



## **Routes to Speed Safety: Understanding and measuring the contribution of Community Speed Watch**

### **Final report, February 2024, Project lead: Dr Leanne Savigar-Shaw**

#### ***Executive Summary***

- *Background*

Community Speed Watch (CSW) is an approach to tackling speed in local communities where volunteers, supported by their local police force, monitor vehicular speed and report offending vehicles. Research suggests CSW could have positive impacts on driver speed and community cohesion, however, as an approach it is not well-informed by evidence due to a limited amount of research. Despite this, it is being advanced in some areas with the use of cameras, rather than people, to monitor vehicular speed, referred to here as CSW+. This project aimed to explore the use and effectiveness of CSW and CSW+ in reducing speeds, empowering communities and influencing perceptions of legitimacy/safety.

- *Methodology*

A mixed-methods, exploratory evaluation design was used: 1) Seven focus groups and eight interviews were undertaken with 32 individuals including CSW volunteers, CSW co-ordinators, parish/town councillors and police staff, referred to as stakeholders. 2) 30 online questionnaires were completed by community members living in areas where CSW activity takes place. 3) 102 online questionnaires were completed by drivers that had been identified exceeding the speed limit via CSW activity. 4) 10 interviews were undertaken with drivers who had been identified exceeding the speed limit via CSW activity. 5) Vehicle speed data were analysed from four CSW+ cameras across three geographical areas (areas A, B, and D) as well as data from traditional CSW activity collected by CSW volunteers using speed radar guns within three geographical areas (areas A and C).

- *Results*

In interviews/focus groups, stakeholders described CSW as allowing community members to become empowered to do something about a perceived issue within their local community. Volunteers described an importance to evidencing where there *is* a problem of speeding. For some volunteers, CSW was perceived to have a positive impact on driver speeds, but there was also an emphasis on drivers who continue to exceed the speed limit and a recognition that CSW does not deter all speeding. Volunteers subsequently wanted police enforcement activity to complement their own and wished to receive more information about the outcome of their activity. Current relationships and information sharing were inconsistent across CSW groups/geographies. Stakeholders expressed the need for stronger relationships with the police, highways departments and other CSW groups. Finally, stakeholders discussed a potential value of CSW+ cameras but also identified limitations in its use.

Community questionnaires showed the majority of participants considered CSW to have a positive impact on their community, agreed that CSW plays an important role in tackling speed, makes them feel safer in their community and would like more CSW activity to take place. A strong majority claimed that the presence of CSW/CSW+ makes them drive slower but there was less support for letters, with almost half of participants agreeing that warning letters are too lenient.

Similar to the community questionnaire, results from the offender questionnaire found that a majority agreed that CSW is a useful way of tackling speed, plays an important role in tackling speed and CSW teams do a good job of keeping communities safe. Offenders showed greater support for warning

letters than general community members. Most participants agreed that warning letters are an appropriate response to speeding and suggested that the warning letter made them want to change their behaviour, as would seeing CSW activity in the future.

In interviews with offenders, drivers reflected on a lack of visible roads policing and claimed they could self-appraise appropriate speeds. Some drivers described CSW activity in a way which undermined its validity and future success. Some rationalised their being caught by criticising the positioning/timing of activity as well as the technology (speed radar guns/cameras) used. Despite this, offenders described changes to speeds following their experience with CSW, although some claimed that would only be short-term or temporary. Mixed perceptions were expressed on the value of warning letters, with some suggesting they had educational and emotional value but others were negative about their lack of impact/meaning. Nevertheless, offenders called for greater CSW activity that was appropriately positioned, unpredictable in nature and communicated to drivers more clearly or frequently. CSW cameras were considered safer than having volunteers at the roadside in risky hotspots but as being limited in their usefulness unless followed up with outcomes appropriate to the speed observed.

Analyses of speed data were undertaken to consider the impact of CSW on driver speed. However, there was a limited availability of speed data prior to the implementation of CSW activity, reducing the possibility for comparative analysis of pre- and during-CSW activity speeds. Although the speed data analysis appears to show some overall benefit to CSW on driver speeds, therefore, that cannot be attributable to CSW activity alone and must be considered in light of data limitations.

Longitudinal trends in speeds in area A with the use of traditional CSW showed a reduction in the percentage of vehicles identified exceeding the speed limit across a one and two-year period, albeit fluctuating over time. Speed data collected over the duration of a phased implementation of CSW cameras showed the percentage of drivers exceeding the speed limit at 36mph or over decreased considerably, with the lowest percentage of offending vehicles observed where CSW+ was used with signage and local promotional material (compared to the cameras with no signage and camera with signage only). The percentage of vehicles driving within the speed limit increased considerably, and the number of vehicles responsible for excessive speeds (above 45mph), reduced with the implementation of CSW+ including signage/promotional material.

Speed data in area B suggested there were reductions in the percentage of vehicles driving 31mph or over in a 20mph zone over the first 9 weeks of the introduction of CSW cameras, with most of that impact observed within the first four weeks. Speed data in area C showed longer-term fluctuation in speeds of drivers identified by CSW+ travelling at 31mph and over, suggesting there may be an initial benefit to CSW+ that then starts to fluctuate and tail off somewhat.

Case study analysis of area D suggested letters distributed as an outcome of CSW are beneficial. Of 14 vehicles identified exceeding the speed limit, the half that received a letter reduced their *average speed* in the four months after receiving that letter compared to the previous five months. For those that did *not* receive a letter, average speed reduced less, or even increased. Additionally, for those who did not receive a letter, there was a considerably smaller reduction in average *top speed* over that same time period than for those who did receive a letter. Although not statistically significant, the majority of vehicles (5 out of 7) who received a letter were less likely to be seen exceeding the speed limit (as a proportion of all times that vehicle was seen driving past CSW+ cameras) after receiving a CSW+ letter. In contrast, those who did not receive a letter did statistically significantly *increase* the number of times they were seen exceeding the speed limit.

- *Evaluation*

Preliminary research findings were presented to 43 practitioners and volunteers at dissemination events, with advertisement for this linked to a total of 2,673 impressions and engaged with by 89 social media users. Findings were presented at the National Road Safety Conference 2023 where over 370 delegates were in attendance. Eight individuals from separate force areas made contact to request

further information or practice guidance. Impact questionnaires have identified that practitioners intend to share findings with colleagues and volunteers, as well as using further support to guide practice. For some, it has had direct impact on their practice, including changing, or even ceasing, operating procedures and considering the use of alternative measures.

- *Discussion and areas for consideration*

Ensuring consistency in communication has emerged as a key area of improvement. Firstly, it is important to (re)consider and clearly verbalise the aims of CSW activity and impact expectations to volunteers. Additionally, explaining the information that can and cannot be shared, and being consistent with sharing it, is important for retaining the relationship between police and volunteers. Facilitating communication between CSW groups has the potential to reduce repeat learning and act as a network of support for volunteers. Additionally, advising groups on communication strategies when engaging with broader communities may be beneficial for public perceptions of CSW. Also, facilitating communication with highways departments, where appropriate, could be useful to realising the wider road safety measures that CSW groups consider necessary.

Given resource limitations, forces sometimes restrict the number of offending vehicles they respond to, e.g., sending 10 letters per CSW session or CSW-camera week. Any cap on the number of distributed letters must be carefully considered, particularly with CSW cameras where a large number of vehicles may be identified exceeding the speed limit. Speed data suggested that *not sending* a letter can be detrimental to road safety. It would be preferable for forces to adequately resource letter distribution to all drivers identified exceeding a specific limit (e.g., 10% +2mph). A consistent approach is likely to have benefits for perceived distributive and outcome fairness.

Forces must consider practical resource implications of CSW and make efforts to provide a consistent supporting function across groups to support perceived validity and legitimacy of the practice.

Providing communications and de-escalation training for volunteers could be invaluable for minimising any negative impact of volunteer behaviour or messaging on organisational reputation.

Careful consideration must be given to the implementation of CSW+ cameras. CSW+ cameras have the advantage of enabling placement in areas that may be dangerous for volunteers to stand and identifying vehicles travelling too fast or in too quick succession for volunteers to respond to. However, participants expressed concerns that cameras lack flexibility and drivers can become desensitised or slow down only as long as needed to avoid detection because they know their placement. It is likely that CSW+ cameras could complement, rather than replace, traditional CSW activity and should be used with a communications strategy.

With traditional CSW, activity undertaken at least once a week (where possible) in varied locations over time is likely to be particularly valuable.

Activity in areas used by vulnerable road users or where visibility of the volunteers would be high, was associated with legitimate practice and should be meaningfully implemented moving forward. Activity should also be guided by data (i.e., areas where frequent high speeds are recorded). This should be combined with appropriate signage and wider communication to communities to ensure that they are aware of the reasoning behind activity placement.

Seeking views of the broader community can help to validate CSW activity and enhance community cohesion by acting as a response to community concerns. Educational engagement with the community, whether through social media or other community correspondence such as a newsletter, could be valuable. Here, appropriate wording of messages is essential.

Finally, evaluation of activity is paramount to inform perceptions of the 'success' of CSW and more research is needed to understand the effectiveness of CSW, whatever form it takes.

## Acknowledgements

This project has been made possible due to funding from the Road Safety Trust, collaboration with Gloucestershire Police and other police forces as well as the generous time and input of various stakeholders and drivers who took part in the research. The project team are grateful to all involved, particularly those who voluntarily supported the project and offered topic expertise throughout. The below images were collected with the support and hospitality of those people. Thank you.





## ***Introduction***

Community Speed Watch (CSW) is an approach to tackling speed in local communities where volunteers, supported by their local police force, monitor vehicular speed and report offending vehicles. This may be undertaken by individuals at the roadside (CSW) or by cameras (CSW+). For many force areas implementing CSW, an educational warning letter is issued to the driver of the vehicle and after three letters have been sent, the police (at their discretion) will take further action. CSW is currently implemented across many police forces and research suggests it could have positive impacts on driver speed and community cohesion, however, as an approach it is not well-informed by evidence due to a limited amount of research considering its use. Despite this, many force areas are advancing their use of CSW, or at least relying on it as a road safety measure for engaging with the public. There is therefore a need to understand the role that CSW plays as a road safety measure involving public volunteers and the impacts it has upon drivers.

## ***Aims and objectives***

This project aimed to inform practice and explore the use and effectiveness of CSW in reducing speeds, empowering communities and influencing perceptions of legitimacy/safety.

This was achieved through the following objectives and work strands:

- 1) Monitoring and comparing vehicular speeds across different stages of CSW implementation and over a longitudinal time-period.
- 2) Exploring the experiences and impact of CSW on those involved in their activities and those living in wider communities through questionnaires, interviews and focus groups.
- 3) Understanding the experience and resulting impact of being identified exceeding the speed limit by CSW activity through questionnaires and interviews.
- 4) To develop evidence-informed practice for tackling speed in communities through a series of dissemination products to be shared with Gloucestershire Police, wider police force areas and the wider road safety community.

## ***Activities***

This project used a mixed-methods, exploratory evaluation design, using a range of qualitative and quantitative methods of data collection and analysis which follow 5 interlinked work strands:

1. Focus groups/interviews (stakeholder)

Seven focus groups and eight interviews were undertaken with a total of 32 individuals with some involvement in CSW, namely CSW volunteers, CSW co-ordinators, parish/town councillors and police staff. Participants were recruited via an email invitation shared by a police staff officer supporting CSW within the supporting police forces, as well as through verbal invitation during attendance at an online CSW roundtable event led by Gloucestershire Constabulary. Prospective participants were given an option to attend a focus group or individual interview. Focus groups/interviews took place either online using Microsoft Teams or face-to-face at a room in a Gloucestershire Police building, each lasting 60-120 minutes. They were recorded using a Dictaphone and transcribed for analysis.

2. Questionnaires (public)

30 online questionnaires were completed by community members living in areas that CSW activity takes place within Gloucestershire. They were recruited by: email/letter invitation shared by CSW stakeholders, social media postings by the researchers, and hand-delivered letters distributed by the researcher in areas where CSW was active. Participants accessed a link/QR code to a Qualtrics survey

including an embedded information sheet and responses were downloaded for analysis.

### 3. Questionnaires (offender)

102 online questionnaires were completed by drivers that had been identified exceeding the speed limit via CSW activity. All offenders receiving a letter resulting from CSW activity over a 6-month period were invited to complete the questionnaire via a link/QR code at the end of the letter. Responses were downloaded for analysis.

### 4. Interviews (offender)

10 interviews were conducted with those who had been identified exceeding the speed limit via CSW activity. All offenders receiving a letter resulting from CSW activity over a 6-month period were invited to partake in an interview by providing contact details either in a Microsoft Forms space at the end of the questionnaire (above), directly in the Microsoft Forms space via a link in the letter, or by contacting the researcher. All interviews took place online through Microsoft Teams and lasted 30-75 minutes. Participants received a digital £10 Amazon gift voucher as a thank you. Interviews were recorded using a Dictaphone and transcribed for analysis.

### 5. Speed data

Analyses of speed data were undertaken to consider the impact of CSW on driver speed. Data were collected using two different methods; CSW volunteers collected CSW data and cameras collected CSW+ data, with the former subject to human error and the two therefore not being reliably comparable. Neither form of data collection can account for any environmental impacts on speed, such as weather conditions and other roads policing activity. Additionally, there is a limited availability of speed data prior to the implementation of CSW or CSW+, meaning that it has not been possible to undertake extensive comparative analysis of speed pre- and during-CSW activity. To mitigate this, additional data were collected from different geographical areas within Gloucestershire to generate a bigger picture of data regarding the role and impact of CSW activity, including the use of traditional CSW, CSW+ and the role of letters as an outcome of CSW+. Additionally, a case study analysis was undertaken for a more detailed consideration of particular vehicles. Nevertheless, findings cannot be attributable to CSW activity alone and must be considered in light of data limitations.

Vehicle speed data was obtained from four CSW+ cameras across three geographical areas<sup>1</sup> (areas A, B, and D) as well as data from traditional CSW activity originally collected by CSW volunteers using speed radar guns within three geographical areas (areas A and C), all within Gloucestershire. There is no set CSW+ camera manufacturer or provider for the area, meaning that the cameras work in different ways and provide somewhat different functions<sup>2</sup>. Once implemented, the cameras remained in the same location for the duration of data collection.

For area A, vehicle speed data were gathered across four different time points in a single 30mph zone; timepoint 1 involving the use of traditional CSW only, timepoint 2 where CSW+ cameras were erected on the same street but used without any signage, timepoint 3 where signage was added to the CSW+ cameras, and timepoint 4 which included CSW+ cameras with signage and promotional material in the form of an email, magazine piece and website information in spaces accessible to parish members<sup>3</sup>.

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<sup>1</sup> Not to be named here, in accordance with Staffordshire University ethical guidelines.

<sup>2</sup> See the following websites for examples of the cameras used: -

<https://store.autospeedwatch.org/index.php?route=common/home>

<https://www.grcc.org.uk/downloads/cars/rodborough-pilot--automatic-number-plate-recognition-cameras.pdf>

<sup>3</sup> CSW+ implementation did not overlap with traditional CSW activity but instead came a number of years later. CSW+ cameras were therefore not in place whilst traditional CSW activity was undertaken. The dates of the time points are as follows: timepoint 1 – 17<sup>th</sup> august-30<sup>th</sup> October 2017, timepoint 2 – 8<sup>th</sup> September-13<sup>th</sup>

For timepoint 1, with traditional CSW only, no camera was erected and data were collected by volunteers using speed radar guns whereas for timepoints 2-4, the data were collected using the subsequently erected CSW+ cameras.

For area B, speed data were collected from one CSW+ camera in a 20mph zone, only at the point at which CSW+ cameras had been combined with signage (with no comparable pre-signage data).

For area C, speed data were collected from one CSW+ camera in a 30mph zone, only at the point at which CSW+ cameras had been combined with signage (with no comparable pre-signage data).

For area D, a case study approach was adopted, with data gathered from two CSW+ cameras within a single geographical area. Analyses were undertaken of 7 vehicles that had been identified by CSW+ cameras as exceeding the speed limit and vehicle owners sent a letter in response, comparing those to 7 vehicles that had been identified exceeding the speed limit but whose owners had not been sent a letter. All 14 vehicles were included in a list of top 50 vehicle speeds for January 2023, with those speeds ranging from 65mph to 46mph in a 30mph zone. They included vehicles from the top 10 and bottom 10 of this list, to include a range of offending-speed vehicles<sup>4</sup>. The highest recorded speed for vehicles whose owners did receive a letter ranged from 46 to 59mph and for those that did not receive a letter from 49 to 56mph. The 14 vehicles' speeds were analysed using an Automatic Number Plate Recognition (ANPR) CSW+ system that identified the speeds at which they were driving in the four months prior to, and five months following, the incident of exceeding the speed limit that led to the vehicle owner receiving an initial CSW warning letter.

### *Analysis*

Qualitative data were thematically analysed using Braun and Clarke's (2006) steps of thematic analysis; familiarisation with data through reading, generating codes, identifying themes, reviewing themes, defining and refining themes and writing up.

Quantitative data were analysed using SPSS through descriptive and inferential testing.

## **Results**

### *Stakeholder*

Through thematic analysis of interviews and focus groups with stakeholders, four themes were identified. Firstly, CSW was described as allowing community members to become empowered to do something about a perceived issue within their local community, (sometimes) satisfying them and (some of) their wider community. Volunteers explained that evidencing that there *is* a speeding problem plays an important role in justifying their work and encourages additional/alternative action to tackle speeding. Secondly, some volunteers felt CSW had a positive impact on driver speeds, particularly where it was used consistently and at the most appropriate times. There was, nevertheless, also an emphasis on drivers who continue to exceed the speed limit and recognition that CSW does not deter all speeding, particularly as, in some circumstances, there can be a high level of speeding (above 10% +2mph over the speed limit) before action is taken. Thirdly, volunteers wanted police enforcement activity to complement their own and wished to receive more information about the outcome of their activity, such as the number of letters distributed. This relationship and

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October 2022, timepoint 3 – 14<sup>th</sup> October-13<sup>th</sup> November 2022 (including school half term), timepoint 4 – 14<sup>th</sup> November-21<sup>st</sup> December (including 7 days of road closures).

<sup>4</sup> Excluding vehicles that were not subsequently identified by the cameras on more than three instances, or were police vehicles. Not all of the vehicles whose owners received a letter were in the top 10 of the highest 50 vehicle speeds and not all of the vehicles whose owners who did not receive a letter were in the lowest 10 of the highest 50 vehicle speeds.

information sharing were inconsistent across CSW groups/geographies. Fourthly, stakeholders expressed the need for stronger relationships with highways departments and other CSW groups, as well as a potential need for de-escalation and public engagement training. Finally, stakeholders discussed the potential value of CSW+ but also recognised its limitations, generally considering it a complementary form of CSW activity useful for 'catching' the most offenders.

### Community

Community questionnaires showed an overall positive perception of CSW, with the majority of participants claiming CSW to have a positive impact on their community and makes them feel safer in their community. Figure 1 shows that over 60% of participants agreed or strongly agreed that CSW plays an important role in tackling speed.

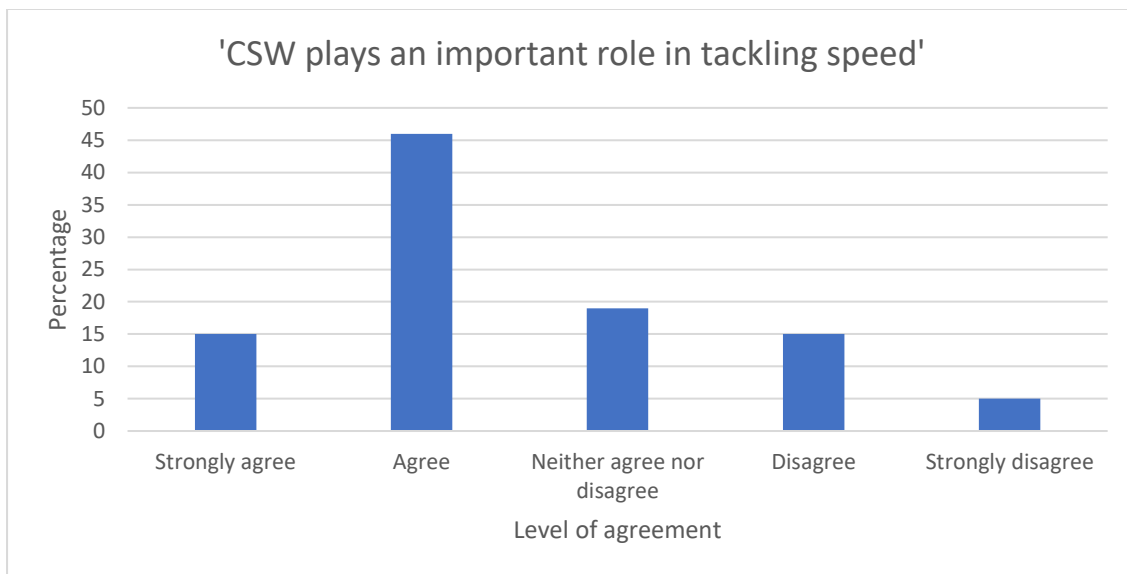


Figure 1: Level of agreement with the statement 'CSW plays an important role in tackling speed'

Additionally, 60% of participants strongly agreed or agreed that they would like more CSW activity to take place in their local community. A much lower, albeit considerable, 26% disagreed/strongly disagreed, as seen in figure 2.



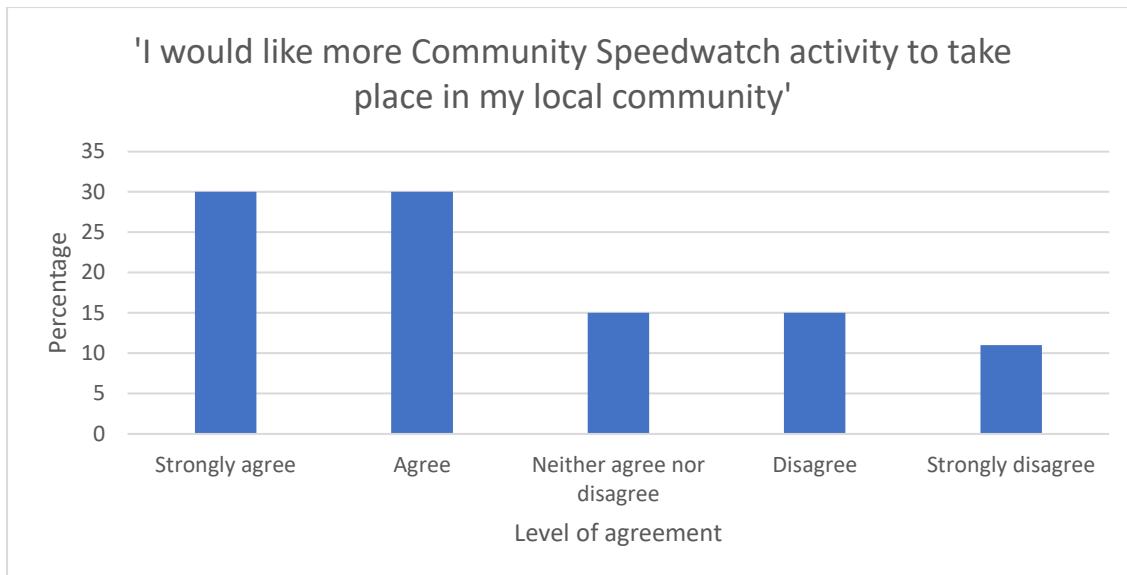


Figure 2: Level of agreement with the statement 'I would like more CSW activity to take place in my local community'

CSW was also found to have an impact on driver behaviour. When asked whether the presence of CSW, either in its traditional or camera form, makes them drive slower, 73% agreed or strongly agreed and 0% strongly disagreed.

In relation to warning letters as an outcome of CSW activity, however, there was less support, with only 46% agreeing that such warning letters are a useful way of tackling speed and even fewer agreeing that those letters are likely to change speeding behaviours (40%). Almost half of community members surveyed (48%) claimed that warning letters are too lenient.

### Offender

Similar to the public survey, results from the offender survey found that a majority agreed that CSW is a useful way of tackling speed and CSW teams do a good job of keeping communities safe.

Over 60% of participants agreed or strongly agreed that CSW does play an important role in tackling speed, as seen in figure 3 (and can be compared to figure 1):

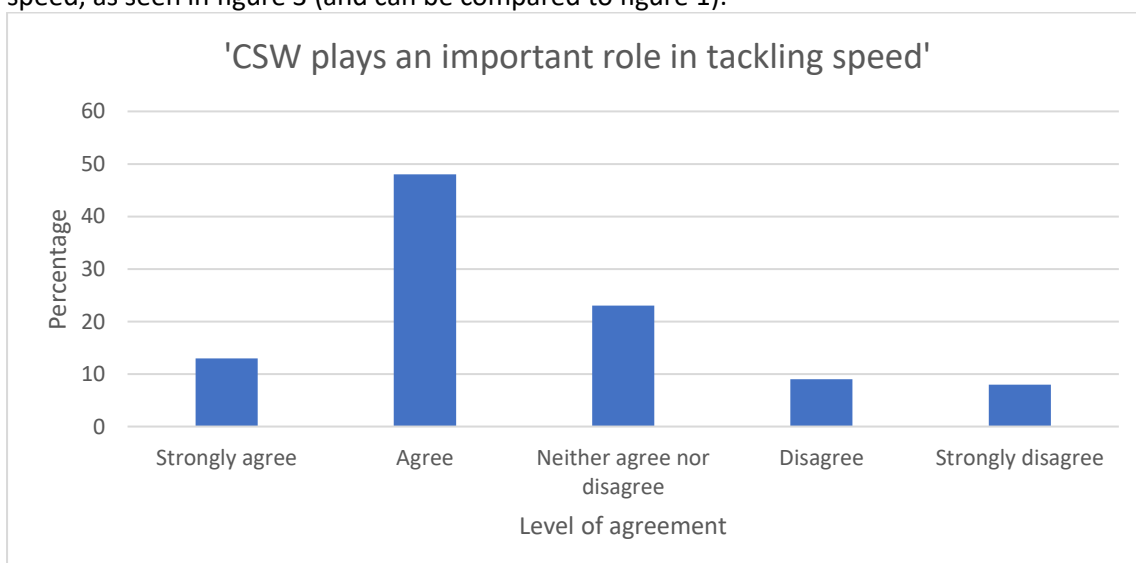


Figure 3: Level of agreement with the statement 'CSW plays an important role in tackling speed'

In relation to warning letters, offenders showed much greater support than wider community members, with only 5% claiming warning letters are too lenient. Most participants (87%) agreed that warning letters are an appropriate response to speeding. This activity was also suggested to have an impact on their driver behaviour. The majority of participants (72%) suggested that the warning letter made them want to change their driver behaviour. When asked whether seeing CSW activity would make them drive slower in the future, a similar percentage agreed (70%), with only 12% disagreeing, as shown in figure 4:

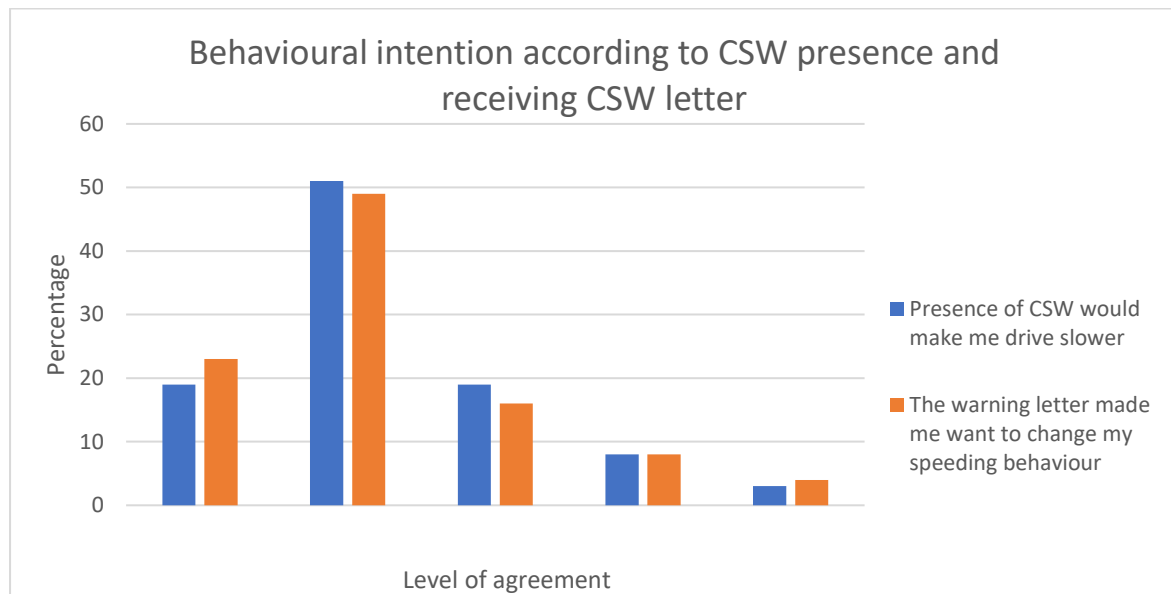


Figure 4: Reported intentional behaviour in response to CSW activity

Through thematic analysis of interviews with offenders, four themes were identified. Firstly, drivers reflected on a lack of visible roads policing and claimed they could self-appraise appropriate speeds. Secondly, some drivers described CSW activity in a way which undermined its validity and future success and rationalised their being caught, focusing on the positioning or timing of activity as well as the technology (speed radar guns/cameras) used. Thirdly, despite some deliberate resistance, offenders described changes to speeds following their experience with CSW, although some claimed that would only be short-term, or may only occur where they, in the future, see CSW or other speed enforcement activity when driving (i.e., with a halo effect). Mixed perceptions were expressed on the value of warning letters, with some suggesting that it had educational and emotional value but others being negative about its lack of impact or meaning. Fourthly, offenders called for greater CSW activity that was appropriately positioned, unpredictable and clearly communicated to drivers. CSW+ was considered safer than having volunteers at the roadside and useful in unsafe hotspots but limited in value unless followed up with outcomes appropriate to the speed observed.

### Speed data

Considering the use of traditional CSW alone in area A, there appears to be a reduction, albeit with fluctuations over time, in the percentage of vehicles identified exceeding the speed limit across a two-year period. This can be seen in figure 5.

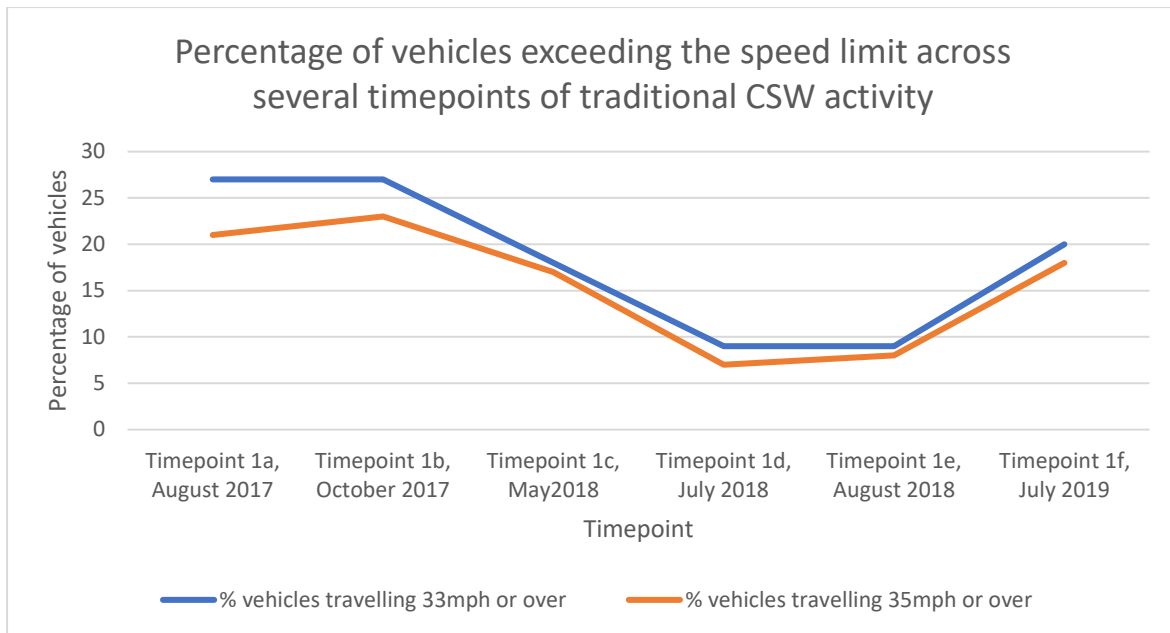


Figure 5: Percentage of vehicles exceeding the speed limit (traditional CSW only)

A phased implementation of CSW+ in this area showed that the percentage of drivers exceeding the speed limit at 36mph or over decreased considerably, with the lowest percentage of offending vehicles observed where CSW+ was used with signage and local promotional material (compared to the cameras with no signage and camera with signage only), as seen in figure 6 below.

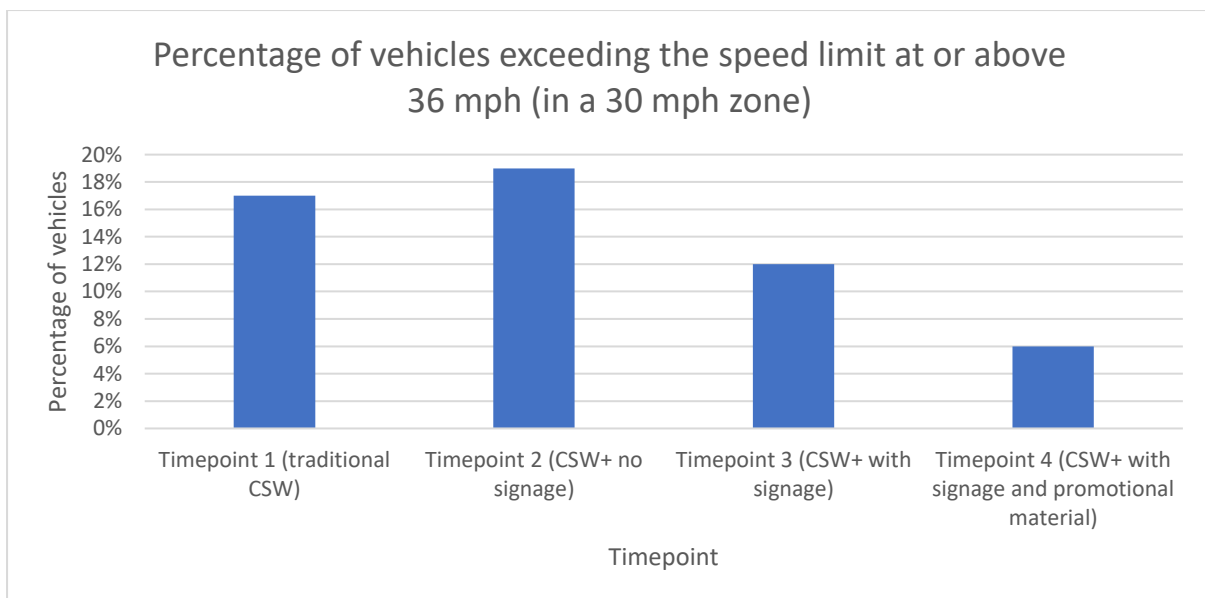


Figure 6: Percentage of vehicles exceeding the speed limit 36mph+ (Area A, traditional CSW and CSW+)

In addition to this, the percentage of vehicles driving within the speed limit increased considerably, and the number of vehicles responsible for excessive speeds (above 45mph), reduced with the implementation of CSW+ including signage/promotional material.

Speed data in area B suggest there are reductions in the percentage of vehicles driving 31mph or over in a 20mph zone over the first 9 weeks of the introduction of CSW+ cameras, with most of that impact observed within the first four weeks, as figure 7 shows.

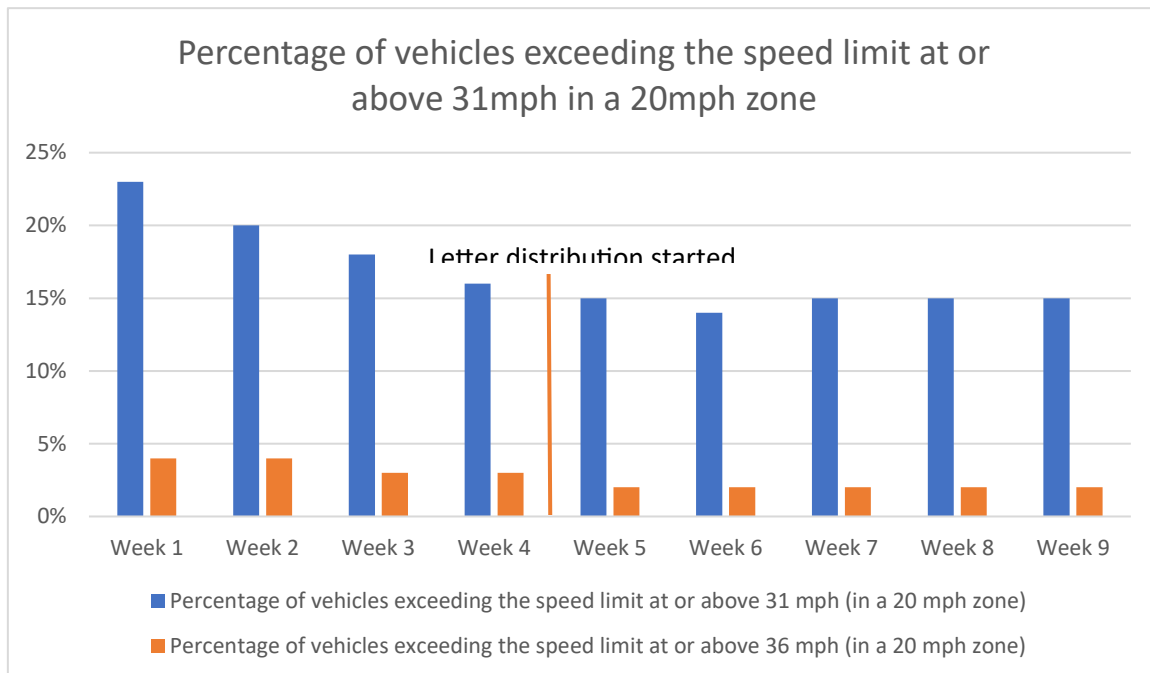


Figure 7: Percentage of vehicles driving 31mph and over, and 36mph and over (Area B, CSW+ only)

Longer-term data trends in area C, as seen in figure 8 below, also suggest that there may be an initial benefit to CSW presence on vehicular offending speeds that starts to fluctuate and finally tail off somewhat over a one-year period.

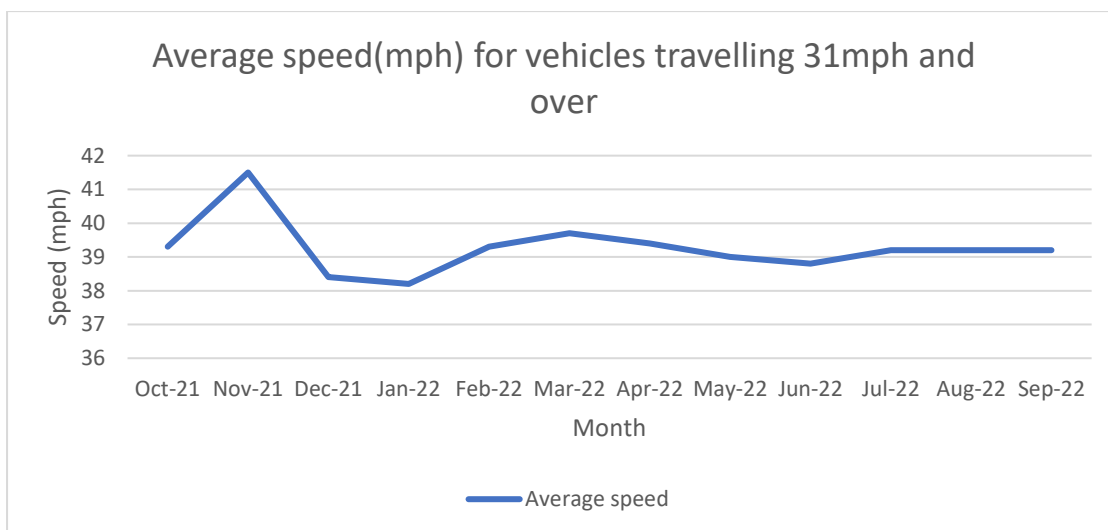


Figure 8: Average speed of vehicles driving 31mph and over (Area C, CSW+ only)

Case study analysis of area D suggests a benefit to the letters distributed as an outcome of CSW+. Of 14 vehicles identified exceeding the speed limit, the half that received a letter reduced their *average speed* in the four months after receiving that letter compared to the previous five months. For those that did *not* receive a letter, average speed reduced less, or even increased. Those who received a

letter as a result of CSW+ reduced driver speeds (statistically significantly) whereas those not receiving a letter did not. Additionally, for those who did not receive a letter, there was a considerably smaller reduction in average *top speed* over that same time period than for those who did receive a letter. Although not statistically significant, the majority of vehicles (5 out of 7) who received a letter were less likely to be seen exceeding the speed limit (as a proportion of all times that vehicle was seen driving past CSW+) after receiving a CSW+ letter. In contrast, those who did not receive a letter did *increase* the number of times they were seen exceeding the speed limit (statistically significantly). Please see appendix for further detail on all analyses.

### **Project evaluation**

The project aimed to use the research learning to broaden knowledge in this area, for practitioner, public and academic audiences. In particular, it was envisaged that the learning would inform and develop practice within Gloucestershire Police and other force areas. In addition, the project aimed to share learning regarding the evaluation method and its usefulness in understanding the topic area. These aims were achieved via webinar and conference dissemination and uploading tools to the [Staffordshire University Centre for Crime, Justice and Security website](#).

To evaluate the project, data have been collated regarding dissemination event attendance, contact made to the researcher, social media analytics and impact evaluation surveys.

The preliminary research findings were presented to 43 practitioners and volunteers at dissemination events that were held both face-to-face in Gloucestershire and online, targeted at those currently involved in CSW activity. Social media posts advertising the online event were linked to a total of 2,673 impressions and engaged with by 89 social media users. Findings were also presented at the National Road Safety Conference 2023 where over 370 delegates were in attendance. Following this, seven individuals from separate force areas made contact with the researcher to request further information or for guidance with their own practice. One other individual made contact after seeing the project on the College of Policing research map.

To further evaluate the impact post-project, impact surveys were distributed to stakeholders involved in the research project and/or in contact following dissemination of research findings. Responses have evidenced intended use of the research findings to inform CSW practitioners and wider public on the role and effectiveness of CSW. For example, CSW co-ordinators have stated:

*"I will pass these results to speedwatch colleagues and would like to use snippets in local media to show that CSW is making a difference."*

*"I have a meeting with our community volunteers in a few weeks and plan to share your presentation with them."*

*"I'm very thankful someone (you guys!) have looked into the impact of the CSW function. Therefore, I was hoping I could pinch your slides (complete with the awesome chicken) to demonstrate to our CSW teams that they are making an impact and keeping their communities safe."*

In addition to this, practitioners have requested further support to guide their practice. In particular, support was requested for developing the letters distributed to offenders as a result of being identified exceeding the speed limit via CSW activity.

*"I am interested in any advice you can give on the recommended wording to be used in a warning letter. We have made a deliberate decision to soften our wording so we can change driver behaviour, but we may still be missing a trick."*

Further research into this and supporting the development of appropriately worded educational letters will form part of future funding applications for further research.



Practitioners have also made changes to current practice as a result of the research findings, with one group stating that they have “increased the area required for further CSW sites within the parish boundaries” and another having provided “more engagement with CSW volunteers”. In contrast, one CSW group has ceased operation as a result of their engagement with the research:

*“We have actually ceased our speedwatch effort as a result [of engagement with the research]. BUT, that’s not a bad thing!! We gained a greater understanding on why we were not having impacts in our case, and we are now pursuing other means.... we could start speedwatch again, but this time with a clearer view of what we can achieve.”*

As such, the research has had considerable implications not only for knowledge but also practice, and allowed stakeholders to consider their role in tackling speed beyond CSW.

These responses show that the project findings have been well-received and there has been plentiful support for sharing with others as a way of engaging with practitioners, evidencing the role and impact of their work and also encouraging the development of practice. It also highlights the desire for additional work to continue to inform CSW activity and acknowledgement that findings relating to CSW are closely linked to supporting speed safety measures that can be employed.

### ***Things that went particularly well***

Research in this area is yearned for, and as a result, there was a considerable amount of support for participation and project guidance from CSW volunteers/stakeholders. Relationships with CSW stakeholders were easily developed and maintained. As such, stakeholder participants and dissemination recipients have been easy to recruit. There has also been support for the research from wider police force areas and we have received offers of participation and data to support advancing knowledge in this area. This is useful for future research.

It was particularly useful for this project to have a reserve plan for data collection and analysis, as this was utilised and adapted in relation to speed data to ensure that meaningful findings could be produced from a larger number of geographical areas than originally anticipated and using an innovative case study approach. This allowed stronger conclusions to be drawn, as an array of data sources informed the analysis.

Given the lack of research regarding CSW and desire to understand its role and effectiveness, dissemination opportunities and attendance were considerable, providing ample opportunity for research impact.

### ***Things that you would do differently***

The research provided many learning opportunities in relation to analysis of CSW speed data. The speed data made available by external data owners was only held within systems for a specific amount of time, meaning that some data were deleted before being downloaded for analysis. It is important to acknowledge any such data handling restrictions and for researchers to download data for safe storage where legally/ethically possible, even where data analysis is not taking place yet. It would have been additionally useful for this project to have access to the results of speed surveys undertaken by councils, i.e., the number of vehicles exceeding the speed limit within a specific area over a period of a week. It was not possible to collect such data in this project as additional gatekeeper relationships and therefore access could not be achieved in such short timescales. Although this in itself would not

have allowed for any comparative analysis, it would have meaningfully complemented the data that were made available. Acknowledging wider data options and securing support from gatekeepers would be valuable for future projects.

If the project were to be undertaken again, a larger sample would be produced for the case study analysis. Although case studies are of smaller samples, larger samples of such data would allow for more definitive conclusions to be drawn.

Recruiting community members was difficult, and for future projects could be aided by accounting for additional research days 'in-field' communicating with community members and/or hand delivering questionnaires for completion. Additionally, keen stakeholders could support the research by distributing questionnaires on behalf of researchers.

For future projects, it would be useful to acknowledge specific factors influencing data, including weather conditions and/or roadworks in a given area that may affect the speed of vehicles and therefore impact the comparison of speeds across timepoints. This would be useful for future projects to contextualise their conclusions rather than making generic caveats. Despite this, the project utilised and collated a considerable amount of data to make informed conclusions here.

### ***Conclusion and recommendations***

The findings suggest that CSW has benefits for community members in empowering them to respond to local concerns and benefits to driver behaviour but requires careful management to satisfy those involved and create a maximum benefit for drivers.

#### ***For police forces***

Communication is important to the smooth running of CSW and there appear areas for improvement to ensure consistency. Firstly, it is important to (re)consider and clearly verbalise the aims and objectives of CSW with volunteers, as well as expectations and the impact that is likely to have on drivers. This is key to reducing disappointment and providing clarity in the educational aspect of CSW. Additionally, explaining the information that can and cannot be shared, and being consistent with sharing it, is important for retaining the relationship between police and volunteers. Facilitating communication between CSW groups has the potential to reduce repeat learning and act as a network of support for volunteers. As well as encouraging communication between groups, advising groups on their communication with broader communities may help to support how their work is communicated and therefore be beneficial for public perceptions of CSW. Furthermore, given that many stakeholders considered the role of CSW groups as generating data to evidence a problem that required further intervention, such as speed bumps or average speed cameras, it would be meaningful for forces to facilitate communication between CSW groups and those responsible for broader road safety measures, such as highways departments, where that is considered appropriate.

Drivers expressed a comparative optimism and self-enhancement bias, considering themselves safe but other drivers as problematic. Warning letters can make efforts to respond to this with carefully personalised wording that emphasises the individual driver of the vehicle and how they can help to ensure the safety of others on the roads and how they can avoid penalties by driving within the speed limit. This focus would also utilise the foci of avoiding detection that offenders express as important in their behavioural motivations.

Given resource limitations, forces sometimes restrict the number of offending vehicles they will respond to, e.g., sending 10 letters per CSW session or CSW+ week. If this is the case, CSW groups must be made aware of this restriction and it should apply consistently across areas within the force.

If this fluctuates as a result of individual area payments for the distribution of letters (e.g., paid for by a parish/town council), this must be made clear to CSW groups to avoid confusion and perceived unequal/unfair police practice.

Any cap on the number of distributed letters must be carefully considered, particularly with CSW+ where a large number of vehicles may be identified exceeding the speed limit but only a small proportion of those can be responded to. Speed data suggest that *not sending* a letter can be detrimental to road safety as it is associated with higher vehicular speeds compared to sending a letter. Evading outcomes despite detection (if drivers are aware of their likely detection) may inform drivers perceived seriousness of the problem, or at least how seriously it is taken by authority. This is problematic if only 10 letters are distributed but the highest 20 speeding vehicles observed that week are all 40% above the speed limit (and therefore 10 of the highest speeding vehicles travelling 40% above the speed limit avoid any outcome). It would be preferable for forces to adequately resource time for letter distribution to all drivers identified exceeding a specific limit (e.g., 10% +2mph) rather than allowing that to depend upon the level of speeding in that area. A consistent approach is also likely to have benefits for perceived distributive/outcome fairness.

Stakeholders identified an inconsistency in the level of operational police activity to detect and respond to speeding drivers across geographies. This is important as it was associated with the idea of a lack of support for CSW activity. Forces must consider resource implications of CSW not only in terms of operationalising 'back office' functions but also supporting broader roads policing activity and, so far as possible, making efforts to provide that supporting function across CSW groups. This may involve facilitating relationships between CSW groups and neighbourhood policing teams and/or special constables as well as those responsible for operating speed camera vans and other roads policing work. Doing so may not only enhance perceived support in the eyes of CSW groups but also the perceived validity of CSW in the eyes of wider communities, which is important given that volunteers identified instances of being undermined or questioned by drivers.

Training of volunteers is important and communications training and de-escalation training to minimise any negative impact of volunteer behaviour or messaging was considered particularly valuable.

Careful consideration must be given to the implementation of CSW+, given that it is generally a fixed option for activity, varies in the type of camera available and its effectiveness may be hindered by limitations already encountered with speed cameras. CSW+ cameras have the advantage of enabling placement in areas that may be dangerous for volunteers to stand and identifying vehicles travelling too fast or in too quick succession for volunteers to respond to. However, participants expressed concerns that cameras lack flexibility and drivers can become desensitised or slow down only as long as needed to avoid detection because they know their placement. It is likely that CSW+ would best complement, rather than replace, traditional CSW activity and should be used alongside a carefully considered communications strategy for the most effective response to community concerns regarding speed.

#### *For CSW groups (guided by police forces)*

Offenders described consistent CSW activity that is varied in location as the most likely to deter their speeding, as they would therefore know to be aware of detection but would not be certain of where detection may occur, creating a potentially broader speed behaviour change. CSW groups may therefore look to undertake activity at least once a week (where possible) but in different locations within a given geography across weeks.

Furthermore, the placement of CSW activity was described as key to its perceived legitimacy. Activity in areas used by people who could be at risk, such as young pedestrians, or where visibility of the volunteers would be high, was associated with legitimate practice. In contrast, there was resistance

to its use on bends or at the bottom of a hill. This is important as perceived legitimacy has been linked to cooperation and compliance in many contexts, including road behaviour. Careful consideration of CSW placement therefore appears key to gaining the cooperation of drivers, and where possible could include locations that the risk to vulnerable road user safety is clear and obvious. Activity should also be guided by the data generated (i.e., operating in areas where there is a particular risk or frequent high speeds are recorded). This should be combined with appropriate signage and wider communication to communities to ensure that they are aware of the reasoning of the activity placement, whether that is in response to community concerns or where a noticeable number of near collisions have been experienced, for example.

Linked to this, seeking the views of the broader community can help to validate CSW activity and enhance community cohesion by acting as a response to community concerns. Additionally, there were concerns that the wider educational element was insufficient within the current approach, and that the physical deterrent of volunteers standing at the roadside was not enough to generate longer-term attitudinal and behavioural change. Therefore, educational engagement with the community is likely to be key, whether through social media or other community correspondence, such as a newsletter. Here, appropriate wording of messages is essential and communication training from the force or elsewhere may be beneficial.

Finally, evaluation of activity is paramount to inform perceptions of the 'success' of CSW. This should be linked to understanding the aims of CSW and defining what 'success' looks like for CSW groups.

#### ***Hints and tips for future projects.***

More work is needed to understand the effectiveness of CSW activity, whatever form it takes. This requires thought prior to the implementation of CSW to allow some form of pre-activity measure as a comparison to during-activity measure, and possibly post-activity measure. This could usefully include covert speed checks within a geographical area where CSW is to be implemented, compared with speed data collected in the same way during that activity and once that activity has ended. This project has identified many complexities to assessing the effectiveness of CSW, including the use of data that are not collected in the same way at each phase of implementation and therefore not meaningfully comparable. Comparable data, and utilising a range of data, is key for our understanding of the role and value of CSW moving forward. Learning from the above 'things that you would do differently' section, and securing strong working relationships with gatekeepers is paramount to any successful future research project in this area. Evaluation materials guidance has been produced following this project and can be found at the [Staffordshire University Centre for Crime, Justice and Security website](#).