

# HAMPSHIRE COUNTY COUNCIL

## Decision Report

|                        |  |
|------------------------|--|
| <b>Decision Maker:</b> | Executive Member for Environment and Transport |
| <b>Date:</b>           | 5 June 2018                                    |
| <b>Title:</b>          | Review of Residential 20 Pilot Programme       |
| <b>Report From:</b>    | Director of Economy, Transport and Environment |

**Contact name:** Martin Wiltshire

**Tel:** 01962 832223

**Email:** martin.wiltshire@hants.gov.uk

### 1. Recommendations

- 1.1. That the Executive Member for Environment and Transport notes the evaluation of recent Residential 20mph Speed Limit Pilots and agrees that no further such schemes will be implemented, but that the existing schemes will be retained.
- 1.2. That any future speed limit schemes will be prioritised in accordance with the Traffic Management policy approved in 2016, and thereby limited to locations where injury accidents attributed to speed are identified, with proposals assessed in accordance with current policy and Department for Transport guidance on setting speed limits.

### 2. Executive Summary

- 2.1. The County Council has been trialling Residential 20mph Speed Limits in a total of 14 locations across the County for varying periods of time since 2012, and has recently concluded an extensive review of their performance in managing average speeds and addressing safety concerns. The schemes in question were selected in consultation with members of the County Council and the community after initial testing against a set of agreed criteria. The decision to start the pilot schemes was taken before the current Traffic Management Policy of 2016 came into being, which requires all future Traffic Management schemes to be led by safety and casualty reduction interventions.
- 2.2. The purpose of this paper is to report on the outcomes and effectiveness of this programme of 14 Residential 20 mph Speed Limit Pilots, which were introduced in a mix of urban residential and rural village centre areas throughout the county.
- 2.3. The pilot programme was developed in response to requests for 20 mph restrictions received from residents concerned with excessive traffic speed. Evaluating the pilot 20 mph speed limits enabled their effectiveness in different locations, with varying traffic conditions, to be assessed.

- 2.4. A technical review of the pilots has focused on the analysis and comparison of speed data recorded before and after the 20 mph pilot speed limits were introduced. The proportion of motorists driving above and below 20 mph has also been analysed to establish the level of compliance. Additionally the before and after injury accident record within each pilot area has been evaluated.
- 2.5. The review also describes the outcomes of the evaluation process carried out with the residents of the original nine Hampshire County Council led urban pilot schemes post implementation. The relevant Parish Councils for the three rural schemes were also asked to share their views as part of the evaluation exercise. This has generated insight, which has helped assess the effectiveness of the 20 mph speed limit pilot schemes by comparing responses to questions asked in 2012 with responses to those same questions posed in the 2017 engagement, to explore any changes of opinion.
- 2.6. The key findings of the review were as follows:
- Four pilot schemes have demonstrated compliance with the 20 mph speed limits, but these have merely served to formalise existing low speed environments with very marginal speed reductions having been achieved.
  - Reductions elsewhere have been modest and in some cases average speeds have even increased.
  - The only pilot schemes that have seen average speeds below the new speed limit were in areas where averages were already under 20mph.
  - In terms of accident and injury data, the impact of the pilot schemes upon road safety is projected to be neutral and there is no evidence of enhanced road safety benefits compared with that observed for the entire road network maintained by the County Council.
  - Hampshire Constabulary will not routinely enforce 20 mph speed limits as a matter of course, except where there is evidence to support that a road or a given location presents a heightened risk, which would in any case be consistent with the County Council's Traffic Management policy since 2016, which requires the prioritising of safety and casualty reduction initiatives over all other interventions.
  - The pilots received some positive feedback from residents, the majority of whom observed that their own driving behaviour became more compliant as a result of the pilots, and one third noticed a decrease in speeds in their area. However, the majority of residents felt that motorists continue to exceed the speed limit and the pilots do not appear to have "won round" residents who were initially opposed to their introduction.
  - Residents who responded to the survey felt that better enforcement and a more targeted approach to applying 20 mph speed limits would improve their effectiveness.
- 2.7. Although the pilot 20 mph speed limits have not reduced speeds in every location, the review does not recommend modifying or removing those less successful pilot 20mph speed limits at this time. To do so would incur further cost that would not be expected to benefit local communities, who continue to

broadly support a lower speed limit in their area despite the limited impact on drivers' speeds.

### **3. Contextual information**

- 3.1. The Residential 20 Pilot Programme was originally developed in response to requests for 20 mph restrictions received from residents concerned with excessive traffic speed. Many requests pointed to safety concerns but others also mentioned issues such as a general feeling of threat and intimidation caused by traffic speed on local residential roads.
- 3.2. Department for Transport (DfT) relaxations to the signing requirements associated with 20 mph speed limits enabled the County Council to implement 20 mph speed restrictions using only terminal signs and roundel road markings.
- 3.3. 20 mph speed limits in general have no physical traffic calming measures relying on drivers respecting the speed limit. 20mph limits are most appropriate for roads where average speeds are already low, and national guidance suggests below 24mph. Research by Transport Research Laboratory (TRL) (Mackie, 1998) shows that on average only a 1 mph reduction in speed would be achieved through "signed only limits". Implementing a speed limit that does not reflect the existing behaviour of the majority of motorists will result in more drivers exceeding the posted limit.
- 3.4. The purpose of the pilot programme was to evaluate the effectiveness of 20 mph speed limits in terms of vehicle speeds and local support/opinion. The original project began in 2012 and consisted of nine urban residential areas selected through evaluation of areas put forward by county councillors. Members were asked to suggest areas that met basic criteria such as being a defined residential area, and clear evidence of local support. The scheme was extended in 2014 to include three rural villages. The processes involved in the delivery of the schemes on the programme were lengthy, requiring individual Traffic Orders for each site as well as extensive resident, county councillor, and parish council engagement.
- 3.5. The nine original sites are:
  - Wallington (Fareham);
  - Cherbourg Road and surrounding roads (Eastleigh);
  - Stanmore (Winchester);
  - Medstead (East Hants);
  - Hythe (New Forest);
  - Floral Way in Andover (Test Valley);
  - Whitchurch (Basingstoke);
  - Farnborough Old Town (Rushmoor) ; and
  - Fleet-Clarence Road/Connaught Road/Albert Street/Albany Road (Hart).
- 3.6. In addition Winchester City Council funded and implemented two additional 20 mph speed limits applying the same scheme principles:
  - Winnall (Winchester); and
  - Highcliffe (Winchester).

- 3.7. The three rural village sites are
- Chilbolton (Test Valley);
  - Dummer (Basingstoke); and
  - Micheldever (Winchester).
- 3.8. The 20 mph speed limit in Micheldever was the last of the three rural schemes to be implemented in April 2017 following lengthy discussions to agree the extents of the proposed limit.

#### 4. Methodology and evaluation approach of Technical Review

- 4.1. Within each pilot scheme, before and after traffic speed surveys were conducted in a number of locations. The surveys recorded the mean speed of traffic at various points, which were then combined to provide an average mean speed over the length of the 20 mph speed limit. The average mean speed for each pilot scheme has been used in the evaluation with the aim of assessing the effectiveness of the 20 mph speed limit in terms of vehicle speeds and driver behaviour as a whole, rather than individual locations or roads. A summary of the assessment of each scheme is provided in Appendix 1.
- 4.2. The table in Appendix 2 summarises the average mean traffic speeds before and after the 20 mph speed limit was introduced, the consequential change in mean speeds, and the highest recorded mean speed of traffic after the 20 mph speed limit was implemented.
- 4.3. Appendix 3 contains graphs for each of the fourteen pilot schemes showing the percentage of compliance before the 20 mph limit was implemented alongside the level of compliance afterwards. Table 1 below summarises the level of compliance for each scheme and the change in compliance from before the speed limit was introduced. The table ranks the schemes in order of highest percentage of compliance to lowest.

**Table 1: Compliance of vehicles travelling below 20 mph following implementation of the 20 mph speed limit and change from before**

| Pilot Scheme                  | % of vehicles travelling below 20 mph after the limit was introduced | % change of vehicles travelling below 20 mph from before scheme |
|-------------------------------|--|---|
| Winnall Winchester            | 75.5   | +1%   |
| Wallington Fareham            | 72.4   | +1.7%   |
| Cherbourg Road Area Eastleigh | 72   | +20%  |
| Highcliffe Winchester         | 49.6   | +2.8%   |
| Floral Way Andover            | 47.67  | -4%   |
| North Camp Farnborough        | 44.33  | +9%   |
| Fleet                         | 44.33  | +30.58%   |
| Medstead                      | 34   | +8.67%  |
| Hythe                         | 33.33  | +8%   |
| Micheldever                   | 27%  | +1.3%   |

|                     |       |        |
|---------------------|-------|--------|
| Dummer              | 25.5  | -7.5%  |
| Stanmore Winchester | 22.67 | -3.66% |
| Whitchurch          | 14.67 | +3%    |
| Chilbolton          | 12.33 | -0.34% |

+ improved compliance / - reduced compliance

## 5. Findings of the Technical Review

- 5.1. There are four pilot schemes (Wallington, Cherbourg Road area, North Camp and Winnall) where 'before' traffic speeds are all below 24 mph and have remained so after the 20 mph speed limit was introduced. The outcome of these four schemes reflects earlier national research findings that signed-only 20 mph speed limits are most appropriate for areas where vehicle speeds are already low. This recognised that if the mean speed is already at or below 24 mph on a road, introducing a 20 mph speed limit through signing alone is likely to lead to general compliance with the new speed limit. The average reduction of traffic speeds ranged between 0.25 and 2 mph.
- 5.2. There are ten pilot schemes where the highest mean speed recorded after the 20 mph speed limit was introduced was above 24 mph. The change in the average traffic speeds ranged between -1.8 and +1.4 mph. However, the highest mean speeds recorded after these 20 mph speed limits were introduced are not compliant with the lower speed limit regime. The outcome of these ten schemes again reflects earlier national research that signed-only 20 mph speed limits are most appropriate for areas where vehicle speeds are already low.
- 5.3. It should be noted that the four pilot schemes that appear to have resulted in successful 20 mph speed limits have merely served to formalise existing low speed environments with very marginal speed reductions having been achieved. Reductions elsewhere have been modest, and in some cases average speeds have even increased. The schemes have not resulted in average speeds that are compliant with the 20 mph limit where they were not already.
- 5.4. Overall the change in the average speed of traffic throughout all of the pilot schemes following the introduction of the 20 mph speed limit ranged between +1.4 mph and -2.0 mph with an average of reduction of 0.4 mph.
- 5.5. The assessment of compliance of the speed limit indicates that in general a successful reduction of the speed limit from 30 to 20 mph speed limit will require more than 70% of motorists already travelling less than 20 mph.

## 6. Results of the residents evaluation

- 6.1. Between 4 December 2017 and 7 January 2018, all residents living within the nine original 20mph pilot schemes were sent a postcard inviting them to complete an online evaluation form to share their views on the schemes. A copy of the paper form is provided in Appendix 4. This consultation with the residents of these nine original pilot schemes post implementation showed an average 76% of those who responded supported a lower speed limit in their area.

- 6.2. The evaluation process also encompassed the three rural areas by means of asking the relevant Parish Council's for their views. A number of individual residents from the three rural schemes also completed an evaluation form.
- 6.3. The number of responses received from each is outlined in Table 2 below. In total, 240 residents responses were received via the evaluation response form, with a further four submitted via email.

**Table 2: Summary of responses received within each scheme**

| Urban Schemes           | Responses |   |                            |
|-------------------------|-----------|---|----------------------------|
| Floral Way Andover      | 47        | Rural and urban schemes with fewer than 10 responses have been combined for analysis. |                            |
| Fleet                   | 37        |   |                            |
| Medstead                | 18        |   |                            |
| Whitchurch              | 87        |   |                            |
| Hythe                   | 23        |   |                            |
| Wallington Fareham      | 3         |   | Reported as 'other urban'. |
| Cherbourg Rd, Eastleigh | 3         |   |                            |
| Farnborough Old Town    | 7         |   |                            |
| Stanmore                | 6         |   |                            |
| Rural Schemes           | Responses |   | Reported as 'rural areas'. |
| Chilbolton              | 7         |   |                            |
| Dummer                  | 0         |   |                            |
| Micheldever             | 2         |   |                            |

- 6.4. Graphs and tables that give a graphical representation of the outcomes of the evaluation are provided in Appendix 5. As a result of a low number of responses (low base sizes), the data in this report can only be considered illustrative of respondent views at scheme level. There maybe some variance in the wider population.
- 6.5. From the questions posed, the key outcomes of the evaluation are as follows:

**Question 5 Residents views on safety & quality of life relating to traffic speeds**

- Three quarters of respondents still felt that speed has some impact on safety and /or quality of life in their area (i.e. did not tick 'not a problem').
- The proportion of respondents who felt traffic speed was problematic in terms of safety fell in most pilot areas. The introduction of 20mph limits had less of an impact on quality of life.
- The impact of traffic speed on safety remains most marked in 'other urban' and 'rural areas'. In contrast less than a quarter of respondents in Fleet and Hythe continue to express notable concern\* following the introduction of 20 mph limit (\*ticked severe or 2).
- The impact of traffic speed on quality of life is most marked in Whitchurch and 'other urban areas'. No respondents in Fleet or rural areas thought traffic speed was a severe problem\* following the introduction of 20mph limits (\*ticked severe or 2).

**Question 6 Residents feedback on quality of life**

- Where concerns about quality of life remain, this mainly relates to personal wellbeing, noise and the ability to safely leave home.

**Question 7 Residents views on whether traffic speeds had changed?**

- One in three respondents felt that traffic speeds had slowed in their area since the 20mph speed restriction was introduced. However, of those who were able to provide a comparison, the largest number (nearly half) had not noticed a change in speed.
- Residents in rural areas along with Whitchurch felt that 20mph speed limit had been most effective.

**Questions 8 & 9 Were the residents originally in favour of the 20 mph limit and has their opinion changed?**

- Respondents who had strong views on 20mph speed limits prior to the launch of the schemes tended to maintain their stance.
- However, half of those who were initially indifferent to the 20mph speed limits are now in favour.
- Respondents in rural areas were most likely to have changed their minds in favour of 20mph speed limits. However, in the main, opinions remained unchanged from what they were before the limits were introduced.

**Question 10 Has the 20 mph speed limit affected the driving speeds of residents?**

- The 20mph speed limits also appear to have encouraged positive personal behaviours among responding motorists. Three quarters of respondents stated that they slowed their speed and/or drove with increased awareness where 20mph speed limits had been introduced.
- Over 1 in 5 residents felt that the 20mph speed limit had no effect on their own driving speeds.

**Question 11 Other comments from residents**

- Further comments suggest that enforcement and more targeted application could improve the effectiveness of the schemes.

6.6. Parish Councils that responded and their views are recorded in Appendix 6. All were supportive of the retention of the 20mph speed limits, but reflected the wider evaluation in highlighting that additional measures would improve their effectiveness. Dummer and Whitchurch specifically mentioned enforcement.

## **7. Enforcement – Police views**

- 7.1. Hampshire Constabulary were asked to provide a statement on their position regarding the implementation and enforcement of 20 mph speed limits. The Superintendent of the Roads Policing – Joint Operations Unit of Hampshire Constabulary and Thames Valley responded as follows:

*“As part of Hampshire County Council’s evaluation and technical review of the Pilot Residential 20 mph speed limits, Hampshire Constabulary have been asked to provide a statement on our position regarding the implementation and enforcement of 20 mph speed limits.*

*Department of Transport guidance details that 20 mph speed limits, as with all speed limits, should be set at a level where they are largely ‘self-enforcing’. Speed limits, including 20 mph restrictions, are more frequently adhered to by motorists when the existing conditions and design of the road lead to mean traffic speeds being compliant with the proposed speed limit.*

*Hampshire Constabulary will not routinely enforce 20 mph speed limits as a matter of course. With finite resources our enforcement of all traffic legislation is directed by a threat risk and harm approach. Where there is evidence to support that a road or given location presents a heightened risk this is where our officers will be deployed.*

*There are parallels to this approach and the County Council’s policy of prioritising traffic and safety resources and measures on locations where they have evidence that they will reduce casualties. Hampshire Constabulary remains committed to making our roads safer and we support the County Council’s current casualty led policy for speed limits also applying to requests for 20 mph restrictions.”*

## **8. Impact on road safety**

- 8.1. The current overall projected accident rate for the pilots has in fact risen since the commencement of the scheme. This goes “against the grain” of the trend of similar severity accidents recorded across Hampshire more generally. However, given the random nature of the accidents, this is not considered statistically significant. Leaving these aside, the projected impact of the schemes upon the accident rate is thought to be neutral, and there is no evidence of enhanced road safety benefits.
- 8.2. Whilst the fourteen pilot schemes were not implemented on the grounds of road safety or casualty reduction, the number of injury accidents that occurred in the five year before period have been recorded for each scheme. The after monitoring period for each pilot scheme varies according to when the 20 mph speed limit was introduced. This ranges from 6 months (Micheldever) to 4 years and 1 month for those speed limits which have been implemented for the longest length of time (Wallington, Eastleigh, Hythe and Farnborough).



8.3. A projected annual accident rate has been calculated and compared with the five year before record for each pilot area. The equation used is as follows:

$$\left( \frac{\text{Number of injury accidents}}{\text{Number of years}} \right) - \left( \left( \frac{\text{Number of Injury accidents}}{\text{Number of months}} \times 60 \right) \div 5 \right) = \text{Difference}$$

*[Before period (5 years)]*
*[After period (time varies)]*
*[(+) reduction in accidents  
(-) increase in accidents]*

8.4 A comparison of the yearly injury accident rate before the introduction of the 20 mph speed limit and the current overall projected accident rate has been carried out. This records that an overall increase of 0.51 accidents per year is currently calculated for the fourteen pilot schemes.

8.5 As the lifetime of the fourteen pilots varies from one location to another, the overall impact on accidents will change as time moves on, and fluctuations are anticipated. Whilst currently a small projected increase in the accident rate has been calculated, it is likely that upon completion of the full after monitoring period there will be little or no change compared with the before accident rate.

8.6 There is an overall total of 95 accidents from the individual 5 year before periods for all the pilot schemes. The current projected total number of accidents in the after period is 97.53, an increase of 2.53 accidents over 5 years (0.51 annually). This equates to an increase of 2.66%. Currently in both the before and after periods there are no fatal accidents and the average proportion of slight and serious severity accidents is 83% and 17% respectively.

8.7 To provide some context on the projected impact on accidents that the pilot 20 mph speed limits may have, a study of slight and serious severity accidents recorded on the whole of the Hampshire County Council maintained road network has been undertaken for two different adjoining time periods to see what changes have occurred over recent years. The tables in Appendix 7 summarises the outcomes of these studies.

8.8 The 3 year and 5 year study periods show a reduction of all slight and serious severity accidents by 5.8% and 11% respectively.

8.9 In the pilot scheme areas, where in general low speed environments were already established, it would be expected that fewer accidents with lower severities have or will occur. The very small increase in accidents currently experienced within the 20 mph speed limits is contrary to the overall reduction in slight and serious severity accidents experienced throughout the whole of Hampshire in recent years.

8.10 Taking all of these factors into consideration, it can be concluded that there is no evidence of enhanced road safety benefits from these pilot schemes compared with that noticed for the entire road network maintained by the County Council.

8.11 In other 20 mph speed limit schemes implemented elsewhere in the country, concerns have been expressed that pedestrians and cyclists are lured into a false sense of security. For example pedestrians taking a chance crossing in front of what appears to be slower-moving vehicles. Given the small difference in accident numbers, there appears little or no evidence to suggest that this would be borne out by a more detailed examination of the accident statistics for these pilot schemes.

## **9. Case Studies and National Study**

9.1 A review was also conducted of 20mph speed limits applied in other authorities, including in residential areas, and of national trends generally. The general findings suggest that signed-only 20mph schemes generally achieve relatively small speed reductions of 1–2mph. The results of the examination of accident rates where these schemes were applied were mixed in terms of changes to the severity and number of accidents but overall these did not show any significant reductions.

9.2 In 2014 the Department for Transport commissioned extensive research into the effectiveness of 20 mph signed only speed limits, and interim data on speeds and road user attitudes has been made available. While the final findings of this research had been expected before completion of the Hampshire pilots, the conclusion date has been put back on several occasions and a final report is now expected at some point in the next twelve months. However, the interim findings of the DfT research relating to speeds and residents' views closely mirror the outcomes of the Review of Residential 20 Pilot Programme, as reported in this paper.

## **10. Air Quality**

10.1. The findings of the review were that the recent Residential 20mph Speed Limit Pilots had a very limited impact on traffic speeds, and as such the impact on emissions is also thought to be limited. The Hampshire Constabulary have indicated that they would not look to routinely enforce such speed restrictions, and the option to use physical traffic calming interventions would result in additional braking and acceleration, which collectively add to the emission of exhaust fumes and polluting particles.

10.2. Whilst there have been no specific air quality tests carried out as part of the Pilot Residential 20 mph speed limit project, consideration has been given to various studies and reports that have been carried out on this subject relating to climate change and pollution as follows:

[An evaluation of the estimated impacts on vehicle emissions of a 20mph speed restriction in central London](#)

[Air quality impacts of speed-restriction zones for road traffic.](#)

[20mph Zones and Speed Limits Factsheet - ROSPA](#)

[Review of 20mph Speed Limits - Derbyshire County Council](#)

### 10.3. Key topics covered by previous research includes:

- Whether limiting traffic speed to 20 mph has an impact upon fuel use and emissions either detrimentally or beneficially. The most important factors causing pollution in cities are the volume of traffic and types of vehicles being driven (petrol and diesel), as well as driver behaviour. The speed of traffic, particularly in city centres, is not a major factor in air quality. However, previous studies on this subject give very different results and have proven inconclusive.
- The impact of modal shift – encouraging people to move away from driving to other forms of transport such as walking and cycling. This has the potential to reduce fuel use and emissions, which ultimately contributes to better air quality.

10.3 In view of the minor impacts that the 20 mph speed limits have had on the measured speed of traffic, any impacts on air quality are also likely to be minimal. A number of air quality monitoring sites are located within the Winchester City Centre scheme. A comparison of the speed data shows that the average mean speeds reduced by 0.5 mph from an average of 21.4 mph to 20.9 mph on the roads which form the one way system and were included within the extended scheme in August 2014. The traffic impacts in terms of measured speed reduction for this area are limited, and any air quality improvements could not be attributed to the 20 mph scheme. Of far more significant importance since the extension of the Winchester City centre scheme in terms of air quality would have been the switch from euro V to VI European emission standard engines for most of the bus fleet.

10.4 Since 20 mph speed limits are most appropriate for areas where vehicle speeds are already aligned to a lower speed limit regime, and reduction in traffic speeds tends to be marginal, it is likely that area-wide 20 mph limits would neither improve nor worsen air pollution in terms of carbon emissions and fuel consumption.

## 11. Conclusions

11.1. In summary the key findings of the review are as follows:

- Four pilot schemes have demonstrated compliance with the 20 mph speed limits, but these have merely served to formalise existing low speed environments with very marginal speed reductions having been achieved.
- Reductions elsewhere have been modest and in some cases average speeds have even increased.
- The only pilot schemes that have seen average speeds below the new speed limit were in areas where averages were already under 20mph.
- In terms of accident and injury data, the impact of the pilot schemes upon road safety is projected to be neutral and there is no evidence of enhanced road safety benefits compared with that observed for the entire road network maintained by the County Council.

- Hampshire Constabulary will not routinely enforce 20 mph speed limits as a matter of course, except where there is evidence to support that a road or a given location presents a heightened risk, which would in any case be consistent with the County Council's Traffic Management policy since 2016, which requires the prioritising of safety and casualty reduction initiatives over all other interventions.
- The pilots received some positive feedback from residents, the majority of whom observed that their own driving behaviour became more compliant as a result of the pilots, and one third noticed a decrease in speeds in their area. However, the majority of residents felt that motorists continue to exceed the speed limit and the pilots do not appear to have "won round" residents who were initially opposed to their introduction.
- Residents who responded to the survey feel that better enforcement and a more targeted approach to applying 20 mph speed limits would improve their effectiveness.

**CORPORATE OR LEGAL INFORMATION:****Links to the Strategic Plan**

|   |     |
|---|-----|
| <b>Hampshire maintains strong and sustainable economic growth and prosperity:</b> | No  |
| <b>People in Hampshire live safe, healthy and independent lives:</b>              | Yes |
| <b>People in Hampshire enjoy a rich and diverse environment:</b>                  | Yes |
| <b>People in Hampshire enjoy being part of strong, inclusive communities:</b>     | Yes |

**Other Significant Links**

| <b>Links to previous Member decisions:</b>   |                   |
|--|-------------------|
| <u>Title</u>   | <u>Date</u>       |
| <a href="#">Executive Member - Environment &amp; Transport, Residential 20 Pilot Project</a>                                   | 3 April 2012      |
| <a href="#">Executive Member – Environment and Transport, Proposed 20 miles per hour Residential Speed Limit Trials</a>        | 11 September 2012 |
| <a href="#">Executive Member- Environment &amp; Transport, 20mph Speed Limit Pilot - Winnall-Highcliffe, Winchester</a>        | 11 September 2012 |
| <a href="#">Executive Member for Economy, Transport and Environment, Residential 20 Pilot Programme - Update</a>               | 23 July 2013      |
| <a href="#">Economy, Transport and Environment Select Committee, 20 mph Speed Limits</a>                                       | 21 January 2014   |
| <a href="#">Executive Member for Economy, Transport and Environment, Residential 20 mph pilot programme – additional rural</a> | 6 May 2014        |
| <a href="#">Executive Member for Economy, Transport and Environment - Future Traffic Management Policy</a>                     | 19 May 2016       |
| <b>Direct links to specific legislation or Government Directives</b>   |                   |
| <u>Title</u>   | <u>Date</u>       |
|  |                   |

**Section 100 D - Local Government Act 1972 - background documents**

**The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)**

Document

Location

None

## **IMPACT ASSESSMENTS:**

### **1. Equality Duty**

1.1. The County Council has a duty under Section 149 of the Equality Act 2010 ('the Act') to have due regard in the exercise of its functions to the need to:

- Eliminate discrimination, harassment and victimisation and any other conduct prohibited under the Act;
- Advance equality of opportunity between persons who share a relevant protected characteristic (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender and sexual orientation) and those who do not share it;
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

**Due regard in this context involves having due regard in particular to:**

- a) The need to remove or minimise disadvantages suffered by persons sharing a relevant characteristic connected to that characteristic;
- b) Take steps to meet the needs of persons sharing a relevant protected characteristic different from the needs of persons who do not share it;
- c) Encourage persons sharing a relevant protected characteristic to participate in public life or in any other activity which participation by such persons is disproportionately low.

### **1.2. Equalities Impact Assessment:**

The proposal is considered to have a neutral impact on people with protected characteristics. There will be an overall positive impact for all road users arising from this decision, as it will help to align all activity to the Traffic Management policy, which prioritises safety and casualty reduction. As the pilots generally made very little impact on traffic speeds and accident trends, it is not thought that the decisions recommended in this report will have a disproportionate impact on any groups with protected characteristics.

### **2. Impact on Crime and Disorder:**

2.1. This matter is not expected to have an impact on crime and disorder.

### **3. Climate Change:**

- a) How does what is being proposed impact on our carbon footprint / energy consumption?

The proposal in itself has no impact on climate change. If 20 mph speed limits help residents to feel safer there is scope to reduce fuel consumption and the carbon footprint of car travel if pedestrians and cyclists make more local journeys by these modes of transport.

- b) How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts?

It is considered that the proposal will have no impact on the need to adapt to climate change and be resilient to its longer term impacts.



**Wallington Fareham**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 13.8mph and 23.4mph, with an average of 17.67mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 13.4mph and **23.8mph**, with an average of 17.4mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed reduced by 0.4mph and the maximum increased by 0.4mph. Overall there has been a very small reduction in traffic speeds of approx. 0.25mph.

Before traffic speeds were below 24.0mph and remain so after the 20 mph limit was implemented.

**Cherbourg Road area, Eastleigh**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 18.8mph and 21.1mph, with an average of 19.95mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 16.6mph and **19.2mph**, with an average of 17.9mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards both the minimum traffic speed reduced by 2.2mph and the maximum reduced by 1.9mph. Overall there has been a reduction in traffic speeds of approx. 2mph.

Before traffic speeds were below 24.0mph and remain so after the 20 mph limit was implemented.

**Stanmore, Winchester**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 22.1mph and 27.1mph, with an average of 24.97mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 23.6mph and **27.6mph**, with an average of 25.57mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed increased by 1.5mph and the maximum increased by 0.5mph. Overall there has been an increase in traffic speeds of approx. 0.5mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

### **Medstead**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 20.7mph and 31.7mph, with an average of 25.34mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 18.4mph and **32.0mph**, with an average of 23.83mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed increased by 2.3mph and the maximum increased by 0.3mph. Overall there has been a decrease in traffic speeds of approx. 1.5mph.

Before traffic speeds were above 24.0mph and have reduced to around this level after the 20 mph limit was implemented.

### **Hythe**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 20.8mph and 26.7mph, with an average of 23.07mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 20.4mph and **25.4mph**, with an average of 22.4mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed decreased by 0.4mph and the maximum decreased by 1.3mph. Overall there has been a decrease in traffic speeds of approx. 0.7mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

### **Floral Way area, Andover**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 19.1mph and 26.9mph, with an average of 21.97mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 19.6mph and **24.7mph**, with an average of 21.8mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed increased by 0.5mph and the maximum decreased by 2.2mph. Overall there has been a decrease in traffic speeds of approx. 0.2mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

### Whitchurch

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 22.9mph and 29.4mph, with an average of 27.07mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 23.6mph and **29.2mph**, with an average of 26.87mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed increased by 0.7mph and the maximum decreased by 0.2mph. Overall there has been a small decrease in traffic speeds of approx. 0.2mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

### North Camp, Farnborough

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 21.1mph and 23.2mph, with an average of 22.33mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 19.0mph and **23.2mph**, with an average of 21.37mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed decreased by 2.1mph and the maximum remained unchanged. Overall there has been a decrease in traffic speeds of approx. 1mph.

Before traffic speeds were below 24.0mph and remain so after the 20 mph limit was implemented.

## Fleet

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 24.9mph and 31.3mph, with an average of 27.82mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 23.1mph and 27.8mph, with an average of 25.23mph

Measured mean traffic speeds 27 months after the 20 mph speed limit was implemented ranged between 23.5mph and **28.6mph**, with an average of 26.03mph

The comparison of the range of traffic speeds before and 27 months after the 20 mph limit was implemented shows that afterwards the minimum traffic speed decreased by 1.4mph and the maximum decreased by 2.7mph. Overall there has been a decrease in traffic speeds of approx. 1.8mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

## Chilbolton

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 25.9mph and 29.3mph, with an average of 27.2mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 26.7mph and **28.5mph**, with an average of 27.77mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed increased by 0.8mph and the maximum increased by 0.5mph. Overall there has been a increase in traffic speeds of approx. 0.5mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

**Dummer**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 21.6mph and 25.5mph, with an average of 23.55mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 24.4mph and **25.1mph**, with an average of 24.95mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed increased by 2.8mph and the maximum decreased by 0.4mph. Overall there has been an increase in traffic speeds of approx. 1.4mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

**Micheldever**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 22.1mph and 26.4mph, with an average of 24.8mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 21.45mph and **27.5mph**, with an average of 25.25mph

The comparison of the range of traffic speeds before after the 20 mph limit was implemented shows that afterwards the minimum traffic speed decreased by 0.65mph and the maximum increased by 1.1mph. Overall there has been an increase in traffic speeds of approx. 0.45mph.

Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented. .

**Winnall Winchester**

Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 16.9mph and 20.5mph, with an average of 18.18mph

Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 14.5mph and **20.7mph**, with an average of 17.82mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed increased by 0.7mph and the maximum increased by 0.2mph. Overall there has been a very small reduction in traffic speeds of approx. 0.4mph.

Before traffic speeds were below 24.0mph and remain so after the 20 mph limit was implemented. Data suggests that drivers that were prepared to drive slower have increased their speed perhaps seeing 20 as a target/acceptable.

### **Highcliffe Winchester**















Measured mean traffic speeds before the 20 mph speed limit was implemented ranged between 16.1mph and 25.7mph, with an average of 21.16mph

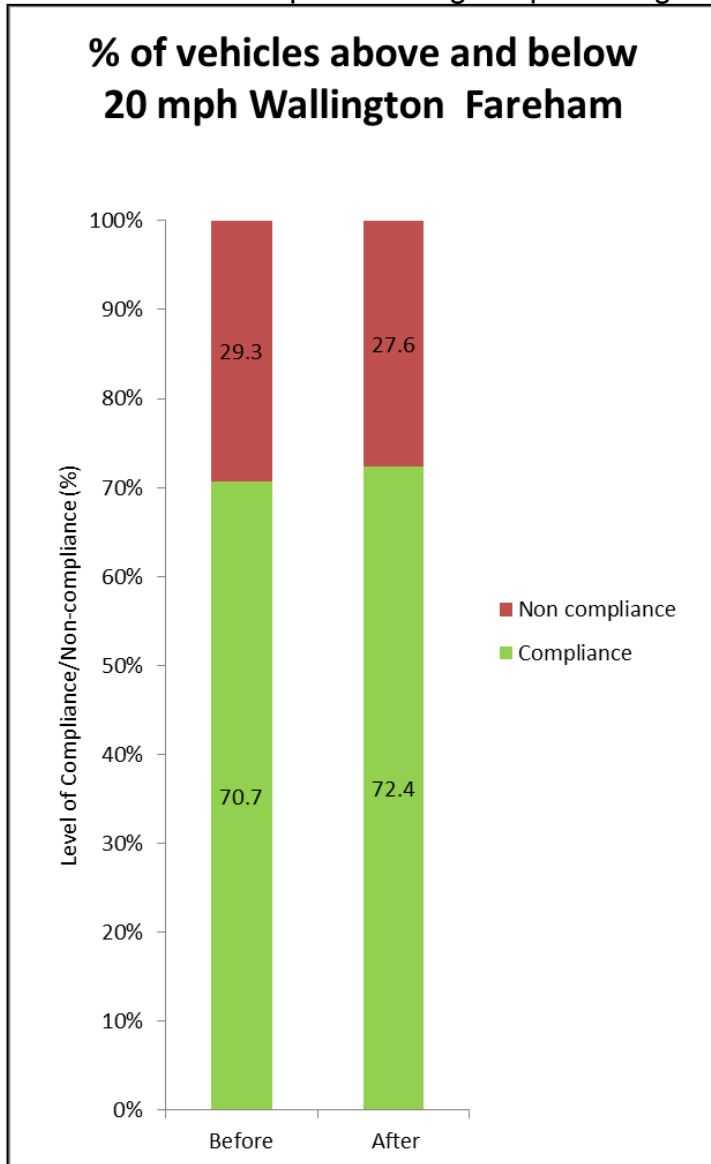
Measured mean traffic speeds after the 20 mph speed limit was implemented ranged between 16.1mph and **25.5mph**, with an average of 21.08mph

The comparison of the range of traffic speeds before and after the 20 mph limit was implemented shows that afterwards the minimum traffic speed has remained unchanged and the maximum decreased by 0.2 mph. Overall there has been a very small reduction in traffic speeds of approx. 0.1mph.

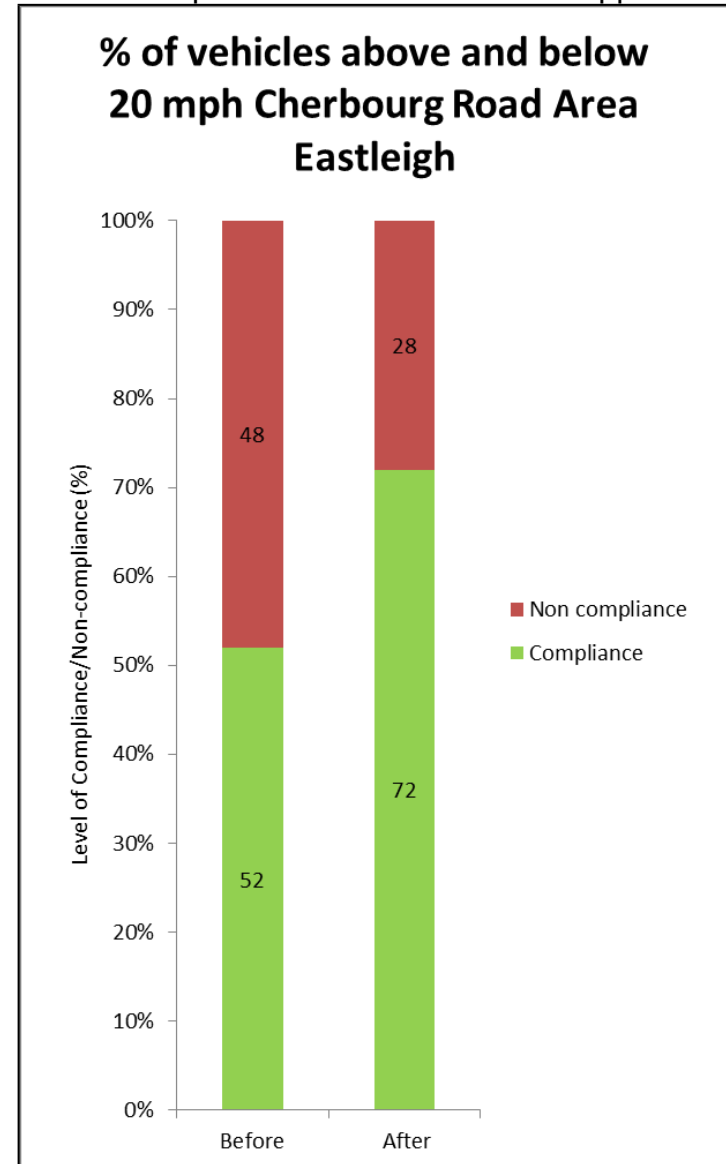
Before traffic speeds were above 24.0mph and remain so after the 20 mph limit was implemented.

Table summarising change in mean traffic speeds and the Highest recorded mean speed of traffic after the 20 mph speed limit was implemented.

| <b>Pilot Scheme Location</b>   | <b>Avg. mean traffic speed before</b> | <b>Avg. mean traffic speed after</b> | <b>Change in mean speeds before/after</b>  | <b>Highest mean speed recorded after</b> |
|--------------------------------|---------------------------------------|--------------------------------------|--|--|
| Wallington Fareham             | 17.67mph                              | 17.4mph                              | Decrease<br>   | <b>23.8mph</b>                           |
| Cherbourg Road area, Eastleigh | 19.95mph                              | 17.9mph                              | Decrease<br>   | <b>19.2mph</b>                           |
| North Camp, Farnborough        | 22.33mph                              | 21.37mph                             | Decrease<br>   | <b>23.2mph</b>                           |
| Winnall Winchester             | 18.18mph                              | 17.82mph                             | Decrease<br>   | <b>20.7mph</b>                           |
| Hythe New Forest               | 23.07mph                              | 22.4mph                              | Decrease<br>   | <b>25.4mph</b>                           |
| Floral Way area, Andover       | 21.97mph                              | 21.8mph                              | Decrease<br>  | <b>24.7mph</b>                           |
| Dummer Basingstoke             | 23.55mph                              | 24.95mph                             | Increase<br> | <b>25.1mph</b>                           |
| Highcliffe Winchester          | 21.16mph                              | 21.08mph                             | Decrease<br> | <b>25.5mph</b>                           |
| Stanmore, Winchester           | 24.97mph                              | 25.57mph                             | Increase<br> | <b>27.6mph</b>                           |
| Fleet                          | 27.82mph                              | 26.03mph                             | Decrease<br> | <b>28.6mph</b>                           |
| Chilbolton                     | 27.2mph                               | 27.77mph                             | Increase<br> | <b>28.5mph</b>                           |
| Micheldever                    | 24.8mph                               | 25.25mph                             | Increase<br> | <b>27.5mph</b>                           |
| Medstead                       | 25.34mph                              | 23.83mph                             | Decrease<br> | <b>32.0mph</b>                           |
| Whitchurch                     | 27.07mph                              | 26.87mph                             | Decrease<br> | <b>29.2mph</b>                           |

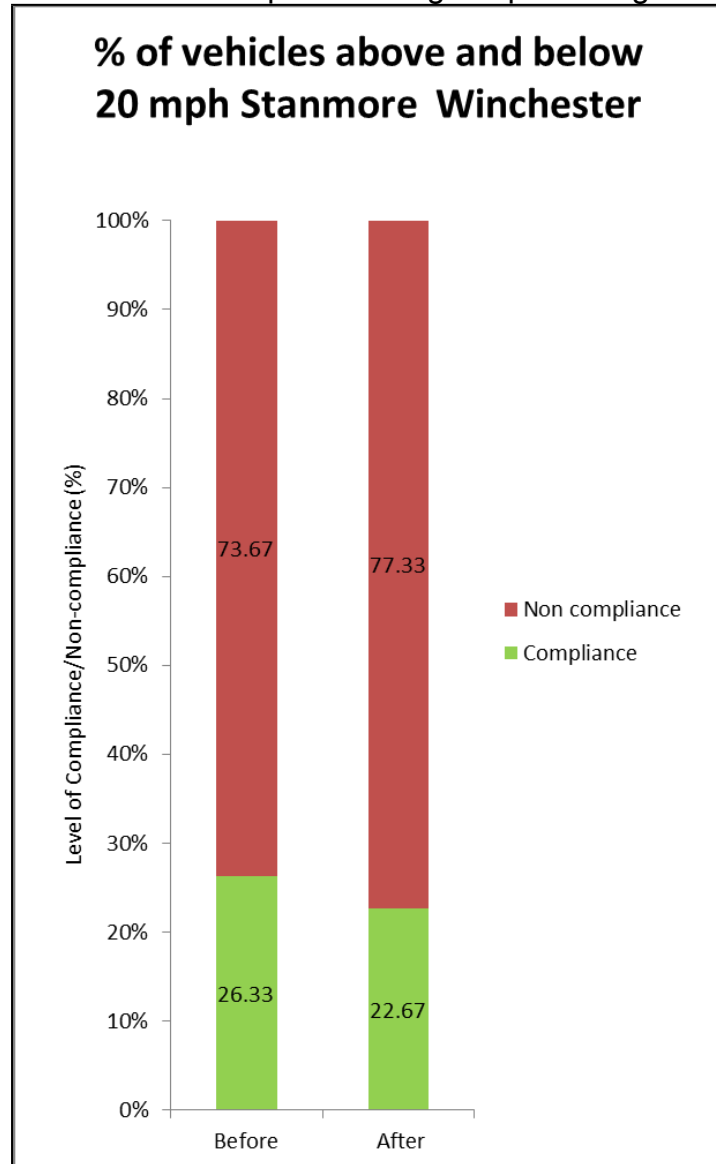


Avg. mean traffic speeds before: 17.67 mph  
 Avg. mean traffic speeds after: 17.4 mph  
 Highest mean speed after: 23.8 mph

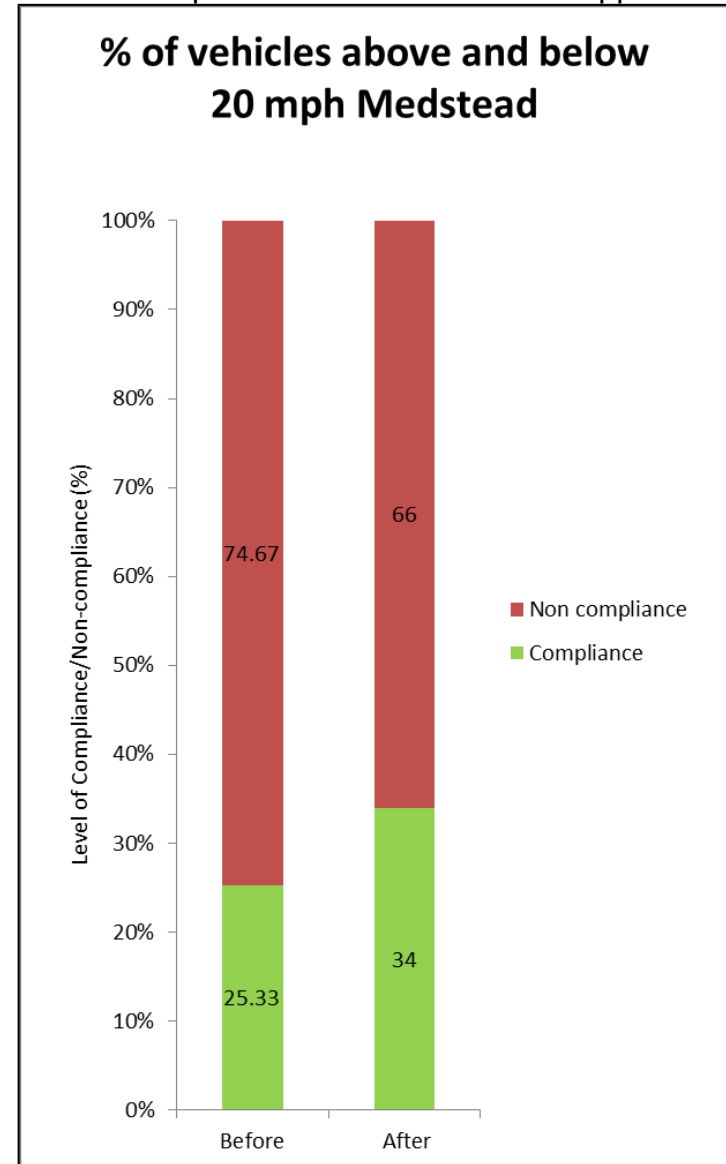


Avg. mean traffic speeds before: 19.95 mph  
 Avg. mean traffic speeds after: 17.9 mph  
 Highest mean speed after: 19.2 mph

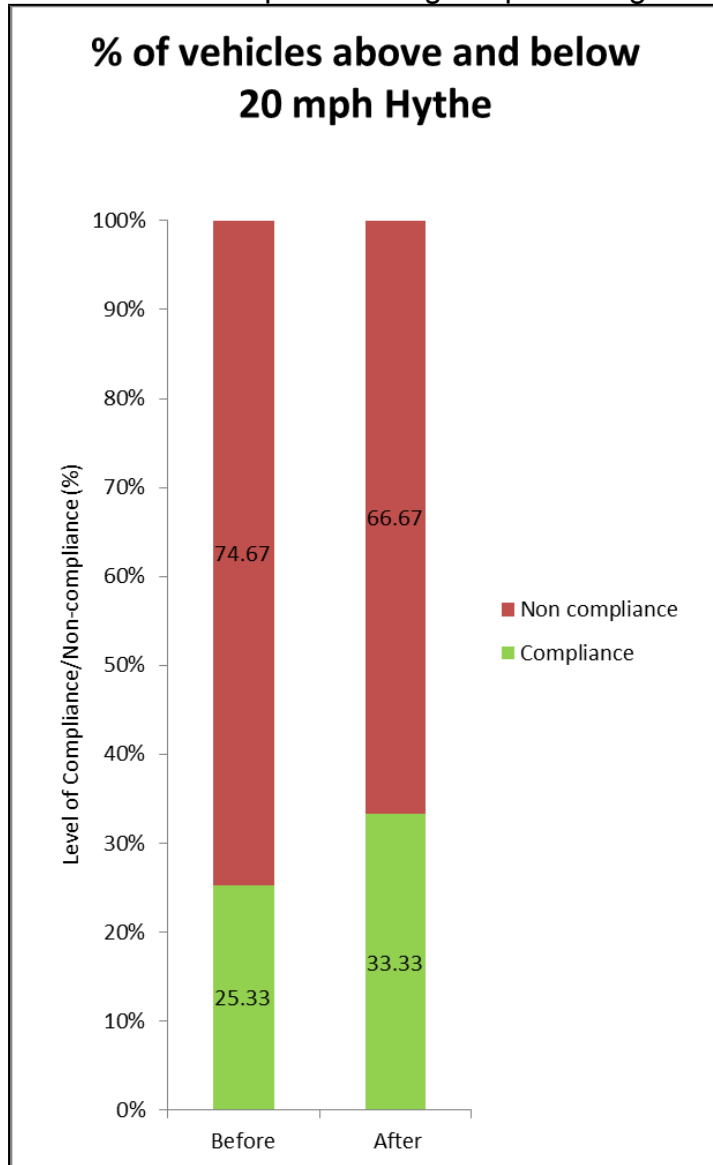




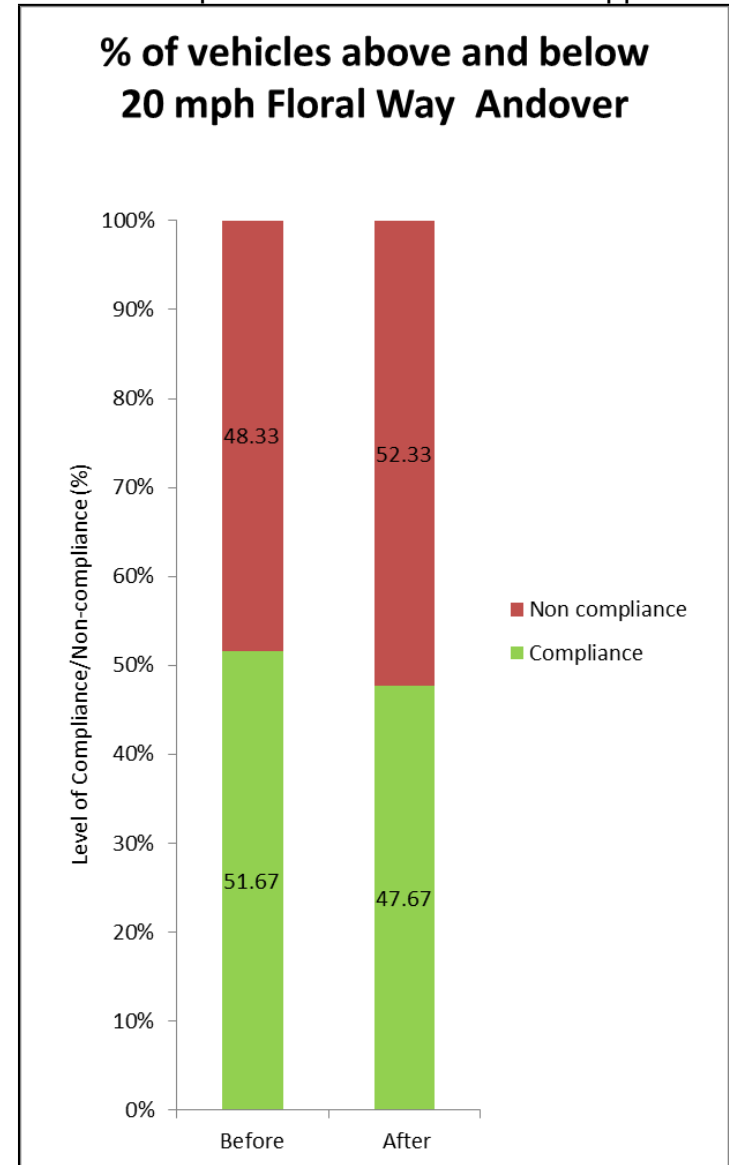
Avg. mean traffic speeds before: 24.97 mph  
 Avg. mean traffic speeds after: 25.57 mph  
 Highest mean speed after: 27.6 mph



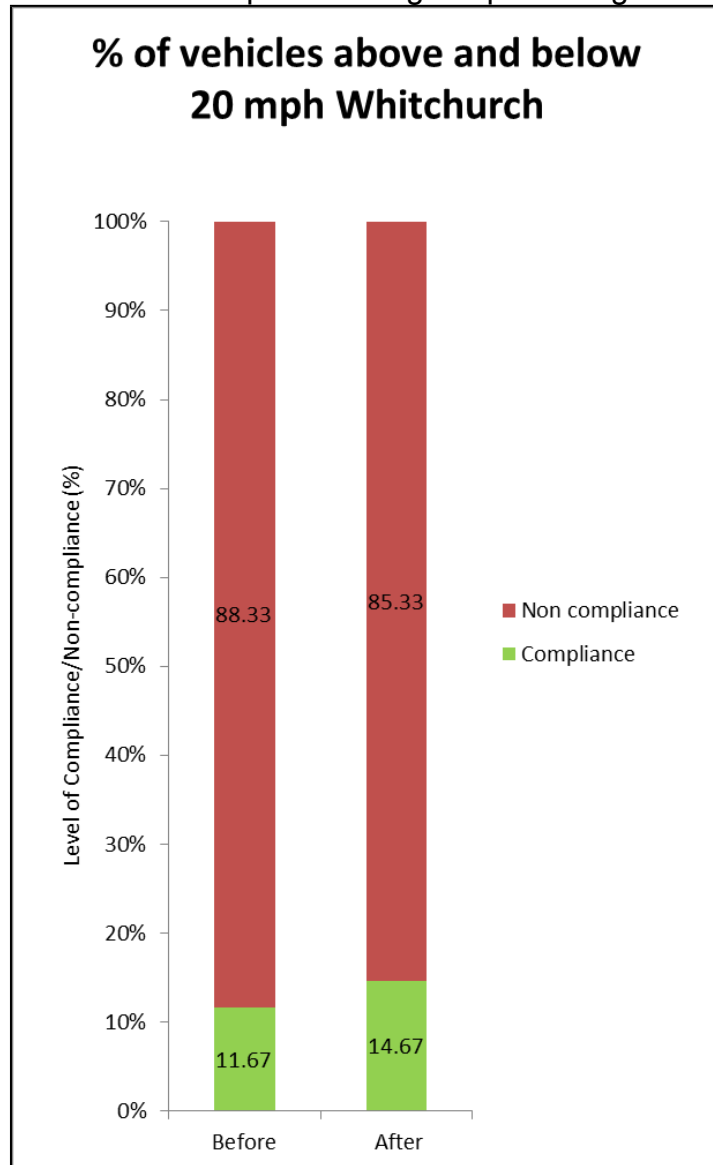
Avg. mean traffic speeds before: 25.34 mph  
 Avg. mean traffic speeds after: 23.83 mph  
 Highest mean speed after: 32.0 mph



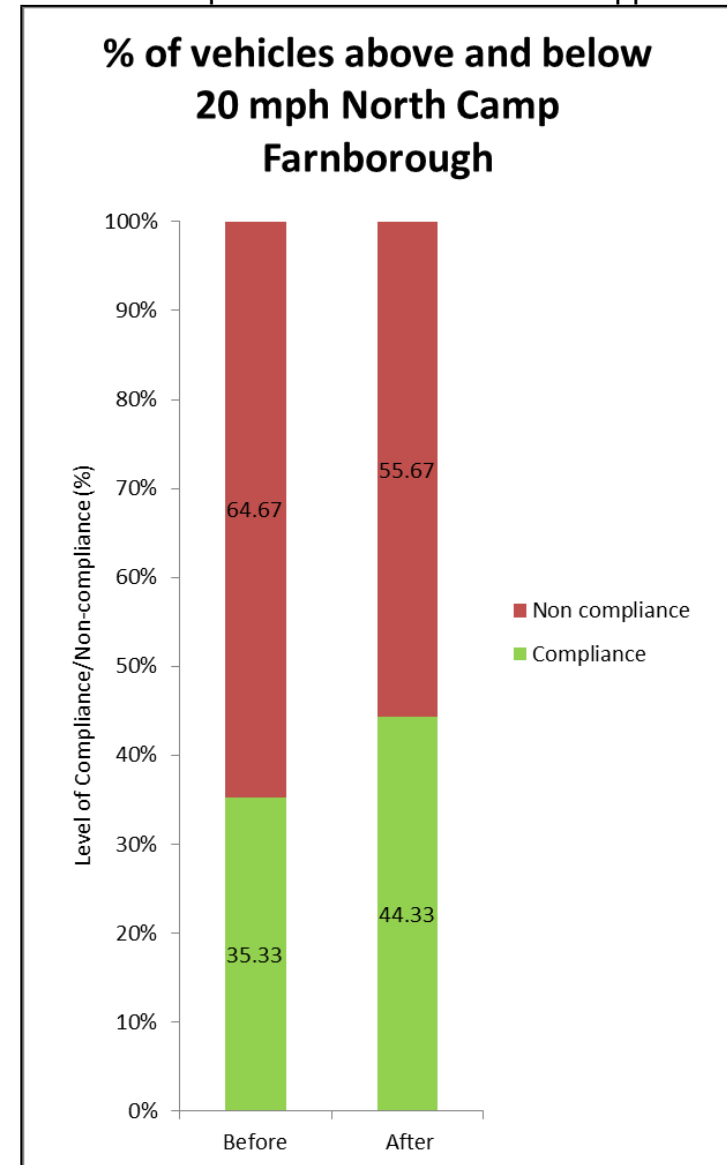
Avg. mean traffic speeds before: 23.07 mph  
 Avg. mean traffic speeds after: 22.4 mph  
 Highest mean speed after: 25.4 mph



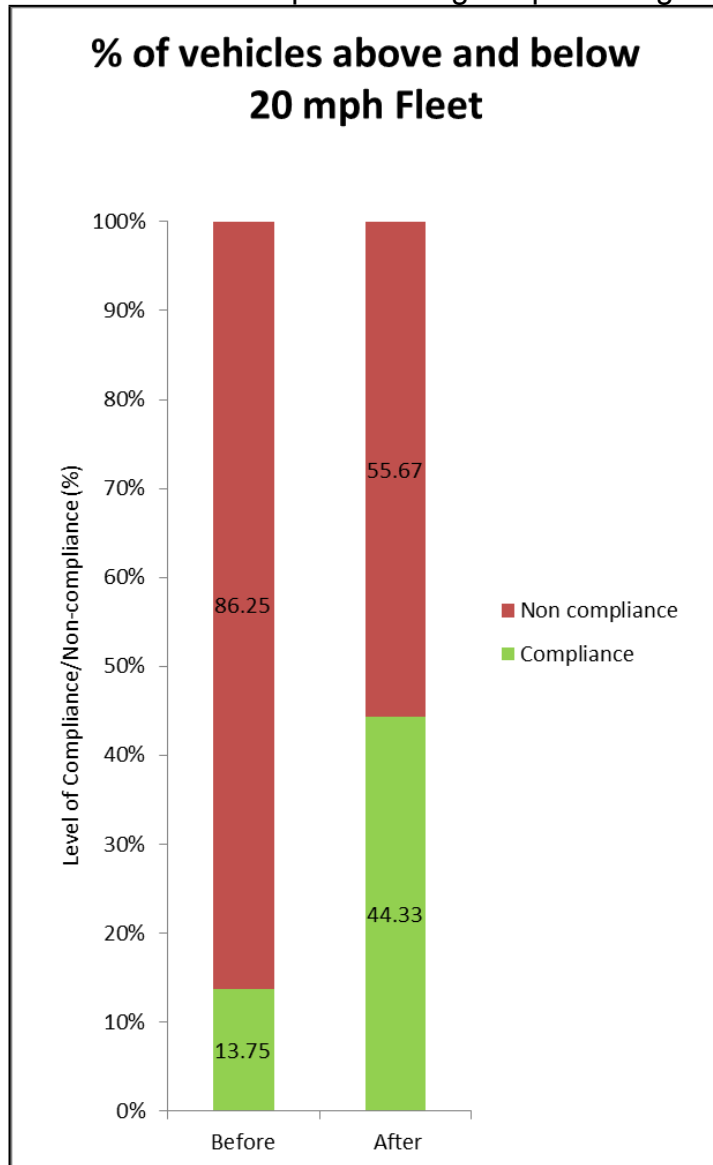
Avg. mean traffic speeds before: 27.97 mph  
 Avg. mean traffic speeds after: 21.8 mph  
 Highest mean speed after: 24.7 mph



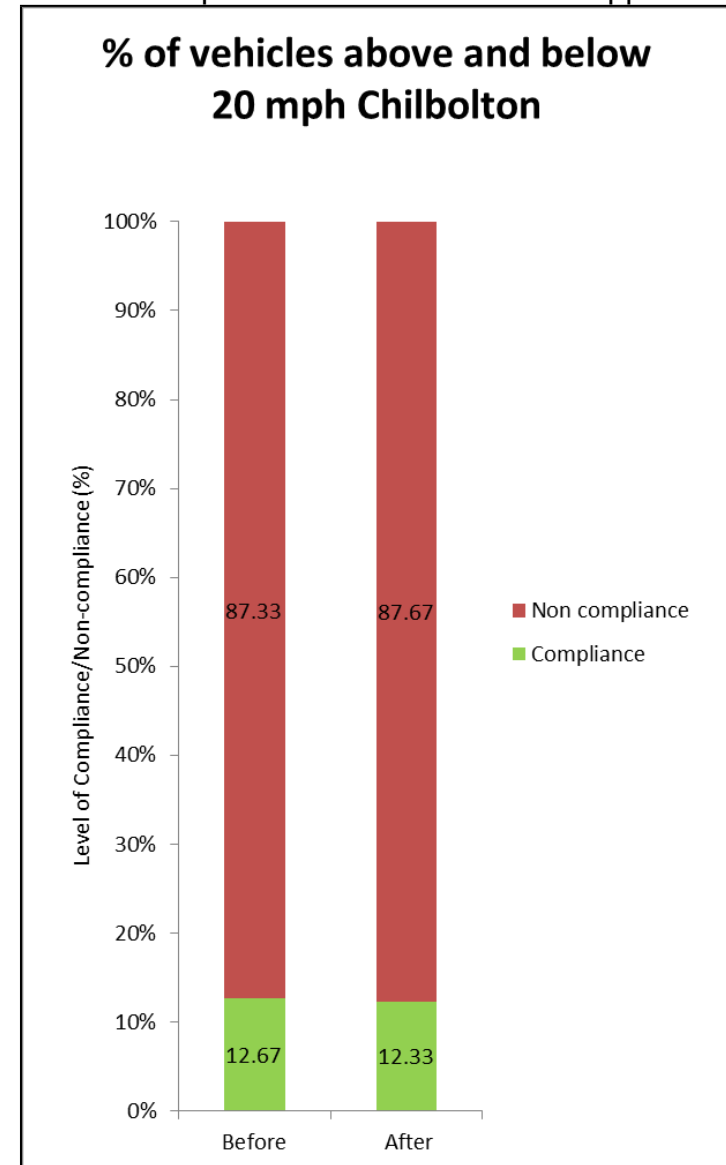
Avg. mean traffic speeds before: 27.07 mph  
 Avg. mean traffic speeds after: 26.87 mph  
 Highest mean speed after: 29.2 mph



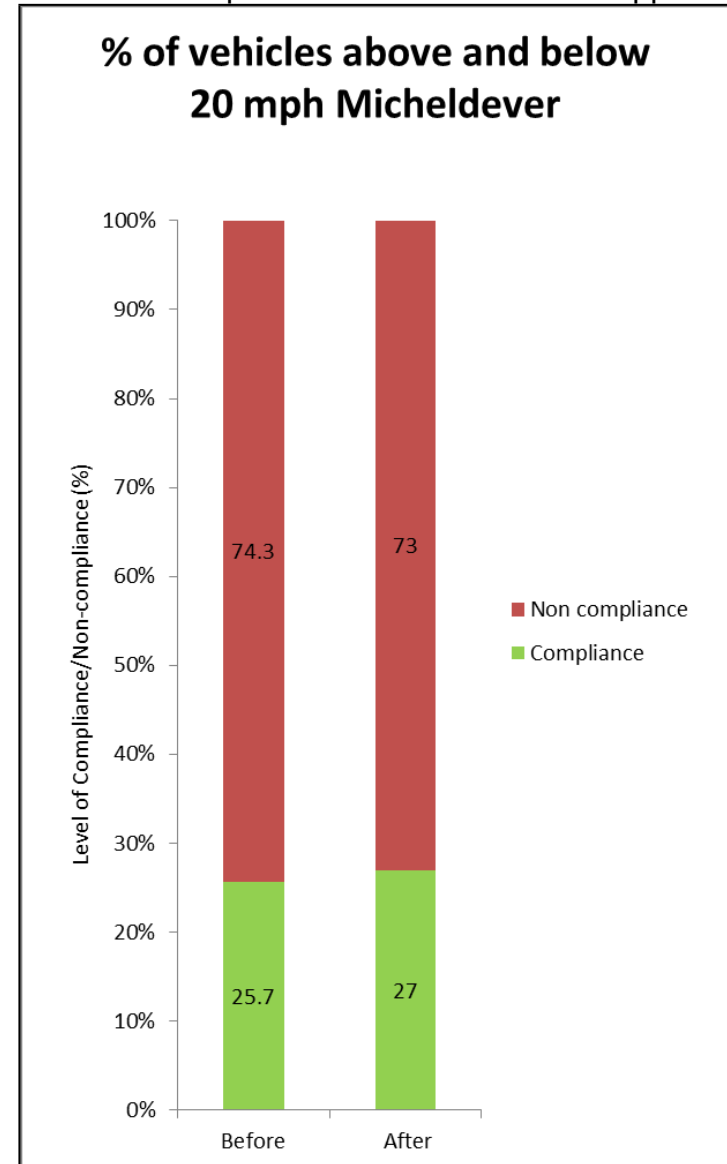
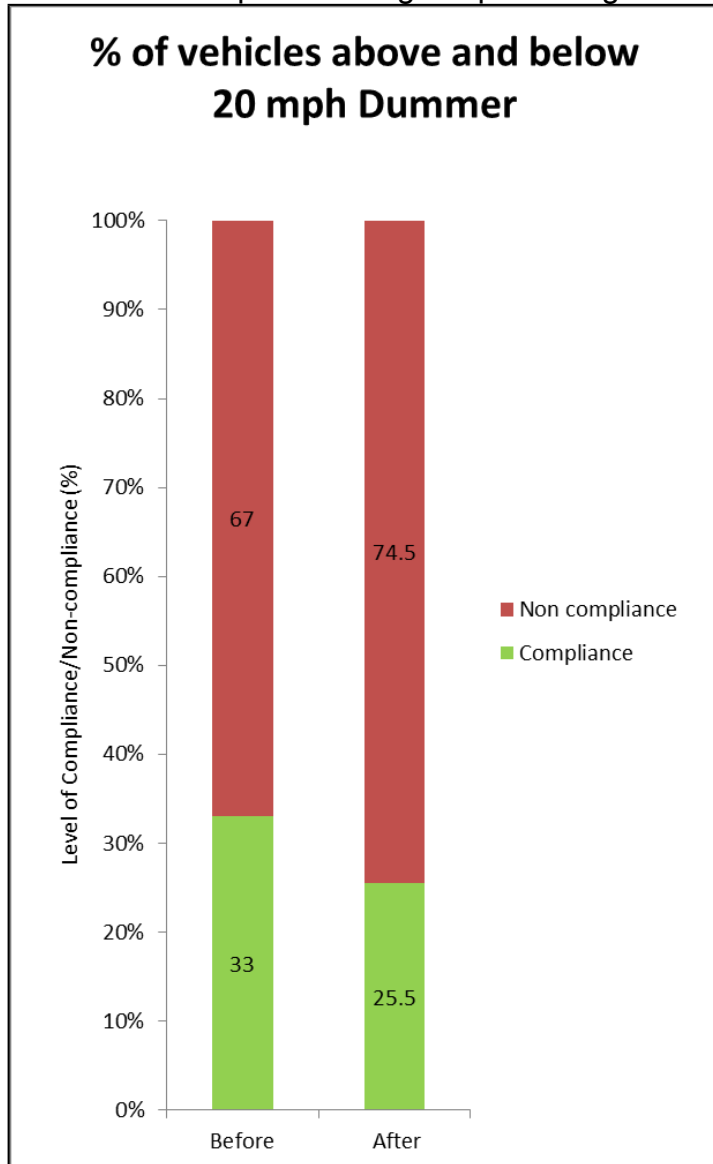
Avg. mean traffic speeds before: 22.33 mph  
 Avg. mean traffic speeds after: 21.37 mph  
 Highest mean speed after: 23.2 mph



Avg. mean traffic speeds before: 27.82 mph  
 Avg. mean traffic speeds after: 28.6 mph  
 Highest mean speed after: 28.6 mph

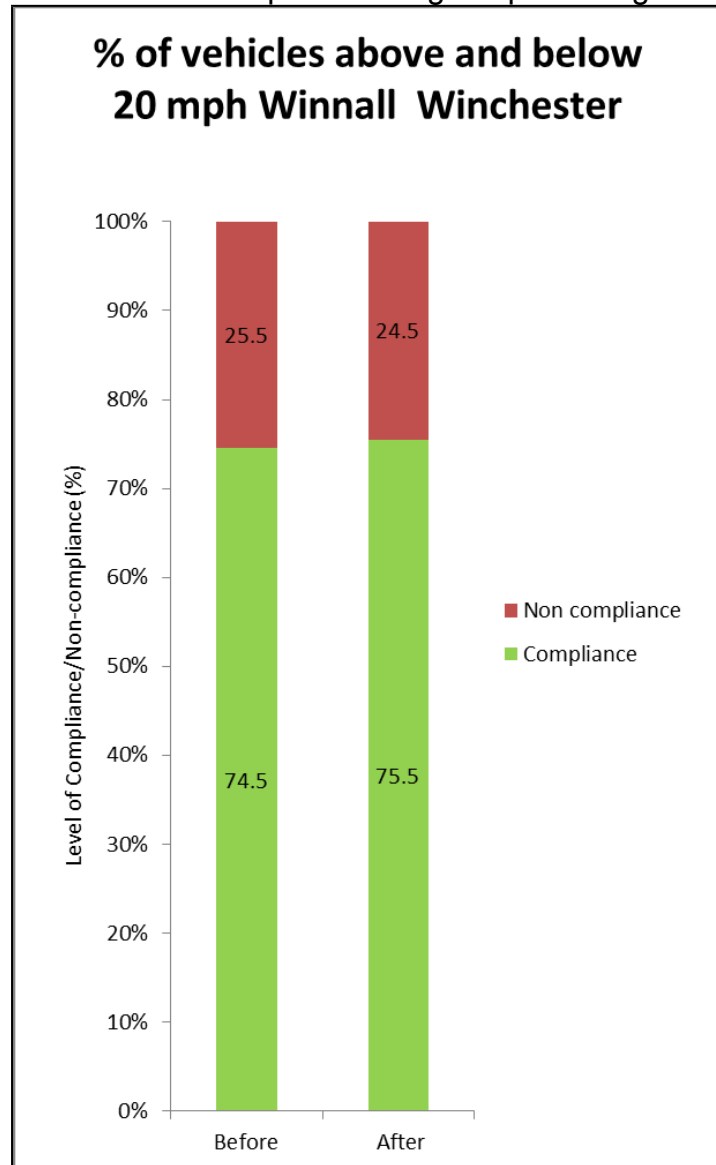


Avg. mean traffic speeds before: 27.2 mph  
 Avg. mean traffic speeds after: 27.77 mph  
 Highest mean speed after: 28.5 mph

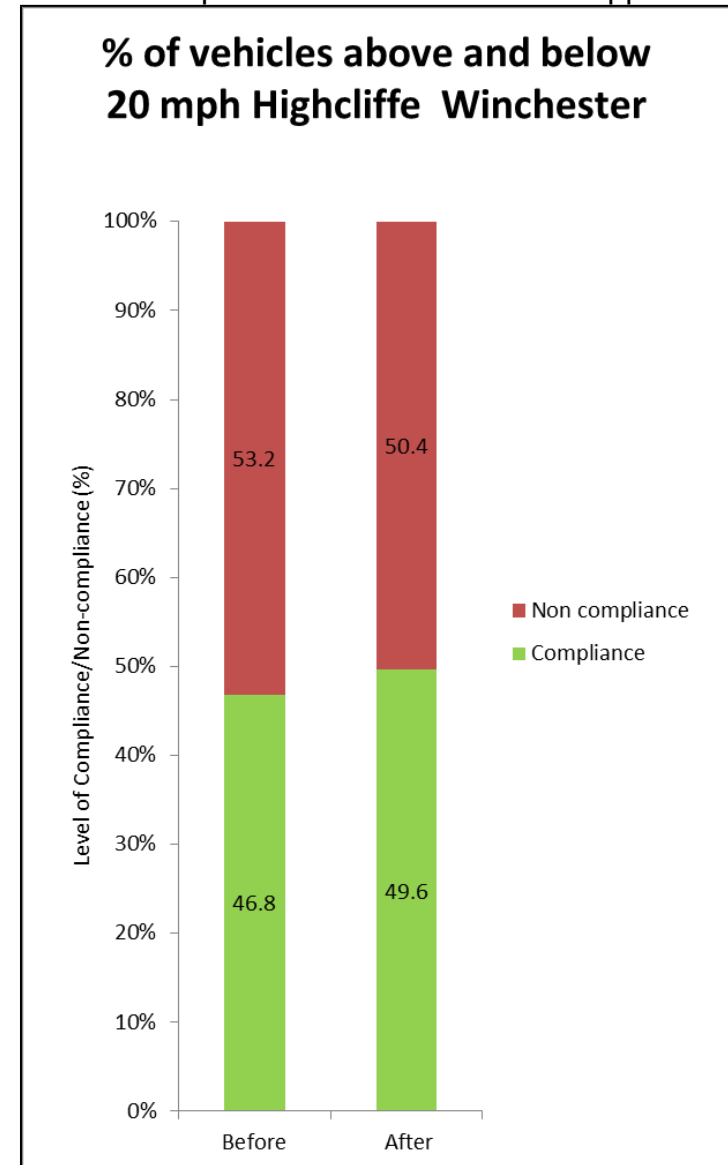


Avg. mean traffic speeds before: 23.55 mph  
 Avg. mean traffic speeds after: 24.95 mph  
 Highest mean speed after: 25.1 mph

Avg. mean traffic speeds before: 24.8 mph  
 Avg. mean traffic speeds after: 25.25 mph  
 Highest mean speed after: 27.5 mph



Avg. mean traffic speeds before: 18.18 mph  
 Avg. mean traffic speeds after: 17.82 mph  
 Highest mean speed after: 20.7 mph



Avg. mean traffic speeds before: 21.16 mph  
 Avg. mean traffic speeds after: 21.08 mph  
 Highest mean speed after: 25.5 mph

## Residential 20mph Speed Limit Evaluation



Since 2013, a number of residential areas across Hampshire have been trialling 20mph speed limit restrictions. We are now evaluating these pilot schemes to help understand their impact on the local area. As a resident living within a 20mph pilot area, we would very much like to hear your views to help inform future decisions relating to residential speed limits.

To share your views, please complete this questionnaire, and return it in the freepost envelope provided by 11:59pm on 7 January 2018. If you do not have a freepost envelope, please post to FREEPOST Hampshire.

### Data Protection Statement

Hampshire County Council adheres to the requirements of the UK Data Protection Act 1998. The information collected will be used as part of this evaluation process and will be used by Hampshire County Council for analysis purposes only. It will not be shared with any other third parties. All individual responses will be kept confidential. Responses from groups or organisations may be published in full. All data will be securely retained and kept for one year after the end of the evaluation process and then destroyed.

- Q1 This evaluation is open to residents and organisations within the 20mph pilot areas. To validate your response, please enter the first 5 digits of your postcode here: (e.g. if your postcode is SO23 8UJ, you would enter SO23 8).

- Q2 Are you responding . . . (tick one only)

- As an individual (Go to Q5)  
 On behalf of a group or organisation (Go to Q2)  
 As an elected representative of the local area (eg. parish councillor) (Go to Q5)

- Q3 Please tell us the name of your group / organisation. (write in)

- Q4 Approximately how many people does your group / organisation represent within the local area? (tick one only)

- Between 1 and 10                       Between 101 and 150  
 Between 11 and 50                       Between 151 and 200  
 Between 51 and 100                       More than 201

- Q5 To what extent do you feel traffic speed is a problem in your local area in terms of . . . (tick one box on each line)

|                 | Severe problem           | 4                        | 3                        | 2                        | Not a problem            |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Safety          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Quality of life | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Q6 If you feel that traffic speed severely affects quality of life in your local area, please tell us how. *(write in)*

Q7 Do you think that the speed of traffic in your local area has changed since the 20mph speed limit was introduced? *(tick one only)*

- Yes, traffic speeds have increased
- Yes, traffic speeds have decreased
- No, I haven't noticed a change in speed
- Unsure
- I wasn't living here when the 20mph speed limit was introduced *(Go to Q10)*

Q8 Were you originally in favour of a 20mph speed limit for your local area? *(tick one only)*

- Yes
- I was indifferent
- No
- Can't remember *(Go to Q10)*

Q9 Has your opinion changed since the 20mph speed limit was introduced? *(tick one only)*

- Yes, I am now in favour of the 20mph limit
- Yes, I now oppose the 20mph limit
- Yes, I'm now indifferent to the 20mph limit
- No, my opinion has not changed
- Unsure

Q10 Would you say that the 20mph speed limit has affected your own driving speeds? *(tick all that apply)*

- I drive more slowly in the 20mph area
- I'm more aware of my speed when I'm driving in the 20mph area
- No, not really if I'm honest
- I don't drive

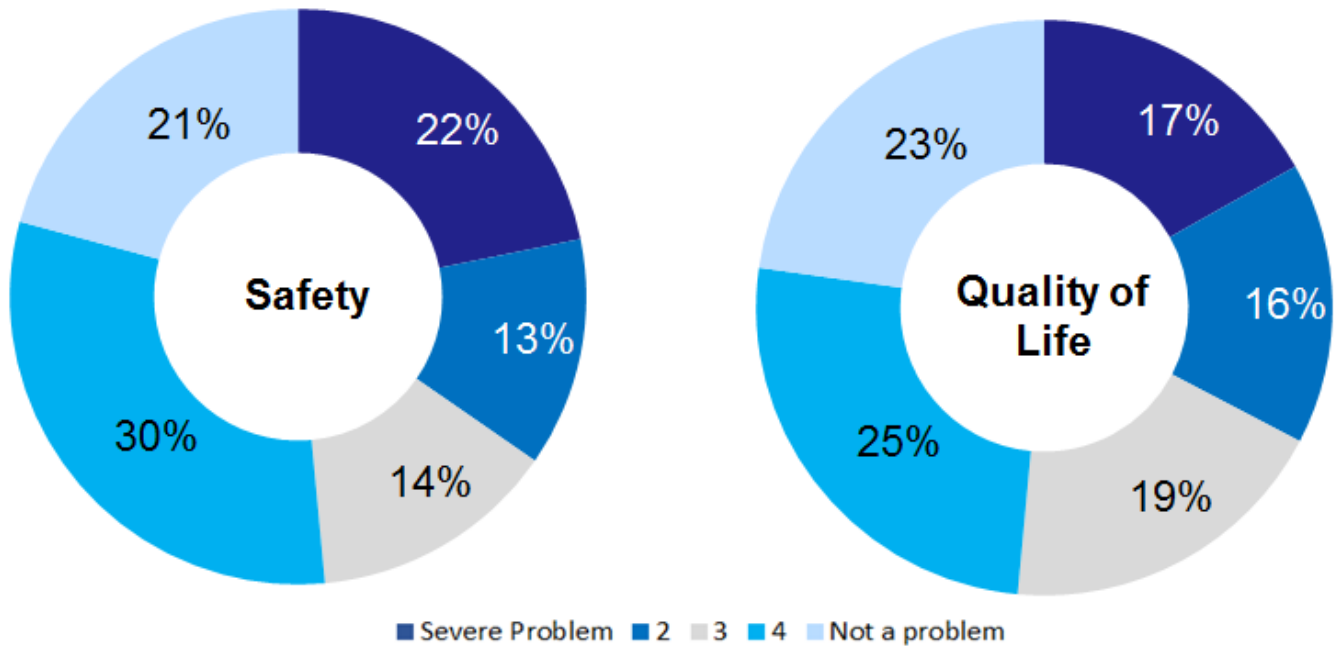
Q11 If you have any other comments about the impact of the 20mph speed limit pilot in your local area, please provide them in the box below. *(write in)*

Thank you for sharing your views.  
Please ensure we receive your response by 11:59pm on 7 January 2018

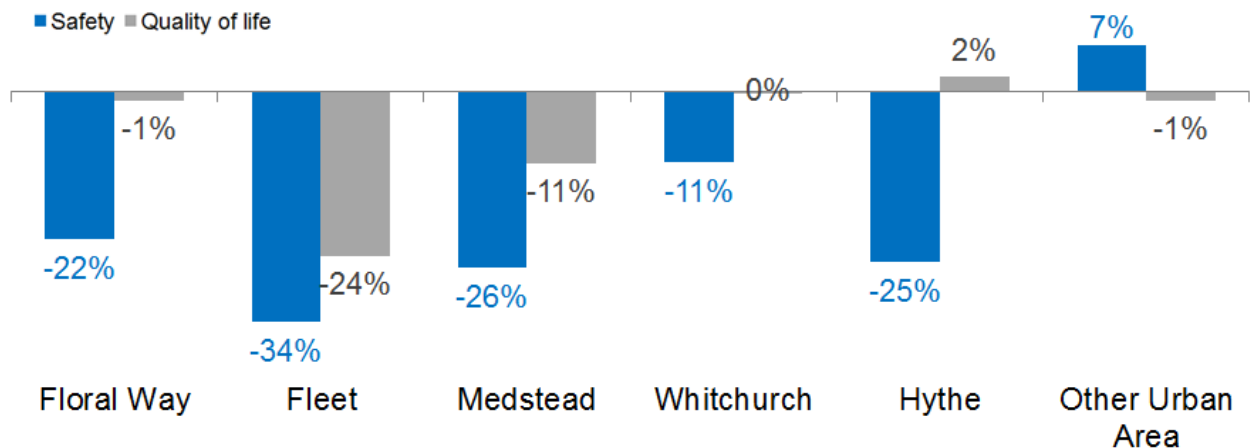


**Question 5: To what extent do you feel traffic speed is a problem in your local area in terms of... ?**

(Post Pilot - Safety Base: 236 Quality of Life Base: 230)



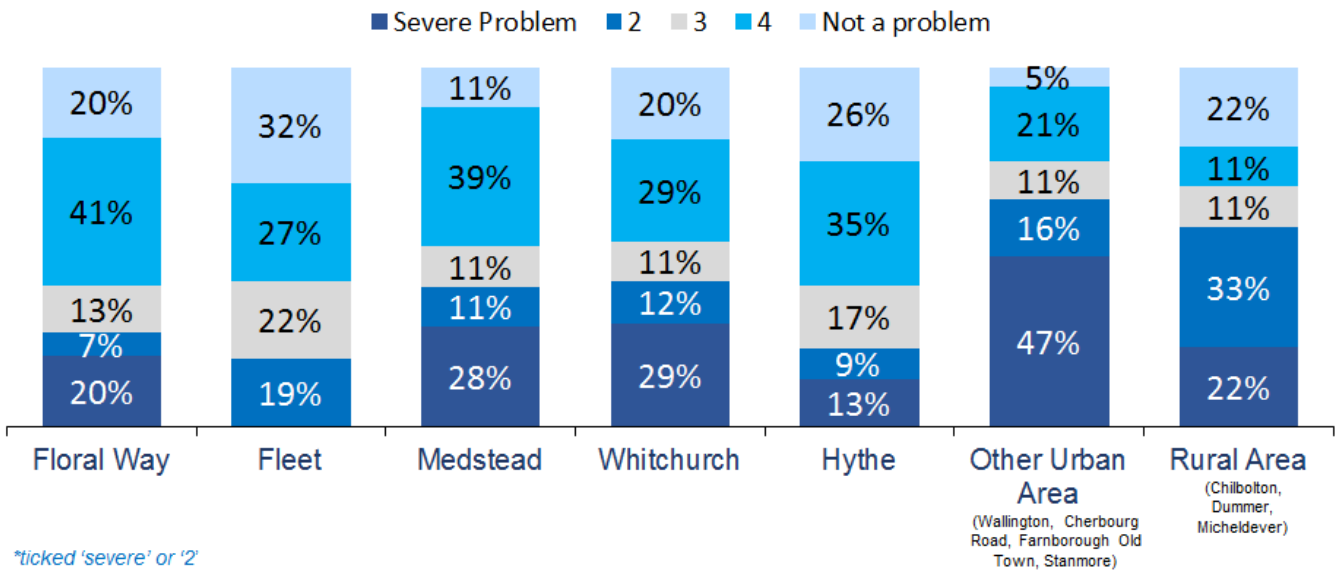
**Question 5: 'To what extent do you feel traffic speed is a problem in your local area in terms of. .' Percentage point change in proportion of residents perceiving speed had a negative impact\* on safety and quality of life - pre vs post implementation, by location (Base: 47,37,18, 87, 23, 19 )**



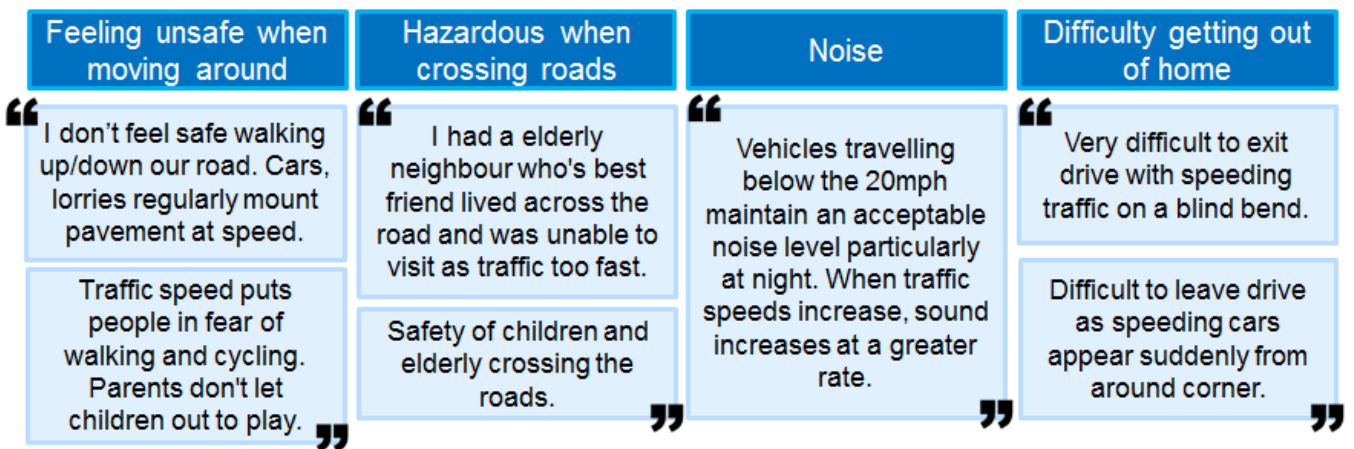
\*scored 'severe' or '2'. Pre-pilot data not provided for rural areas, so no comparison can be made.

(Wallington, Cherbourg Road, Farnborough Old Town, Stanmore)

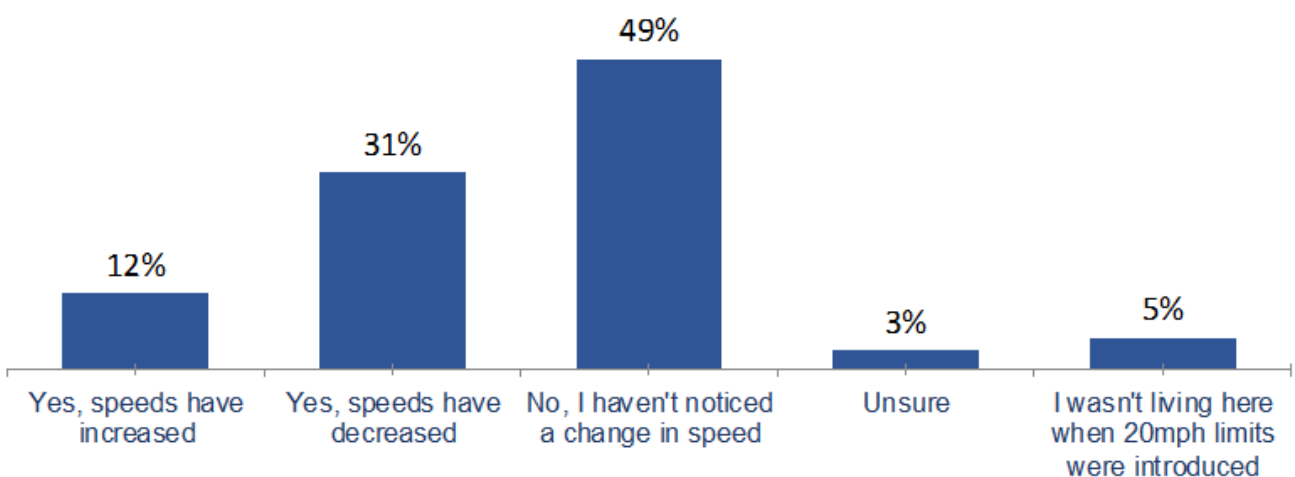
**Question 5: For each scheme – To what extent do you feel traffic speed is a problem in your local area in terms of safety? (Post Pilot - Base: 47,37,17, 8, 23, 19, 9)**



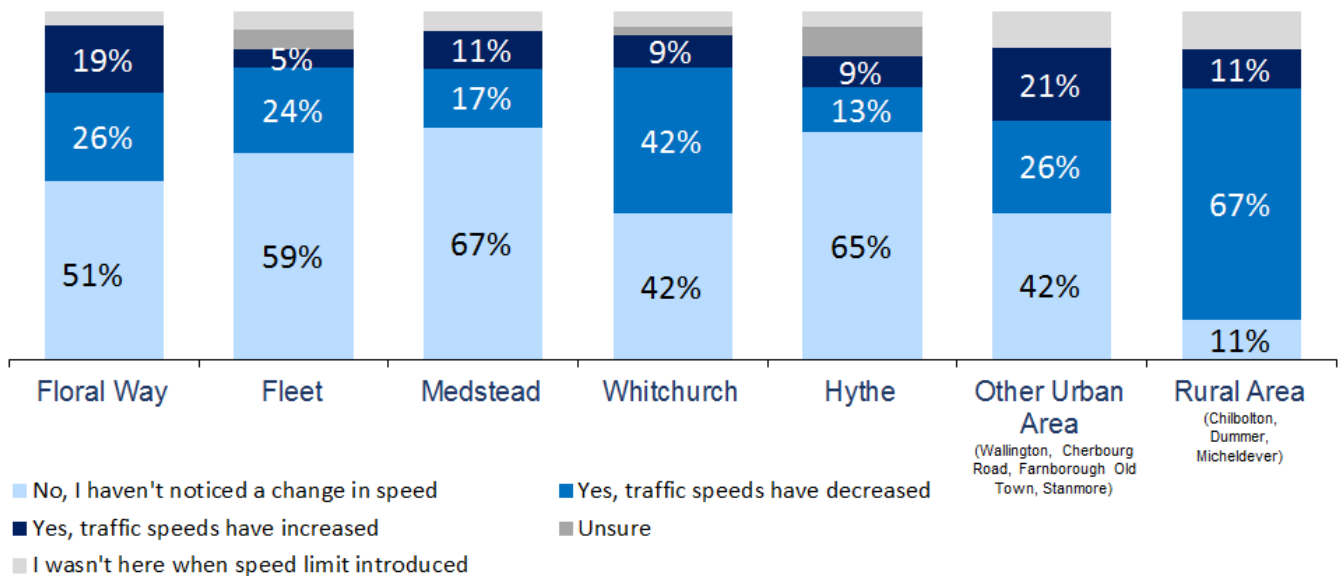
**Question 6: Please tell us, briefly, how traffic speed affects quality of life in your local area (Base: 35)**



**Question 7: Do you think that the speed of traffic in your local area has changed since the 20mph speed limit was introduced? (Base: 239)**



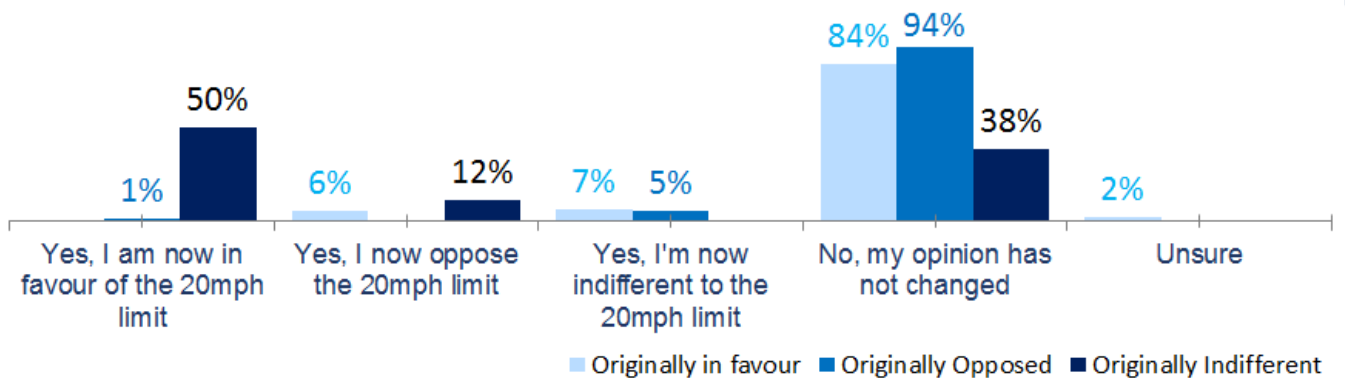
**For each scheme – Reported change in perceptions of traffic speed post implementation  
(Base: 47,37,18, 86, 23, 19, 9)**



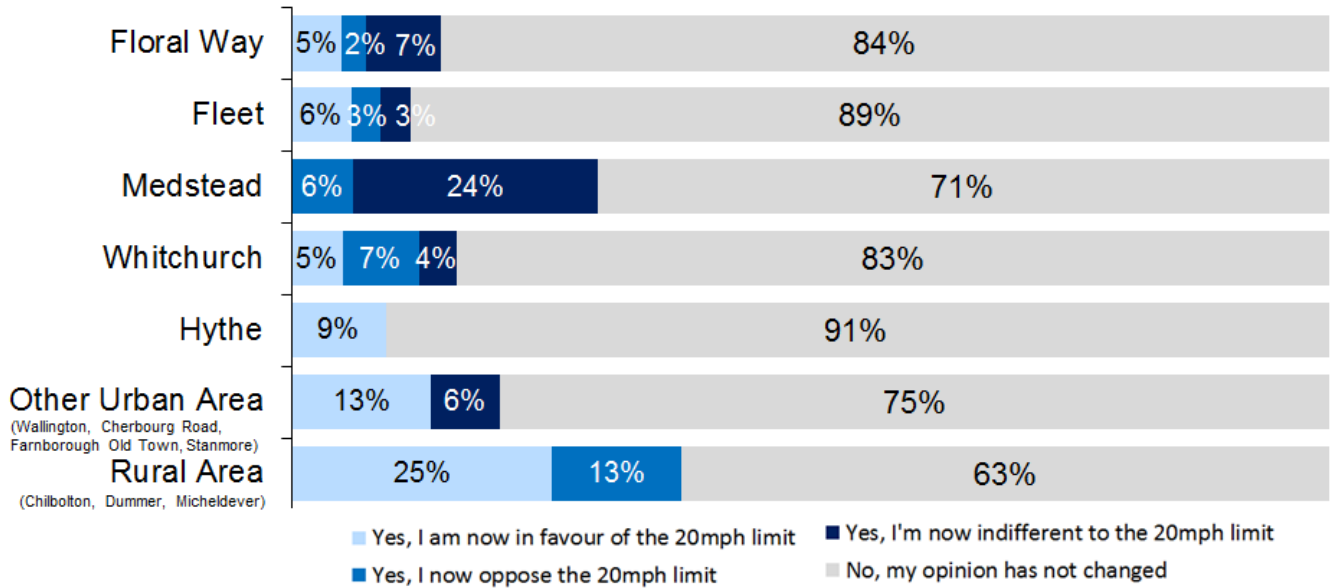
**Question 8: Were you originally in favour of a 20mph speed limit for your local area? (Base: 227)**



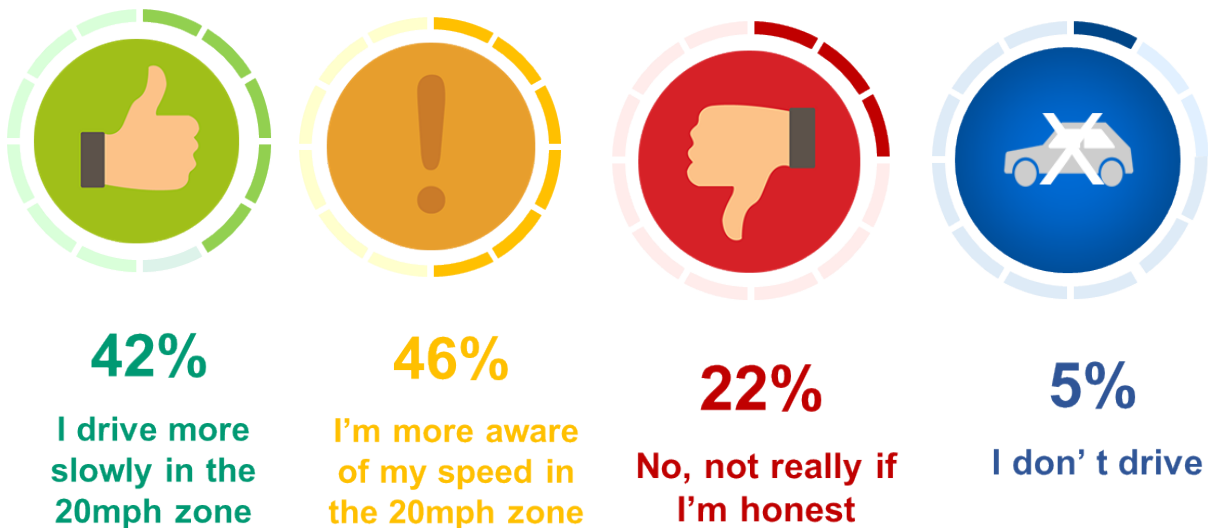
**Question 9: Has your opinion changed since the 20mph speed limit was introduced? (Base: 121, 77, 26)**



**For each scheme – Has your opinion changed since the 20mph speed limit was introduced? (Base: 43, 35, 17, 83, 22, 16, 8)**



**Question 10: Would you say that the 20mph speed limit has affected your own driving speeds? (Multicode, Base: 223)**



**Question 11: Further comments about the impact of the 20mph schemes (Base: 203)**

**Lack of enforcement**

“ This scheme would be more effective than it is if there was ANY evidence of it being enforced.

The 20mph is not policed in my area, very few motorists take any notice.

Everyone locally knows if you ignore the limit there's no one around to check and potentially enforce. ”

**Still ignored**

“ A significant percentage of motorists ignore the limit and travel at more than the old limit.

Since the introduction of the 20mph the cars only slowed down for the first 7 days. Speeds are now on average over 30 mph.

A significant percentage of motorists ignore the limit and travel at more than the old limit. ”

**Specific, not blanket**

“ Targeting specific areas where speed should be reduced, such as near schools and residential care homes, is more sensible and drivers are more likely to adhere.

The 20mph limit has been applied in a NON-TARGETED BLANKET APPROACH, being so widespread as to result in it being widely ignored ”

**Dummer Parish Council** noted that it generally felt “happy with the 20mph speed limit and would like it to remain as it believes generally speeding has decreased, however, it is has not completely solved the issue within the village. The value would be higher if it was enforced.”

**Whitchurch, the Town Council** noted that

“Slower speeds result in safer roads and pavements as well as providing an enhanced quality of life for local residents. With the planned growth in housing, expansion of the schools, and business development, all with the inevitable increase in traffic, mean slower speeds are essential to provide an environment conducive to safe walking and cycling and the benefits they bring. Whitchurch Town Council supports retention of the existing 20mph limits and in addition calls for effective enforcement measures.”

The response from **Micheldever Parish Council** noted that traffic speeds had decreased and that the Council’s original stance of supporting the introduction of 20mph limits had not changed. However, they also noted that “20mph is too slow for the outer edges of the village and causes people to ignore the limit in the centre of the village where it is most necessary that speed is reduced. The narrow roads, tight corners, parked vehicles and other obstacles make even low speeds hazardous to pedestrians, property and verges.”

**Study 1: 3 year review periods**

| <b>Period 1</b>      | <b>Average Number of accidents &amp; (severity %)</b> | <b>Period 2</b>      | <b>Average Number of accidents &amp; (severity %)</b> | <b>Change (%)</b> |
|----------------------|---|----------------------|---|-------------------|
| 3 years<br>2011-2013 | 2619<br>(79% slight, 21% serious)                     | 3 years<br>2014-2016 | 2467<br>(76% slight, 24% serious)                     | -5.8%             |

**Study 2: 5 year review periods**

| <b>Period 1</b>      | <b>Average Number of accidents &amp; (severity %)</b> | <b>Period 2</b>      | <b>Average Number of accidents &amp; (severity %)</b> | <b>Change (%)</b> |
|----------------------|---|----------------------|---|-------------------|
| 5 years<br>2007-2011 | 2811<br>(82% slight, 18% serious)                     | 5 years<br>2012-2016 | 2496<br>(77% slight, 23% serious)                     | -11%              |