

**Report to:** Place Scrutiny Committee

**Date of meeting:** 26 November 2021

**By:** Director of Communities, Economy and Transport

**Title:** Road Safety Programme Outcomes

**Purpose:** To provide the Place Scrutiny Committee with the outcomes of the Road Safety Programme and plans for next steps

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**RECOMMENDATIONS:**

- (1) To note the positive outcomes of the East Sussex County Council (ESCC) Road Safety Programme, which included:**
- a. Notice of Intended Prosecution (NiP) Trial - receiving the redesigned NiP and leaflet significantly reduced speeding reoffending by 23% within 6 months. Over the 6-month trial this meant 170 fewer reoffences than business-as-usual, or 6 per week. This would translate to 560 fewer reoffences over the 6 months if everyone in the trial had received the new leaflet and new NiP.**
  - b. The Anniversary Trial - Drivers who received the Anniversary letter were 8% less likely to speed between 7 and 12 months later than those who did not. Over the 6-month trial this meant 80 fewer reoffences than business-as-usual, or 3 per week; and**
  - c. High Risk Sites Trial - results from 15 schemes have indicated a 49% reduction in the average number of crashes per annum and a 61% reduction in the average number of casualties per annum**
- (2) To note the development and implementation of a further evidence based behaviour change road safety programme.**
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## **1 Background Information**

1.1 In 2015/16 East Sussex County Council's (ESCC) Road Safety Team secured funding to address public health priorities in East Sussex, identified through the Public Health Outcomes Framework (PHOF). The PHOF had identified that the proportion of people Killed and Seriously Injured (KSI) on roads in East Sussex was higher than the average rate for England (64.5 per 100,000 population v 39.3 for England 2012/14 data). However, in common with East Sussex the majority of County Councils in England over this period had a KSI rate higher than the England average.

1.2 Since then, whilst figures have fluctuated on an annual basis the KSI rate for the majority of County Councils has remained higher than the average for England. For the three year period 2017-2019 the average rate of KSIs for England was 43.2 per 100,000 population, compared to a rate of 73.7 for Hampshire, 72.0 for Cambridgeshire 68.1 for East Sussex and 59.7 for West Sussex. It should however be noted that whilst East Sussex has historically had a higher level of KSIs than many other areas, it is difficult to make direct comparisons with other areas due to both methods of data collection and recording across police forces, and the differences in road networks and infrastructure. In addition, in 2019 a new national data reporting system CRASH was introduced which means that data is not directly comparable with previous years.

1.3 In summary, the ESCC Road Safety programme has tested the effectiveness of a variety of behavioural interventions to reduce KSIs within identified priority groups. The programme of behaviour change work has been supported by the Behavioural Insights Team (BIT) formerly part of the Cabinet Office (previously termed the 'nudge unit'). BIT provided support across three main

areas of the programme; initial data analysis and the development of a robust evidence base; support with the design and implementation of appropriate projects based on this analysis; and support with the creation and evaluation of robust trials.

1.4 Following in-depth data analysis, supported by the data team at the BIT to determine priorities for attention, the following groups/issues were agreed as priorities as evidence shows they are the groups at highest risk both of being involved in and causing a KSI:

- Motorcyclists (particularly middle aged 'leisure' motorcyclists)
- Young Drivers (17-25, particularly young males)
- Drivers distraction /speeding and behaviour in relation to vulnerable road users.

1.5 As the evidence indicated that the vast majority of KSIs and over 90% of collisions result from driver carelessness or error, there was the need for specific measures to address these issues. These behaviour change initiatives have been developed alongside a trial to improve road safety through targeted infrastructure and speed management schemes at high risk sites. This report provides an update on the outcomes from all trials. A previous report to the Place Scrutiny Committee of 13 September 2018 provides further background to the Programme and is attached at Appendix 1.

## **2 Supporting Information**

### **Update on Behavioural Interventions and Impact**

2.1 A full programme of behaviour change work was developed and implemented. This work was developed with the support of BIT and partner organisations and designed to demonstrate statistically significant impact. All the trials have now concluded.

2.1.1 Three of the trials were intended to reduce both the severity and overall rate of re-offending which evidence indicates is a suitable proxy for delivering sustainable positive change in driving behaviour and reducing the future risk of being involved in a KSI collision. Speeding offences have been used as the intervention point for these trials as these make up the bulk of all offences and there is strong evidence of the impact of speeding on the subsequent number and severity of collisions (and the key factor in whether a collision is a KSI).

2.1.2 The majority of data collection for these trials was completed before the COVID pandemic started. The pilots were also run as randomised controlled trials (RCT), which means we can be confident that the reductions in speeding offences we saw were statistically significant - i.e., that they were caused by interventions implemented. These results have been analysed and validated by the Behavioural Insights Team.

### **2.2 Notice of Intended Prosecution (NiP) Trial**

2.2.1 This trial involved sending an amended Notice of Intended Prosecution (NiP) letter and accompanying leaflet to a cohort of people caught speeding over a 12 month period from January 2019 (52,000 drivers), using behavioural insights techniques. The effectiveness of this revised letter and leaflet on subsequent speeding offences was assessed against unaltered versions sent to a control group of offenders to evaluate the impact of behavioural techniques on driver behaviour. The original and revised documentation are attached as Appendix 2.

2.2.2 The new NIP letter used simplified wording and highlighted a clear call-to-action for drivers to confirm who was driving the vehicle at the time of the offence. The new leaflet aimed to persuade people to change their driving behaviour by using an emotive headline and photograph, addressing the misconception that collisions are out of drivers' control and explaining the rationale behind speed limits.

2.2.3 The sample group for the NIP Pilot were randomly divided into four groups and sent either:

- An amended letter and amended leaflet
- An amended letter and old leaflet
- An old letter and amended leaflet
- An old letter and old leaflet

2.2.4 Speeding re-offence was then analysed after 6 months to test which combination of letters and leaflets had the biggest impact. People receiving both the amended NIP letter and amended leaflet, were 23% less likely to reoffend within 6 months, compared to the group who received the old NIP letter and old leaflet. This meant 170 fewer reoffences within 6 months than business-as-usual, or 6 per week, and this would translate to 560 fewer reoffences in Sussex if everyone in the sample had received the new leaflet and NIP. The reduction in speeding offences persists from 6 to 12 months which is encouraging as it suggests that this reduction in speeding is sustained and not simply 'delayed'.

### 2.3 The Anniversary Trial

2.3.1 The sample group for the Anniversary Pilot was all drivers in Sussex who had received at least one speeding offence within the last three years. Half of this group, around 55,000 drivers randomly selected, were sent a one-off letter just after the New Year in 2019, designed to remind them of their offence and encourage them to drive more safely in future. Whilst the other half of this group who did not receive this letter were used to enable effective analysis of what, if any, impact the letter had.

2.3.2 The letter included a photo of the person's vehicle breaking the speed limit, a message reminding them of the offence and the related consequences of speeding, and a request not to speed in the coming year. Its design used several ideas from behavioural science, including the 'fresh start' effect, using the New Year as a timely opportunity for people to commit to changing their driving habits, as well as personalisation, by showing people a picture of their own car caught on camera as a surprising and powerful reminder of their previous offence. A copy of the letter is attached in Appendix 2.

2.3.3 The results show the positive effect of the trial in reducing subsequent speeding offences at 6 months and this impact grows at 12 months, which is extremely encouraging suggesting the letter continues to reduce speeding in the longer term. Drivers who received this amended letter were 8% less likely to speed within 6 months compared to those who did not receive it. Over a 6-month period, this equated to 80 fewer reoffences. If applied to all offenders across England and Wales, this may lead to around 2,500 fewer reoffences over six months. Those reductions would be in addition to the effect of any speed awareness courses taken by this group.

### 2.4 Operation Crackdown Trial

2.4.1 Operation Crackdown allows members of the public to report instances of dangerous or antisocial driving. Sussex Police then send a letter to inform the road user of the report. Repeat reports to Crackdown form around 10 per cent of all reports. Revised communications to those reported to Crackdown for speeding were developed using behavioural insight techniques to assess whether this reduces the likelihood of subsequent detectable offences likely to lead to risk of collisions and KSIs. Using traditional 'treatment and control' samples a full Randomised Controlled Trial was conducted.

2.4.2 The letter sent out was redrafted and tested using two approaches, testing the legitimacy of speed limits (mirroring the NIP) and the deterrence of police involvement in Operation Crackdown. The letters were simplified, personalised to improve salience and amended to highlight risk.

2.4.3 All vehicles reported to Crackdown between June 2019 and June 2020 (33,657) were randomly assigned the original, the legitimacy, or the deterrence letter to assess whether they received a second letter within 6 months of the first letter.

2.4.4 Neither the legitimacy or the deterrence letter reduced the likelihood of re-offending within 6 months. The benefit of conducting rigorous evaluations is that they inform what interventions fail as well as those which succeed. There are a number of possible reasons for this failure. Firstly, the original Crackdown letters were of better design than the NiP letters, offering less scope for improvement, (the redesigned NiP was only effective when we paired the letter together with the leaflet) and secondly, there may be issues with the overall perception of Crackdown by the public in that drivers may perceive being caught by members of the community as less legitimate than the police.

## 2.5 In Case of Emergency (ICE Stickers) Trial

2.5.1 This project focused on the re-design and re-launch of the 'In Case of Emergency' (ICE) stickers and a new registration process. The stickers which attach to a biker's helmet provide vital information in the event of a collision and on registering the stickers online, bikers are pointed to safety information and a range of safe biking courses.

2.5.2 In addition to behavioural prompts on the redesigned stickers, new distribution channels were tested – Motogusto, a biker magazine, retail outlets with the online registration process simplified and improved. These new channels of distribution were assessed against the existing route distribution by the Roads Policing Unit, when bikers are stopped by police.

2.5.3 Following analysis of data on the relative distribution and registration rates, the two most effective routes were found to be Roads Policing and the Sussex Safer Roads Partnership (SSRP) website and improved registration process. Messages to loved ones left by bikers at the point of registration suggest that the introduction of these is a powerful behavioural prompt to safer riding. A copy of the redesigned sticker is attached as Appendix 3.

2.5.4 The outcomes of this work will be used by SSRP to further shape the streamlining of the website and registration process and the ability to add personalised messages to the stickers maintained. Additional focus will be placed on the most successful distribution route, that of Roads Policing with improved links into SSRP to enable subsequent follow up.

## 2.6 Young Drivers (17-24 years) Trial

2.6.1 Young (particularly male) drivers are at significant risk of collisions and KSIs. This is also a group who tend not to engage with traditional road safety campaigns. Work was undertaken to design a campaign targeted towards young drivers which deployed a range of engagement strategies. The learning from this campaign was then used to revise and update a project in line with behavioural insights, which targets young drivers and their passengers.

2.6.2 Evaluation of the project demonstrated that over 24% of young drivers and their passengers reported positive attitudinal and behavioural changes in response to the engagement campaign designed to reduce risk of collisions/KSIs. There was a positive change in both passenger responsibility and behaviour, which is key to safe driving amongst young people.

2.6.3. As a result of the Covid-19 lockdowns, delivery of the 2020-21 project that targets young drivers and their passengers moved online. An online package was developed together with a range of learning materials for teachers and students. Analysis of this online package showed that 100% of teachers would be happy to use the package again should online delivery be necessary in future and the materials provided were rated as effective by over 80% of the participants.

## 2.7 High Risk Sites Trial

2.7.1 The high risk sites trial has made physical changes to the way roads appear to drivers at certain sites, to test how this changes their behaviour. The sites were selected based on their relative priority and their suitability for low-cost traffic management type of interventions. The aim of the interventions was to produce a consistent message along each section of road so that a driver is aware of the road environment and character, and able to moderate their driving so that it is appropriate to the potential hazards present. This type of intervention is sometimes termed as producing a 'self-explaining' road environment. To date 23 schemes have been implemented across East Sussex.

2.7.2 Analysis undertaken on those high-risk routes that have a minimum of six months of 'after' crash data indicates that there has been:

- A 49% reduction in the average number of injury crashes per annum.
- A 61% reduction in the average number of casualties per annum.
- A 46% reduction in the average number of KSI crashes per annum.
- A 56% reduction in the average number of KSI casualties per annum.

2.7.3 Further monitoring will be carried out as additional 'after' data becomes available, and further tests will be carried out to determine the statistical significance of these reductions.

**2.8 Financial Analysis** – £615,000 was allocated to the Behaviour Change trials and £332,000 to the High Risk sites trial. The balance of £53,000 funded the Safer Streets Report referred to in appendix 1.

## 2.9 **Evaluation**

2.9.1 Whilst it is recognised that the evaluation of behaviour change projects is difficult, as it is long term and incremental, and measurement of impact must account for normal statistical fluctuation, the projects established clear outcome criteria. Where possible these were based on Randomised Controlled Trials (RCTs), designed with the support of BIT. Evaluation in this area is necessarily more nuanced as it requires understanding of the type of behaviours which are associated with a higher predictive risk of being involved in a KSI and assessing whether the intervention has decreased these negative behaviours. For the purposes of these trials measuring reoffences for speeding within specific timeframes were evaluated as proxy measures for reducing risk over time. Evidence has shown that this is a strong predictor for subsequent KSIs and therefore by reducing re-offences is an important signal for a reduction in the likelihood of future KSIs.

## 2.10 **Next Steps**

2.10.1 Following the conclusion of the current Road Safety Programme, and the successful outcomes of the trials, Public Health have allocated further funding which will enable a further Programme to be developed. The programme budget is £700k and this will enable a further comprehensive programme to be developed and implemented.

2.10.2 Following a competitive tendering process, BIT have been appointed again to support the programme. Initial work will focus on reviewing and refreshing the data to define the priority groups and issues for the next phase of the programme and then develop appropriate possible future trials. Where possible it is expected these will be full Randomised Controlled Trials. These trials will be developed during Summer 2022 and implementation will start later in 2022.

2.10.3 A full communications programme will be developed to disseminate the results of this work. There has already been significant interest in this work at national and local level within road safety and public health communities and beyond, and it is expected that this will increase when the full outcomes are shared.

### **3 Conclusion and Reasons for Recommendations**

3.1 The analysis undertaken has shown that the vast majority of KSIs and over 90% of collisions result from driver carelessness or error, and therefore the single most significant factor in reducing KSIs in East Sussex is to target driver behaviour. The programme of work undertaken has therefore focused on the development and implementation of behaviour change initiatives alongside work on targeted and evidence-based infrastructure schemes at high risk sites.

3.2 The Committee is recommended to note the positive outcomes from the trials implemented as part of this programme, which have included a reduction in speeding reoffences, positive attitudinal and behavioural changes of young drivers and a reduction in crashes and casualties. In addition, the Committee is recommended to note that a further evidence-based behaviour change road safety programme will be developed and implemented.

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