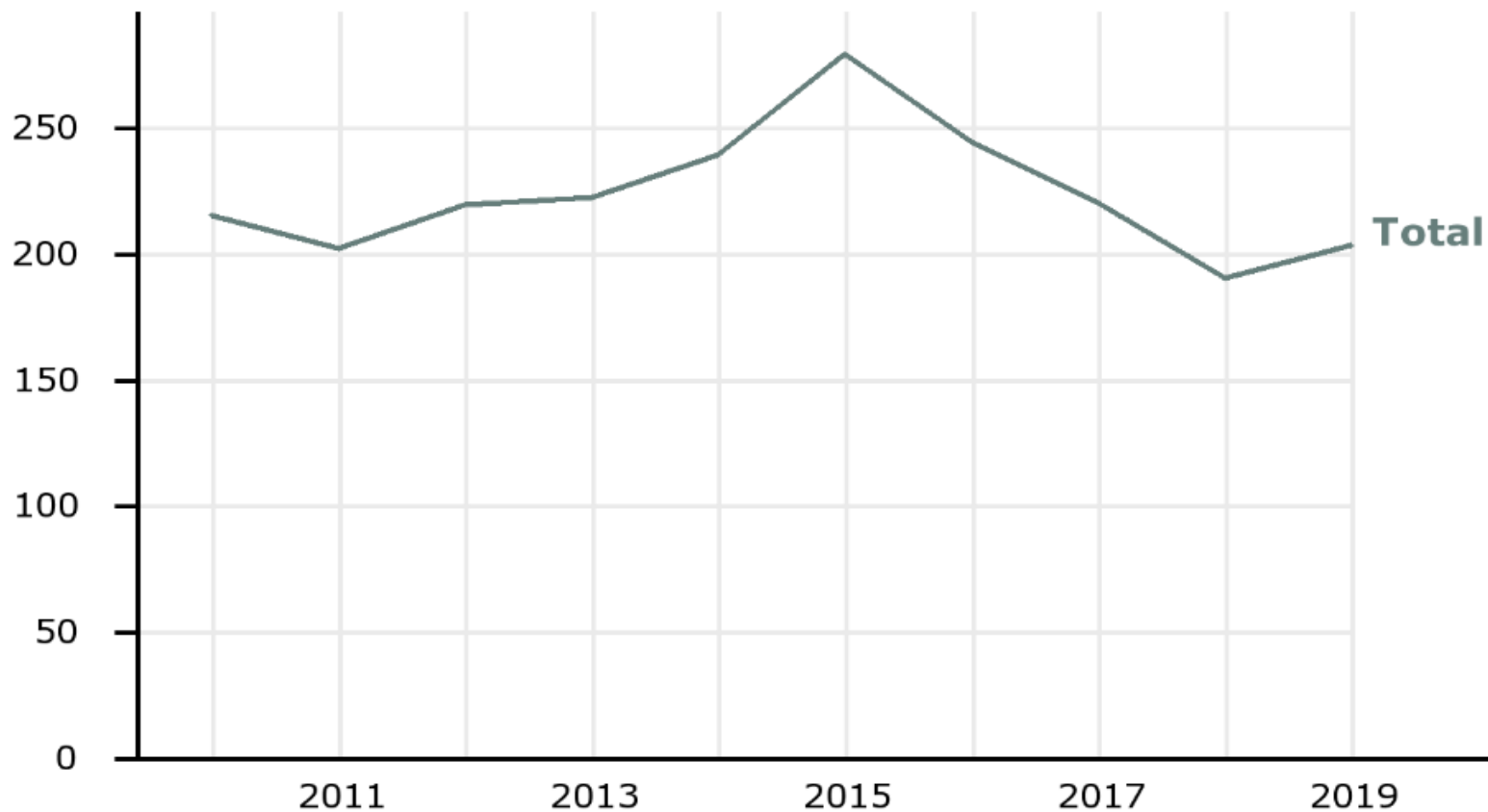


1st floor fall

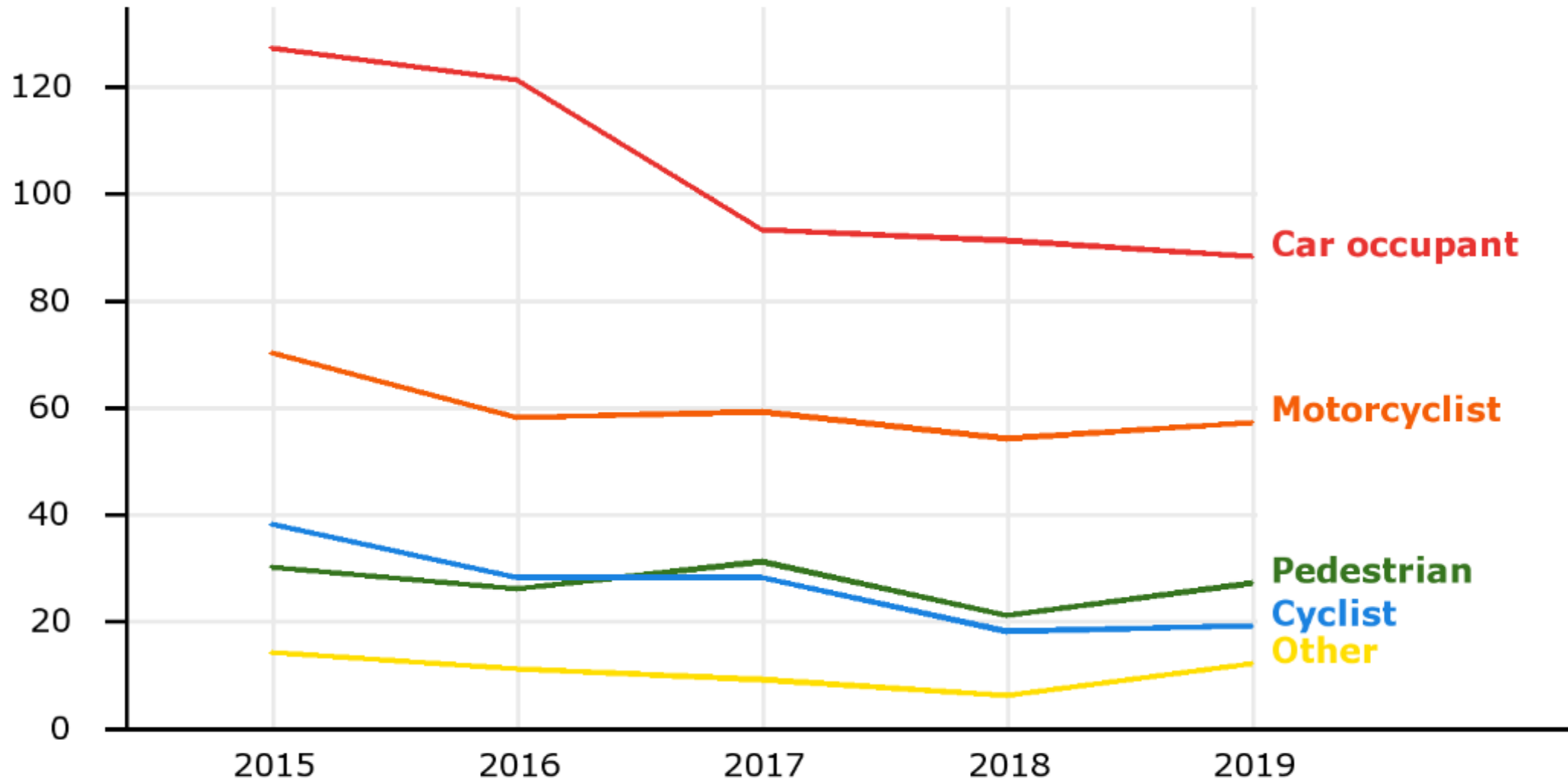


Dorset ranks 29/50 Police areas for all severities

People killed or seriously injured Dorset reported road casualties



People killed or seriously injured Dorset reported road casualties



	All roads	30mph roads
Total number of police reported road casualties in Dorset in 2019	988	343
Of which: Killed	23	5
Seriously injured	180	42
Slightly injured	785	296
Cost of police reported casualties (DfT casualty cost estimates)	£101.5m	£24.9m
Including medical and ambulance	£4.0m	£1.1m
Total number of police reported collisions in Dorset in 2019	690	271
Additional collision costs (extrapolated from DfT estimates for GB)		
Other collision costs (police time, damage to property etc)	£5.9m	£1.4m
Collisions resulting in damage only (no casualties)	£38.3m	£9.4m
Casualties not reported by police	£104.2m	£25.6m
Total estimated collision / casualty costs in Dorset in 2019	£249.9m	£61.3m
Cost per person in Dorset	£591	£145

Cost:benefit of implementing 20mph on 80% of roads in Dorset

One-off implementation cost (capital)	£1.7m	Covers 80% of the population
Casualty reduction	55	(all severities)
Annual revenue benefits (costs for police reported casualties <u>only</u>)	£4.0m	Assumes 20% reduction in casualties
Payback (months)	5.1	

According to police records (note 1), Dorset had 690 collisions and 988 casualties in 2019. 343 of these casualties were on 30mph roads, at a total cost (note 2) of £101.5m including £24.9m for 30mph roads.

Implementing 20mph on most 30mph roads in Dorset for a one-off cost of £1.7m could have saved 55 casualties and £4m each year



20mph is Cost Effective

Do nothing Has Higher costs

20mph saves in

Social care cost of disabilities, road surfacing, pot hole repair, sign lighting, cycle infrastructure, less traffic = less congestion, fewer health problems

People aren't as poor so can pay more in taxes - serious road crash reduces lifetime earnings 40%. Deaths put families into poverty.



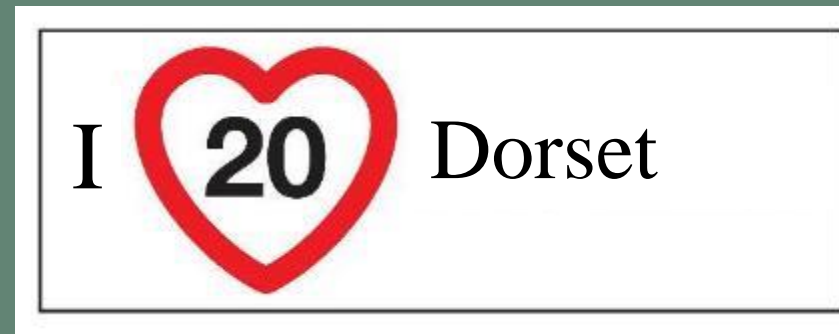
Wide area 20mph with engagement is 7x more cost effective than humps

Humps are about £40-60k per km
Signs £1.1k

Whilst humps reduce speeds more per km, they do so at 7 x the cost

Signed limits are best value for money

Enforcement



car window/ bumper stickers

Some police forces actively enforce 20mph limits

- ▶ Even with limited enforcement, there are significant benefits.
Dash cam reporting is rising

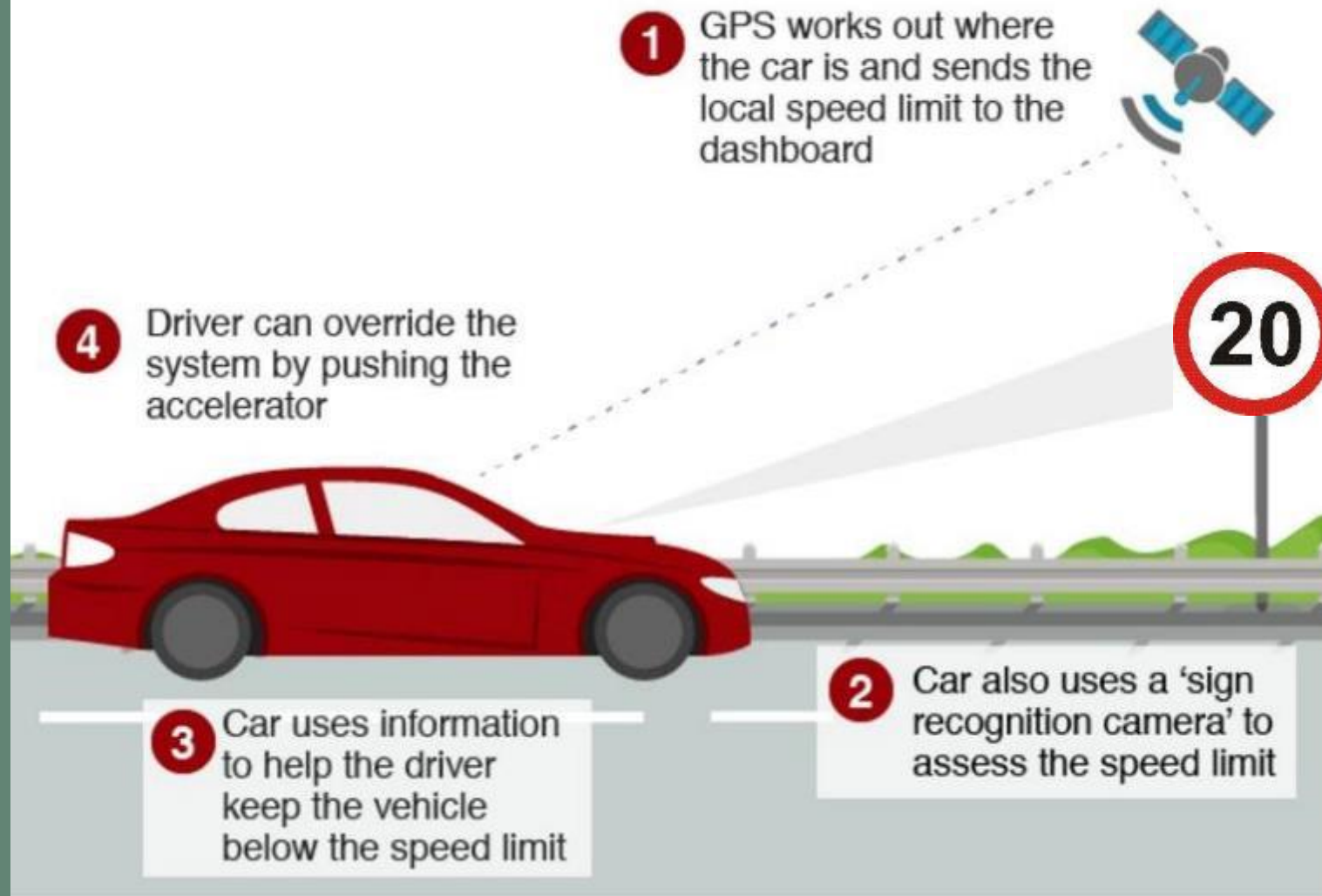
Community initiatives and technology help drivers to comply

- ▶ Every driver slowing acts as pacer vehicle for those behind

Compliance increases with time as
people expect it if **EVERY** village and town goes 20mph

Intelligent Speed Assistance on new model cars from 2022 All new cars from 2023

How does speed limiting work?





Success is 25mph down from 35mph plus

Roads aren't only for drivers – many people want to cycle, scoot & walk more. We must set speeds so they can

Guidance on setting speed limits says that we MUST take full account of the needs of vulnerable road users.

No one expects all drivers to comply. But if hit at 25mph it's less devastating than a 35mph impact

Pride If speed limits decreased many parish councils, would aim to make it look more village-like with planters/gateways so drivers see the village entrances as signals to slow down



3 practical options for a road with a current average speed of 29mph. :-

1. Leave the speed limit at 30mph – leave vulnerable road users in danger. Does not comply with guidance
2. Implement a 20mph signed limit covering a wide area – outcome 23mph cost £1.1k p.km **high value for money**
3. Implement a 20mph limit with traffic calming – outcome 20mph cost £60k p.km **poor value for money**



Unintended outcomes of humps are

- – teach drivers to only slow due to physical calming
- Raise emissions if cars speed up and slow down between bumps/chicanes.
- Reducing 6mph from 29mph to 23mph costs £1.1k per km

Reducing an extra 3mph will cost 50 x more £60k p. km



DfT supports 20mph

“...**consider** ...more **20 mph** limits...in **urban areas and built-up village streets**...to ensure greater safety for pedestrians and cyclists”

AND ON

Major streets where there **could be** significant numbers of journeys on foot or where pedal cycle movements are important and this outweighs the disadvantage of longer journey times for motorised traffic.

Setting a 20mph limit allows other low cost interventions

Put an on road cycle lane in. Increase visibility of vulnerable.

Use paint for some road narrowing, including removal of central white line in road (reduces speeds up to 4mph).

Add planters & other furniture to the road side. Make it look like a “people place”

Stagger on-street parking

Paint additional 20mph roundels on the road.

Banners on lamp posts to get the message across about making it a better place through lower speeds.

Speed Indicator Devices

Enforcement



How Wide-Area 20mph plus engagement is 7 x more Cost Effective than Speed Bumps

20

Small, isolated 20mph zones with bumps endorses going 10mph faster elsewhere



Humps for 1/2 mile

20mph with physical calming such as speed bumps cost about **£40-60k per km**

20

20mph (including community engagement) costs about **£1.1k per km**

In May 2022, all new car models will have Speed Limiters fitted, so bumps will become increasingly obsolete



20mph sees a **3dB(A) cut in noise** - equivalent to halving sound heard



Bumps **INCREASE** Air and Noise Pollution - due to acceleration and braking



Bumps are very time-consuming to install

WE WOULD PREFER TO GIVE



12,500 people in a community, signed 20mph plus education and community feedback

RATHER THAN



250 people a 20mph road with bumps - for the same cost



Humps for 1/2 mile

NICE* recommends **no bumps** and 'smooth' driving in its air quality advice



Making 20mph normal is **7 x** better value for money than 20mph with bumps

For more information visit: www.20splenty.org



21M people live in 20mph places like..

- ▶ Lancashire
- ▶ Bath and North East Somerset
- ▶ Calderdale
- ▶ Bristol
- ▶ Edinburgh
- ▶ London...
- ▶ and many more





Cheshire West and Chester Council

- ▶ Began roll out of 20mph limit schemes January 2017
- ▶ 4 year programme - 223 potential sites identified
- ▶ Implementation - 36 schemes in Year 1, 31 in Year 2
- ▶ Total cost £445k, avg £6,600 per scheme
- ▶ Evaluation, end of Year 2
- ▶ **-52% all collisions, -21% Killed and Seriously Injured**
- ▶ Monetised benefit £3.1m-



Cheshire West
and Chester



Cheshire East Council

- ▶ Motion passed 16 December 2020:
 - ▶ Review Speed Management Strategy in 2021
 - ▶ Introduce 20mph limits where appropriate
 - ▶ Work with Cheshire Police to help maintain compliance





Oxfordshire County Council



- ▶ Resolved (unanimously) 8 December 2020 (edited):
- ▶ Currently, 20mph limits are only put in place where average speeds are already at relatively safe levels (24mph). **This is perverse and sends the wrong message to drivers about the dangers of speeding.**
- ▶ Council supports the premise that 20mph is the optimum speed limit in built-up areas and therefore:
- ▶ Parish, Town, City Councils will be supported in reducing speed limits where requested by local residents. Where funding from any source is available, they will be supported to put in place measures to bring maximum and average speeds down



And in Dorset?





Dorset's Policy ?

The Council will evaluate 20mph schemes on a location by location basis. As a guide locations can be considered for 20mph schemes when all three of the following criteria apply:

- A. they are in towns or villages where there is a depth of residential development and high levels of pedestrian and cycle movement or there is a potential for high levels of pedestrian and cycle movement if a 20mph scheme was introduced; they should not be on roads where the movement of motor vehicles is the primary function.
- B. where existing mean speeds provide a realistic opportunity for compliance:
- C. there is significant community support



20mph limit costs:

£3 per head in urban areas

£5 per head in villages

pays back in a few months on casualties avoided.

Funding could come from a variety of sources





Dorset population = 376,480

A total 20mph policy @ £3 per head

- ▶ £1.13M
- ▶ Govt transport/Covid recovery, active travel fund, developer section 106, Community infrastructure levy (CIL), councillor locality budgets Parish Precepts, Parking, Public Health, Private funding



What we ask Dorset Councillors to do:

- ▶ Update policy to 20mph normal in residential areas
- ▶ Ask Cllr Ray Bryan & Cllr Cherry Brooks for 20mph
- ▶ Contact Road Safety officer matthew.piles@dorsetcouncil.gov.uk for 20mph to be normal & to get on his consultation list
- ▶ Change planning rules so new developments are designed 20mph & developer funds go on 20mph limits



Asks 2

Take a photo of yourself holding this Poster Pledge and email it to your county councillor and your MP

I SUPPORT

20mph limits where people live work play



Make 20mph normal in Dorset

#Acton20mph

www.20splenty.org

dorset@20splentyforus.org.uk



20's Plenty where people are

20's Plenty for Us campaigns for 20mph as the default speed limit for urban and village streets where people live, work, shop, play and learn.
www.20splenty.org

Buy your Wheelie Bin Stickers

Buy in bulk for best value
from

https://www.20splenty.org/stickers_and_campaign_materials

or buy from me as Dorset
Campaign Coordinator
£1per sticker this evening





20mph limits can make Dorset an *even better* place for residents and visitors

Thanks - Questions?

Dilys Gartside